DRONE WORLD CONGRESS 2019

2019世界无人机大会

Better Technology, Better Life

科技让生活更美好

会务手册

CONGRESS MANUAL

6月20–22日

中国·深圳 | SHENZHEN CHINA

DRONE WORLD CONGRESS 2019

2019 世界无人机大会

批准单位

中国科学技术协会

主办单位

中国航空学会

中国电子信息行业联合会

深圳市南山区人民政府

工业和信息化部政府采购中心

中国科学院无人机应用与管控研究中心

承办单位

深圳市无人机行业协会

深圳市南山区工业和信息化局

AUTHORIZED BY

China Association for Science and Technology

ORGANIZED BY

Chinese Society of Aeronautics and Astronautics
China Information Technology Industry Federation
People's Government of Nanshan District, Shenzhen Municipality
Government Procurement Center, Ministry of Industry and Information Technology
Research Center of UAV Application and Control, Chinese Academy of Sciences

UNDERTAKEN BY

China Shenzhen UAV Industry Association
Bureau of Industry and Information Technology, Nanshan District, Shenzhen

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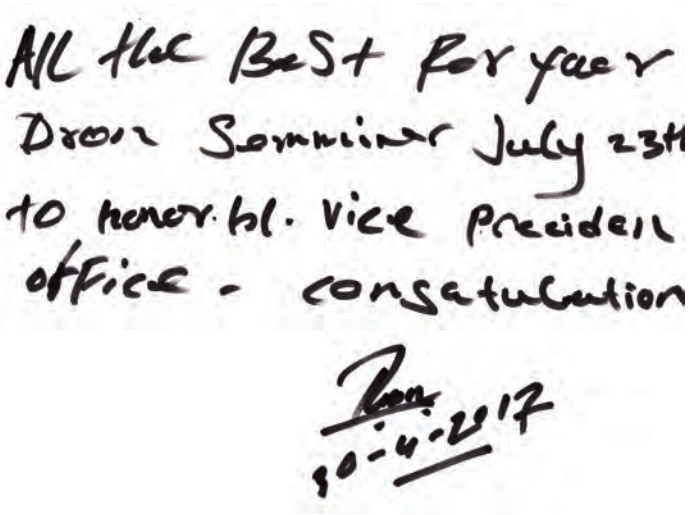
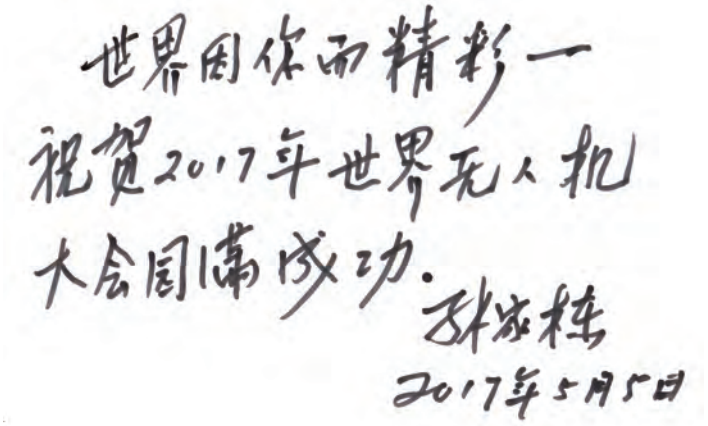


——尼泊尔副总统　南达·巴哈杜尔·普思



——中国科学院院士、世界无人机大会组委会主席　孙家栋

DRONE WORLD CONGRESS 2019
2019 世界无人机大会

每个时代的进步，都需要推动前行的力量。这个世界因为技术不断创新与超越而精彩。2019 年 6 月 20-22 日，“科技让生活更美好 -2019 世界无人机大会”在无人机之都—深圳隆重举行。第三届全球无人机贡献奖获得者登上众望所归的盛典舞台，与全世界一起见证这一全球无人机的璀璨时刻。

世界无人机大会是在全球无人机产业快速发展的战略背景下，由中国科学技术协会批准，中国航空学会、中国电子信息行业联合会、深圳市南山区人民政府、工业和信息化部政府采购中心、中国科学院无人机应用与管控研究中心主办，深圳市无人机行业协会、深圳市南山区工业和信息化局承办的，借力全球和中国及深圳无人机产业的快速发展，推动更多中国企业了解国际无人机市场，同时让更多国际无人机企业了解中国市场。

本届世界无人机大会汇聚美国、英国、欧盟、东盟、俄罗斯、加拿大、澳大利亚、巴西以及日本、韩国、以色列、乌克兰、土耳其、巴基斯坦、泰国、马来西亚、印尼、新加坡等近百个国家和地区的行业组织和 2000 多位企业家、专家学者和知名咨询机构与金融界的代表出席。各国代表对无人机的发展前景、技术创新、空域管理、教育培训、管控平台、标准建设以及无人机在民用、国土、海事、消防、环保、农业、电力、铁路、贸易、遥感、气象、测绘、林业及灾害防治和公共安全等领域的应用议题进行深度交流与探讨。

Drone World Congress 2019 will be convened at Intercontinental Hotels & Resort from June 20 to 22. The theme of this year is 'Better Technology, Better Life'. The 3rd Global UAV Contribution Award will be annouced during the same time, all delegates from the world will gather together to witness the grand ceremony for global UAV industry.

This event is authorized by China Association for Science and Technology, organized by Chinese Society of Aeronautics and Astronautics, China Information Technology Industry Federation, People's Government of Nanshan District, Shenzhen, Government Procurement Center of Ministry of Industry and Information Technology of the PRC, UAV Application and Management Research Center of Chinese Academy of Sciences, undertaken by Shenzhen UAV Industry Association, Bureau of Industry and Information Technology of Nanshan District, Shenzhen. Under the great context of rapid development of global UAV industry, Drone World Congress provides a great opportunity for the connection of global market.

The organizing committee has invited internationally recognized UAV experts and scholars from the United States,UK,European Union,ASEAN Regions,Canada, Russia,Australia,Brazil, Japan,Korea,Israel,Ukraine, Turkey,Pakistan,Thailand,Malaysia,Indonesia and Singapore,etc. Approximate 100 countries and 2000 UAV industry organizations, global experts, entrepreneurs, well-known advisory bodies and financial institutions will come to this amazing event for a high level of academic exchanges, lectures, technology demonstrations, and discussion on topics concerning the development of UAV technology, flight area control, defining industry standards, and how UAV technology is being applied as a resource tool in civil aviation, land management, maritime affairs, environmental protection, agriculture, electric power, rail systems, surveying and mapping, forestry management, trade, remote sensing, meteorology, concrete application, disaster prevention and public security.

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中国科学技术协会

主办单位

中国航空学会
中国电子信息行业联合会
深圳市南山区人民政府
工业和信息化部政府采购中心
中国科学院无人机应用与管控研究中心

承办单位

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深圳市南山区工业和信息化局

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AUTHORIZED BY

China Association for Science and Technology

Organized by

Chinese Society of Aeronautics and Astronautics
China Information Technology Industry Federation
People's Government of Nanshan District, Shenzhen Municipality
Government Procurement Center, Ministry of Industry and Information Technology
Research Center of UAV Application and Control, Chinese Academy of Sciences

UNDERTAKEN BY

China Shenzhen UAV Industry Association
Bureau of Industry and Information Technology, Nanshan District, Shenzhen

SUPPORTED BY

Police Aviation Management Office of Ministry of Public Security
Shenzhen Industry and Informatization Bureau
Shenzhen Transportation Bureau
Testing Center for Quality of Special Police Equipments Under the Ministry of Public Security of P.R.China
Civil- - military Integration Center for Public Security
China National Fire-fighting Equipment Quality Supervision Testing Center of the Ministry of Emergency Management
GNSS & LBS Association of China
Aircraft Owners and Pilots Association of China
China Civil Aviation Emergency Rescue Alliance
Guangdong Academician Association

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Society for International Precision Agricultural Aviation
AUVSI
Drone Valley Belgium
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Society of Photo-optical Instrumentation Engineers
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Korea Drone Association
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日程一览

6 月 20 日　开幕式及全体大会		
09:00-11:00	2019 第四届深圳国际无人机展览会 开幕式、巡馆	深圳会展中心 2、3 号馆
11:00-12:00	午餐休息	深圳华侨城洲际大酒店 （深南大道 9009 号 一号地铁华侨城站 C 出口）
12:00-13:00	会议签到	
2019 世界无人机大会全体会议　（13:00–18:00 深圳华侨城洲际大酒店 大宴会厅）		
时 间	主 题	嘉 宾
13:00-13:30	**宣传片播放：**深圳市南山区宣传片、2019 世界无人机大会宣传片	
13:30-14:30	**开幕式致词**	
	南山区、深圳市及部委领导 **王旭东** 中国电子信息行业联合会会长、原信息产业部部长 **林左鸣** 中国航空学会理事长、中国航空工业集团有限公司原董事长 **肖卡特·阿齐兹** 巴基斯坦前总理 **王鹏狄** 泰国前副总理、世界无人机联合会顾问 **马金旗** 中国人民警察大学校长 **杨金才** 深圳市无人机行业协会会长、世界无人机联合会主席	
14:30-15:30	**特邀报告**	
	无人机产业如何发展	**樊邦奎** 中国工程院院士
	科学与人文在新科技革命中的地位	**安特·格利博达** 欧洲科学、艺术与人文学院副院长
	乌克兰航空技术发展优势	**伊赛安柯** 乌克兰航空大学校长 乌克兰科学院院士
15:30-18:00	**主旨演讲**	
	精准农业航空的现状与未来展望	**兰玉彬** 欧洲科学、艺术与人文学院院士、格鲁吉亚国家科学院外籍院士、国际精准农业航空学会主席
	无人机 : 全球视角下的机遇与挑战	**阿伦·米什拉** ICAO 国际民航组织亚洲办事处主管
	民用无人机的管理政策和发展趋势	**石靖敏** 工业和信息化部装备工业司副巡视员
	一带一路下的中俄科技合作现状与前景	**巴兰尼克·亚历大山** 俄罗斯联邦紧急情况部民防与紧急情况研究院副院长
	《无人机管理办法》对行业发展的影响	**王英勋** 北京航空航天大学无人机研究院院长、教授
	无人机智能集群控制技术及应用	**齐俊桐** 天津大学教授、一飞智控（天津）科技有限公司董事长
	未来已来，城市空中交通时代到来	**熊逸放** 亿航智能设备（广州）有限公司创始人
	无人飞行器自主控制前沿技术	**田刚印** 北京理工大学无人飞行自主控制研究所所长、深圳联合飞机科技有限公司董事长
18:00-19:00	**休息**	

19:00-21:00	**2019 世界无人机大会—全球无人机盛典及欢迎晚宴** 1、全球无人机贡献奖颁奖　2、全国无人机创新创业大赛启动仪式 3、签订合作协议　4、中国机械设备成套工程协会无人系统分会揭牌仪式		
6 月 20–22 日　世界无人机大会 · 平行论坛			
时间	**会议**	**组织机构**	**地点**
20 日 13:30-17:00	安防机器人发展创新论坛	中国安防智能机器人产业联盟、深圳市无人机行业协会	深圳会展中心 5 层 玫瑰 3 厅
21 日 -22 日 1 天半	第七届国际精准农业航空会议	国际精准农业航空学会、国家精准农业航空施药技术国际联合研究中心、深圳市无人机行业协会	深圳会展中心 6 层 桂花厅
21 日 9:00-17:00 全天	国际无人系统开源开发者大会	深圳市无人机行业协会、ArduPilot 国际开源组织、昊翔电能运动科技（昆山）有限公司	深圳会展中心 5 层 玫瑰 2 厅
	应急无人机前沿技术高峰论坛	航救联科技有限公司 、中国地震灾害防御中心、中国应急管理杂志 、中华环保联合会	深圳会展中心 6 层 水仙厅
	地震和地质灾害高新技术应用论坛	中国地震应急搜救中心、深圳市无人机行业协会、中国民用航空应急救援联盟	深圳会展中心 6 层 郁金香厅
	人工智能 – 无人驾驶与水域无人系统高峰论坛	深圳市无人机行业协会、粤港澳大湾区人工智能产业人才联盟、广州带马智能科技有限公司	深圳会展中心 5 层 勒杜鹃厅
21 日 9:00-12:00 上午	无人机应用标准化论坛	中国科学院无人机应用与管控研究中心、深圳市无人机行业协会、中国地理信息产业协会无人机应用与管控工作委员会	深航 5 层 深航厅
	无人机教育培训与发展论坛	慧飞无人机应用技术培训中心、深圳市无人机行业协会、中国通用航空协会筹备组、中国航协通用航空分会	深圳会展中心 5 层 牡丹厅
	公安军民融合高新技术与装备高峰论坛	公安民融合中心、深圳市无人机行业协会	深圳会展中心 5 层 玫瑰 3 厅
	中外无人机会长论坛	深圳市无人机行业协会、全国无人机协会合作互助联盟、世界无人机联合会	深圳会展中心 5 层 玫瑰 1 厅
21 日 13:30-17:00 下午	国际无人系统标准化协会标准创新论坛	国际无人机系统标准化协会（筹）、深圳市无人机行业协会、中国航空工业集团公司洛阳电光设备研究所	深航 5 层 深航厅
	无人机新材料新技术论坛	深圳市无人机行业协会、深圳市塑胶原料同业公会	深圳会展中心 5 层 牡丹厅
	反无人机与低空安全管理论坛	中国无人机产业联盟、全国无人机协会合作互助联盟、深圳市无人机行业协会	深圳会展中心 5 层 玫瑰 3 厅
	3D 打印在无人机行业应用研讨会	深圳市无人机行业协会、未知大陆、中国 3D 打印产业联盟、深圳市三维智造研究院、深圳市 3D 打印行业协会 (筹)	深圳会展中心 5 层 玫瑰 1 厅
	无人机测绘行业交流论坛	深圳市无人机行业协会、深圳纵横无人机科技有限公司	大中华喜来登酒店 6 层 汉厅
	2019 第十届安防监控存储论坛暨 SSCIA 第十届中国智慧城市安防高峰会	安防监控存储产业联盟、安防系统集成商联盟、深圳市智慧城市产业协会、深圳市安全防范行业行业协会	深航 5 层 鲲鹏厅
6 月 20–22 日　世界无人机大会 · 无人机竞速挑战赛			
20 日 -22 日 2 天半	6 月 19 日报到、6 月 20 日预赛 6 月 21 日决赛、6 月 22 日决赛	中国无人机竞速联盟、青海省体育局、中共果洛州委、果洛州人民政府、深圳市无人机行业协会	深圳会展中心 3 号馆
6 月 22 日　参观知名无人机企业			

CONGRESS AGENDA

20 June Opening Ceremony		
09:00-11:00	2019 The 4th Shenzhen International UAV Expo Opening Ceremony	Hall 2,3 Shenzhen Convention & Exhibition Center
11:00-12:00	Lunch	Intercontinental Hotels & Resort
12:00-13:00	Registration	
Drone World Congress 2019 (13:00-18:00 Intercontinental Hotels & Resort)		
Time	**Topics**	**Speaker**
13:00-13:30	**Video Looping:** Shenzhen Nanshan Publicity Film, World Drone Conference Demo	
13:30-14:30	**Welcome**	
	Officers of Nanshan District Government, Shenzhen Municipal Government and Ministries and Commissions **Wang Xudong**, President of China Information Technology Industry Federation, Former minister of the ministry of information industry **Lin Zuoming**, The President of Chinese Society of Aeronautics and Astronautics, Chairman of Aviation Industry Corporation of China,Ltd. **Shaukat Aziz**, Former Prime Minister of Pakistan **Phongthep Thepkanjana**, Former Deputy Prime Minister of Thailand, Consultant of the World UAV Federation **Ma Jinqi**, The Principal of China People's Police University **Yang Jincai**, Chairman of Shenzhen UAV Industry Association, Chairman of the World UAV Federation	
14:30-15:30	**Report**	
	How to Promote the Development of UAV Industry	**Fan Bangkui**, Academician of Chinese Academy of Engineering
	The Status of Science and Humanities in the New Scientific Revolution	**Ante Glibota**, Vice-Chairman of the European Academy of Sciences Arts and Letters (EASAL)
	The Advantage of Ukrainian Aviation Technology Development	**Isaienko Volodymyr**, Rector of National Aviation University Of Higher School Of Ukraine, Academician Of Academy Of Sciences
15:30-18:00	**Keynote Speech**	
	Current and Future Development of Precision Agricultural Aviation	**Yubin Lan, Ph.D.**Member of European Academy of Sciences Arts and Letters (EASAL); Academician of the Georgian National Academy of Science; Chairman of the Society for International Precision Agricultural Aviation.
	Drones: Global Perspectives and Challenges	**Arun Mishra**, ICAO Regional Director, International Civil Aviation Organization (ICAO), Asia and Pacific Office
	Regulation and Trends of Civil Use UAV	**Shi Jingmin**, Deputy Counselor in MIIT, Ministry of Industry and Information Technology of the People's Republic of China
	The Sino-Russian Science and Technology Cooperation Under "The Belt and Road Initiative": Present Situation and Vision for The Future	**Barannik Alexander**, Deputy Director of the All-Russian Scientific Research Institute (Federal Center) for the Civil Defense and Emergency Situations of the Russian Emergencies Ministry
	Impact of UAV Management Regulation on Industry Development	**Wang Yingxun**, Dean and Professor of the UAV Research Institute of Beihang University
	Intelligent Swarm Control technology and applications of UAV	**Qi Juntong**, Professor of Tianjin University, Chairman of EFY Intelligent Control (Tianjin) Technology Co., Ltd.

15:30-18:00	The Future Has Come; We Are Entering The Era of Urban Air Traffic	**Xiong Yifang**, Founder of EHang
	The Frontier Technology of UAV Autonomous Control	**Tian Gangyin**, Director of Institute of Unmanned Flight Control of Beijing Institute of Technology, Chairman of Shenzhen United Aircraft Technology Co., Ltd.
18:00-19:00	Rest	
19:00-21:00	Global UAV Grand Ceremony	

20-22 June Drone World Congress Sub-forums

Time	Topics	Organized by	Venue	
13:30-17:00 June 20	Security Robot Development Innovation Forum	China Security Intelligent Robot Industry Alliance / Shenzhen UAV Industry Association	Shenzhen Convention & Exhibition Center	5F,Rose Hall No.3
June 21-22	The 7th International Conference of Precision Agricultural Aviation	Society for International Precision Agricultural Aviation / National Center for International Collaboration Research on Precision Agricultural Aviation Pesticides Spraying Technology / Shenzhen UAV Industry Association		6F,Osmanthus Hall
9:00-17:00 June 21	ArduPilot Conference, Shenzhen	Shenzhen UAV Industry Association / ArduPilot Org / Yuneec International		5F,Rose Hall No.2
	Emergency UAV Frontier Technology Summit Forum	Aviation Rescue Alliance Technology Co., Ltd. / China Earthquake Disaster Prevention Center / China Emergency Management Magazine / All-China Environment Federation		6F,Narcissus Hall
	High-tech Application of Earthquakes and Geological Disasters Forum	National Earthquake Response Support Service / Shenzhen UAV Industry Association / China Civil Aviation Emergency Rescue Alliance		6F,Tulip Hall
	Artificial Intelligence – Unmanned Pilot and Marine Unmanned Systems Summit	Shenzhen UAV Industry Association / Guangdong, Hong Kong and Macau Dawan District Artificial Intelligence and Unmanned Industry Talent Alliance / Guangzhou DaiMa Intelligent Technology Co., Ltd.		5F, Bougainillea Hall
9:00-12:00 June 21	UAV Application Standardization Forum	The Research Center for UAV Applications and Regulation, Chinese Academy of Sciences / Shenzhen UAV Industry Association / China Geographic Information Industry Association UAV Application and Control Working Committee	Shenzhenair International Hotel	5F,Shenhang Hall
	UAV Education Training and Development Forum	Unmanned Aerial Systems Training Center / Shenzhen UAV Industry Association / China General Aviation Association / General Aviation Branch of China Air Transport Association	Shenzhen Convention & Exhibition Center	5F,Peony Hall
	Military and Civilian Integration High-tech and Equipment Summit	Civil- - military Integration Center for Public Security / Shenzhen UAV Industry Association		5F,Rose Hall No.3

	Global UAV Association Chairman Seminar Forum	Shenzhen UAV Industry Association / National UAV Association Cooperative and Mutual Aid Alliance / World UAV Foderation		5F,Rose Hall No.1
13:30-17:00 June 21	International UAS Standardization Association& Standard Innovation Forum	International UAS Standardization Association / Shenzhen UAV Industry Association / Luoyang Institute of Electro-optical Equipment of AVIC	Shenzhenair International Hotel	5F,Shenhang Hall
	UAV New Material & New Technology Forum	Shenzhen UAV Industry Association / Shenzhen Plastic Material Association	Shenzhen Convention & Exhibition Center	5F,Peony Hall
	Anti-UAV and Low-altitude Security Management Forum	China UAV Industry Alliance / National UAV Association Cooperation and Mutual Aid Alliance / Shenzhen UAV Industry Association		5F,Rose Hall No.3
	Application of 3D printing technology in UAV Industry Forum	Shenzhen UAV Industry Association / UNLANDS / China 3D Printing Industry Alliance / Shenzhen 3D Intelligent manufacture Research Institute / Shenzhen 3D Printing Industry Association		5F,Rose Hall No.1
	UAV Surveying Industry Communication Forum	Shenzhen UAV Industry Association / Shenzhen JOUAV TECH Co.,Ltd	Sheraton Shenzhen Futian Hotel	6F,Han Hall
	2019 The 10th Security Monitoring and Storage Forum and SSCIA the 10th China Smart City Security Summit	Security Monitor Storage Industry Alliance / Security System Integrator Alliance / Shenzhen Smart City Industry Association / Shenzhen Security and Protection Industry Association	Shenzhenair International Hotel	5F,Kun's Roc Ballroom
20-22 June Drone World Congress Drone Racing Challenge				
June 20-22	June 19 Registration; June 20 Preliminary Contest; June 21 Final Contest; June 22 Final Contest	Chinese Drone Racing Alliance / Qinghai Provincial Sports Bureau / Drone Sports Association of Qinghai province / Shenzhen UAV Industry Association / The People's Government of Guoluozhou / Communist Party Guoluozhou Committee	Hall 3, Shenzhen Convention & Exhibition Center	
22 June UAV Enterprise Visiting Tour				

CONGRESS SPEAKER
大会嘉宾

孙家栋

中国科学院院士

Sun Jiadong

Academician of the Chinese Academy of Sciences

嘉宾简介

1929 年 4 月生于辽宁瓦房店市，中科院院士、探月工程总设计师、中国航天科技集团公司高级技术顾问、“两弹一星元勋”。获得 2009 年度国家最高科学技术奖。2017 年 2 月 8 日，被评为感动中国 2016 年度人物。

Speaker Information

Borned at Liaoning Province in 1929, Mr. Sun is the chief designer of lunar exploration program. Academician of the Chinese Academy of Sciences and senior technology adviser of China Aerospace Science and Technology Corporation. Mr. Sun has been awarded "Two bombs and one Satellite Award" in 1999 and National Science and Technology Award in 2009.

王旭东

中国电子信息行业联合会会长、原信息产业部部长

Wang Xudong

President of China Information Technology Industry Federation
Former Minister of the Ministry of Information Industry

林左鸣

中国航空学会理事长
中国航空工业集团有限公司原董事长

Lin Zuoming

President of Chinese Society of Aeronautics and Astronautics
Former Chairman of China Aviation Industry Group Co., Ltd.

肖卡特·阿齐兹

巴基斯坦前总理

Shaukat Aziz

Former Prime Minister of Pakistan

嘉宾简介

肖卡特·阿齐兹（Shaukat Aziz），2004 年 9 月至 2007 年 11 月出任巴基斯坦总理，1999 年 11 月至 2007 年 11 月任巴基斯坦财政部长。1967 年毕业于拉瓦尔品第戈登学院。1969 年在卡拉奇大学取得工商管理硕士学位。此前，阿齐兹一直在美国花旗集团工作，他曾在美国花旗银行担任多个高级管理职务，如负责中东欧、中东和非洲、亚太地区的机构银行业务，随后担任了该行全球财富管理业务的首席执行官。1999 年，阿齐兹先生就任财政部长，同年被《欧洲货币》及《银行家》杂志评为“年度财政部长”。阿齐兹对华友好，曾多次访华，2004 年 12 月以总理身份访华。2007 年 4 月 16 日至 20 日对中国进行正式访问，并于 4 月 20 日至 21 日出席博鳌亚洲论坛 2007 年年会。2015 年，肖卡特·阿齐兹成为博鳌亚洲论坛理事。他大力倡导结构化改革、外交、地缘政治和安全。他是世界范围内多个经济和非政府组织的理事会或顾问委员会成员。

Speaker Information

His excellency Shaukat Aziz was elected as Prime Minister of Parkistan and served from 2004 to 2007, following five years as Finance Minister from 1999. Mr. Aziz was the first Prime Minister of Pakistan to complete a full term office. After graduating from Gorden College, Rawalpindi in 1967, Mr. Aziz gained a MBA degree from the Institute of Business Administration, University of Karachi. As Executive Vice President, he held several senior management positions in Citibank including head of institutional banking for Central Eastern Europe, the Middle East and Africa and later for Asia Pacific, followed by Chief Executive of the banks global wealth management business. He became Finance Minister in 1999 and was named “Finance Minister of the Year” for 2001 by Euromoney and the Banker magazine. Mr. Aziz co-chaired the UN Secretary General Committee to promote reform and coherence at the United Nations. As Prime Minister, Mr. Aziz paid state visits to China in 2004 and 2007. Mr. Aziz offers an expert view and is a frequent speaker on the challenges facing the world including structural reforms, diplomacy, geopolitics and security. Mr. Aziz is a member of several boards and advisory boards of various commercial and non-profit entities around the world. In 2015, Mr. Aziz became one of the board members of Boao Forum For Asia.

王鹏狄

泰国前副总理
世界无人机联合会顾问

Phongthep Thepkanjana

Former Deputy Prime Minister of Thailand

嘉宾简介

王鹏狄 (泰名 蓬贴·帖甘扎纳)

泰国前副总理

泰国前教育部部长

泰国前司法部长

泰国前能源部部长长

泰国前总理政务部部长

Speaker Information

Phongthep Thepkanjana

Former Deputy Prime Minister of Thailand

Former Minister of Education

Former Minister of Justice

Former Minister of Energy

Minister Attached to the Former Prime Minister's Office

马金旗

中国人民警察大学校长

Ma Jinqi

The Principal of China People's Police University

嘉宾简介

马金旗，山东大学历史系历史学专业毕业，1986 年 7 月参加工作，历任中国人民武装警察部队学院教务处处长、边防系副主任、部队管理系主任、训练部部长、副院长、院长（正军职）等职，武警少将警衔。现任中国人民警察大学校长、教授，兼任河北省高等教育学会副会长、全国消防工程专业教学指导委员会主任委员等。

Speaker Information

Mr. Ma graduated from the History Department of Shandong University with a degree in History and attended work in July 1986, served as Director of the Academic Affairs Office, the Director of Frontier Defense Department, Director of the Force Management Department, Director of the Training Department, Deputy Director, Vice President, and Dean, the Major General of the Chinese People's Armed Police Forces Academy,etc. Currently, he is the principal and professor of China People's Police University, and serves as the vice president of the Hebei Higher Education Academy and committee member of the National Fire Engineering Professional Teaching Steering Committee.

杨金才

深圳市无人机行业协会会长、世界无人机联合会主席

Yang Jincai

Chairman of Shenzhen UAV Industry Association
Chairman of the World UAV Federation

嘉宾简介

杨金才先生在安防领域有超过 30 年的丰富经验，他是北航客座教授、公安部警标委特聘专家、深圳市政府特聘专家。1989 年创办 CPSE 安博会；1993 年创办《中国公共安全》杂志，并任社长兼总编辑；1995 年创办深圳市安防行业协会；2010 年在菲律宾举行的国际航空保安协会成立大会上，被推选为首任主席（2010-2013）；2014 年创办中国无人机产业联盟（拥有来自全国 16 个省市的 120 家会员）；2015 年创办全国第一家无人机行业组织，深圳市无人机行业协会，会员覆盖无人机整个产业链。先后举办了专业无人机展览会、高峰论坛、考察交流、研讨会等行业活动，以及发布了十一项无人机行业标准。

Speaker Information

Mr. Yang Jincai has over 30 years of experience in safety-security area. He is a visiting professor of Beihang University, a special expert of the Police Standardization Administration of the Ministry of Public Security and a distinguished expert of the Shenzhen government. Mr. Yang founded CPSE Security Expo in 1989 and China Public Security magazine in 1993 where he served as president and editor-in-chief. He established Shenzhen Security and Protection Industry Association in 1995, and was elected at the inaugural meeting of the International Aviation Security Association held in the Philippines in 2010 as its first chairman (2010-2013).

Mr. Yang founded China UAV Industry Alliance (with 120 members from 16 provinces and cities nationwide) in 2014 and the first UAV industry organization in China in 2015-Shenzhen UAV Industry Association, whose members cover the entire UAV industry chain. He successively held professional UAV exhibitions, summit forums, study tours, seminars and other industry events, as well as the release of the eleven UAV industry standards.

樊邦奎

中国工程院院士

Fan Bangkui

Academician of Chinese Academy of Engineering

演讲主题

无人机产业如何发展

嘉宾简介

无人机技术专家。毕业于北京理工大学信号与信息处理专业，获工学博士学位。中国工程院院士。长期从事无人机系统关键技术及产业化发展研究，研究的成果参加国庆 60 周年和抗战胜利 70 周年阅兵。获国家科技进步特等奖、一等奖各 1 项、国家科技进步二等奖 6 项、省部级科技进步一等奖 8 项，出版专著 4 部。

Topic

How to Promote the Development of UAV Industry

Speaker Information

Bangkui Fan,drone technologist.Graduated from Beijing university of technology and majored in signal and information processing.Academician of the Chinese academy of engineering. He has been engaged in the research on the key technologies and industrial development of unmanned aerial vehicle systems for a long time, and participated in the National Day 60th anniversary parade and the 70th anniversary parade of the victory of the Anti-Japanese War. Won the special prize of national science and technology progress, one first prize each, six second prize of national science and technology progress, eight first prize of provincial and ministerial level science and technology progress, and published four monographs.

安特·格利博达

欧洲科学、艺术与人文学院副院长

Ante Glibota

Vice-Chairman of the European Academy of Sciences Arts and Letters (EASAL)

演讲主题

科学与人文在新科技革命中的地位

嘉宾简介

安特·格里博达 (ANTE GLIBOTA)，欧洲科学、艺术与人文学院副院长、经济学家、艺术与建筑历史学家兼作家，于 1945 年 6 月 15 日出生于克罗地亚的斯莱夫诺市，曾在萨格勒布大学和巴黎索邦大学学习。1978 年，他开始与美国 - 瑞士基金会开放式剧院和巴黎艺术中心合作，该剧院和中心一直活跃于实验电影，戏剧，现代舞和美术领域。 1979 年，他被任命为巴黎艺术中心艺术总监，并于 1982 年 -1994 年担任巴黎艺术中心馆长。1999 年位于纽约的美国政治科学院授予他名誉院士称号。2004 年，位于北京的中国国际文化交流中心 (CICEC) 任命他为国际文化交流顾问，任期五年。自 2010 年至 2016 年，他担任中国上海艺术与城市博物馆副主席兼首席策展人。2019 年，安特·格里博塔被任命为中国深圳世界无人机联合会的名誉主席。

作为 220 多本书籍和目录的作者和出版者，安特献身于当代艺术、建筑和文学。他与一些当代重要的艺术家和诗人一起创作了许多限量版的珍本书籍，并写了大量由艺术家们作插图的诗集。他制作百余件音乐作品，它们以 CD 的形式出版、选集系列收录。他还创作了大量关于艺术和文化领域的纪录片、视频项目。

Topic

The Status of Science and Humanities in the New Scientific Revolution

Speaker Information

Ante Glibota, Vice-Chairman of the European Academy of Sciences Arts and Letters (EASAL), economist, art and architectural historian and author, was born in 1945 in Slivno, Croatia and studied at the University of Zagreb and at the Sorbonne University in Paris. In 1978, he began to work with the American-Swiss Foundation Open End Theatre, and Paris Art Center, which were active in the fields of experimental film, theatre, modern dance, and fine arts. In 1979, he was appointed Artistic Director and later, in 1982, General Director of the Paris Art Center, a position he held until 1994. In 1999, the American Academy of Political Science in New York, appointed him a Titular Member of the Academy. In 2004, the China International Culture Exchange Center (CICEC) in Beijing appointed him for a five-year term as Foreign Counselor for International Cultural Exchanges. Since 2010 until 2016 he serves as Vice-President and Curator-in-Chief of the Museum of Art and Urbanity in Shanghai, China. In Year 2019, Ante Glibota was appointed as Honorary Chairman of the World UAV Federation, Shenzhen, China.

As author and publisher of over 220 books and catalogues, devoted to contemporary art, architecture and literature he has created many rare books in limited editions with important contemporary artists and poets. He also wrote a volume of poetry, illustrated by the artists. Ante Glibota is also producer of more than one hundred musical projects, published in the form of CD, anthology series coffers, but also author of large number of documentary movies, video projects on art and cultural domains.

弗拉迪米尔·伊赛安柯

乌克兰航空大学校长
乌克兰科学院院士

演讲主题

乌克兰航空技术发展优势

内容概要

乌克兰国内以及全球航空运输市场正在蓬勃发展，其年增长率为3-5%。此背景下，迫切需要航空专家，特别是乌克兰和全世界的航空人才推动航空业快速发展。

嘉宾简介

教授，生物科学博士（2004 年）

技术科学候选人（1985 年）

乌克兰教育工作者，国立航空大学生态系教授（2005 年）

乌克兰高等院校科学院院士

Isaienko Volodymyr

Rector of National Aviation University Of Higher School Of Ukraine
Academician Of Academy Of Sciences

Topic

The Advantage of Ukrainian Aviation Technology Development

Speech Abstract

The domestic and international market of air transportation is dynamically expanding with an annual increase of 3-5%. The aviation industry has received a positive impulse for its development and there will be an urgent need for aviation specialists, in particular, pilots and instructors, both in Ukraine and in the whole world.

Speaker Information

Professor, Doctor of Biological Sciences (2004)

Candidate of Technical Sciences (1985)

Merited Worker of Education of Ukraine, Professor of the Ecology Department of the National Aviation University (2005)

Academician of the Academy of Sciences of the Higher School of Ukraine.

兰玉彬

欧洲科学、艺术与人文学院院士、格鲁吉亚国家科学院外籍院士、国际精准农业航空学会主席

Yubin Lan, Ph.D.

Member of European Academy of Sciences Arts and Letters (EASAL) Academician of the Georgian National Academy of Science Chairman of the Society for International Precision Agricultural Aviation.

演讲主题

精准农业航空的现状与未来展望

嘉宾简介

兰玉彬，欧洲科学、艺术与人文学院院士、格鲁吉亚国家科学院外籍院士、国家特聘专家、广东省“珠江人才计划”领军人才、教育部“海外名师”，国家精准农业航空施药技术国际联合研究中心主任和首席科学家，华南农业大学教授和博士生导师，德州农工大学兼职教授和博士生导师，国际精准农业航空学会主席，中国农业工程学会农业航空分会常务副主任委员，国家航空植保科技创新联盟常务副理事长，受聘中国科学技术协会“全国农业航空技术学科首席科学传播专家”。长期从事农业航空应用技术研究，在国际上首倡“精准农业航空”理念和技术路线，并率先开展农业航空遥感和精准航空施药相结合的研究和应用。一直致力于国内外精准农业航空技术的深入研究与产学研合作，现主持包括国家重点研发计划项目等国家和省部级重要项目 11 项。迄今已在《Transactions of the ASABE》等国内外农业工程核心期刊上发表论文 300 余篇，其中 SCI/EI 收录 160 余篇。曾获中国农业工程学会农业航空分会“农业航空发展贡献奖”、“科学中国人（2015）年度人物”、“中国产学研合作促进奖”、中国农村科技杂志“2016 年度影响力人物”、世界无人机大会“全球无人机贡献奖”、世界无人机联合会“中国无人机行业引领推动奖”等。被媒体赞誉为“带领我国农业航空飞上新高度”（科技日报）。现担任《International Journal of Precision Agricultural Aviation》共同主编。

Topic

Current and Future Development of Precision Agricultural Aviation

Speaker Information

Dr. Yubin Lan, the member of European Academy of Sciences Arts and Letters (EASAL), Academician of the Georgian National Academy of Science, a Scientist in precision agriculture, who has long been engaged in precision agricultural research for 30 years, especially in precision agricultural aviation. He first proposed the concept of "precision agricultural aviation" in the world (2005) and took the lead in research work on the combination of agricultural aerial remote sensing and precision aerial spraying in the world. He had served as an Agricultural Engineer in the USDA-ARS and won the "Outstanding Merit Awards" for 8 consecutive years from 2006 to 2013. Appointed as the USA representative for the International Society of Precision Agriculture for his outstanding performance. He has been committed to the development of precision agricultural aviation in the world for many years, and made outstanding contributions to the development of agricultural aviation in USA and the promotion of the world's precision agricultural aviation disciplines, especially the development of agricultural aviation and plant protection UAV in China. Dr. Lan, the Ministry of education "famous overseas teachers" , innovation experts of aerial plant protection and agricultural machinery in China, the Director and the Lead Scientist of the National Center for International Collaboration Research

on Precision Agricultural Aviation Pesticide Spraying Technology, the Director of National 111 Project Precision Agricultural Aviation Application Technology Research Overseas Expertise Introduction Center, the Founder and Chairman of Society for International Precision Agricultural Aviation (SIPAA), International Conference of Precision Agricultural Aviation and CIGR Precision Aerial Application Working Group, the Founder and Co-Editor of International Journal of Precision Agricultural Aviation (IJPAA). Dr. Lan was the recipient of "Young Professional Engineer" award from ASAE TX Section in 1994. Dr. Lan has received the Texas Section Engineer of the Year Award from the ASABE (2012), and the Distinguished Career Award(2013) and Outstanding Contribution Award(2014) from the AOCABFE, the Distinguished Service Award from USDA-ARS-AATRU(2014); Outstanding Contribution Awards of Agricultural Aviation from the Agricultural Aviation Working Branch of the CSAE(2015); Scientific Chinese's Person of the Year; China Industry-University-Research Institute Collaboration Association' Development Award; First Global UAV Contribution Award from Drone World Congress(2017); Contribution Awards for Agricultural Aviation Development in China from TISAAA(2018).

约翰·斯高尔·沃克

ISO TC20/SC16 主席

John Scull Walker

Chairman of ISO TC20/SC16

嘉宾简介

约翰·斯高尔·沃克在航空领域拥有 54 年的丰富经验，其中包括 34 年的美国联邦航空局工作经验，曾担任空域主管，负责美国境内民用航空工作。在此之前，他曾负责美国东北部的空中交通运营。约翰·斯高尔·沃克现担任 ISO TC20 / SC16 主席，参与制定无人机系统标准。他同时还是 JARUS 利益相关者咨询机构的行业副主席。作为美国联邦航空局代表团成员，他是 AIA 新兴技术空域委员会，国际无人系统协会（AUVSI）行业咨询委员会和国际民航组织远程控制飞行器系统（ICAO RPAS）专家组成员。

Speaker Information

John has 54 years of aviation experience including 34 years with the Federal Aviation Administration. He served as the Director of Airspace, responsible for all civil airspace within the United States. Prior he was responsible for air traffic operations in the Northeast of the USA. John serves as the Chairperson of ISO TC20/SC16, developing standards for Unmanned Aircraft Systems. He serves as the industry Vice Chairperson for the JARUS Stakeholder Consultation Body. He participates with the AIA Emerging Technologies Airspace Committee, AUVSI Industry Advisory Committee and on the ICAO RPAS Panel as a member of the United States FAA Delegation.

阿伦·米什拉

ICAO 国际民航组织亚洲办事处主管

Arun Mishra

ICAO Regional Director, International Civil Aviation Organization (ICAO), Asia and Pacific Office

演讲主题

无人机：全球视角下的机遇与挑战

内容概要

由于无人驾驶航空的快速发展，现有的运行环境将面临挑战且航空运行需要一套全新的规则。监管机构面临的挑战是将 RPAS 安全有效地整合到一个受到高度监管和完善的有人驾驶飞机行业共享的环境中。这需要一个完整的监管框架，涵盖通用安全规则，无人机空中交通管制以及无人机到无人机通信标准。 远程驾驶员的许可和培训是实现安全运营的支柱之一。

嘉宾简介

Arun Mishra 先生于 2014 年接任曼谷国际民航组织亚太办事处区域主任的职务。在此之前，Arun Mishra 先生曾是印度民航局局长。他还于 2009 至 2012 年期间担任印度常驻蒙特利尔国际民用航空组织理事会（ICAO）代表。Mishra 先生是印度行政服务（IAS）的成员，已经为印度政府服务了 27 年。

Topic

Drones: Global Perspectives and Challenges

Speech Abstract

According to the rapid developments of unmanned aviation, there would be challenges to existing operational environment and a brand new set of regulation is needed for the aircraft and operation. Regulators are being challenged with the safe and efficient integration of RPAS into environments shared by a highly regulated and well-established manned aircraft industry. That requires an entire regulatory framework covering universal safety rules, UAV air traffic control, and drone to drone communication standards. Licensing and training of remote pilots is one of the pillars to enable safe operations.

Speaker Information

Mr. Arun Mishra took over as Regional Director of ICAO Asia & Pacific Office in Bangkok on 3rd February, 2014. Prior to this, Mr. Mishra was the General Director of Civil Aviation of India. He has also been the Permanent Representative of India on the Council of International Civil Aviation Organization (ICAO) Montreal from July 2009 to July 2012. A member of the Indian Administrative Service (IAS), Mr. Mishra has served the Government of India with various capacities for 27 years.

石靖敏

工业和信息化部装备工业司副巡视员

Shi Jingmin

Deputy Counselor in MIIT, Ministry of Industry and Information Technology of the People's Republic of China

中华人民共和国工业和信息化部

演讲主题

民用无人机的管理政策和发展趋势

内容概要

近年来，民用无人机产业发展迅猛，给社会经济发展众多领域带来新的机遇，也对传统航空监管体系提出了巨大挑战，如何保障无人机安全、高效运行成为世界各国共同面临的难题。本报告介绍了中国民用无人机管理的法律、法规、部门规章以及标准制定和颁布情况，以及地方法规、主要行业协会管理的情况，并提出了对民用无人机管理发展的见解。

嘉宾简介

石靖敏，高级工程师，中国航空学会科技咨询工作委员会副主任、通用飞机及无人机首席专家；1982 年毕业于西北工业大学航空无线电工程系。曾在航空精密机械研究所，原航空部、航空航天部、中国航空工业总公司、国防科工委供职。长期从事航空工程研制和技术研究项目的管理，以及航空工业发展规划和政策研究制定等行业管理工作。任国家空管委办公室牵头组织的无人驾驶航空器管理法规起草专班主要成员，民航无人驾驶航空器适航法规起草组专家。

Topic

Regulation and Trends of Civil Use UAV

Speech Abstract

In recent years, UAV industry has developed rapidly, bringing new opportunities to many fields of social and economic development. It also poses a huge challenge to the traditional aviation regulatory system. How to ensure the safe and efficient operation of UAV has become a common concern faced by many countries in the world. This report discuses the laws, regulations, departmental rules, standards development and promulgation as well as local regulations, management of major industry associations related to UAV in China, and presents insights of UAV development in the future.

Speaker Information

Mrs. Shi, Senior Engineer, Deputy Director-General of Science and Technology Advisory Committee of Chinese Society of Aeronautics and Astronautics, Chief Expert of General Unmanned Aerial Vehicle(UAV) . She studied Aeronautical Radio Engineering in Northwestern Polytechnical University (NPU), and graduated from NPU in 1982. She has worked in Avic Beijing Precision Engineering Institue, former Ministry of Aeronautics, Ministry of Aeronautics and Astronautics, Aviation Industry Corporation of China,Ltd., Commission on Science, Technology and Industry for National Defense. She has long been engaged in the management of aviation engineering development and related research projects, as well as strategic planning, policy study and development of aviation industry. Mrs. Shi is the main member of the regulation drafting group led by the Office of the National Air Traffic Management Bureau for unmanned aerial vehicle (UAV) management, and also expert of drafting group for airworthiness regulation for UAV.

巴兰尼克·亚历山大

俄罗斯联邦紧急情况部民防与紧急情况研究院副院长

Barannik Alexander

Deputy Director of the All-Russian Scientific Research Institute (Federal Center) for the Civil Defense and Emergency Situations of the Russian Emergencies Ministry

演讲主题

“一带一路”下的中俄科技合作：现状与未来展望

内容概要

俄罗斯科学院（RAS），是一所拥有 300 多年历史的国家级学院，坐拥最先进的自然科学、社会科学、技术和生产方面的条件，负责监督管理关键基础技术研究项目。学院根据国家发展战略对不同科学领域进行整合。学院工作还包括保护和进行深水勘探，创建和开发研究机构间的合作项目，包括“Mega Science”国家项目下的研究机构。

国际欧亚科学院（IEAS）成立于 1994 年，旨在联合欧亚大陆及世界各国科学家，加强改善环境与生态、遥感技术与应用、地理信息系统等领域。2018 年，IEAS 成为“一带一路”国际科学组织联盟（ANSO）成员。

航空航天研究所是俄罗斯领先的空域地球监测机构，隶属于俄罗斯联邦科学和高等教育部以及 RAS。该研究所基于卫星，机载车辆，无人机和大数据处理系统等方法和工具的创新与应用，致力于环境监测，自然和工业灾害预防，合理利用自然资源和现代农业资源。

嘉宾简介

生于 1962 年，自 1990 年以来从事科学技术研究。编著多余 100 科学文章。俄罗斯国家机器人技术与基础设备研发中心鉴定委员会委员，“机器人技术”国家优先技术方向委员会 主席团成员。

目前主要工作方向包括：紧急救援技术与设备；机器人研发与应用（包括用于紧急情况与自然和工业灾难清除的飞行无人机）；俄罗斯联邦紧急情况部先进技术设备供应优化；紧急情况部采用飞行无人机的流程与技术。获得了多数国家与部级奖章，包括“祖国功勋勋章”、“苏联军队 70 周年奖章”、5 个国防部奖章、3 个紧急情况部奖章、俄罗斯军事科学院一级奖章等。

Topic

The Sino-Russian Science and Technology Cooperation Under "The Belt and Road Initiative": Present Situation and Vision for The Future

Speech Abstract

Russian Academy of Sciences (RAS) – State level academy with a 300 years long history, highest scientific society and principal coordinating body for research in natural and social sciences, technology, and production, submitted to set up the National science development strategy, supervise the key fundamental scientific research programs, coordinate the integration of different science fields according to the National development strategy. It protects and maintain, the cooperation in the deep-water exploration, the joint creation and exploitation of research institutes, including those under the “Mega Science” National project.

The International Eurasian Academy of Sciences (IEAS) was established 25 years ago

with the aim to bring together natural scientists, engineering and technical experts, social scientists from around the world, and committed to promoting international exchange in science and technology, in particular in Europe and Asia. In 2018 IEAS became a member of the Alliance of the International Science Organizations in the Belt and Road Region (ANSO).

Aerospace Research Institute – the leading Russian institute for the airspace Earth monitoring, belongs to the Ministry of Science and Higher Education of the Russian Federation and the RAS. The institute is committed to the creation and practical appliance of the methods and instruments for the environmental monitoring, natural and industrial disasters preventing, rational use of natural resources, modern agriculture development, based on the satellites, airborne vehicles, drones and others, and the big data processing systems.

Speaker Information

Deputy Director of the All-Russian Scientific Research Institute (Federal Center) for the Civil Defense and Emergency Situations of the Russian Emergencies Ministry, Head of the Technique and Technology Development Center of the Russian Emergencies Ministry, Dr. Tech. Sc., Senior Scientist

Born in 1962, engaged in scientific research since 1990. In 1988 defended his dissertation in "Forecast for the development of different purpose technique and technology".

Since 2013 occupies the position of the Head of the Technique and Technology Development Center of the Russian Emergencies Ministry, Deputy Director of the All-Russian Scientific Research Institute (Federal Center) for the Civil Defense and Emergency Situations of the Russian Emergencies Ministry. Author of more than 100 science papers.

Member of the Expert Commission of the National Robotics Technology and Basic Technique Elements Development Center, Member of the Presidium of the Priority Technology Field "Robotics technique complex" Council.

Nowadays his main scientific interest include: the problems of the emergency rescue technology and technique development; the creation and application of the robotics technique instruments, including unmanned aircraft vessels for the emergency situations and the elimination of the natural and man-caused emergencies; optimization of the supply of the Emergency Rescue Departments with modern technique instruments; the development of the technology of the use of unmanned aircraft vehicles (drones) for the purposes of The Russian Emergencies Ministry.

Has numerous awards, including the Medal of the Order of Merit for the Motherland, the medal "70 Years Anniversary of the Military Force of USSR" , 5 Medals of the Ministry of Defense, 3 Medals of the Ministry of Emergencies, First Grade Award of the Academy of Military Sciences.

王英勋

北京航空航天大学无人机研究院院长、教授

Wang Yingxun

Dean and Professor of the UAV Research Institute of Beihang University

演讲主题

《无人机管理办法》对行业发展的影响

嘉宾简介

王英勋，北京航空航天大学无人机研究院院长、教授。1991 年硕士毕业进入了刚刚恢复的无人机所，从一名青年工程师成长为总工程师，成为我国无人机系统技术专家。他从课题组长到副总设计师先后承担了 4 个型号的任务，主持两项国防预研项目。荣获北京市优秀青年工程师、北京经济技术创新标兵称号，获得中航总科技进步二等奖、国防科学技术进步二等奖，并荣立国防科技二等功。

Topic

Impact of *UAV Management Regulation* on Industry Development

Speaker Information

Wang Yingxun, Dean and Professor of the UAV Research Institute of Beihang University. In 1991, Wang Yingxun entered the UAV Institute after finishing postgraduate education. Since then, Wang has grown from a young engineer to a chief engineer and became a technical expert in Chinese UAV system. He undertook the tasks of four drone models and presided over two national defense pre-research projects; he was awarded the title of Beijing Outstanding Young Engineer and Beijing Economic and Technological Innovation Model. He won the second prize of the General Aviation Science and Technology Progress Award, the second prize of National Defense Science and Technology Progress Award, and the second-class merit of National Defense Science and Technology.

齐俊桐

天津大学教授、一飞智控（天津）科技有限公司董事长

Qi Juntong

Professor of Tianjin University, Chairman of EFY Intelligent Control (Tianjin) Technology Co., Ltd.

一飞智控 efy technology

演讲主题

无人机智能集群控制技术及应用

内容概要

无人机已经在越来越多的军事及民用领域规模化应用。随着工作任务的复杂性以及所处环境的动态不确定性，无人机系统将会向着集群化、自主化和智能化发展。无人机智能集群控制技术将成为新一代无人机发展的重要智能技术，本报告将从集群控制技术的特点、难点、发展趋势、应用前景等几方面进行分析，分享该技术的应用案例。

嘉宾简介

天津大学机器人与自主系统研究所副所长、教授、博士生导师，一飞智控（天津）科技有限公司创始人，天津市第十七届人民代表大会代表。多年来致力于无人机自主控制、集群控制技术研发及应用工作，主持国家 973、863、自然基金重点项目等 40 余项，获中国青年五四奖章、国家“万人计划”科技创业领军人才、国家创新人才推进计划创新创业人才、中国专利优秀奖、辽宁省科技进步一等奖、天津市创新人才推进计划青年科技人才、天津市杰出企业家等奖励。

Topic

Intelligent Swarm Control technology and applications of UAV

Speech Abstract

Drones are already being used in more and more applications of civilian and military affairs.As drone tasks and the operating environment become complex, drone systems will become clustered, autonomous, and intelligent.Intelligent swarm control technology of UAV will become an important intelligent technology for the new generation of UAV. This talk will analyze the characteristics, difficulties, development trends and application prospects of swarm control technology, and share the application cases of this technology.

Speaker Information

Professor, doctoral supervisor, deputy director of the Institute of Robotics and Autonomous Systems, Tianjin University, founder of EFY Intelligent Control (Tianjin) Technology Co., Ltd, representative of the 17th People's Congress in Tianjin. Over the years, Prof. Qi has been devoting his time in the development and application of robot autonomous control and cluster control technologies. He has been in charge of over 40 projects, including Tianjin Natural Science Project, 863 National Hi-Tech Project, 973 National Hi-Tech Project, National Sci-Tech Support Project, etc. He was awarded China "May 4th Youth Medal", Leading Talents in Science and Technology Entrepreneurship under the National "Ten Thousands Talents Program", Innovative and Entrepreneurial Talents of National Innovative Talents Promotion Program, China Patent Excellence Award, First Prize of Liaoning Province Scientific and Technological Progress Award, Young Science and Technology Talents of Tianjin Innovative Talents Promotion Program, and Tianjin Outstanding Entrepreneur Award, etc.

熊逸放

亿航智能集团联合创始人 & 首席营销官

Xiong Yifang

Founder of EHang

演讲主题

未来已来，城市空中交通时代到来

嘉宾简介

亿航智能集团联合创始人 & 首席营销官，亿航天域首席执行官，广州市政协委员，广东省无人机协会副会长，广州市青年互联网发展协会会长，广州市工商联执行委员会常委，2015 福布斯中国 30 位 30 岁以下青年企业家，2016 福布斯亚洲 30 位 30 岁以下青年企业家，2018 胡润百富中国 30 位 X30 岁创业领袖。

2014 年，熊逸放在中国广州与合伙人胡华智先生联合创建了亿航智能，定位于为大众消费者和行业用户提供简易、智能、安全、高效的差异化无人机产品和解决方案。2016 年，熊逸放带领团队在美国拉斯维加斯国际消费类电子产品展览会（CES）上首次公布了全球首款革命性的创新产品——亿航载人级自动驾驶飞行器（AAV），引发全球各界轰动，从此开创并引领了智能空中立体交通这一全球未来万亿级新兴行业的探索与发展。亿航智能被美国商业杂志《快公司》（Fast Company）评选为 2016 年全球最佳创新公司，跻身全球民用无人机行业前三强。

Topic

The Future Has Come; We Are Entering The Era of Urban Air Traffic

Speaker Information

Co-founder & Chief Marketing Officer of EHang Intelligent Group, CEO of EHang Aerospace, Member of CPPCC in Guangzhou, Vice President of Guangdong Drone Association, President of China Qingnian Internet Association in Guangzhou, member of the standing committee of Guangzhou Federation of Industry and Commerce, he was selected into Forbes China 30 young entrepreneurs under the age of 30 in 2015, and Forbes Asia 30 young entrepreneurs under 30 in 2016, and Hurun China Rich list 30 entrepreneurial leaders within age of 30.

In 2014, Xiong Yifang founded EHang with his partner Mr. Hu Huazhi in Guangzhou, China; which is positioned to provide different drones and product solutions with features of simple, intelligence, safety and eifficiency for normal consumers and industrial users. In 2016, Xiong Yifang led his team to announce the world's first revolutionary product——Autonomous Aerial Vehicle at the International Consumer Electronics Show (CES) in Las Vegas, USA. The world has made a sensation, it has created and led the exploration and development of a brand new industry of Intelligent airborne traffic at a trillion-level worldwide. Then, EHang was selected as the world's best innovation company by the US business magazine "Fast Company" and ranked among the top three company within civil drone industry globally.

田刚印

北京理工大学无人飞行自主控制研究所所长、深圳联合飞机科技有限公司董事长

Tian Gangyin

Director of Institute of Unmanned Flight Control of Beijing Institute of Technology
Chairman of Shenzhen United Aircraft Technology Co., Ltd.

演讲主题

无人飞行器自主控制前沿技术

嘉宾简介

田刚印，1981 年出生，2005 年北京理工大学飞行器设计与工程本科毕业，北京理工大学自动控制专业在读博士。正高级工程师，中组部“万人计划”创业领军人才，中关村“高聚工程”创业领军人才。自大学毕业后开始创业，现任北京中航智科技有限公司董事长兼总经理、深圳联合飞机科技有限公司董事长兼总经理。兼任全国工商联科技装备业商会副会长，第十四届北京市工商联副会长，第十三届北京市政协委员。

中央军委装备发展部无人机专家、中央军委科技委无人机专家、中国人民解放军陆军装备部无人机专家，北京理工大学无人飞行自主控制研究所所长，南京航空航天大学中航智无人飞行器自主控制研究所所长。

Topic

The Frontier Technology of UAV Autonomous Control

Speaker Information

Tian Gangyin, born in 1981, graduated from Beijing Institute of Technology in Aircraft Design and Engineering in 2005. He is also a Ph.D. student in the Department of Automatic Control at Beijing Institute of Technology. He is a senior engineer, a leading entrepreneurial talent in the "National special support program for high-level personnel recruitment" of the Central Organization Department, and a leading entrepreneurial talent in Zhongguancun's "high-end leading talent gathering project". He started his business after graduating from university. He is currently the chairman and general manager of Beijing Zhonghangzhi Technology Co., Ltd. and the chairman and general manager of Shenzhen United Aircraft Technology Co., Ltd. He is also the vice president of the Chamber of Commerce and Industry of the National Federation of Industry and Commerce, the vice president of the 14th Beijing Municipal Federation of Industry and Commerce, and the member of the 13th Beijing CPPCC.

The UAV experts of the Ministry of Equipment Development of the Central Military Commission, the Science and Technology Commission of the Central Military Commission and the Army Equipment Department of the People's Liberation Army, the Institute of UAV Autonomous Control of Beijing University of Science and Technology. He is also the director of the Institute of Unmanned Flight Control at Beijing Institute of Technology and the director of the Zhonghangzhi Unmanned Aerial Vehicle Autonomous Control Institute at Nanjing Aerospace University.

高素梅

中国电子信息行业联合会 | 执行秘书长

Gao Sumei

Executive Secretary of China Information Technology Industry Federation

朴宽民

韩国无人机协会主席

Park Kwan Min

President of Korea Drone Association

嘉宾简介

朴宽民先生是韩国无人机协会主席，出版了韩国首个无人机杂志，旨在发展韩国的无人机产业，开展了国内事件管理、技术开发支持、安全飞行应用开发等各种活动。同时他也是国际无人机体育联合会的第一任主席，领导世界无人机运动的发展和扩展。他在美国南加州大学获得城市规划硕士学位，在檀国大学获得同一领域的博士学位。目前，他是檀国大学研究生院房地产与建筑学副教授，并且是韩国土地和住房公司绿色城市委员会的董事会成员。 作为城市规划专家，他根据 Pangyo Alphadom City 和仁川米丹城市发展公司的首席执行官的经验，正在计划一个使用无人机的智能城市。

Speaker Information

Mr. Kwanmin Park established Korea Drone Association. Elected as its president, he published the Korea's first drone magazine, and an application for safe flight management, aiming to expand drone culture regarding safety, and to activate drone industry. He also was elected as the first president of Drone Sports International, leading development and expansion of drone sports in the world. He was awarded a Master's degree in Urban Planning by University of Southern California, USA, and a Ph.D in the same field by Dankook University. Currently, he is an associate professor of Real Estate & Construction at the graduate school of Dankook University and is a board member of Green City Committee at Korea Land & Housing Corporation. As an expert of urban planning, he is planning a smart city using drones based on the experience of being a CEO of Pangyo Alphadom City and Inchon Midan City Development.

野波健藏

自主控制系统实验室有限公司创始人兼董事、日本无人机联盟主席

Kenzo Nonami

Founder and director of Autonomous Control Systems Laboratory, Ltd. Chairman of Japan Drone Consortium

嘉宾简介

野波健藏博士自 1994 年以来一直是千叶大学机械工程系的教授。野波健藏博士于 2008 年到 2013 年期间担任千叶大学的副校长。目前，Nonami 博士是千叶大学的名誉教授，也是名为“自主控制系统实验室有限公司”的创始人、董事，还是包括 300 多家公司的日本无人机协会的主席。他最近的研究兴趣在全自动无人驾驶飞机，即配备 GPS 或 GPS 的环境、使用先进机器人技术和机电一体化的全自动无人驾驶多旋翼直升机和 VTOLs 无人机。

Speaker Information

Dr. Kenzo Nonami has been a full professor in Department of Mechanical Engineering at Chiba University since 1994. Dr. Kenzo Nonami was in charge of Vice President of Chiba University from 2008 to 2013. Right now, Dr. Nonami is an emeritus professor at Chiba University, founder and director of his company called "Autonomous Control Systems Laboratory, Ltd." and a Chairman of Japan Drone Consortium which includes more than 300 companies.

舒振杰

中国航空综合技术研究所副总工程师、研究员

Shu Zhenjie

Deputy Chief Engineer and Research Fellow of AVIC China Aero-Polytechnology Establishment

嘉宾简介

中国航空综合技术研究所副总工程师，研究员；国际无人机系统标准化协会（筹备）执行秘书长，第三届空军标准化技术委员会委员；空军无人机专家组成员、中航工业无人机专家组成员；先后主持《无人机系统分级分类》、《无人机系统名词术语》、《无人机系统研制单位基本条件及评价方法》等 10 余项无人机领域国家标准和行业标准编制，多次获得国防科工委、中航工业科技奖励。

Speaker Information

Mr. Shu was appointed as executive secretary-general of International UAS Standardization Association, also worked as the 3rd Air Force Standardization Technical Committee member, Air Force UAS Working Group member, and AVIC UAS Working Group member. He actively participated in more than 10 UAS national standards and industrial standards drafting work, such as 《Category and Classification of Civil Unmanned Aircraft System》, 《Terminology for Unmanned Aircraft System》, 《General Conditions and Evaluation Methods of UAS Manufacturers》, etc. He has been awarded several national science and technology awards from COSTIND and AVIC.

DRONE WORLD CONGRESS 2019

2019 世界无人机大会

Security Robot Development Innovation Forum

安防机器人发展创新论坛

主办单位

中国安防智能机器人产业联盟
深圳市无人机行业协会

支持单位

深圳市无人机行业协会
北京大学深圳研究院
清华大学深圳研究院
北京航天航空大学深圳研究院
哈工大深圳研究院
中山大学深圳研究院
南京邮电大学深圳研究院

AUTHORIZED BY

China Security Intelligent Robot Industry Alliance
China Shenzhen UAV Industry Association

UNDERTAKEN BY

China Shenzhen UAV Industry Association
Peking University ShenZhen Graduate School
Tsinghua University Graduate School at Shenzhen
Beijing University of Aeronautics and Astronautics Shenzhen Graduate School
Harbin Institute of Technology Shenzhen Graduate School
Shenzhen Research Institute of Sun Yat-sen University
Nanjing University of Posts and Telecommunications Shenzhen Graduate School

安防机器人发展创新论坛 - 议程

6 月 20 日 13:00-17:00 | 深圳会展中心 5 层 玫瑰 3 厅

时 间	主 题	嘉 宾	
13:00-14:00	**嘉宾签到进场**		
	致 辞		
14:00-14:10	主持人介绍重要嘉宾		
14:10-14:15	**胡胜君** 中国安防机器人产业联盟理事长		
14:15-14:20	**陶军生** 公安部警用装备专家库首席专家 / 一级警监		
14:20-14:25	**安特·格利博达** 法国欧洲科学院常务副院长		
	主旨演讲		
14:25-14:45	智能公共交通系统自动驾驶数据集建立与评价体系	**郝 祁** 南科大感知领导小组负责人，南方科技大学副教授 , 恒博机器人感知技术专家	
14:45-15:05	面向可信设计与行驶安全的自动驾驶公交系统研究	**李大川** 南科大感知小组专家，南方科技大学助理教授 , 恒博机器人自动驾驶技术专家	
15:05-15:25	无人机挑战：Pantheon and Colibri 机器人项目	**尼古拉斯·波诺·罗斯赛洛** 布鲁塞尔自由大学和罗马特雷大学联合项目博士生研究员	
15:25-15:45	人工智能无人机的未来	**权熙纯** 韩国电子出版社社长，韩国数字融合机构副主席，韩国汉阳网络大学客座教授，国家认知科学机构秘书长	
15:45-16:05	时代的变革源由机器人联接你我	**胡胜君** 恒博机器人 CEO	
	圆桌会议		
	主题	**人员**	**备注**
16:10-16:40	创新智造 . 智胜未来	主持：胡胜君 人员：院士、郝祁、胡胜君、两位代表企业（共 5 名）	3 轮问题，5 个人，胡胜君坐正中间位置
16:40-16:50	记者提问		
	颁奖 & 授牌仪式		
	主题	**颁奖人**	**获奖人**
16:50-17:00	签署战略合作协议（无人机协会和恒博机器人）	杨金才	胡胜君

Security Robot Development Innovation Forum

Forum Agenda

13:30-17:00, June 20 | 5F,Rose Hall No.3, SZCEC

Time	Topics	Speaker	
13:00-14:00	**Registration**		
	Greeting		
14:00-14:10	Introduction		
14:10-14:15	Guest Speech by **Hu Shengjun**,Chairman of China Security Robot Industry Association		
14:15-14:20	Greeting by **Tao Junsheng**, First Class Commissioner, Chief Expert of Police Equipment Expert Database of the Ministry of Public Security		
14:20-14:25	Greeting by **Ante Glibota**, Executive Vice-president of European Academy of Sciences Arts and Letters (EASAL)		
	Keynote Speech		
14:25-14:45	Intelligent Public Transportation System Automatic Driving Database Establishment and Evaluation System	**Prof.Hao Qi,** Associate Professor at Southern University of Science and Technology, Head of SUSTC Sensing Group, Homborobot Sensing Specialist	
14:45-15:05	Study of a Safe and Reliable Autonomous-Bus-System Design	**Prof.Li Dachuan,** SUSTC Sensing Group Specialist, Assistant Professor at SUSTC, Homborobot Autopilot Specialist	
15:05-15:25	UAV Challenges: Pantheon and Colibri Project	**Nicolas Bono Rossello,** PhD Researcher of Université Libre de Bruxelles and the Università de Roma tre	
15:25-15:45	A.I Drone's Future	**Dr. KWON Heechoon,** Director of Korea Electronic publishing agency Vice Chairman of Korea Digital convergence agency, Visiting Professor of Hanyang Cyber University, Secretary General of National Agency of Cognitive Science	
15:45-16:05	Era Transformation with Human-Robot Connection	**Hu Shengjun,** CEO of Homborobot	
	Round Table		
	Topics	**Host**	
16:10-16:40	Innovation and Intelligence	Hu Shengjun	
16:40-16:50	Q & A		
	Signing Ceremony		
	Topics	**Presenter**	**Prizewinner**
16:50-17:00	Signing of Strategic Cooperation Agreement	Yang Jincai	Hu Shengjun

胡胜君

深圳市恒博智能安防机器人有限公司 CEO

Shengjun Hu

Shenzhen HOMBO intelligent Security Robotics Co., Ltd.

HOMBO 恒博机器人

演讲主题

时代的变革源由机器人联接你我

内容概要

工业 4.0 时代已经到来，恒博机器人作为人工智能和机器人行业的深耕者，面临着无限的机遇与挑战，而机器人不仅是这个时代的服务工具，更是新时代的联接工具，并且在未来机器人将会深入到人们生活的方方面面，为人类生活品质提升带来革命性改变。

嘉宾简介

20 年科技、互联网从业经验；10 年以上的科技公司运营经验；曾任多家上市公司总经理及高管；原全民尚网科技有限公司创始人兼 CEO；原深圳吉之礼实业有限公司总经理；原深圳蓝领移动科技有限公司创始人兼总经理。

Topic

The Source of Change in the Times is that Robots Connect You and Me

Speech Abstract

Industrial 4.0 era has come. Hengbo Robot, as a deep worker in artificial intelligence and robotics industry, is facing unlimited opportunities and challenges. Robot is not only a service tool in this era, but also a connecting tool in the new era. In the future, robots will penetrate into all aspects of people's lives and bring revolutionary changes to the improvement of human life quality.

Speaker Information

20 years'experience in science and technology and Internet; Over 10 Years'Operating Experience of Science and Technology Companies; He has served as general manager and senior manager of many listed companies.Founder and CEO of the former National Shangwang Technology Co., Ltd.Former General Manager of Shenzhen Jizhili Industrial Co., Ltd.Former founder and general manager of Shenzhen Blue-collar Mobile Technology Co., Ltd.

郝祁

南方科技大学副教授

Qi Hao

Associate Professor,
Southern University of
Science and Technology

演讲主题

智能公共交通系统自动驾驶数据集建立与评价体系

内容概要

智能公共交通是自动驾驶技术应用的重要领域，对感知系统设计、数据融合与决策规划技术有着极高的要求。本报告总结了目前南方科技大学、英特尔研究院、海梁科技、深圳巴士集团在共同建立公交自动驾驶感知与决策数据集及相应的性能指标与评价体系方面的最新进展。

嘉宾简介

郝祁博士是南方科大计算机科学与工程系的副教授，系副主任。他是智能感知与无人系统专家，研究领域包括：智能感知、机器学习、与自主无人系统。目前主持南科大海梁智能交通中心、英特尔自动驾驶数据集等项目，多次担任美国国家科学基金与美国能源部项目评委。

Topic

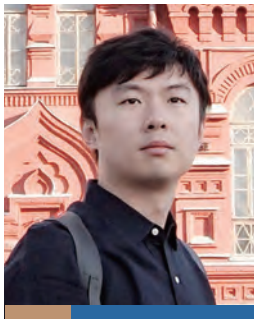
Intelligent Public Transportation System Automatic Driving Database Establishment and Evaluation System

Speech Abstract

Intelligent public transportation is an important aspect of the application of autonomous driving technology, which has extremely high requirements for sensing system design, data fusion and decision planning technology. This report summarizes the latest developments of public transport automatic driving perception and decision database and corresponding performance indicators and evaluation systems co-established by Southern University of Science and Technology, Intel Research Institute, Hailiang Technology and Shenzhen Bus Group.

Speaker Information

Dr. Hao Qi is an associate professor and deputy director of the Department of Computer Science and Engineering at Southern University of Science and Technology. He is an expert in IntelliSense and Unmanned Systems, and his research interests include: IntelliSense, Machine Learning, and Autonomous Unmanned Systems. Currently, he is responsible for projects such as Intelligent Transportation Center Southern University of Science and Technology and Intel Autopilot Database. He has served as a judge of the US National Science Foundation and the US Department of Energy.



李大川

研究助理教授，深圳市智能网联汽车制造业创新中心理事

Dachuan Li

Research Assistant Professor, Council member of Shenzhen Innovation Center for Intelligent & Connected Vehicles

演讲主题

面向设计可信化和安全性的公共交通自动驾驶系统

内容概要

智能公共交通是自动驾驶技术能够产生巨大经济与社会效益的重要领域，对系统设计可信性和运行安全性有着极高的要求。当前公交自动驾驶技术尚缺乏针对系统可信设计的完整机制与评价体系，以及针对系统安全运行的感知、决策与控制等关键技术与验证体系。本报告针对公共交通自动驾驶系统的可信性评估指标和形式化验证、复杂场景的可信化智能感知与态势分析、基于态势理解的主动安全决策与容错控制等方面介绍相关的研究趋势和研究进展。

嘉宾简介

李大川，博士毕业于清华大学自动化系，曾于美国加州大学伯克利分校 (University of California, Berkeley) 担任博士后研究员。主要从事自主无人系统 (自主无人机、自动驾驶汽车等) 的智能决策、运动规划、组合导航与控制等领域的研究。曾作为主要参与人参加国家科技重大专项、航空科学基金、无人机领域产学研专项课题、美国智能交通专项课题等多项重要研究课题，为多个型号的研发提供了技术支持，并担任自主系统、无人机、智能交通等领域重要国际学术期刊和会议审稿人、深圳市智能网联汽车制造业创新中心理事。

Topic

Autonomous Driving Systems for Public Transportation Vehicles Towards Design Trustworthiness and Operation Safety

Speech Abstract

The design trustworthiness and operation safety are key factors of intelligent public transportation systems, and the development of autonomous driving system for buses requires a complete paradigm of trustworthiness evaluation criteria and methods. In addition, safety-guaranteed enabling technologies (i.e. perception, decision-making and decision enforcing) for autonomous driving buses also need comprehensive investigation. This talk provides insights to the trustworthiness design metrics and model-based formal evaluation technology, as well as key enabling technologies of autonomous driving buses towards operation safety and design trustworthiness.

Speaker Information

Dr. Dachuan Li earned his Ph.D. from Tsinghua University. Before joining SUSTech, he worked as a postdoc researcher at University of California, Berkeley. Dr Li's research focuses on the intelligent decision-making, motion planning, state estimation and control of autonomous unmanned systems. Dr Li has actively participated in various major research projects including National Science and Technology Major Project, Aeronautic Science Foundation of China, consortium on unmanned aerial vehicles and intelligent transportation systems projects of the USA.

尼古拉斯·波诺·罗斯塞洛

布鲁塞尔自由大学和罗马特雷大学联合项目博士生研究员

Nicolas Bono Rossello

PhD Researcher of Université Libre de Bruxelles and the Università de Roma tre

演讲主题

无人机挑战：Pantheon and Colibri 机器人项目

内容概要

在这次演讲中，我将介绍两个来自 ULB-SAAS 部门的研究项目，它们与无人机的使用和开发有关。首先，Colibri 项目旨在设计和建造一个蜂鸟大小和形状的扑动双翼机器人。其次，PANTHEON 项目，无人机在榛子果园内移动，收集有关植物健康和水分状况的数据。

嘉宾简介

现在是布吕塞尔自由大学和罗马特雷大学联合项目的博士生。主要研究课题是无人机的路径规划。之前，在瓦伦西亚理工大学获得了工业工程硕士和学士学位，并在私营企业担任了两年的自动化工程师。

Topic

UAV Challenges: Pantheon and Colibri Project

Speech Abstract

In this talk I will introduce two research projects from the ULB-SAAS department, which are related to the use and development of drones. Firstly, the Colibri project which aims at designing and constructing a flapping twin-wing robot of the size and shape of a hummingbird. Secondly, the PANTHEON project, where unmanned aerial robots move within hazelnut orchards to collect data about the plants' health and water status.

Speaker Information

Currently a PhD student part of a joint program between the Université Libre de Bruxelles and the Università de Roma tre. The main subject of his research is the path planning for UAVs. Previously, he got a master and bachelor degree on industrial engineering at the Universidad Politécnica de Valencia and worked for 2 years as a automation engineer in the private sector.

权熙纯

韩国电子出版社社长
韩国数字融合机构副主席
韩国汉阳网络大学客座教授
国家认知科学机构秘书长

Dr. KWON Heechoon

Director of Korea Electronic publishing agency
Vice Chairman of Korea Digital convergence agency
Visiting Professor of Hanyang Cyber University
Secretary General of National Agency of Cognitive Science

演讲主题

人工智能无人机的未来

内容概要

只有具备不需要为此过程付出额外努力的快速处理数据的能力无人机才能为其用户带来更多的价值。 更快，更准确，更易于评估的图像才能获得更好的效果。 结合无人机和人工智能技术似乎是上述挑战的答案。如今，几乎所有处理数据处理，分析或“自主”飞行控制的公司都声称使用人工智能，机器或深度学习。 但这些术语究竟意味着什么呢？ 它们如何相互关联以及这些“条款”适用于何处？

嘉宾简介

权熙纯在水原女子学院获得他的博士学位，并出任数字媒体系教授。在他作为教学的十五年职业生涯之后，权熙纯博士决定出任数字融合机构的副会长。除教学和研究外，Kwon 博士还是国家警察大学的客座教授和警用无人机杂志的定期撰稿人。目前，他在 NACSI 担任秘书长。

Topic

A.I Drone's Future

Speech Abstract

Unmanned aerial vehicles only add value to the user if there are ways to process data quickly and without putting additional efforts into this process. The faster, the more accurate, and the easier the images can be evaluated, the better. Combining drones and artificial intelligence seems to be the answer to the above-mentioned challenges. Nowadays, almost every company that deals with data processing, analytics or ‘autonomous’ flight control and claims the use of artificial intelligence, machine or deep learning. But what do these terms actually mean? How do they relate to each other and where do these “terms” apply? The following text aims to answer exactly these questions.

Speaker Information

Dr. Hee-choon Kwon was a professor of Digital Media Department at the Suwon Woman's College, Suwon. He received his Ph.D. from SKKU and eventually earned his Professor job. After his fifteen-year career as a teaching there, Dr. kwon decided it was time for a change of a Job for Digital Convergence Agency, where he was offered as Vice President. In addition to Teaching and Research, Dr. Kwon is a regular contributor to National Police University as a Visiting Professor and Books Writing of Police Drone and Making Drone with Daddy. He recently collaborated on making manuscript and publishing with friends and colleagues, currently, he is serving as a Secretary General at NACSI.

DRONE WORLD CONGRESS 2019
2019 世界无人机大会

The 7th International Conference of Precision Agricultural Aviation
第七届国际精准农业航空会议

主办单位
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Shandong University of Technology
Shenzhen UAV Industry Association
Shenzhen Hi-tech New Agriculture Technologies Co.,LTD

第七届国际精准农业航空会议 - 议程

6 月 21 日 08:30-18:00 | 深圳会展中心六楼桂花厅

时 间	主 题	嘉 宾
08:30-08:40	**合 影** （深圳会展中心北广场）	
08:40-08:50	**开幕词**	
	第七届国际精准农业航空会议大会主席 兰玉彬院士 致开幕词	
08:50-09:00	**致 辞**	
	华南农业大学校领导致辞 欧洲科学、艺术与人文学院常务副院长 Ante Gilbota 教授致辞	
	大会报告	
主 持	**兰玉彬** 欧洲科学、艺术与人文学院院士	
09:00-09:20	澳大利亚无人机施药应用优化研究	**Andrew Hewitt** 澳大利亚昆士兰大学农药应用与安全中心
09:20-09:40	基于无人机多光谱的巴基斯坦柑橘病害检测评价	**Muhammad Naveed Tahir** 巴基斯坦拉瓦尔品第干旱农业大学
09:40-10:00	澳大利亚农场无人机的使用以及如何从中获益最多	**Fiona Lake** 澳大利亚 Fiona Lake Photogrphy 公司
10:00-10:20	**茶 歇** （深圳会展中心五楼大厅）	
	大会报告	
主 持	**薛新宇** 农业农村部南京农机所植保与环境工程技术中心 **Andrew Hewitt** 澳大利亚昆士兰大学农药应用与安全中心	
10:20-10:40	遥感技术在农业水资源管理中的应用	**张汇慧** 美国联邦农业部科罗拉多州水管理与农业系统研究中心
10:40-11:00	无人机在土耳其的发展概况	**Haydar Ates** 土耳其航空协会大学
11:00-11:20	农业无人机多光谱成像技术的亲民化	**Igno Breukers** 荷兰 DB2 Vision 公司
11:20-11:40	植保无人飞机技术标准研究制定与应用	**薛新宇** 农业农村部南京农机所植保与环境工程技术中心
11:40-12:00	植保无人飞机低容量喷雾雾滴飘移风险评估	**袁会珠** 中国农业科学院植物保护研究所
12:00-13:30	**自助中餐** （深圳会展中心 5 楼）	

	大会报告	
主　持	**袁会珠** 中国农业科学院植物保护研究所 **黄文江** 中国科学院遥感与数字地球研究所	
13:30-13:45	作物病虫害遥感监测与预测	**黄文江** 中国科学院遥感与数字地球研究所
13:45-14:00	发达国家农业农村信息化进展与借鉴	**王应宽** 农业农村部规划设计研究院农业工程科技信息中心
14:00-14:15	静电喷雾及其在无人机植保中的应用	**邱白晶** 江苏大学
14:15-14:30	无人机遥感的研究实例和发展趋势	**岑海燕** 浙江大学
14:30-14:45	植保无人机作业检测验证技术研究	**郑永军** 中国农业大学
14:45-15:00	作物生长及胁迫信息无人机遥感监测技术	**韩文霆** 西北农林科技大学水土保持研究所
15:00-15:15	**茶　歇**　（深圳会展中心五楼大厅）	
	大会报告	
主　持	**邱白晶** 江苏大学 **岑海燕** 浙江大学	
15:15-15:30	无人植保脉冲喷烟机的设计及性能研究	**茹　煜** 南京林业大学
15:30-15:45	富美实公司植保无人机施药应用技术开发及实践	**潘亚飞** 美国富美实（FMC）公司
15:45-16:00	eBee 无人机在国内外精准农业领域的发展与应用	**刘艳红** 瑞士 SenseFly 公司
16:00-16:15	基于非监督贝叶斯学习的无人机数码影像水稻穗分割	**曹英丽** 沈阳农业大学
16:15-16:30	复眼计算视觉系统及其在精准农业航空的应用	**韩宇星** 华南农业大学
16:30-16:45	天然橡胶航空植保新技术与“一带一路”热带农业科技科技创新合作	**黄贵修** 中国热带农业科学院
16:45-18:00	**精准农业航空发展论坛**	
	主　持：兰玉彬 教授 欧洲科学、艺术与人文学院院士 **毛越东** 董事长 深圳高科新农技术有限公司	
18:00-19:30	**自助晚餐**　（深圳会展中心 5 楼）	

6 月 22 日 08:30-13:00 | 深圳会展中心六楼桂花厅

时 间	主 题	嘉 宾
	大会报告	
主 持	**韩文霆** 西北农林科技大学水土保持研究所 **茹 煜** 南京林业大学	
08:30-08:45	农业中的开源者无人机数据系统	**雅尼·希鹿毕尼** 世界无人机联合会，国际无人机开源者联盟
08:45-09:00	航空植保在植保防灾减灾中的应用	**王志国** 安阳全丰航空植保科技股份有限公司
09:00-09:15	无人机在农林业的创新应用	**毛越东** 深圳高科新农技术有限公司
09:15-09:30	农业无人机的未来	**彭 斌** 广州极飞科技有限公司
09:30-09:45	基于 5G 物联技术的智慧农业葡萄园的研究与实现	**伊丽丽** 山东理工大学
09:45-10:00	基于 CFD 的植保无人机喷雾特性仿真分析及实验研究	**朱 航** 吉林大学
10:00-10:15	**茶 歇** （深圳会展中心五楼大厅）	
10:15-10:30	无人机在小麦和水稻杂草控制中的应用	**王美美** 安阳工学院
10:30-10:45	华南农业大学精准农业航空应用技术研究进展	**张亚莉** 华南农业大学
10:45-11:00	基于多模式的群体无人机自然人机交互技术	**李 方** 华南理工大学
11:00-11:15	植保无人机在热带作物的飞防应用	**王 娟** 华南农业大学
11:15-11:30	基于无人机遥感图像的稻田杂草识别研究	**黄华盛** 华南农业大学
11:30-11:45	植保无人机田间评估：喷液量对小麦田沉积及病虫害防效影响	**王国宾** 华南农业大学
11:45-12:00	印度精准农业航空技术研究进展	**Abhishek Dixit** 华南农业大学
12:00-13:00	**自助中餐** （深圳会展中心 5 楼）	

The 7th International Conference of Precision Agricultural Aviation——Forum Agenda

08:30-17:00,June 21 | 6F, Osmanthus Hall, SZCEC

Time	Topics	Speaker
08:30-08:40	**Group Photo** (Group photo, Location: North Square of Shenzhen Convention and Exhibition Center)	
08:40-08:50	**Opening Remarks**	
	Opening remarks from Dr. YubinLan (Chair of the 7th IPAA)	
08:50-09:00	**Welcome Speeches**	
	Welcome Speeches	
	Keynote Speech	
Chair	**Yubin Lan**, Member of European Academy of Sciences Arts and Letters	
09:00-09:20	UAV Spray Application Optimization Research in Australia	**Andrew Hewitt,** University of Queensland, Australia
09:20-09:40	Evaluation of Multispectral UAV for Disease Detection in Kinnow Orchard in Pakistan	**Muhammad Naveed Tahir,** PMAS-Arid Agriculture University Rawalpindi, Pakistan
09:40-10:00	Sorting Fact from Fiction - Australian Farm Drone Use and How to Increase Uptake	**Fiona Lake,** Business Owmer of Fiona Lake Photography, Australia
10:00-10:20	**Tea Break** (5th floor, Shenzhen Convention & Exhibition Center)	
	Keynote Speech	
Chair	**Xinyu Xue,** Nanjing Agricultural Mechanization Institute, Ministry of Agriculture of China **Andrew Hewitt,** University of Queensland, Australia	
10:20-10:40	Remote Sensing for Water Management in Agriculture	**Huihui Zhang,** Research Physical Scientist in the Water Management and Systems Research Unit (WMSRU), USDA-Agricultural Research Service, Colorado
10:40-11:00	UAV Project of Turkey	**Haydar Ates,** University of Turkish Aeronautical Association, Turkey
11:00-11:20	Democratizing UAV Multispectral Imaging for Agriculture	**Igno Breukers,** DB2 Vision, Netherlands
11:20-11:40	Research and Application of Technical Standards for Crop Protection UAS	**Xinyu Xue,** Nanjing Agricultural Mechanization Institute, Ministry of Agriculture of China
11:40-12:00	Risk Assessment of UVA Spray Drift	**Huizhu Yuan,** Institute of Plant Protection, Chinese Academy of Agricultural Sciences, China
12:00-13:30	**Lunch Buffet** (5th floor, Shenzhen Convention & Exhibition Center)	

	Keynote Speech	
Chair	**Huizhu Yuan,** Institute of Plant Protection, Chinese Academy of Agricultural Sciences, China **Wenjiang Huang,** Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences, China	
13:30-13:45	Crop Pest and Disease Monitoring and Forecasting by Remote Sensing	**Wenjiang Huang,** Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences, China
13:45-14:00	Progress in ICT Applied in Agriculture and Rural Areas in Developed Countries and References for China	**Yingkuan Wang,** Chinese Academy of Agricultural Engineering Planning and Design, China
14:00-14:15	Electrostatic Spraying and Its Application to UAV for Crop Protection	**Baijing Qiu,** Jiangsu University, China
14:15-14:30	Research Examples and Trends in UAV Remote Sensing	**Haiyan Cen,** Zhejiang University, China
14:30-14:45	Detection and Verification Technologies of UAVs Operation for Plant Protection	**Yongjun Zheng,** China Agricultural University, China
14:45-15:00	Crop Growth and Stress Information Acquisition by Using UAV Remote Sensing Technology	**Wenting Han,** North West Agriculture and Forestry University, China
15:00-15:15	**Tea Break** (5th floor, Shenzhen Convention & Exhibition Center)	
	Keynote Speech	
Chair	**Baijing Qiu,** Jiangsu University, China **Haiyan Cen,** Zhejiang University, China	
15:15-15:30	Design and Performance of Unmanned Pulse Foggers for Plant Protection	**Yu Ru，** Nanjing Forestry University, China
15:30-15:45	Development and Practice on Pesticide Application with UAVs from FMC	**Yafei Pan,** FMC Corporation, USA
15:45-16:00	Development and Application of eBee Drone in Precision Agriculture at Home and Abroad	**Yanhong Liu,** SenseFly Company, Switzerland
16:00-16:15	Unsupervised Bayesian Learning for Rice Panicle Segmentation with UAV Images	**Yingli Cao,** Shenyang Agricultural University, China
16:15-16:30	Mathematical Matrix Imaging System and its application in precision agricultural aviation	**Yuxing Han,** South China Agricultural University, China
16:30-16:45	Aerial Plant Protection Technology for Natural Rubber and "The Belt and Road" Tropical Agricultural Science and Technology Innovation Cooperation	**Guixiu Huang,** Chinese Academy of Tropical Agricultural Sciences, China
16:45-18:00	**International Precision Agricultural Aviation Forum**	
	Chair: **Yubin Lan,** Member of European Academy of Sciences Arts and Letters **Yuedong Mao,** Shenzhen Hi-tech New Agriculture Technologies Co.,LTD	
18:00-19:30	**Dinner Buffet** (5th floor, Shenzhen Convention & Exhibition Center)	

08:30-13:00,June 22 | 6F, Osmanthus Hall, SZCEC

Time	Topics	Speaker
	Keynote Speech	
Chair	**Wenting Han,** North West Agriculture and Forestry University, China **Yu Ru,** Nanjing Forestry University, China	
08:30-08:45	ArduPilot with UAVCAN in Agriculture	**Jani Hirvinen,** World UAV Federation and ArduPilot
08:45-09:00	The Application of Aerial Plant Protection in Disaster Prevention and Reduction of Plant Protection	**Zhiguo Wang,** Anyang Quanfeng Aviation Plant Protection Technology Co., Ltd., China
09:00-09:15	Innovative Application of Drones in Agroforestry	**Yuedong Mao,** Shenzhen Hi-tech New Agriculture Technologies Co.,LTD
09:15-09:30	The Future of Agricultural UAVs	**Bin Peng,** Guangzhou XAG Technology Co., Ltd., China
09:30-09:45	Research and Implementation of Intelligent Agricultural Vineyard Based on 5G -IOT Technology	**Lili Yi,** Shandong University of Technology，China
09:45-10:00	Performance Characterization of the UAV Chemical Application Based on CFD Simulation	**Hang Zhu,** Jilin University, China
10:00-10:15	**Tea Break**(5th floor, Shenzhen Convention & Exhibition Center)	
10:15-10:30	The Application of UAV in Weed Control for Wheat and Rice	**Meimei Wang,** Anyang Institute of Technology, China
10:30-10:45	PAA Research Development in SCAU	**Yali Zhang,** South China Agricultural University, China
10:45-11:00	Natural Human-Machine Interaction Technology of Swarm UAVs Based on Multi-mode	**Fang Li,** South China University of Technology, China
11:00-11:15	Aerial Spraying Applications in Tropical Crops Based on Plant Protection UAVs	**Juan Wang,** South China Agricultural University, China
11:15-11:30	The Research on Weed Recognition in Rice Fields Using UAV Imagery	**Huasheng Huang,** South China Agricultural University, China
11:30-11:45	Field Evaluation of an UAV Sprayer: Effect of Spray Volume on Deposition and the Control of Pests and Disease in Wheat	**Guobin Wang,** South China Agricultural University, China
11:45-12:00	Precision Agricultural Aviation Technologies in India	**Abhishek Dixit,** South China Agricultural University, China
12:00-13:00	**Lunch Buffet** (5th floor, Shenzhen Convention & Exhibition Center)	

兰玉彬

欧洲科学、艺术与人文学院院士
格鲁吉亚国家科学院外籍院士
国际精准农业航空学会主席

Yubin Lan, Ph.D.

Member of European Academy of Sciences Arts and Letters (EASAL)
Academician of the Georgian National Academy of Science
Chairman of the Society for International Precision Agricultural Aviation.

演讲主题

精准农业航空的现状与未来展望

嘉宾简介

兰玉彬，欧洲科学、艺术与人文学院院士、格鲁吉亚国家科学院外籍院士、国家特聘专家、广东省“珠江人才计划”领军人才、教育部“海外名师”，国家精准农业航空施药技术国际联合研究中心主任和首席科学家，华南农业大学教授和博士生导师，德州农工大学兼职教授和博士生导师，国际精准农业航空学会主席，中国农业工程学会农业航空分会常务副主任委员，国家航空植保科技创新联盟常务副理事长，受聘中国科学技术协会“全国农业航空技术学科首席科学传播专家”。长期从事农业航空应用技术研究，在国际上首倡“精准农业航空”理念和技术路线，并率先开展农业航空遥感和精准航空施药相结合的研究和应用。一直致力于国内外精准农业航空技术的深入研究与产学研合作，现主持包括国家重点研发计划项目等国家和省部级重要项目 11 项。迄今已在《Transactions of the ASABE》等国内外农业工程核心期刊上发表论文 300 余篇，其中 SCI/EI 收录 160 余篇。曾获中国农业工程学会农业航空分会“农业航空发展贡献奖”、“科学中国人（2015）年度人物”、“中国产学研合作促进奖”、中国农村科技杂志“2016 年度影响力人物”、世界无人机大会“全球无人机贡献奖”、世界无人机联合会“中国无人机行业引领推动奖”等。被媒体赞誉为“带领我国农业航空飞上新高度”（科技日报）。现担任《International Journal of Precision Agricultural Aviation》共同主编。

Topic

Current and Future Development of Precision Agricultural Aviation

Speaker Information

Dr. Yubin Lan, the member of European Academy of Sciences Arts and Letters (EASAL), Academician of the Georgian National Academy of Science, a Scientist in precision agriculture, who has long been engaged in precision agricultural research for 30 years, especially in precision agricultural aviation. He first proposed the concept of “precision agricultural aviation” in the world (2005) and took the lead in research work on the combination of agricultural aerial remote sensing and precision aerial spraying in the world. He had served as an Agricultural Engineer in the USDA-ARS and won the “Outstanding Merit Awards” for 8 consecutive years from 2006 to 2013. Appointed as the USA representative for the International Society of Precision Agriculture for his outstanding performance, he has been committed to the development of precision agricultural aviation in the world for many years, and made outstanding contributions to the development of agricultural aviation in USA and the promotion of the world's precision agricultural aviation disciplines, especially the development of agricultural aviation and plant protection UAV in China. Dr. Lan, the Ministry of education “famous overseas teachers”, innovation experts of aerial plant protection and agricultural machinery in China, the Director and the Lead Scientist of the National Center for International Collaboration Research on Precision

Agricultural Aviation Pesticide Spraying Technology, the Director of National 111 Project Precision Agricultural Aviation Application Technology Research Overseas Expertise Introduction Center, the Founder and Chairman of Society for International Precision Agricultural Aviation (SIPAA), International Conference of Precision Agricultural Aviation and CIGR Precision Aerial Application Working Group, the Founder and Co-Editor of International Journal of Precision Agricultural Aviation (IJPAA). Dr. Lan was the recipient of "Young Professional Engineer" award from ASAE TX Section in 1994. Dr. Lan has received the Texas Section Engineer of the Year Award from the ASABE (2012), and the Distinguished Career Award(2013) and Outstanding Contribution Award(2014) from the AOCABFE, the Distinguished Service Award from USDA-ARS-AATRU(2014); Outstanding Contribution Awards of Agricultural Aviation from the Agricultural Aviation Working Branch of the CSAE(2015); Scientific Chinese's Person of the Year; China Industry-University-Research Institute Collaboration Association Development Award; First Global UAV Contribution Award from Drone World Congress(2017); Contribution Awards for Agricultural Aviation Development in China from TISAAA(2018).

安特·格里博达

欧洲科学、艺术与人文学院副院长

Ante Glibota

Vice-Chairman of the European Academy of Sciences Arts and Letters (EASAL)

嘉宾简介

安特·格里博达 (ANTE GLIBOTA)，欧洲科学、艺术与人文学院副院长、经济学家、艺术与建筑历史学家兼作家，于 1945 年 6 月 15 日出生于克罗地亚的斯莱夫诺市，曾在萨格勒布大学和巴黎索邦大学学习。作为 220 多本书籍和目录的作者和出版者，安特献身于当代艺术、建筑和文学，与一些当代重要的艺术家和诗人一起创作了许多限量版的珍本书籍。1978 年，他开始与美国 - 瑞士基金会开放式剧院和巴黎艺术中心合作，该剧院和中心一直活跃于实验电影，戏剧，现代舞和美术领域。 1979 年，他被任命为巴黎艺术中心艺术总监，并于 1982 年 -1994 年担任巴黎艺术中心馆长。1999 年位于纽约的美国政治科学院授予他名誉院士称号。2004 年，位于北京的中国国际文化交流中心 (CICEC) 任命他为国际文化交流顾问，任期五年。自 2010 年至 2016 年，他担任中国上海艺术与城市博物馆副主席兼首席策展人。2019 年，安特·格里博塔被任命为中国深圳世界无人机联合会的名誉主席。

Speaker Information

Ante Glibota, Vice-Chairman of the European Academy of Sciences Arts and Letters (EASAL), economist, art and architectural historian and author, was born in 1945 in Slivno, Croatia and studied at the University of Zagreb and at the Sorbonne University in Paris. As author and publisher of over 220 books and catalogues, devoted to contemporary art, architecture and literature he has created many rare books in limited editions with important contemporary artists and poets. In 1978, he began to work with the American-Swiss Foundation Open End Theatre, and Paris Art Center, which were active in the fields of experimental film, theatre, modern dance, and fine arts. In 1979, he was appointed Artistic Director and later, in 1982, General Director of the Paris Art Center, a position he held until 1994. In 1999, the American Academy of Political Science in New York, appointed him a Titular Member of the Academy. In 2004, the China International Culture Exchange Center (CICEC) in Beijing appointed him for a five-year term as Foreign Counselor for International Cultural Exchanges. Since 2010 until 2016 he serves as Vice-President and Curator-in-Chief of the Museum of Art and Urbanity in Shanghai, China. In Year 2019, Ante Glibota was appointed as Honorary Chairman of the World UAV Federation, Shenzhen, China.

安德鲁·翰威特

澳大利亚昆士兰大学教授、农药应用与安全中心主任

Andrew Hewitt

Professor and Director, Pesticide Application and Safety Center，the University of Queensland, Australia

THE UNIVERSITY OF QUEENSLAND
AUSTRALIA

演讲主题

澳大利亚无人机施药应用优化研究

嘉宾简介

1991 年英国帝国理工学院植物保护系博士毕业，现任澳大利亚昆士兰大学教授、农药应用与安全中心主任，从事施药技术、精准喷洒、数字化技术和飘移管理。2004 年，曾担任农药飘移研究小组项目主管，领导农业航空领域 4000 万美元的研究计划，建立了喷药飘移预测模型，该模型目前已经成为美国、加拿大、澳大利亚、新西兰及其他航空施药国家农药应用技术的标准。从事航空与地面施药技术研究 20 余年，有丰富的教学、科研、指导生产经验。

Topic

UAV Spray Application Research in Australia

Speaker Information

Dr. Hewitt received his PhD from the Department of plant protection of Imperial College London, England, in1991. Dr. Hewitt leads the Centre for Pesticide Application and Safety at The University of Queensland with research into spray application, precision spraying, digital application and drift management. He works in Australia and the US with government and industry. As the project director of the Pesticide Drift Research Group, Dr. Hewitt had led a research project of US$40 million in agricultural aviation in 2004 and established a spray drift prediction model, which has become the standard of pesticide application technology in the United States, Canada, Australia, New Zealand and other countries. Dr. Hewitt has long been engaged in aviation - ground application technology research for more than 20 years and has rich experience in teaching, scientific research and production guidance.

Muhammad Naveed Tahir

巴基斯坦拉瓦尔品第干旱农业大学

PMAS-Arid Agriculture University Rawalpindi，Pakistan

演讲主题

基于无人机多光谱的巴基斯坦柑橘病害检测评价

嘉宾简介

Muhammad Naveed Tahir2012 年博士毕业于中国西北农林科技大学，现为巴基斯坦拉瓦尔品第干旱农业大学农学院助理教授，华南农业大学国家精准农业航空施药技术国际联合研究中心巴基斯坦分中心主任。Muhammad Naveed Tahir 博士长期从事农作物的遥感信息采集和获取技术的研究，主持巴基斯坦国内课题 3 项，发表论文 16 篇，SCI 收录 7 篇。

Topic

Evaluation of Multispectral UAV for Disease Detection in Kinnow Orchard in Pakistan

Speaker Information

Dr. Muhammad Naveed Tahir graduated from Northwest A&F University of China in 2012 with a Ph.D. degree. He is currently an assistant professor at PMAS-Arid Agriculture University Rawalpindi in Pakistan, and the director of the Pakistan collaborative center of the National Center for International Collaboration Research on Precision Agricultural Aviation Pesticide Spraying Technology based at South China Agricultural University. Dr. Muhammad Naveed Tahir has long been engaged in research on remote sensing information collection and acquisition techniques for crops and fruits. He has hosted 3 domestic projects in Pakistan, and published 16 papers with 7 SCI indexed papers.

菲奥纳·莱克

澳大利亚 Fiona Lake Photogrphy 公司

Fiona Lake

Business Owner of Fiona Lake Photography, Australia

演讲主题

澳大利亚农场无人机的使用以及如何从中获益最多

内容概要

菲奥纳莱克将概述澳大利亚的农业，从温带到热带地区。 菲奥纳将解释澳大利亚农业所面临的的独特的挑战，目前无人机应用的方向，需要克服的问题以及有关如何增加无人机在农场和养牛场使用的创新想法。

嘉宾简介

菲奥纳 莱克拥有超过三十年的专业农业摄影经验，是澳大利亚最知名的内陆摄影师之一，她的活跃在多个领域，包括书籍出版，展览和农场旅游以及商业摄影等。 只有 2%的获得澳大利亚完全许可的无人机飞行员是女性，而菲奥娜就是其中之一。 她在澳大利亚各地举办无人机研讨会，在过去的 6 个月里，她在阿姆斯特丹，悉尼和拉斯维加斯的会议上进行了演讲，她的作品曾获得无数奖项。

Topic

Sorting Fact from Fiction - Australian Farm Drone Use and How to Increase Uptake

Speech Abstract

Fiona Lake will provide an overview of agriculture in Australia, from temperate to tropical regions. Fiona will explain unique challenges, what drones are currently being used for, problems to be overcome plus innovative ideas regarding how to increase the use of drones on farms and cattle stations.

Speaker Information

Fiona Lake has more than thirty years of professional agricultural photography experience and has become Australia's most well-known outback photographer. Her multi-strand entrepreneurial business includes books, exhibitions and farm tours as well as commercial photography. Only 2% of Australia's fully licensed drone pilots are women and Fiona is one of them. She runs drone workshops across Australia and over the last 6 months she has presented sessions at conference in Amsterdam, Sydney and Las Vegas. Fiona's work has won many awards and in 2018 Chicago-based 'Women and Drones' named her as a 'Woman to Watch in UAS', along with nine other women from seven different countries.

薛新宇

农业部南京农机所植保与环境工程技术中心

Xinyu Xue

Nanjing Agricultural Mechanization Institute, Ministry of Agriculture of China

演讲主题

植保无人飞机技术标准研究制定与应用

嘉宾简介

薛新宇，博士，研究员，博士生导师，美国农业部和德州农工大学访问教授，现任农业农村部南京农业机械化研究所植保与环境工程技术研究中心主任，中国农业科学院植保机械创新团队首席科学家，国家油菜产业技术体系岗位专家，国家重点研发计划项目首席科学家，“江苏省五一劳动奖章”获得者，先后主持国家重点研发计划、国家 863 计划、农业公益性行业科技、农业国际合作等重大科技项目 10 余项，获中华农业科技奖、江苏省科学技术奖等省部级科技奖励 16 项，出版专著 2 部，发表学术论文 100 余篇，获发明专利 32 件，其中“基于 GPS 导航的无人机施药 作业自动控制系统及方法”和“基于模型的直升机航空施药飘移预测方法”荣获国家 专利优秀奖，制定了我国首部植保无人飞机农业行业标准。兼任中美施药技术联合实验室主任（中方）、国际农业工程学会（CIGR）精准农业航空工作委员会副主任、中国农业工程学会农业航空分会秘书长、中国农机工业协会植保与清洗机械分会秘书长、全国农机化科技创新专家组田间管理机械化专业组副组长、国家航空植保科技创新联 盟副理事长等。主要研究方向为植保机械工程技术和航空施药技术。

Topic

Research and Application of Technical Standards for Crop Protection UAS

Speaker Information

Dr. Xue, is the Professor and Doctoral Supervisor of Nanjing Research Institute for Agricultural Mechanization, Ministry of Agriculture and Rural Affairs (NRIAM), the Visiting Professor of the USDA and Texas A&M University, the Director of the Plant Protection and Environmental Engineering Technology Research Center of the NRIAM, the Chief Scientist of the Plant Protection Machinery Innovation Team of the Chinese Academy of Agricultural Sciences, the Post Scientist of China modern rape agriculture research system, the Chief Scientist of the National.Key Technology R&D Program, and the winner of the “May 1 Labor Medal of Jiangsu Province”. Dr. Xue has presided more than 10 major scientific and technological projects including the National Key Technology R&D Program and the National High Technology Research and Development Program of China (863 Program) etc. She has won 16 provincial and ministerial-level science and technology awards including the China Agricultural Science and Technology Award, the Science and Technology Award of Jiangsu Province etc. She has published 2 monographs and more than 100 academic papers. Dr. Xue has obtained 32 authorized national invention patents, among which two patents won the National Patent Excellence Award. She has formulated the first agricultural standard of China for crop protection UAS.Dr. Xue' s main research interests include the plant protection machinery engineering technology and the aviation application technology.

张汇慧

美国联邦农业部科罗拉多州水管理与农业系统研究中心

Huihui Zhang

Research Physical Scientist in the Water Management and Systems Research Unit (WMSRU), USDA-Agricultural Research Service, Colorado USA

演讲主题

遥感技术在农业水资源管理中的应用

嘉宾简介

张汇慧博士毕业于美国德克萨斯 A&M 大学生物与农业工程系。现任美国联邦农业部科罗拉多州水管理与农业系统研究中心高级工程师，美国科罗拉多州州立大学土木与环境工程系兼职教授，中国西北农林科技大学水建学院客座教授。主要从事农业航空，遥感技术（载人及无人飞机，卫星）在农业生产及水管理方面的研究。张汇慧博士担任国际精准农业航空学报，灌溉科学，MDPI 农艺学等学术期刊的编委。 现任美国农学会，作物科学学会和土壤科学学会，ET 测量与模型 , 及生物物理测量和传感器社区主席。

Topic

Remote Sensing for Water Management in Agriculture

Speaker Information

Dr. Huihui Zhang received her Ph.D. degree in Biological and Agricultural Engineering from Texas A&M University. She is currently a Research Physical Scientist in the Water Management and Systems Research Unit (WMSRU), USDA-Agricultural Research Service, Colorado. Her research program at the WMSRU focuses on developing methods for agricultural water management, limited irrigation management, estimation of crop water status and crop water use, and improving crop water productivity using remote sensing technologies. Dr. Zhang is an associate editor for Irrigation Science Journal, MDPI Agronomy Journal, and International Journal of Precision Agricultural Aviation. She is an associate faculty member in Civil and Environmental Engineering at Colorado State University, and College of Water Resources and Architectural Engineering at Northwest A&F University in China. She is the current chair of ET Measurements and Modeling Community and Biophysical and Sensor Measurement Community at the American Society of Agronomy, the Crop Science Society of America, and the Soil Science Society of America.

海达尔·艾茨

土耳其航空航天协会大学终身发展研究部主任
世界无人机联合会土耳其分会会长

Haydar Ates

faculty member of University of Turkish Aeronautical Association, first and unique university of Turkey on aviation and space sciences

演讲主题

无人机在土耳其的发展概况

内容概要

自 2005 年以来，无人机项目已在土耳其开始实施。大约有 300 家公司生产不同级别的无人机。其中一个已达到 2000 英尺的最高飞行水平。 目前大约有 21,000 名无人机飞行员，很快将达到 36,000 名。

嘉宾简介

海达尔博士来自土耳其安卡拉，现为土耳其航空协会大学（土耳其第一所独特的航空航天科学大学）管理专业教员。他拥有四个不同专业领域的硕士学位，在土耳其安卡拉的哈斯特帕大学获得博士学位。海达尔博士在文学方面很有造诣，曾在土耳其出版很多书籍，也参与过美国和瑞士两国的书籍章节撰写，他的文章也经常在国际领域发表出版。海达尔博士曾在土耳其军队担任过军官，之后以上校的身份退休。在其在任期间，他曾在世界各地冲突多发地区负责指挥过国内外的部队与组织，如担任巴勒斯坦西岸的国际部队指挥官、北约国际安全援助部队阿富汗的中部军区司令等。

Topic

UAV Project of Turkey

Speech Abstract

UAV Project has begun in Turkey since 2005. There are about 300 companies produce different level of UAVs. There are 3 kinds of UAVs (arrived) right now. One of them has reached 2,000 feet ceiling level. There are about 21,000 UAV pilots right now and will reach 36,000 soon.

Speaker Information

Asst. Prof. Dr. Haydar ATEŞ, PhD, is from Ankara, Turkey. He is the faculty member of University of Turkish Aeronautical Association, first and unique university of Turkey on aviation and space sciences. His major is management. He has 4 master degrees from different areas. His PhD is from Hacettepe University, Ankara, Turkey. He has lots of books in Turkey, book chapters in USA and Switzerland, and articles published in international area. Dr. Haydar ATEŞ also served in Turkish Army as an officer and retired as Colonel. During his career he commanded national and multinational troops and organizations in conflict areas around the world, such as Multinational Force Commander in West Bank, Palestine, NATO ISAF（International Security Assistance Force）Central Commander in Afghanistan etc.

伊格诺·布鲁克斯

执行董事、联合创始人

Igno Breukers

Executive Director / Co-Founder

演讲主题

农业无人机多光谱成像技术的亲民化

内容概要

随着全球人口以每年 7000 万人的速度增长，世界可耕地已达到极限，对精准农业的需求比以往任何时候都更加迫切。农业用途商用无人机的出现对加速各种技术的可用性产生了重大影响，从而实现更有效、更环保的健康作物生长方法。为了真正产生可持续的全球影响，使现有技术民主化不仅是可取的，而且是绝对必要的。通过在多光谱作物传感中以前所未有的可负担得起的价格水平引入一种非压缩的创新方法，DB2 Vision 期待有一天能够成为采取正确步骤实现这一目标的公司之一。

嘉宾简介

Igno Breukers 于 1999 年毕业，毕业于荷兰格罗宁根大学地理信息系统系的空间科学硕士学位。他在传感器技术方面的经验始于 10 多年前，2010 年便开始参与成像技术制造的战略管理。2014 年担任 Quest Group 首席商务官，他充分融入最先进的（无人机）多光谱和高光谱成像应用，并结合其地理信息系统方面的背景，建立了真正专用于植物健康与作物分析的专业多光谱成像应用，因此与 2 个合伙人成立了 DB2 Vision，并引入了 LaQuinta 多光谱作物传感器——世界上功能最齐全、成本最低的专业精密 AG 相机。

Topic

Democratizing UAV Multispectral Imaging for Agriculture

Speech Abstract

With the growth of global population by 70 million people annually and a world maxed out on arable land, the need for precision agricilture is greater than ever; the emergence of commercial drones for farming purposes has had a great impact on speeding up the usability of all kinds of technology to achieve more effective and eco-friendly methods of healthy crop growth. In order to truly have a sustainable global impact, democratizing available technology is not just desirable, but downright necessary; By introducing an uncompromizing innovative method in multispectral crop sensing at an unprecedented affordable price-level, DB2 Vision aims to be one of the companies taking the right steps towards achieving that goal.

Speaker Information

Igno Breukers graduated in 1999 with a Master’s Degree in Spatial Sciences with specialization in GIS from the University of Groningen in the Netherlands. His experience in Sensor technology started over 10 years ago and his involvement in Strategic Management in Imaging Technology Manufacturing since 2010. In 2014, by taking on the role as Chief Commercial Officer of Quest Group, his full immersion into state of the art (UAV) multispectral and hyperspectral imaging applications combined with a GIS background he built on developing a true dedicated professional multispectral imaging application for vegetation health and crop analysis. This lead to the establishment of DB2 Vision with 2 partners and the introduction of the LaQuinta Multispectral Cropsensor as the worlds most fully featured, yet lowest cost professional Precision AG camera

袁会珠

中国农业科学院植物保护研究所

Huizhu Yuan

Institute of Plant Protection, Chinese Academy of Agricultural Sciences, China

演讲主题

植保无人飞机低容量喷雾雾滴飘移风险评估

嘉宾简介

袁会珠，农药学专家，现任中国农业科学院植物保护研究所研究员、博士生导师，农药减量领域专家，国际精准农业航空学会（SIPAA）创始成员。农业农村部农药研制与施药技术重点实验室学术委员会主任。

Topic

Risk Assessment of UVA Spray Drift

Speaker Information

Huizhu Yuan, a professor and doctoral supervisor of the Institute of Plant Protection, Chinese Academy of Agricultural Sciences. He is an expert in Pesticide Application Technology, a founding member of Society for International Precision Agricultural Aviation (SIPAA), and the director of the academic committee of the key laboratory of pesticide research and application technology of the Ministry of Agriculture and Rural Affairs of the People' s Republic of China.

黄文江

中国科学院遥感与数字地球研究所

Wenjiang Huang

Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences, China

演讲主题

作物病虫害遥感监测与预测

嘉宾简介

黄文江，博士，中国科学院空天信息研究院（中国科学院遥感与数字地球研究所）研究员、博士生导师，任国际“中英作物病虫害测报与防控联合实验室”主任和“中国科学院数字地球重点实验室”执行主任。入选国家“万人计划”科技创新领军人才、国家中青年科技创新领军人才、中国科学院百人计划（终期评估优秀）、新世纪百千万人才工程、科技新星等人才计划，海南省委联系服务重点专家、海南省高层次人才、享受国务院特殊津贴。主要从事植被定量遥感机理与应用研究，先后主持 30 多项国家和部委级科研项目（包括科技部国家重点研发计划课题、国家 863 项目，中国科学院先导专项课题、国际合作重点项目，国家自然科学基金、公益性行业（农业）科技专项等）。发表 SCI 收录论文 200 余篇，主编专著《作物理化参数遥感定量反演》、《作物病虫害遥感监测与预测》、《作物病害遥感监测机理与应用》等 7 部；授权国家发明专利 31 项，软件著作权 10 项。研究成果获国家科技进步二等奖、神农中华农业科技一等奖、测绘科技进步一等奖、中国科学院杰出科技成就奖等奖励 10 余项。率先提出农作物养分垂直分布遥感反演模型，实现了作物营养早期无损诊断；率先构建了作物病虫害遥感监测、预测、损失评估技术体系，国际上研发了唯一业务化运行的大尺度作物病虫害遥感监测和预测预报系统，第一完成人在国际上首次发布了全球作物病虫害遥感监测报告，第一完成人的相关科学报告被中央办公厅和国务院办公厅采纳 12 次。

Topic

Crop Pest and Disease Monitoring and Forecasting by Remote Sensing

Speaker Information

Professor Wenjiang Huang is a research professor at the Remote Sensing and Digital Earth (RADI), Chinese Academy of Sciences (CAS). He received his PhD degree in Physical Geography from Beijing Normal University in 2005. He is the executive director of Key Laboratory of Digital Earth Science, CAS. He has published more than 200 papers on journals, such as IEEE Transactions on Geoscience and Remote Sensing, International Journal of Remote Sensing, Precision Agriculture, Journal of Applied Remote Sensing, IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing. He has got more than 20 grants from National 973 program, National 863 Plan, NSFC, etc. and made outstanding contributions to “Natural Science Research” of China and received special government allowance from the State Council in 2006. In addition, he got the Outstanding Technical Achievement award of Chinese Academy of Science in 2016, the Second Prize of State Scientific and Technological Progress award from the State Council of China in 2010 and 2018, the Third Prize of Agricultural Science and Technology Award from the Ministry of Agriculture of China in 2009. He is a committee of IFIP TC5 Special Interest Group on Advanced Information Technology in Agriculture (AIPA), council member of Soil Science Society of China, Agricultural Product Quality and Safety Society of Beijing, and he also is a member of Chinese Society of Space Research, IEEE Geoscience and Remote Sensing Society. His research interests cover monitoring crop pests and diseases using air- and space-borne remote sensing images; quantitative and hyperspectral remote sensing for vegetation especially on crops; data fusion (multi-scale, multi-sensor, multi-temporal) for agricultural applications.

王应宽

农业农村部规划设计研究院农业工程科技信息中心

Yingkuan Wang

Chinese Academy of Agricultural Engineering Planning and Design, China

演讲主题

发达国家农业农村信息化进展与借鉴

内容概要

报告首先简要介绍了全球农业信息的概况，然后分享了在美国，德国，法国，英国，荷兰，澳大利亚，日本，韩国等一些发达国家农业和农村地区应用的信息和通信技术的进展情况，最后提出了中国采取措施和行动促进中国数字农业和智能农业的参考和启示。

嘉宾简介

王应宽，北京大学编辑出版学博士，编审，现任农业农村部规划设计研究院研究员、处长、博士后导师。任《国际农业与生物工程学报 (IJABE)》(IF1.267) 主编、《农业工程学报》副主编和《农业工程技术》社长兼总编，一直从事科技期刊编辑出版、国际交流、科研与管理。曾任国际期刊 CIGR Journal 主编、IAEJ 执行主编。兼任 4 个国际学术组织委员、2 个全国性学会理事和 8 刊编委，赴美国明尼苏达大学高访 1 年，出访近 30 个国家，作特邀报告 60 多次 (英文报告 30 多次)，作科技论文撰写讲座报告 180 多场次，担任评委参加研究生学位论文答辩会 50 多场次，为农业部、商务部援外培训英文授课 30 多次。主持或参加国家科研项目近 30 项，累计发表论文 110 多篇 (SCI/EI 收录 30 余篇)，出版专著 1 部、译著 1 部，合著 8 部。担任中国农业大学、江苏大学、福建农林大学兼职教授。

Topic

Progress in ICT Applied in Agriculture and Rural Areas in Developed Countries and References for China

Speech Abstract

The invited speaker presented in three parts: First, general situation of agricultural information worldwide is briefly introduced; second, the speaker shared the progress in information and communication technologies applied in agriculture and rural areas in some developed countries including USA, Germany, France, UK, Holland, Australia, Japan, Republic of Korea; Third, some references and inspirations are put forward for China to take measures and action in promoting digital agriculture and smart agriculture in China.

Speaker Information

Dr. Prof. Wang Yingkuan is a research Professor and Director of Agricultural Engineering Information Center of Chinese Academy of Agricultural Engineering. Dr. Wang is also the Vice Secretary General of Chinese Society of Agricultural Engineering. Dr. Wang has launched an Open access journal, International Journal of Agricultural and Biological Engineering(IJABE, www.ijabe.org),which has been covered by over 30 indexing systems including SCI with JIF of 1.267. And he has been serving as the editor-in-chief of IJABE. Dr. Wang has been appointed as adjunct professors of China Agricultural University, Jiangsu University and Fujian Agriculture & Forestry University, serving as editorial board members of eight prestigious journals including three English journals.

邱白晶

农业农村部植保工程重点实验室主任

Baijing Qiu

Director of the Key Laboratory of Plant Protection Engineering, Ministry of Agriculture and Rural Affairs, China

演讲主题

静电喷雾及其在无人机植保中的应用

嘉宾简介

男，博士，教授，博士生导师。农业农村部植保工程重点实验室主任，“现代农业装备与技术”教育部重点实验室精确喷施技术与装备研究方向学科带头人，江苏大学农业工程学科方向负责人，全国农业航空产业技术创新战略联盟专家技术委员会委员，“十三五”国家重点研发计划首批试点专项课题负责人。1995 年被评为机械工业部首批跨世纪学术骨干，1998 年被评为江苏省普通高校优秀青年骨干教师，四次荣获省部级科技进步奖励。主要从事精确植保施药技术和农业装备信息化的研究，先后主持了国家和省部级课题 20 余项，发表论文 80 余篇，其中 EI/SCI 检索论文 68 篇。近 5 年来承担的国家和省部级科技项目 9 项。目前主要从事农业工程、机械工程及相关专业。专业从事高效、精准植保装备和技术、农业机械系统动力学和现代测控技术。

Topic

Electrostatic Spraying and Its Application to UAV for Crop Protection

Speaker Information

Director of the Key Laboratory of Plant Protection Engineering, Ministry of Agriculture and Rural Affairs.Academic Leader of Precision Spraying Technology and Equipment Research, "Modern Agricultural Equipment and Technology" Key Laboratory of Ministry of Education.Head of Agricultural Engineering Discipline, UJS.Member of National Standardization Committee of Plant Protection Machinery.Member of the Expert Technical Committee of the National Agricultural Aviation Industry Technology Innovation Strategic Alliance.

QIU Baijing received his B.S. degree in design and manufacture of agricultural machinery in 1982 and obtained a M.S. degree in 1985 and Ph.D. degree in 1992 in Agricultural machinery manufacturing from Jiangsu Institute of Technology, Zhenjiang, China. From 1982 to present, he has been working in Jiangsu University and now he is a professor and a doctoral supervisor at the Institute of Agricultural Engineering, Jiangsu University.In 1995, QIU Baijing was awarded the first batch of cross-century academic backbone of the Ministry of Machinery Industry. In 1998, he was awarded the outstanding young backbone teacher of Jiangsu Province, and won the provincial and ministerial awards for scientific and technological progress four times.

Prof. QIU is mainly engaged in the research of precision plant protection application technology and agricultural equipment informationization. He has presided over more than 20 national and provincial projects and published more than 100 papers, among which 68 are EI/SCI index papers. In the last 5 years, 9 science and technology projects at the national and provincial level have been undertaken. He currently engaged in agricultural engineering, mechanical engineering and its related major, specializing in high-efficiency and precise crop protection equipment and technology, agricultural machinery system dynamics and modern measurement and control technology.

岑海燕

浙江大学

Haiyan Cen

Zhejiang University, China

演讲主题

无人机遥感的研究实例和发展趋势

嘉宾简介

岑海燕，浙江大学生物系统工程与食品科学学院研究员，副系主任，博士生导师，第十一批国家“青年千人计划”入选者，浙江省特聘专家，浙江省 151 人才工程第二层次，浙江大学百人计划引进人才。主要从事农作物光学成像与智能传感技术及装备、高通量植物表型技术、无人机低空遥感、作物组织光学等方面的研究。目前已在农业、光学工程、分析化学领域的国际著名学术期刊和会议共发表 SCI/EI 论文 60 余篇，参编学术著作 5 部，授权专利 13 项。荣获 2017 年科技部重点领域创新团队、第十届大北农科技奖、美国农业与生物工程师协会（ASABE）年会优秀论文奖和杰出科研奖等。担任农业工程权威期刊 Transactions of the ASABE、Information Processing in Agriculture 副主编、浙江大学学报（农业与生命科学版）编委以及多个国际学术期刊审稿人。美国农业生物工程师学会（ASABE）机器视觉专业委员会主席、海外华人农业、生物与食品工程师协会（AOCABFE）Board Member，中国农业生物技术学会表型组学专业委员会委员、浙江省农机学会理事、ASABE 会员、美国光学学会（OSA）会员、中国人工智能学会会员。

Topic

Research Examples and Trends in UAV Remote Sensing

Speaker Information

Researcher, Department of Biosystem Engineering and Food Science, Zhejiang University, deputy department head, doctoral tutor, eleventh national “Young Thousand Talents Program”, Zhejiang Specially Appointed Expert, Zhejiang Province 151 Talent Project Second Level, Zhejiang University 100 Plan to introduce talents. Mainly engaged in crop optical imaging and intelligent sensing technology and equipment, high-throughput plant phenotype technology, low-altitude remote sensing of UAV, crop tissue optics and other aspects of research. At present, more than 60 SCI/EI papers have been published in internationally renowned academic journals and conferences in the fields of agriculture, optical engineering and analytical chemistry. Five academic books have been edited and 13 patents have been granted. Won the 2017 Innovation Team of Key Fields of the Ministry of Science and Technology, the 10th Dabei Agricultural Science and Technology Award, the American Association of Agricultural and Biological Engineers (ASABE) Annual Conference Outstanding Paper Award and Outstanding Research Award, etc. She is the editor-in-chief of the Agricultural Engineering Authorities of the ASABE, the Deputy Editor-in-Chief of Information Processing in Agriculture, the editorial board of the Journal of Zhejiang University (Agriculture and Life Sciences), and the reviewers of several international academic journals. Chairman of the American Society of Agricultural Bioengineering (ASABE) Machine Vision Professional Committee, Overseas Chinese Association of Agricultural, Biological and Food Engineers (AOCABFE) Board Member, member of the Chinese Agricultural Biotechnology Society Phenotypic Group Committee, Zhejiang Agricultural Machinery Society Director, ASABE Member, Member of the American Optical Society (OSA) and member of the Chinese Artificial Intelligence Society.

郑永军

中国农业大学工学院教授，博士生导师

Yongjun Zheng

Professor，College of Engineering, China Agricultural University (CAU), China

演讲主题

植保无人机作业检测验证技术研究

嘉宾简介

郑永军，中国农业大学工学院教授，博士生导师。主要从事农业装备智能测控、无人机应用与农业数据分析系统科研工作，主持国家级、省部级科研项目 10 项，发表 SCI、EI 检索收录论文 47 篇，获得发明专利 3 项。

Topic

Detection and Verification Technologies of UAVs Operation for Plant Protection

Speaker Information

Yongjun Zheng, Professor, College of Engineering, China Agricultural University (CAU). Research in Mechatronic, Precision Agriculture and Engineering, UAV application in agriculture and Agricultural Data Mining and Analysis, have 47 papers published.

韩文霆

西北农林科技大学

Wenting Han

North West Agriculture and Forestry University, China

演讲主题

作物生长及胁迫信息无人机遥感监测技术

嘉宾简介

基于无人机多光谱的巴基斯坦柑橘病害检测评价

Topic

Crop Growth and Stress Information Acquisition by Using UAV Remote Sensing Technology

Speaker Information

Dr. Wenting Han got his Ph.D. degree from Department of Electrical and Mechanical Engineering, Northwest Agricultural and Forest University, China in 2003. He is now a professor and associate dean of the Institute of Water Saving Agriculture in Arid Regions of China, the Northwest Agriculture and Forest University. He is also a research fellow in the National Water Saving Irrigation Engineering and Technology Research Center at Yangling. His research focuses primarily on the development and application of informational technologies for understanding agricultural system processes and improving irrigation water management. Developing UAVs and strategies for UAV remote sensing data collection and algorithms for remote sensing image processing are key components of his research. He was accepted as the 2012 New Century Talent by the Ministry of Education, China; He is now the deputy dean of the State Laboratory of Crop High-efficient Water use in Arid Areas, deputy director of the technology committee in Guangdong Provincial Research Center of UAV Remote Sensing Engineering for Agriculture Information and the vice dean of the Shaanxi Key Laboratory of Agriculture Information Sensing and Intelligent Service. In 2017, under his guidance, his graduate students' design "Fixed-wing UAV Pre-flight Automatic Testing Device" won the first prize in the 4th Shaanxi graduate student electronic design contest and the 12th National graduate student electronic design contest in the Northwest Division of China. He has published 150 referred journal papers and holds 19 Chinese patents. He has successfully completed the supervision of 15 ME projects and currently supervising 13ME projects.

茹煜

南京林业大学

Yu Ru

Nanjing Forestry University, China

演讲主题

无人植保脉冲喷烟机的设计及性能研究

嘉宾简介

南京林业大学教授，博士生导师。兼任中国林学会林业机械分会会员、中国农业机械协会农业机械化分会委员，入选江苏省“333 工程”，“六大人才高峰”、“青蓝工程”优秀教学团队带头人等高层次人才培养对象；主持国家、省部级科研项目 20 多项。作为主要完成人获得国家科技进步二等奖 1 项，国家教学成果二等奖 1 项，教育部高等学校科技进步二等奖 2 项，江苏省科学技术二等奖 1 项，梁希林业科学进步奖 2 项，授权国家发明专利 9 件，在国内外核心期刊发表学术论文 40 余篇。研究方向主要有：农林航空植保技术与装备、农药精准使用技术、静电及超低量喷雾技术与装备。

Topic

Design and Performance of Unmanned Pulse Foggers for Plant Protection

Speaker Information

Professor and doctoral tutor of Nanjing Forestry University. A member of the Forestry Machinery branch of China Forest Society and a member of the Agricultural Mechanization branch of China Agricultural Machinery Association. She was selected as high-level personnel training objects such as the "333 project" of Jiangsu Province, "Six talents Peak", "Qinglan Project" excellent teaching team leader. She presided over more than 20 scientific research projects form the nation and province. As the main completed, She won the Second Prize of the national scientific and technological progress, the second prize of the National Teaching Results, the Second prize of the Ministry of Education Science and Technology Progress, the Second Prize Jiangsu Province Science and Technology, two Second Prize of Liang XI Forestry Science Progress Award. She authorized 9 the National Invention Patent, published more than 40 academic papers. The main research interests include Agroforestry aviation plant protection technology, pesticide precision use technology, electrostatic and ultra-low-volume spray technology and equipment.

潘亚飞

富美实公司中国研发总监

Yafei Pan

R&D Head of FMC China

演讲主题

富美实公司在植保无人机施药应用技术上的开发及实践

嘉宾简介

博士，富美实公司中国研发总监，毕业于华中农业大学，获理学博士学位。1996年加入杜邦公司，先后从事产品开发，市场策划及亚太区项目管理黑带等工作，2017年加入 FMC 负责中国区研发工作。

Topic

Development and Practice on Pesticide Application with UAVs from FMC

Speaker Information

Ph.D, R&D Head of FMC China. Graduated from Huazhong Agriculture University with Ph D of Science. Joined DuPont in 1996 with experience in R&D, Marketing and Six Sigma Black Belt for Project Management in Asia Pacific. Joined FMC in 2017 and take the responsibility for China R&D.

刘艳红

瑞士 senseFly SA 公司

Yanhong Liu

SenseFly Company, Switzerland

演讲主题

eBee 无人机在国内外精准农业领域的发展与应用

嘉宾简介

2006 年毕业于中央民族大学，2012.01 —2017.08 任大佥国际公司，联合创始人；2017.08 至今任瑞士 senseFly SA 公司区域负责人。

Topic

Development and Application of eBee Drone in Precision Agriculture at Home and Abroad

Speaker Information

Graduated from the Central University for Nationalities in 2006; 01/2012—08/2017: acted as Co-founder of Dacosmo CO., LTD; 08/2017-today:Regional Manager of senseFly SA for CHINA, KOREA & MONGOLIA

曹英丽

沈阳农业大学

Yingli Cao

Shenyang Agricultural University, China

演讲主题

基于非监督贝叶斯学习的无人机数码影像水稻穗分割

嘉宾简介

曹英丽，2001 年于大连水产学院获得电子工程学士学位、分别于 2004 年和 2010 年于沈阳农业大学获得农业电气化与自动化硕士学位和博士学位。现任沈阳农业大学信息与电气工程学院副教授，主要研究方向为农业信息分析与处理，包括农业信息感知与处理、作物表型信息无人机遥感解析、统计数据分析等。

Topic

Unsupervised Bayesian Learning for Rice Panicle Segmentation with UAV Images

Speaker Information

Yingli Cao received the B.S. (EE) degree from Dalian Ocean University, Dalian, China, in 2001, the M.S. (EE) and the Ph.D. (EE) degree from Shenyang Agricultural University, Shenyang, China, in 2004 and 2010 respectively. She is currently an Associate Professor with the Department of Electrical Engineering and Information, Shenyang Agricultural University. Her research interests mainly focus on signal processing for agricultural information applications, including information sensing and processing, plant phenotype parsing of UAV, and statistical data analysis, etc.

韩宇星

华南农业大学

Yuxing Han

South China Agricultural University, China

演讲主题

复眼计算视觉系统及其在精准农业航空的应用

嘉宾简介

韩宇星博士，华南农业大学工程学院教授，博士生导师，国家千人计划青年项目专家，广东省杰青。韩博士于 2006 年在香港科技大学电子工程专业取得学士学位，2011 年在美国洛杉矶加州大学 (UCLA) 电子工程专业取得博士学位。韩博士的主要的研究方向为复杂网络中的数据通信、传感器网络和自组织网络的协议和算法、多媒体处理、图像视频处理、大数据的传输等方面，其论文作为第一作者与通讯作者被 30 余个国际顶尖会议期刊收录，其中 SCI 论文 18 篇，最高影响因子 6.2，论文总引用 300 余次，最高单篇引用 108 次。韩博士担任世界传媒论坛理事会成员兼中国区主席，世界虚拟现实论坛中国区主席。韩博士荣获全球著名测评机构 Frost&Sullivan 评选的 2016 年度全球最佳科技应用奖“Best Practice in Enabling Technology Leadership Award”。荣获 2018 年日内瓦国际发明博览会金奖，以及 IEEE Capolli 最佳论文奖，为亚洲机构 20 年来首次获得该奖项。

Topic

Mathmatical Matrix Imaging System and its application in precision agricultural aviation

Speaker Information

Yuxing is currently a professor in school of engineering at South China Agriculture University, China. Her research area focuses on virtual reality, multimedia communication over challenging networks and big data analysis. She has authored many widely referenced papers and patents in related fields. Products deploying technologies that Dr. Han developed are currently widely used worldwide. The high quality video encoding/transcoding solution project Yuxing led won 2016 Frost & Sullivan best practice in Enabling Technology Leadership award. The cloud based video optimization project Yuxing led was the 2011 Red Herring Top 100 Global winner. In 2018, high quality Matrix Mathematical Imagine system won Geneva World Exhibition Gold Award, and IEEE Capocelli Best paper award.

黄贵修

中国热带农业科学院国际合作处处长，研究员

Guixiu Huang

Chinese Academy of Tropical Agricultural Sciences, China

演讲主题

天然橡胶航空植保新技术与“一带一路”热带农业科技创新合作

内容概要

天然橡胶是最重要的战略物资和工业原料，在航空、航海、医疗和重型汽车制造业等领域广为应用。而病虫害问题一直是天然橡胶产业发展最严重的生物性限制因素之一，常规的病虫害防治技术已无法满足当前天然橡胶产业发展的需求。采用大型无人直升机飞防新技术，可有效解决橡胶树等热带高大经济作物施药多、用药量大、效率低和防治成本高等难题。同时，依托热带农业国际科技创新合作基础和科企“同立项、共集成、同转移”合作模式及平台，推动热带高大经济作物航空植保新技术走向“一带一路”沿线国家，促进相关产业绿色、可持续发展。

嘉宾简介

中国热带农业科学院国际合作处处长，研究员，博士生导师。从事天然橡胶、木薯病害监控与抗病育种研究。国务院政府特贴专家、农业农村部农业科研杰出人才、国际橡胶研究与发展委员会（IRRDB）植保专家组联络官。主持国家自然科学基金项目和“一带一路”热带项目等课题 40 余项，在国内外发表科研论文 194 篇，出版著作 9 部；获海南省科技进步奖共 7 项，国家发明专利 4 项；鉴选和创制抗病种质 50 多份。

Topic

Aerial Plant Protection Technology for Natural Rubber and "The Belt and Road" Tropical Agricultural Science and Technology Innovation Cooperation

Speech Abstract

Natural rubber is the most important strategic material and industrial raw material. It is widely used in aviation, marine, medical and heavy-duty automotive industries. The problem of pests and diseases has always been one of the most serious biological limiting factors in the development of the international natural rubber industry, and conventional pest control technology has been unable to meet the urgent needs of the development of the natural rubber industry. The new technology of insects prevention with the use of large-scale of UAV has effectively solved the problems of large quantity on usage, low efficiency and high cost on prevention. At the same time, relying on the cooperative basis of international innovation on tropical agrotechnique and technology enterprises with the cooperation model of "set up projects, integration and transformation together", as well as the platform, to popularize the new technology of crop protection by aircraft on large industrial-crop to the countries which are participated in "the Belt and Road Initiative", and to promote the green and sustainable development of relevant industries.

Speaker Information

Huang Guixiu, director of the International Cooperation Division of the Chinese Academy of Tropical Agricultural Sciences, researcher, doctoral tutor. He is engaged in research of natural rubber, cassavaof disease monitoring and breeding of disease resistance. Specialist with subsidy provided by government of the state council, expert of agricultural research in Ministry of Agriculture and Rural Affairs, and liaison officer of the International Rubber Research and Development Board. He has hosted more than 40 projects such as the National Natural Science Foundation of China and the tropical project of “the Belt and Road Initiative”, he has 194 research papers in domestic area and overseas; 194 research papers; He has won Hainan Provincial Science and Technology Progress Awards 7 times, and 4 national invention patents; Select and create more than 50 disease-resistant germplasm.

雅尼·希鹿毕尼

世界无人机联合会副主席，国际无人机开源者联盟创始人，深圳无人机行业协会专家委员会成员

Mr. Jani Hirvinen

the vice chairman of the World Federation of UAVs. the co-founder of the international drone open source.And the member of the Expert Committee of the Shenzhen UAV Industry Association.

演讲主题

农业中的开源者无人机数据系统

嘉宾简介

雅尼先生出生于芬兰航空家族，是全球知名的无人技术先驱以及诸如 ArduPilot, DIYDrones 和 DroneCode 这些著名的国际无人组织的创始人，他还是 ArduCopter 平台的创始人，该平台开启了我们当前的无人机革命。雅尼先生具备处理多种任务的能力，他航空经验丰富，是个航空界的奇才。 他参与了无人驾驶和全尺寸有人驾驶飞机的制造工作 40 多年。 三十多年来，他一直与各种 IT 平台打交道，处理复杂的电子和先进的机器人技术。雅尼先生拥有多项全球无人产业奖和在全球组织中的职位，他还被世界无人机联合会（中国）提名为副主席和深圳无人机行业协会专家委员会成员。

Topic

ArduPilot with UAVCAN in Agriculture

Speaker Information

Mr. Hirvinen was born to an aviation family in Finland. He is a globally known leader and pioneer in unmanned technologies and a founder of famous international unmanned organizations like ArduPilot, DIYDrones and DroneCode.

Hirvinen is the original creator of the ArduCopter platform, which started our current Drone Revolution.

Jani is a multi-tasking, experienced aviation and electronic prodigy. He has been involved in building both unmanned and full-sized manned aircraft for over 40 years. He has also been dealing with various IT platforms, complex electronics and advanced robotics for over three decades. Jani holds several global awards for Unmanned Industry and position in the following global organizations

王志国

安阳全丰生物科技有限公司

Zhiguo Wang

Anyang Quan Feng Biotechnology Co.,Ltd, China

演讲主题

航空植保在植保防灾减灾中的应用

嘉宾简介

王志国, 安阳全丰生物科技有限公司/安阳全丰航空植保科技股份有限公司董事长, 国家航空植保科技创新联盟理事长，农业农村部航空植保重点实验室主任，中国农业技术推广协会植保统防统治分会会长。

Topic

The Application of Aerial Plant Protection in Disaster Prevention and Reduction of Plant Protection

Speaker Information

Zhiguo Wang, the Chairman of Anyang Quan Feng Biotechnology Co.,Ltd and Anyang Quan Feng Aviation Plant Protection Technology Co., Ltd. The director of National Aviation Plant Protection Science Technology Innovation Alliance and the Key Laboratory of Aviation Plant Protection, Ministry of Agriculture and Rural Affairs. The Chairman of plant protection control system for pest prevention association, which is the branch of China Agro-technological Extension Association.

毛越东

高科新农董事长
浙江衢州市政协常委

Yuedong Mao

Shenzhen Hi-tech New Agriculture Technologies Co.,LTD, China

演讲主题

无人机在农林业的创新应用

嘉宾简介

毛越东，高科新农董事长，浙江衢州市政协常委。中国人民大学高级工商管理硕士、清华大学资本运营 EMBA；十年央企管理经验，1996 年创办了首个安防企业。秉承浙商理念，成功经营企业 20 多年；曾荣获“安防十大风云人物”、“影响安防行业六十人”、“中国安防十大诚信企业家”、“中国农业十大风云人物”、“中国农业航空发展贡献奖”、“农业航空杰出贡献奖”等荣誉称号；2010 年开始，预判到中国无人机行业的发展前景，先后创办了华越力合，华越无人机、高科新农公司，布局无人机应用领域。耕耘八载，带领团队率先推出了第四代农用无人的技术标准，成为业内唯一掌握农用无人直升机“整机设计 + 飞控系统 + 机载任务系统”全套核心技术的高新技术企业；当选为中国农用无人机标委会委员、国家航空植保科技创新联盟专家委员会专家、 国际精准农用航空学会创始会员；深圳市无人机行业协会副会长；深圳市航空航天协会副会长。与隆平高科在《杂交水稻制种全程机械化的研究与示范》的合作中改变了杂交水稻种子生产的生产方式，实现了农机、农艺、农技的融合，成为中国农业全程机械化发展的里程碑。2015 年提出“3+1”战略，垫定了农用无人机企业从设备制造向服务生态化发展的理论指导。

Topic

Innovative Application of Drones in Agroforestry

Speaker Information

Mdm.Mao Yuedong, Founder、Standing member of Quzhou City CPPCC in Zhejiang province; Senior Master of Business Administration from Renmin University of China, EMBA of Capital Operation of Tsinghua University; Ten years of management experience in national enterprises, the first security company was founded in 1996 in Shenzhen. Adhering to the philosophy of Zheshang, it has successfully operated enterprises for more than 20 years; it has won “Top Ten Security Persons”, “60 Persons Affecting Security Industry”, “Top Ten Honest Entrepreneur in China Security”, “Top Ten People in China Agriculture”, “ China Agricultural Aviation Development Contribution Award, "Agricultural Aviation Outstanding Contribution Award", "China Agrochemical Industry Mulan Award" and other honorary titles; At beginning of 2010, it has predicted the development prospects of China ‘s drone industry. It has successively established Huayue Lihe, Huayue UAV, Gaoke Company, and deployed UAV application fields. After eight years of hard work, becoming the only high-tech enterprise in the industry to master the complete core technology of agricultural unmanned helicopter “machine design + flight control system + airborne mission system”； Elected as member of China agricultural UAV standard committee, expert committee of national aviation and plant protection science and technology innovation alliance, and founding member of international precision agricultural aviation society;Vice President of shenzhen UAV industry association;Vice President of shenzhen aerospace association;In 2015, the “3+1” strategy was put forward, which laid the theoretical guidance for the development of agricultural drone enterprises from equipment manufacturing to service ecologicalization.

彭斌

广州极飞科技有限公司

Bin Peng

Guangzhou XAG Technology Co., Ltd., China

演讲主题

农业无人机的未来

嘉宾简介

彭斌先生是广州极飞科技有限公司创始人兼总经理，极飞科技成立于 2007 年，是世界领先的无人机研发制造公司、农业自动化运营商。致力于用科技实现智慧农业。极飞科技下拥有极飞制造、极飞农业、极飞地理、极飞学院等公司及机构，已在澳大利亚、日本、韩国、美国等 19 个国家设立了研发中心及基地。2018 年彭斌先生获得全球无人机贡献奖。

Topic

The Future of Agricultural UAVs

Speaker Information

Mr. Peng Bin is the founder and CEO of Guangzhou XAG Technology Co., Ltd. Founded in 2007, XAG is one of the world's leading UAS (Unmanned Aerial System) R&D manufacturers and a high-tech robotized agricultural solution provider. XAG is dedicated to the development and implantation of intelligent agricultural technology. With the development of XAG Manufacturing, XAG Agriculture, XAG Geography, and the XAG Academy, XAG has set up laboratories and research and development bases in 19 countries, including Australia, Japan, Korea and the United States. And in 2018, Mr. Peng Bin was awarded Global UAV Contribution Award.

伊丽丽

山东理工大学

Lili Yi

Shandong University of Technology, China

演讲主题

基于 5G 物联技术的智慧农业葡萄园的研究与实现

嘉宾简介

伊丽丽，博士毕业于新加坡南洋理工大学信息工程专业，博士期间在无人机精准定位课题上进行了很多创新性的工作。博士毕业后，投身工业领域，主要嵌入式智能系统研发、智能控制算法、机器学习算法等研究工作。曾作为项目负责人之一，获得了 2015 年度新加坡创业大赛第一名的好成绩。2018 年 3 月回国，加入兰玉彬教授团队，从事无人机智能控制、精准定位、自主导航、智慧农业等相关工作。

Topic

Research and Implementation of Intelligent Agricultural Vineyard Based on 5G -IOT Technology

Speaker Information

Dr Yi Lili, graduated from Nanyang Technological University, Singapore, majoring in information engineering. During her PhD period, she did a lot of innovative work on the precise positioning of UAVs with Singapore DSO Lab. After graduating from Ph.D., she devoted herself to the industrial field, mainly engaged in research and development of embedded intelligent system, intelligent control algorithms, and machine learning algorithms. As a project leader, she won the first place in the Singapore Entrepreneurial Competition 2015. In March 2018, she became a member of Prof. Lan Yubin's team and engaged in intelligent control of UAVs, precise positioning, autonomous navigation, and smart agriculture.

朱航

吉林大学

Hang Zhu

Jilin University, China

演讲主题

基于 CFD 的植保无人机喷雾特性仿真分析及实验研究

嘉宾简介

朱航：1983 年 1 月，吉林大学副教授，美国伊利诺伊大学香槟分校博士后，美国农业部联合培养博士研究生，中国航空学会会员、中国农业工程学会农业航空分会会员。兼任国家航空植保科技创新联盟吉林分会秘书长、吉林大学无人驾驶飞行器智能控制研究所所长、吉林省材料服役性能测试产业公共技术研究中心副主任。主持国家、省部级科研项目 10 多项，作为第一完成人在国内外核心期刊发表论文 20 余篇，申请国家发明专利 10 余件。研究方向：航空植保技术与智能装备、航空遥感技术、农业机器人技术。

Topic

Performance Characterization of the UAV Chemical Application Based on CFD Simulation

Speaker Information

Dr. Hang Zhu, Associate professor of School of Mechanical and Aerospace Engineering, Jilin University. A member of the CSAA(Chinese Society of Aeronautics and Astronautics) and CSAE(Chinese Society of Agricultural Engineering). She coordinates research in UAV and control system application in precision agricultural, data management and information system for precision agriculture, instrumentation and control system, and intelligent variable-rate chemical application equipment. Dr. Zhu's research interests are in the development of new generation artificial intelligent equipment for agriculture application: UAV system, robotic system, remote/local field sensing system, and image analysis/pattern recognition algorithms for biological objective detection. She presided over more than 10 scientific research projects form the nation and province, published more than 20 academic papers and 10 the National Invention Patents.

王美美

安阳工学院机械学院

Meimei Wang

Anyang Institute of Technology, China

演讲主题

无人机在小麦和水稻杂草控制中的应用

内容概要

采用无人机在水田播撒颗粒药剂封闭除草具有效率高，较人工更均匀且不会发生漂移等优点，因此本文设计了一款适用于植保无人机的播撒装置。该播撒装置的转盘采用到圆锥台结构，在转盘内壁面上沿周向布置有若干等间隔螺旋状导向槽，底板布置有八条等间隔呈叶轮状凸起导流条，各导流条与转盘上盖板围成多条分流道，有利于转盘转动时颗粒能够全方位均匀甩出。田间试验结果表明，采用植保无人机播撒装置播撒除草颗粒药防效与人工播撒没有显著差异，使用植保无人机播洒异丙甲 · 苄嘧磺隆，有效成分用量为 60g/ 亩时，水稻田杂草株防效、鲜重防效最佳，均能达到 100%。

嘉宾简介

王美美，工学博士，毕业于华南农业大学农业机械化工程专业，现为安阳工学院机械学院副教授。主要研究方向农业机械创新设计及自动化研究。近年来参与国家科技计划支撑项目 1 项，国家国际科技合作项目 1 项，主持和参加省市科研项目 7 项，共发表学术论文 9 篇，国家发明专利授权 7 项。

Topic

The Application of UAV in Weed Control for Wheat and Rice

Speech Abstract

The air broadcasting was used by unmanned aerial vehicle in paddy field for weeds control, which has the advantages of high efficiency, more uniform than manual and no drift. Therefor this paper designs an air broadcasting for plant protection UAV. The turntable of the air broadcasting device adopts a conical table structure, the inner of the turntable was circumferentially arranged with a number of equally spaced spiral guide grooves, the bottom plate was arranged with eight equally spaced impeller-shaped convex flow guide strips, the flow guide strips and the upper cover plate of the turntable were enclosed into multiple diversion channels, which was advantageous to particle which were thrown all directions when the turntable turned. Field test results showed that there was no significant difference between manual work and air broadcasting device by using plant protection UAV on the control effect of weeding, when the Isopropyl methyl bensulfuron were air broadcasted by plant protection UAV, the recommended dosage of active ingredients was 60g/mu, the control effect of weeds and fresh weigh were best, reaching 100%.

Speaker Information

Meimei Wang, D.E graduated from South China Agricultural mechanization engineering major. associate professor at Anyang Institute of Technology. The main research direction is innovative design and automation of agricultural machinery. In recent year, actively participate in industry- university-research cooperation, participate in National Science and Technology project and National International Science and Technology cooperation project, presided and participated in 7 provincial and municipal scientific research projects, published 9 academic papers and 7 national invention patents.

张亚莉

华南农业大学

Yali Zhang

South China Agricultural University, China

演讲主题

华南农业大学精准农业航空应用技术研究进展

内容概要

华南农业大学国家精准农业航空施药技术国际联合研究中心，是国家科技部认定的国家级研究中心，中心主任和首席科学家是欧洲科学、艺术与人文学院院士兰玉彬教授。中心主要针对国内典型粮食作物、经济作物的航空植保施药，围绕精准农业航空理念，开展农业航空遥感、航空精准施药等相关理论、技术及装备的创新研究。报告介绍了中心团队在精准农业航空施药技术、无人机低空航空遥感装备与技术、农用无人机智能控制系统、农用无人机精准施药关键部件、控制技术与控制装备及农用无人机性能检测平台等精准农业航空应用技术的最新研究进展。

嘉宾简介

张亚莉，华南农业大学工程学院副教授，2009 年美国堪萨斯州立大学生物与农业工程系博士毕业。现为国家精准农业航空施药技术联合研究中心主任助理，广东省国际农业航空施药技术联合实验室副主任，国际精准农业航空学报 (IJPAA) 执行主编，国际精准农业航空学会 (SIPAA) 副秘书长。主持国家自然科学基金青年基金项目、教育部海外留学回国人员科研项目等 7 项课题，发表论文 27 篇，主要从事农用无人机精准施药传感器技术，农产品产地环境质量监测方面的研究。

Topic

PAA Research Development in SCAU

Speech Abstract

“National Center for International Collaboration Research on Precision Agricultural Aviation Pesticides Spraying Technology” based at South China Agricultural University is the national research center approved by the Ministry of Science and Technology of China. The Center focuses on aerial plant protection for typical food crops and economic crops in China, carry out innovation research around the concept of precision agricultural aviation, on the key technologies and common issues for agricultural aviation remote sensing, precision aerial variable spraying and other related technologies and equipment. The speech introduces the significant progress of the Center achieved in research and development of aerial pesticides spraying technology, low altitude UAV remote sensing equipment and technology, intelligent control systems of agricultural UAVs, key components, control technology and equipment for agricultural UAV precision spraying, and agricultural UAV performance test platform.

Speaker Information

Dr. Yali Zhang received her PhD from the Department of Biology and Agricultural Engineering of Kansas State University in 2009. She is now the associate professor of South China Agricultural University, the assistant to the Center director of the National Center for International Collaboration Research on Precision Agricultural Aviation Pesticide Spraying Technology, associate director of the International Laboratory of Agricultural Aviation Pesticide Spraying Technology of Guangdong province, executive editor-in-chief of the International Journal of Precision Agricultural Aviation (IJPAA), and associate director of the secretariat of Society for International Precision Agricultural Aviation (SIPAA). Dr. Zhang has directed multiple research projects funded by National Natural Science Foundation of China and other agencies. Dr. Zhang is mainly engaged in the research of agricultural aviation sensor technology, and environmental detection sensor technology for agricultural production areas.

李方

华南理工大学计算机科学与工程学院

Fang Li

College of Computer Science and Engineering, South China University of Technology, China

演讲主题

基于多模式的群体无人机自然人机交互技术

嘉宾简介

李方，博士，华南理工大学计算机科学与工程学院智能技术与机器人团队副教授。本团队主要开展智能技术、人机交互技术、云技术、机器视觉技术，智能机器人、无人智能系统及其它智能应用系统等研究。近年来先后完成了国家“863”计划项目、国家自然科学基金项目及省部级等科研项目 50 多项，发表高水平论文近 150 多篇，获授权专利和软件著作权 50 多项，研究成果获省部一等奖、二等奖共 8 项。

Topic

Natural Human-Machine Interaction Technology of Swarm UAVs Based on Multi-mode

Speaker Information

Dr. Li is now an associate professor of the Intelligent Technology and Robotics Team, College of Computer Science and Engineering, South China University of Technology. The team mainly focuses on intelligent technology, human-computer interaction technology, cloud technology, machine vision technology, intelligent robots, unmanned intelligent systems and other intelligent application systems. In recent years, the team has completed more than 50 national "863" program projects, the National Natural Science Foundation project and provincial and ministerial level research projects, published more than 150 high-level papers, and obtained more than 50 patents and software copyrights. The research results won the first prize and the second prize of the provincial ministry.

王娟

华南农业大学

Juan Wang

South China Agricultural University, China

演讲主题

植保无人机在热带作物的飞防应用

内容概要

本报告主要介绍植保无人机在热带作物上的飞防试验和应用，试验测试对象既包括地瓜、板栗、水稻、菠萝等低矮作物；绿橙、荔枝、莲雾、菠萝蜜、香蕉等热带特色果树；也包括槟榔和橡胶等热区高杆作物。测试了植保无人机在不同气象条件下、作业参数及作物生长期时雾滴沉积、雾滴粒径分布和飘移情况，为热区作物飞防提供理论及数据支撑。

嘉宾简介

华南农业大学 2016 级博士研究生，师从兰玉彬教授。主要研究方向为有人驾驶直升机精准航空施药技术。主要研究单旋翼无人机在植物保护中的雾滴沉积与飘移规律。在热区作物飞防试验中针对气象条件变化对雾滴沉积飘移规律的影响等做了相应研究。

Topic

Aerial Spraying Applications in Tropical Crops Based on Plant Protection UAVs

Speech Abstract

This report mainly introduces the spray test and application of plant protection UAV on tropical crops. The test objects include low crops such as sweet potatoes, chestnuts, rice and pineapples; tropical fruit trees such as green orange, lychee, lotus, jackfruit and banana. It also includes high-crop such as areca nut and rubber trees. The droplets deposition, droplets size distribution and drift under different meteorological conditions, operating parameters and crop growth period were tested, which provided theoretical and data support for the crop aerial application in tropical areas.

Speaker Information

Juan Wang, South China Agricultural University 2017 doctoral student, the tutor is Professor Yubin Lan. The main research direction is droplet deposition and drift of single rotor UAVs application in crop protection, study the application of UAVs spraying in fruit crops in Hainan Province, A variety of test methods were used to compare and analyze the impact of UAVs spraying effects under different meteorological conditions and different operating parameters in tropical crops application.

黄华盛

华南农业大学

Huasheng Huang

South China Agricultural University, China

演讲主题

基于无人机遥感图像的稻田杂草识别研究

内容概要

水稻是中国最重要的粮食作物，化学防控对保证水稻产量具有重要意义。然而，当前的化学防控模式存在喷洒方式粗放的问题。过量使 用除草剂不仅污染环境，造成了土壤和水源的污染，也造成了除草剂在作物上的残留，影响了水稻品质。精准喷施模式能够有效解决除草剂过量使用的 问题。采用无人机遥感对田间杂草进行监测，能够快速准确生成处方图，为精准施药作业提供决策依据。

嘉宾简介

华南农业大学、国家精准农业航空施药技术国际联合研究中心博士研究生，从事无人机遥感研究。主要研究方向是基于无人机遥感的稻 田杂草识别，关注深度学习技术在遥感数据解析中的应用。

Topic

The Research on Weed Recognition in Rice Fields Using UAV Imagery

Speech Abstract

Rice is the most important food crop in China, and chemical control is of great significance to ensure rice yield. However, the current chemical control has the problem of extensive spraying. Excessive application of herbicides not only pollutes soil and water environment, but also causes residues of herbicides on crops, which affects rice quality. The precision spray can effectively solve the problem of excessive application of herbicides. Using UAV remote sensing to monitor field weeds can quickly and accurately generate prescription maps, providing decision-making basis for precise application.

Speaker Information

Ph.D candidate of National Center for International Collaboration Research on Precision Agricultural Aviation Pesticide Spraying Technology and South China Agricultural University, working on UAV remote sensing. The main research is the weed recognition in rice fields using UAV imagery, focusing on the application of deep learning in the interpretation of remote sensing data.

王国宾

华南农业大学

Guobin Wang

South China Agricultural University, China

演讲主题

田间评估植保无人机：喷液量对小麦田沉积及病虫害防效影响

嘉宾简介

王国宾，博士研究生，专业为农业工程学，农药学，主要研究内容为航空农药喷施，防效研究，喷头雾化。主要参与项目：国家重点研发计划：地面与航空高工效施药技术与装备。

Topic

Field Evaluation of an UAV Sprayer: Effect of Spray Volume on Deposition and the Control of Pests and Disease in Wheat

Speaker Information

Guobin Wang is a PhD student, majored in agricultural engineering and pesticide. His main research areas are aerial pesticide application, control efficacy and nozzle atomization. Main participated projects: “The National Key Research and Development Plan: High Efficient Ground and Aerial Spraying Technology and Intelligent Equipment (2016YFD0200700).

DRONE WORLD CONGRESS 2019

2019 世界无人机大会

ArduPilot Conference, Shenzhen

国际无人系统开源开发者大会

主办单位

深圳无人机行业协会

ArduPilot 国际开源者组织

冠名单位

昊翔电能运动科技（昆山）有限公司

ORGANIZED BY

Shenzhen UAV Industry Association

ArduPilot

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Yunnec International

国际无人系统开源开发者大会 - 议程

6 月 21 日 08:30-15:55 | 深圳会展中心 五楼玫瑰 2 厅

时 间	主 题	嘉 宾
09:00-09:30	**签 到**	
09:30-09:40	**致 辞**	
	雅尼·希鹿毕尼	
	主旨演讲	
9:40-11:50	非 GPS 导航与目标避障	**兰迪·麦凯** ArduPilotCopter 主管
	UAVCAN 硬件系统	**雅尼·希鹿毕尼** ArduPilot 副主席
	无人机建造工业解决方案	**路易斯·瓦莱·冈卡尔维斯** ArduPilot 程序应用
	机载 LUA 脚本	**路易斯·瓦莱·冈卡尔维斯** ArduPilot 程序应用
	总能量控制系统调优	**汤姆·皮蒂格尔** ArduPilotPlane 联合主管
11:50-13:00	**午休**	
13:00-15:35	基于新 S 曲线的多轴飞行器导航控制器	**伦纳德·托马斯·霍尔** ArduPilot 姿态控制
	将 ArduPilot 移植到一个新板块 :ChibiOS/HWDEF	**雅尼·希鹿毕尼** ArduPilot 副主席
	无人机编队控制与通信网络 : 挑战与机遇	**金 洁** 若联科技有限公司创始人 CEO&CTO
	激光雷达助力无人机行业新发展	**袁海山** 北醒（北京）光子科技有限公司产品总监
	云端无人机的见解与分享	**雷利彬** 广州雷迅创新科技有限公司 CTO
15:35-15:55	**问与答**	**全体嘉宾**

ArduPilot Conference, Shenzhen

Forum Agenda

08:30-15:55 , June 21 | 5F, Rose Hall No.2, SZCEC

Time	Topics	Speaker
08:30-09:30	Registration	
09:30-09:40	Greeting	
	Jani Hirvinen ArduPilot	
	Keynote Speech	
9:40-11:50	Non-GPS Navigation & Object Avoidance	**Randy Mackay** ArduPilot Copter Lead
	UAVCAN Hardware Systems	**Jani Hirvinen** ArduPilot Hardware/Infra Lead, Co-Founder
	Building industrial Solutions with Drones	**Luís Vale Gonçalves** ArduPilot Applications
	Onboard LUA Scripting	**Luís Vale Gonçalves** ArduPilot Applications
	TECS Tuning	**Tom Pittenger** ArduPilot Plane Co-Lead
11:50-13:00	Rest	
13:00-15:35	New S-Curve Based Multi-Rotor Navigation Controller	**Leonard Thomas Hall** ArduPilot Attitude Control
	Porting ArduPilot to a New Board, ChibiOS/HWDEF	**Jani Hirvinen** ArduPilot Hardware/Infra Lead, Co-Founder
	Drone Formation Control and Communication Networks: Challenges and Opportunities	**Jay Jin** CEO & CTO of Ruolian Technology Co., Ltd
	LiDAR Promotes New Development of Drone Sector	**Yuan Haishan** Chief Product Officer of Benewake (Beijing) Co., Ltd.
	Cloud Drone View Sharing	**Libin Lei** CTO of Guangzhou Lei Xun Innovation Technology Co., Ltd.
15:35-15:55	Q & A	

薛辉

昆山优尼电能运动科技有限公司产品经理

Xue Hui

Yunnec International
Product manager

演讲主题

创建商用无人机硬件生态链平台

内容概要

无人机从消费级转为商用，转型核心是数据的收集，传输到数据处理过程的建立，作为无人机厂商，我们有责任也有义务去搭建一个无人机硬件生态链平台去支撑行业的数据处理流，将更多的传感器，更多的针对不同行业的处理单元无缝对接到无人机平台实现高效，低延迟，实时的处理，从而面向不同应用提供精确的，可视化的数据链路。

嘉宾简介

薛辉，从事无人机行业 7 年，经历无人机从航模产品到消费级无人机再到商用无人机转变，负责产品路径规划，产品线管理，商用产品架构设计，商用产品方案设计，商用平台方案设计。

Topic

Building Drone Hardware Eco-system Plaform

Speech Abstract

Drone is developing from consumer to commercial, the key point is about data collecting, transiting and processing establishment, as one of key drone industry members, yuneec has obligation and responsibility to establish up a drone hardware eco-system platform to support data chain using, tartgeting to involve more sensors, more data processing units into drone platform and then provide a high efficient, low lantency, realtime processing worflow, and serve for offering more accurate and visualized data link.

Speaker Information

Xue hui, Join in the drone industry for 7 years, expercied the drone transition from Hobby to Consumer and then Commercial. Responsible for Product roadmap planning, Product management, Commercial product architecture design, Commercial product solution design and Commercial product platform design.

兰迪·麦凯

ArduPilot Copter 主管

Randy Mackay

ArduPilot Copter Lead

演讲主题

非 GPS 导航与目标避障

内容概要

非 GPS 导航：ArduPilot 为没有 GPS 的情况下飞行器或驾驶的 AP 车辆提供各种导航方案，包括利用信标、光流和 SLAM 进行定位与建图。兰迪将回顾现有的方案以及平台近期支持的最有前景的方案。

目标避障 :ArduPilot 使用机载或舷外算法为直升机和自动地面车辆提供目标避障方案。Randy Mackay 将分享和讨论这些方案和特性的最新更新，它们依据的算法以及未来更新的方向。

嘉宾简介

Randy Mackay 拥有 6 年以上的 ArduPilot 开发经验，并且是 ArduPilot 项目的 Arducopter 的领头人。兰迪主要致力于安全机制、对于新的传感器的支持、高度和位置的控制、 新的 MAVLink（微型空中飞行器链路通讯协议) 的信息等方面的众多改进措施的整合。

Topic

Non-GPS Navigation & Object Avoidance

Speech Abstract

Non-GPS navigation: ArduPilot supports various methods for flying/driving AP vehicle without a GPS including beacons, optical flow and SLAM. Randy will go over the existing methods and the most promising methods we hope to support in the near future.

Object Avoidance: ArduPilot includes object avoidance for Copter and Rover using onboard or offboard algorithms. Randy Mackay will discuss the latest updates on these features, the algorithms they are based on and what to expect next.

Speaker Information

Randy Mackay has 6+ years of ArduPilot development experience and is the lead Arducopter developer for the ArduPilot project. Randy is responsible for incorporating countless improvements (in cooperation with other team members) including safety features, support for new sensors, attitude and position control, new MAVLink messages. Given Randy's extensive background he has a unique ability to provide training and advice to new developers on how features could be implemented.

雅尼·希鹿毕尼

ArduPilot 副主席

Jani Hirvinen

ArduPilot Hardware
Infra Lead, Co-Founder

演讲主题

将 ArduPilot 移植到一个新板块 :ChibiOS/HWDEF

内容概要

如果您正在从事电子开发工作，并且正在设计与 ArduPilot 兼容的自动驾驶仪硬件，那么这个演讲特别适合您。Jani 先生将教授如何使用基于 STM 的开发板和 ArduPilot 软件支持的几种不同传感器来为新硬件平台配置 ArduPilot 软件堆栈。

嘉宾简介

雅尼先生全球知名的无人技术先驱。 ArduPilot，DIYDrones 和 DroneCode 这些著名的国际无人系统组织的创始人，同时，他还是 ArduCopter 平台的创始人，该平台开启了我们当前的无人机时代。雅尼先生具有丰富的航空经验，是个航空界的奇才，拥有 40 多年从事无人驾驶和有人驾驶飞机的制造工作经验。 三十多年来，他一直与各种 IT 平台，复杂的电子和先进的机器人技术打交道。雅尼先生在多个全球无人机相关组织担任职位并获得过多项全球无人产业类奖项。他还被世界无人机联合会（中国）提名为副主席并成为深圳无人机行业协会专家委员会成员。

Topic

Porting ArduPilot to a new board: ChibiOS/HWDEF

Speech Abstract

If you are working on electronics development and you are designing ArduPilot compatible autopilot hardware, this talk is especially for you. Mr. Jani will teach on how to configure ArduPilot software stack for the new hardware platform using STM based developer board and several different sensors that are supported by the ArduPilot software.

Speaker Information

Mr. Hirvinen was born to an aviation family in Finland. He is a globally known leader and pioneer in unmanned technologies and a founder of famous international unmanned organizations like ArduPilot, DIYDrones and DroneCode.

Hirvinen is the original creator of the ArduCopter platform, which started our current Drone Revolution.

Jani is a multi-tasking, experienced aviation and electronic prodigy. He has been involved in building both unmanned and full-sized manned aircraft for over 40 years. He has also been dealing with various IT platforms, complex electronics and advanced robotics for over three decades. Jani holds several global awards for Unmanned Industry and position in the following global organizations

路易斯·瓦莱·冈卡尔维斯

ArduPilot 应用程序

Luís Vale Gonçalves

ArduPilot Applications

演讲主题

主题 1 用无人机建造工业解决方案

主题 2 机载 LUA 脚本

内容概要

开放源代码的项目是否有用来构建工业解决方案的可能？我们将会演示利用 ArduPilot 代码进行工业无人机设计解决方案进行不同的尝试，例如计算机配套或 Lua 脚本。

什么是新的 ArduPilot Lua 脚本？大家一起来探索最新的 ArduPilot 解决方案。除了简单的任务设计之外，还可以实现轻量级自动化。

嘉宾简介

路易斯·韦尔·冈卡尔维斯 (Luis Vale Goncalves) 最初是一名海洋工程师，后来转行到微软 (Microsoft) 担任高级系统工程师，最近为从事无人机 / 无人机领域开发工业解决方案的公司提供咨询。对无人驾驶汽车的热情很早就开始了，从控制线飞机开始，并且已经持续了将近 40 年并于 3 年前加入 ArduPilot 项目。

Topic

Building industrial solutions with Drones & Onboard LUA scripting

Speech Abstract

Can a Open source project be used to build industrial solutions? We will explore the design process of a industrial drone solution using ArduPilot with the different approaches possible, such as companion computers or Lua scripting.

What is new on ArduPilot Lua scripting. Come and explore the the newest ArduPilot solution for lightweight automation beyond the simple mission design.

Speaker Information

Luis Vale Gonçalves began his career as a Marine Engineer and later transitioned to work at Microsoft as a Senior Systems Engineer and lately consulting for companies working on the UAV/drones field developing industrial solutions.

The passion for unmanned vehicles began very early in life, started from the control line planes, and has been continued for almost 40 years, so joining the ArduPilot project 3 years ago was a natural step.

The knowledge of the real-life challenges that users face, when UAV/drones are used on mission-critical applications, helps ArduPilot to be a reference when trust and versatility are needed.

汤姆·皮蒂格尔
ArduPilot Plane 主管

Tom Pittenger
ArduPilot Plane Co-Lead

演讲主题

总能量控制系统调优

内容概要

TECS 是固定翼飞机的能量控制系统。如何调优 TECS 算法为不同类型和大小的飞机来提高控制性和稳定性。ArduPilot 的动力飞机带有良好调谐的 TECS，在风中性能更好，可以非常平稳、安全、准确地自动着陆。拥有大量自动着陆调整经验的 ArduPilot 固定翼的核心开发人员汤姆将教您如何为您的飞机调整 TECS。

嘉宾简介

拥有 Comp Engr 理学学士和 Elec Engr 的理学硕士学位，汤姆自 2015 年以来一直是 Plane 代码的联合维护者。他擅长的领域涵盖飞机着陆、避障等。他在位于加利福尼亚的英特尔公司工作，负责猎鹰 8+ 和下一代飞机项目。在此之前，他是 Airphrame 的飞行控制器负责人和 Trimble 公司的导航部门担任机器人工程师，从事自动拖拉机方面的工作。

Topic

TECS Tuning

Speech Abstract

TECS, the Total Energy Control System for fixed-wing aircraft.

How to tune the TECS algorithm to improve control and stability for different types and sizes of aircraft. An ArduPilot powered aircraft with a well tuned TECS will behave better in the wind and will make very smooth, safe and accurate auto-landings. Tom Pittenger, a core-developer of ArduPilot fixed-wing with lots of auto-landing tuning experience, will teach you how to tune TECS for your aircraft.

Speaker Information

Tom has been the co-maintainer of Plane since 2015. Specializes in landing, avoidance and all things plane. Based in California, he works at Intel on the Falcon 8+ and next-gen aircraft projects. Prior to that he was flight controller lead at Airphrame and a robotics engineer Trimble Navigation working on autonomous tractors. Has BS in Comp Engr and MS Elec Engr.

伦纳德·托马斯·霍尔

ArduPilot 姿态控制

Leonard Thomas Hall

ArduPilot Attitude Control

FREESPACE SOLUTIONS™

演讲主题

基于新 S 曲线的多轴飞行器导航控制器

内容概要

基于多新 S 曲线的多轴飞行器导航控制器：ArduPilot Multicopter 和 Rover 软件因其非常精确的导航和姿态控制特性而闻的。ArduPilot 的控制专家伦纳德将提供有关该领域下一阶段改进的最新重大举措，其中包括用 S 曲线取代 ArduPilot 现有的“leash”方法

嘉宾简介

伦纳德托马斯霍尔负责ArduPilot的多旋翼机代码的许多核心部分，包括姿态控制，精确导航和电机控制库等关键部分。他还开发了多用途直升机“自动调谐”方面的功能， 并被誉为 ArduPilot 调校多旋翼飞行器领域的专家。他主要负责为包括 IRIS、Y6、X8、Spectre 和 Solo 在内的许多 3DR 车辆找到理想的调动。他还为 Bebop1 和 Bebop2 开发了 Ardupilot tune。

Topic

New S-Curve based Multi-Rotor Navigation Controller

Speech Abstract

New S-Curve based multi-rotor navigation controller:

ArduPilot Multicopter and Rover software is well known for it's very accurate navigation and attitude control. ArduPilot's control expert, Leonard Hall, will provide an update on the next stage of improvements to this area which involve replacing ArduPilot's existing "leash" method with S-curves

Speaker Information

Leonard Thomas Hall is responsible for many core pieces of ArduPilot’s multicopter code including critical parts of the attitude, navigation and motor control libraries. He also developed the multicopter “AutoTune” feature and is generally considered the expert in tuning ArduPilot’s multicopter vehicles. He was responsible for discovering the ideal tune for many of 3DR’s vehicles including the IRIS, Y6, X8, Spectre and Solo. He also developed the Ardupilot tune for the Bebop 1 and Bebop 2.

金洁

若联科技有限公司创始人
CEO & CTO

Jin Jie

CEO & CTO of Ruolian
Technology Co., Ltd.

ROBSENSE
若 联 科 技

演讲主题

无人机编队控制与通信网络：挑战与机遇

内容概要

对于面向未来物联网的无人机应用，如何将机载无人机大脑、机载传感器与数据融合、行业应用设备与接口、网络设备与协议等进行标准化和集成化，始终是复杂而不确定性极强的挑战。编队表演融合了任务规划与分配、集群轨迹规划、编队及单机控制与优化、数据融合、编队重构与避障等技术。经过编队表演打磨的无人机大脑与各子系统，将能通用更多的垂直行业，加快“机器代人”的步伐。

嘉宾简介

瑞士苏黎世联邦理工学院 PolyHack 无人机大赛评委，具有 8 年以上基于无人机的物联网边缘计算的技术研发和工程管理经验。创立若联科技之前，先后在丹麦、爱尔兰积累了机器人控制与操作系统和计算机网络学习与科研经历，先后参与多个欧盟项目，部分工作成果将成为欧洲下一代网络技术标准，曾获剑桥大学 NetFPGA 比赛第一名。回国后于 2015 年 6 月创立若联科技，带领团队研制出面向飞行机器人的 Phenix 无人机大脑，并成功应用在 S330 编队无人机、i800 工业检测无人机和 R 系列教研培训无人机中。

Topic

Drone Formation Control and Communication Networks: Challenges and Opportunities

Speech Abstract

For uav applications oriented to the future internet of things, how to standardize and integrate airborne uav brain, airborne sensor and data fusion, industrial application equipment and interface, network equipment and protocol is always a complex and uncertain challenge. The formation performance combines technology such as: tasks planning and allocation, cluster trajectory planning, formation and stand-alone control and optimization, data fusion, formation reconstruction and obstacle avoidance, etc. The uav brain and subsystems polished by formation performance will be able to use in more vertical industries and accelerate the pace of "robot generation".

Speaker Information

Jury member of the PolyHack drone competition at the Federal Institute of Technology in Zurich, Switzerland, has more than 8 years' experience in technology development and engineering management of uav-based edge computing of the IoT. Prior to founding Ruolian technology, he accumulated the experience of robot controlling and operating system, computer network learning and research in Denmark and Ireland.He has participated in several EU projects, and some of his work has become the standard of European next-generation network technology. He once won the first prize in the NetFPGA competition of Cambridge university.After returning to China, he established Ruolian technology in June 2015, and led the team to develop Phenix UAV brain for flying robots, which was successfully applied in S330 formation UAV, i800 industrial test uav and R series teaching, research and training UAV

袁海山

北醒（北京）光子科技有限公司产品总监

Haishan Yuan

Chief Product Officer of Benewake (Beijing) Co., Ltd.

北醒 Benewake

演讲主题

激光雷达助力无人机行业新发展

内容概要

随着无人机种类和功能的丰富：植保，测绘，表演，配送等等，无人机对地飞行高度测量和飞行避障的安全需求越来越多，激光雷达依托于体积小，重量轻，测量精准等优势，在无人机行业快速房展过程中，发挥着不可或缺的重要作用。本次交流旨在探讨激光雷达在无人机行业的拓展应用，寄希望更专业服务无人机行业。

嘉宾简介

10 余年激光雷达行业经验，曾在 SICK,QUANERGY 等企业任产品经理，业务拓展经理等职位，现担任北醒激光雷达产品总监，主要负责机器人，无人机，料位计等行业激光雷达的产品设计与推广。

Topic

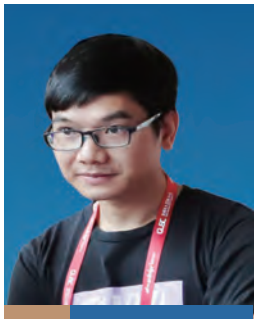
LiDAR Promotes New Development of Drone Sector

Speech Abstract

With development of drone models and function in agricultural plant protection, survey and mapping, performance and logistic distribution sectors, the demand for safety in flight height survey and collision avoidance is increasing. Thanks to small size, light weight and precise survey, LiDAR plays indispensable role in rapid development of drone sector. The LiDAR application in drone sector is discussed to serve sector in professional way.

Speaker Information

With over 10 years experience in laser radar sector and used to be product manager and business development manager in SICK, QUANERGY and other similar companies, now works as LiDAR chief supervisor in Benewake, mainly engaged in design and promotion of LiDAR products in robot, drone and level sensor sectors.



雷利彬

广州雷迅创新科技有限公司 CTO

Libin Lei

CTO of Guangzhou Lei Xun Innovation Technology Co., Ltd.

演讲主题

云端无人机的见解与分享

内容概要

万物互联的时代，云端的无人机架构出现与传统无人机的架构区别，基于ArduPilot 的无人机如何快速部署云端应用。

嘉宾简介

雷利彬 是 CUAV 的 CTO, 拥有 6 年以上 ArduPilot 硬件开发经验，曾主导多款基于 ArduPilot 飞控开源硬件的研发和无人机云端平台的研发，并对无人机行业有深入的见解和研究。

Topic

Cloud Drone View Sharing

Speech Abstract

In the era of the Internet of everything, the cloudless UAV architecture is different from the architecture of traditional UAV. How to quickly deploy cloud applications for drones Based on ArduPilot.

Speaker Information

MR.Ray is the CTO of CUAV. He has more than 6 years of experience in hardware development of ArduPilot. He has led the research and development of some open-source hardware based on ArduPilot and the development of cloud platform for drones. He has in-depth insights and research on the drone industry.

DRONE WORLD CONGRESS 2019

2019 世界无人机大会

Frontier Technology for Emergency UAV Summit

应急无人机前沿技术高峰论坛

指导单位

应急管理部
工业和信息化部
中国民用航空局
国家安全生产应急救援指挥中心

主办单位

中国民用航空应急救援联盟
中国地震灾害防御中心
中国应急管理杂志
中国航空器拥有者及驾驶员协会
中国卫星导航定位协会
中国气象服务协会
中国道路交通安全协会
中华环保联合会
深圳市无人机行业协会
中国信息协会通航分会
中国科学院无人机应用与管控研究中心

承办单位

中国航救联应急无人机专委会
京东集团
中石油华北油田通信公司
北方天途航空技术发展（北京）有限公司
国科智慧（北京）智能科技有限公司
航救联科技有限公司

支持媒体

人民日报
新华社
中央广播电视总台
光明日报社
中国应急管理报
中国民航报
中国应急救援杂志
广东省电视台

GUIDED BY

Emergency Management Department
Ministry of Industry and Information Technology
Civil Aviation Administration of China
National Production Safety Emergency Rescue Command Center

ORGANIZED BY

China Civil Aviation Emergency Rescue Alliance
China Earthquake Disaster Prevention Center
China Emergency Management Magazine
China's Aircraft Owner and Pilot Association
China Satellite Navigation and Positioning Association
China Meteorological Service Association
China Road Traffic Safety Association
All-China Environment Federation
China Shenzhen UAV Industry Association
General Aviation Sub of China Information Industry Association
UAV Application and Control Research Center, Chinese Academy of Sciences

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应急无人机前沿技术高峰论坛 - 议程

6 月 21 日 09:00-17:00 | 深圳会展中心 6 层 水仙厅

时 间	主 题	嘉 宾
08:30-09:00	签 到	
09:00-09:30	致 辞	
	介 绍	**孙守军** 中国民用航空应急救援联盟秘书长、中国 AOPA 副秘书长
	致 辞	**刘志仁** 国务院参事室参事 深圳市人民政府
	主旨发言	**崔 涛** 中国应急管理报社党组书记 **潘怀文** 中国地震灾害防御中心党委书记
	重要发言	应急管理部 / 工信部（司局领导） 中国民航局 / 国家安全生产应急救援中心（司局领导） **廖小罕** 中国科学院地理科学与资源研究所党委书记 **杨金才** 2019 世界无人机大会组委会秘书长
09:30-09:40	表彰 2019 春节“幸福中国行 · 零点行动”突出单位及个人	
	孙守军 中国民用航空应急救援联盟秘书长向表彰的单位及个人发表感谢词 **张全德** 中国卫星导航定位协会秘书长宣读获表彰单位及个人名单 **徐大平** 代表获表彰通航公司发表感言讲话 **刘家敏** 代表获表彰医疗机构发表感言讲话 **杨 苡** 代表获表彰无人机企业发表感言讲话 **古 梅** 代表获表彰个人发表感言讲话	
主旨演讲		
09:40-10:00	地震应急无人机服务需求	**潘怀文** 中国地震灾害防御中心党委书记
10:00-10:20	无人机在灭火救援领域的应用与展望	**尹燕福** 应急管理部消防救援局指挥中心主任
10:20-10:40	应急救援无人机应用技术	**昂海松** 南京航空航天大学教授 博士生导师
10:40-11:00	应急管理一张图的重大意义	**余卓渊** 中国科学院地理科学与资源研究所副研究员
11:00-11:10	休息	

11:10-12:00	**讨论环节：**（主持：董传仪） **防灾、减灾、救灾领域对无人机的需求和展望**	
	刘志仁、廖小罕、潘怀文、尹燕福、甄小丰、曲国胜、曲国燊、昂海松、刘家敏、余卓渊、王继新、柳杨、张沛哲、杨苡、李睿堃、张学良、李晨、应急 X 团队、焦权声、赵苏铭	
12:00-13:00	**午餐午休**	
主旨演讲		
13:00-13:20	华为助力应急管理数据化转型	**柳　杨** 华为数字政府行业解决方案部总裁
13:20-13:35	无人机动态智能巡检系统的研究与应用	**张沛哲** 华北石油通信有限公司无线事业部总经理
13:35-13:55	消防用无人机体系研究	**李睿堃** 应急管理部上海消防研究所 国家消防装备质量监督检验中心主任
13:55-14:15	无人机及培训体系在灾情信息采集中的必要性	**杨　苡** 北方天途航空技术发展（北京）有限公司董事长
14:15-14:35	大疆无人机在应急救援领域的应用和实践	**张学良** 深圳市大疆创新科技有限公司解决方案高级经理
14:35-14:55	应急救灾行动中的灵瞳 ——朗威视讯空中侦查指挥系统	**李　晨** 北京朗威视讯科技股份有限公司董事长 **Chris Wang** Dynamic Perspective Security
14:55-15:15	比利时无人机检测中心项目 DI2MOVE	**帕特里克·马斯卡特** 比利时无人机联合会主席
15:15-15:35	用于快速灾害评估及航测的新型无人机	**罗格尔·马里·瑟瑟** 菲律宾 FEATI 大学教授、菲律宾国家空间发展计划项目负责人
15:35-15:55	无人机脆弱性及端到端数据加密安全	**亚里·华世能** 世界无人机联合会法律和监管委员会主席
15:55-16:15	空天地一体化监测技术在地震地质灾害应用中的思考	**许建华** 中国地震应急搜救中心技术部副主任
16:15-16:35	无人机在消防救援中的应用	**吴立志** 中国人民警察大学消防指挥系主任、教授
16:35-16:50	空天地指挥调度服务平台解决方案	**李　印** 航救联科技有限公司总经理
16:50-17:00	**休息**	
17:00-17:30	**讨论环节：**（主持：张广泉） **空天地指挥平台对无人机联动响应、数据采集智能化的需求和展望**	
	刘志仁、廖小罕、潘怀文、尹燕福、甄小丰、曲国胜、曲国燊、昂海松、刘家敏、余卓渊、王继新、柳杨、张沛哲、杨苡、李睿堃、张学良、李晨、应急 X 团队、焦权声、赵苏铭	

Frontier Technology for Emergency UAV Summit

Forum Agenda

09:00-17:00, June 21 | 6F, Narcissus Hall, SZCEC

Time	Topics	Speaker
08:30-09:00	Registration	
09:00-09:30	Greeting	
	Introduction	**Sun Shoujun**, Secretary General of China Civil Aviation Emergency Rescue Alliance, Deputy Secretary General of AOPA China
	Greeting	**Liu Zhiren**, Counselor of the National Council Counselor's Office Shenzhen Municipal People's Government
	Keynote speech	**Cui Tao,** Secretary Genera of the Party Committee of China Emergency Management Newspaper **Pan Huaiwen**, Secretary General of China Earthquake Disaster Prevention Center
	Important speech	Leader of Emergency Management Department / Ministry of Industry and Information Technology Department Leader of the Civil Aviation Administration of China/National Safety Production and Emergency Rescue Center **Liao Xiaohan**, Secretary General of the Party Committee of the Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences. **Yang Jincai**, Secretary General of the Organizing Committee of World Drone Congress 2019
09:30-09:40	Honoring the Units and Individuals of the "Happy China Tour and Zero Action" in the Spring Festival of 2019	
	Sun Shoujun, Secretary General of China Civil Aviation Emergency Rescue Alliance, Deputy Secretary General of AOPA China Give thanks to the units and individuals who have been commended **Zhang Quande**, Secretary General of China Satellite Navigation and Positioning Association Publish the list of awarded units and individuals **Xu Daping**, the representative of awarded Navigation company to deliver a greeting speech **Liu Jiamin**, the representative of awarded Medical institutions to deliver a greeting speech **Yang Yi**, the representative of awarded drone company to deliver a greeting speech **Gu Mei**, the representative of awarded person to deliver a greeting speech	
Keynote Speech		
09:40-10:00	Drone Service Demand in Earthquake Emergency	**Pan Huaiwen**, Secretary and Deputy Director of China Earthquake Disaster Prevention Center
10:00-10:20	Application and Forecast of Drone in Fire Fighting and Rescue Field	**Yin Yanfu,** Director of Emergency Management Department Fire and Rescue Bureau Command Center
10:20-10:40	Application Technology of Emergency Rescue Drones	**Ang Haisong**, Professor and Doctoral tutor of Nanjing University of Aeronautics and Astronautics
10:40-11:00	The Significance of "One Map" for Emergency Management	**Yu Zhuoyuan**, Associate Research Fellow of Geographical Sciences and Natural Resources Research Institute
11:00-11:10	Rest	

11:10-12:00	**Dialogue** (Host：Dong Chuanyi) **Demand and Expectation For Drones in The Fields Of Disaster Prevention, Mitigation And Rescue**	
	Liu Zhiren, Liao Xiaohan, Pan Huaiwen, Yin Yanfu, Yan Xiaofeng, Qu Guosheng, Qu Guozhen, Ang Haisong, Liu Jiamin, Yu Zhuoyuan, Wang Jixin, Liu Yang, Zhang Peizhe, Yang Yi, Li Ruiqi, Zhang Xueliang, Li Chen, Emergency X Team, Jiao Quansheng, Zhao Suming	
12:00-13:00	**Lunch Break**	
Keynote Speech		
13:00-13:20	Huawei Helps the Data Transformation of Emergency Management	**Liu Yang**, President of Digital Government Industry Solution Department of Huawei
13:20-13:35	Research and Application of UAV Dynamic Intelligent Inspection System	**Zhang Peizhe**, Manager of Wireless Business Department of North China Petroleum Communications Co., Ltd.
13:35-13:55	Research on Firefighting Drone System	**Li Ruikun**, Senior Engineer of Shanghai Fire Research Institute of MEM/China Natinal Fire-Fighting Equipment Quality Supervision Testing Center
13:55-14:15	Necessity of UAV and Training System in Disaster Information Collection	**Yang Yi**, Chairman of Beijing TT Aviation Technology
14:15-14:35	Application of DJI UAVs in Emergency Rescue	**Zhang Xueliang**, Senior Solutions Manager of SZ DJI Technology Co., Ltd.
14:35-14:55	The Eyes of Rescues - Reconnaissance and Command System In Helicopter Reconnaissance	**Li Chen**, President of Beijing Longway Broadcast Science Technology Co.,Ltd. **Chris Wang**,Dynamic Perspective Security
14:55-15:15	Drone Research Center	**Patrick Mascart**, President of the Belgian Drone Federation ID2Move Manager
15:15-15:35	Innovative UAVs for Rapid Disaster Assessment and Aerial Survey	**Dr. Rogel Mari Sese**, Professor of FEATI University, Philippines； Leader of the National SPACE Development Program
15:35-15:55	Drone Vunerabilities and End-to-End Data Encryption Security	**Jari E. Vepsalainen**, Chairman of Legal and Regulatory Commission of World UAV Federation, Chairman of Fintrade-Mercer Group
15:55-16:15	The Application of Integrated Monitoring Technology in Seismic and Geological Disasters	**Xu Jianhua**, Senior engineer of National Earthquake Response Support Service
16:15-16:35	Application of Drones in Fire Rescue	**Wu Lizhi**, Director of the Fire Command Department of the Chinese People's Armed Police Forces Academy
16:35-16:50	Emergency Command and Dispatch Service Platform Solution	**Li Yin**, General Manager of Aviation Rescue Alliance Technology Co., Ltd
16:50-17:00	**Break**	
17:00-17:30	**Dialogue** (Host：Zhang Guangquan) **Demand and Expectation of Linkage Response of Drones and Intelligent Data Acquisition For The Air-Ground Integrated Dispatching Platform**	
	Liu Zhiren, Liao Xiaohan, Pan Huaiwen, Yin Yanfu, Yan Xiaofeng, Qu Guosheng, Qu Guozhen, Ang Haisong, Liu Jiamin, Yu Zhuoyuan, Wang Jixin, Liu Yang, Zhang Peizhe, Yang Yi, Li Ruizhen, Zhang Xueliang, Li Chen, Emergency X Team, Jiao Quansheng, Zhao Suming	

廖小罕

中国科学院地理科学与资源研究所党委书记、副所长
中国科学院无人机应用与管控研究中心主任

Liao Xiaohan

Deputy Director General of the Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences.
Director General of The Research Center for UAV Applications and Regulation, Chinese Academy of Sciences

嘉宾简介

廖小罕，博士生导师。曾任科学技术部高新技术司和基础研究司副司长，国家遥感中心主任，中国航空运动协会副主席，中国空间科学学会副理事长。现从事轻小型无人机遥感应用、无人机遥感数据航母构建、无人航空器组网观测、云端管控以及低空航路构建等研究。社会兼职任中国地理信息产业协会监事长、无人机应用与管控工作委员会主任委员。

Speaker Information

Mr. Liao used to work as a deputy director general on the department of High and New Technology and the department of Basic Research of Ministry of Science and Technology of the People's Republic of China (MOST). He also worked as the director general of the National Remote Sensing Center of China (NRSCC), the vice chair of Aero Sports Federation of China and the vice President of Chinese Society of Space Research. Mr. Liao has been engaged in the research about remote sensing applications for light and small UAVs, UAV remote sensing megadata carrier, and networking observation technology, cloud-end control and low-altitude air route construction for UAVs . He is also the supervisory of China Association for Geographic Information Society, and the chairman of the committee for UAV applications and regulation.

潘怀文

中国地震灾害防御中心
党委书记

Pan Huaiwen

Secretary and Deputy
Director of China
Earthquake Disaster
Prevention Center

演讲主题

地震应急无人机服务需求

内容概要

应急无人机在地震和地质灾害中的应用及需求，包括无人机续航能力、载荷量、镜头精度、抗干扰性、复杂气候适应性、信息传输稳定性、多功能复合性等要求。

嘉宾简介

潘怀文，公共管理硕士。1992 年 10 月至 2009 年 12 月，任中国地震局监测预报司副主任科员、主任科员、副处长、处长、副司长，人事教育司副司长，监察司司长，中央纪委驻中国地震局纪检组副组长。现任中国地震台网中心主任、中国地震局新闻发言人。

Topic

Drone Service Demand in Earthquake Emergency

Speech Abstract

This presentation states the application and needs of emergency drones in earthquakes and geological disasters, including drone endurance, load capacity, lens accuracy, anti-interference, complex climate adaptability, information transmission stability, and multi-functionality.

Speaker Information

From October 1992 to December 2009, he served as deputy senior officere, senior officer, deputy director, director and the personnel and education department head of the Monitoring and Forecasting Department of the China Earthquake Administration, deputy team leader of the Supervision Department and Discipline Inspection Commission of the China Earthquake Administration. He is currently the director of the China Earthquake Network Center and a spokesperson for the China Earthquake Administration.

昂海松

南京航空航天大学教授、博士生导师

Ang Haisong

Professor and Doctoral tutor of Nanjing University of Aeronautics and Astronautics

演讲主题

应急救援无人机应用技术

内容概要

鉴于无人机的机动灵活、快速响应、便于突防进入危险环境和相对成本低等特点，无人机的发展已为应急救援领域提供了新型装备，报告简要介绍不同类型无人机在环境监控、消防、灭火、抗洪救灾、交通、地震、通讯中继、处理突发事故等方面的角色特征和应用技术。

嘉宾简介

南京航空航天大学教授，博导，曾任航空宇航学院院长。中国航空学会理事，中航无人驾驶航空器系统专门委员会委员，中国民用航空应急救援联盟专家委员会副主任，中国公安部警务保障专家，中国无人机任务系统及技术产业联盟常务理事，中国林业生态发展促进委员会无人机系统专业委员会主任。获国家科技进步二等奖 1 项，国防科技进步一等奖 2 项、部省级科技成果奖 10 项，国际科技奖 6 项。荣获国家级教学名师、全国模范教师、享受国务院政府特殊津贴、中航冯如航空科技精英奖、国防科技工业有突出贡献专家、中国航空工业有突出贡献专家、南京市十大科技之星等荣誉。

Topic

Application Technology of Emergency Rescue Drones

Speech Abstract

According to the features of drones such as flexibility, rapid response, easily penetrate into dangerous environment and relatively low cost, the development of drones has provided new equipment for emergency rescue. This report briefly introduces the role characteristics and application techniques of different type of drones in environmental monitoring, fire protection, fire fighting, flood relief, traffic, earthquakes, communication relays, and handling of unexpected incidents.

Speaker Information

Professor and Doctoral Tutor of Nanjing University of Aeronautics and Astronautics and served as Dean of Aerospace Engineering.Present: China Aviation Society, member of China Aviation Unmanned Aircraft System Special Committee, Deputy Director of China Civil Aviation Emergency Rescue Alliance Expert Committee, Police Security Expert of China Ministry of Public Security, Executive Director of China UAV Mission System and Technology Industry Alliance, Director of the Professional Committee of the UAV System of the China Forestry Ecological Development Promotion Committee. He has owned second prize of National Science and Technology Progress Award once, first prizes for National Defense Science and Technology Progress twice,10 times of scientific and technological achievements awards at province-level, and 6 times of international science and technology awards.

余卓渊

中国科学院地理科学与资源研究所副研究员

Yu Zhuoyuan

Associate Research Fellow of Geographical Sciences and Natural Resources Research Institute

演讲主题

应急管理一张图的重大意义

内容概要

在统一时空框架下，构建应急管理“一张图”体系，是整合基础地理信息和应急管理的风险隐患、防护目标、队伍、物资等数据，各级部门间数据互联互通，实现“一张图灾情感知、一张图应急联动、一张图救援调度、一张图指挥决策、一张图总结评估”的重要基础，是“智慧应急、可视应急”必由之路。

嘉宾简介

余卓渊，中国科学院地理科学与资源研究所副研究员，中国科学院大学岗位教授，地图学与地理信息系统博士，中国自然资源学会资源制图专业委员会委员。主要从事地图可视化、大数据制图理论及技术、地理信息系统、资源环境制图等研究。主持和参与了国家科研项目 40 多项，负责和参与了 10 部国家专题地图集设计、编制和出版。

Topic

The Significance of "One Map" for Emergency Management

Speech Abstract

The purpose of constructing "one map" system for emergency management is to integrates the risk information, protection objectives, teams, materials and other data of basic geographic information and emergency management. Data exchange between departments at various levels is the important basis to achieve one-map disaster awareness, one-map emergency linkage, one-map rescue dispatch, one-map command decision, and one-map summary assessment. In order to be more efficient and effective on emergency situation.

Speaker Information

Yu Zhuoyuan, Associate Research Fellow of Geographical Sciences and Natural Resources Research Institute,Professor of the University of Chinese Academy of Sciences, Ph.D. in Cartography and Geographic Information Systems, and member of the Resource Mapping Professional Committee of the Natural Resources Society of China. He is mainly engaged in map visualization, big data mapping theory and technology, geographic information systems, resource and environment mapping and other research. He has hosted and participated in more than 40 national research projects, and is responsible for the design, compilation and publication of 10 national thematic atlases.

柳杨

华为数字政府行业解决方案部总裁

Liu Yang

President of Digital Government Industry Solution department of Huawei

演讲主题

华为助力应急管理数据化转型

内容概要

在分析应急管理信息化面临的挑战的基础上，介绍华为视频云、融合通信、应急通信、大数据、人工智能等先进技术打造的“全灾感知、全态把握、全员协同、全域通联、全局指挥”的华为智慧大应急解决方案。

嘉宾简介

柳杨，华为数字政府行业解决方案部总裁；长期负责华为政府行业信息化、数字化解决方案设计、开发和咨询。对云计算、大数据、人工智能、应急通信等技术在应急、水利、环保、自然资源等领域的应用有着丰富的实践和深入的理解。

Topic

Huawei Helps the Data Transformation of Emergency Management

Speech Abstract

Based on the analysis of the challenges faced by emergency management informationization, to introduce Huawei's large-scale emergency solution for global command with features of better disaster awareness, better state grasp, better staff coordination, global communication through its advanced technologies such as video cloud, converged communications, emergency telecommunications, big data, and artificial intelligence, etc.

Speaker Information

Liu Yang is the president of Huawei digital government industry solution department. He is in charged of the design, development and consulting of Huawei's government information technolog and digital solution department. He has rich practice and in-depth understanding of cloud computing, big data, artificial intelligence, emergency communication and other technologies in the fields of emergency, water conservancy, environmental protection and natural resources.

张沛哲

华北石油通信有限公司
无线事业部总经理

Zhang Peizhe

Manager of Wireless Business Department of North China Petroleum Communications Co., Ltd.

演讲主题

无人机动态智能巡检系统的研究与应用

内容概要

随着管道数量的逐年增加，地下管道错综复杂，管道的位置和走向都不是十分清楚，部分华北地区地形环境复杂，管道偷油破坏活动多发，给管道的巡线工作造成了很大困难。通过 3S 技术（遥感技术 (RS)、地理信息系统 (GIS) 和全球定位系统 (GPS)）结合无人驾驶飞行器技术、智能传感器技术、通讯技术、GPS 差分定位技术和遥感应用技术，具有自动化、智能化、专用化快速获取地质变化、房屋建设、动态监控、自然灾害等空间遥感信息，完成石油管道遥感数据的分析处理的应用。满足油田管线巡检应用需求，具有低本高效、安全智能、持续发展的特征，实现“重点巡视、组织运维”模式下的“天地一体化”生产经营信息服务，是“智慧油田”的重要组成部分。

嘉宾简介

张沛哲，现任华北石油通信有限公司无线事业部经理，担任华北石油无人机科研项目总负责人，参与中石油石化无人机巡检作业标准制定，并自主开发“石油领域无人机监管平台”。2019 年 1 月在“全国智能管道与智慧管网技术交流大会”获得中国石油企业协会优秀论文一等奖。

Topic

Research and Application of UAV Dynamic Intelligent Inspection System

Speech Abstract

As the number of pipelines increases year by year, the underground pipelines are intricate, and the location and direction of the pipelines are not very clear. Especially terrain environments in North China are complex. There are many oil-destructive activitiesto the pipelines, which has caused great difficulties for the pipeline inspection work. Through Remote Sensing Technology (RS), Geographic Information System (GIS) and Global Positioning System (GPS) combined with unmanned aerial vehicle technology, intelligent sensor technology, communication technology, GPS differential positioning technology and remote sensing application technology, now it is capable to access to spatial remote sensing information such as geological changes, housing construction, dynamic monitoring, natural disasters, etc. To achieve the purpose of analysis and process the remote sensing data of petroleum pipelines.

Speaker Information

Zhang Peizhe is currently the manager of the wireless business department of North China Petroleum Communications Co., Ltd., and is the general manager of the North China Petroleum UAV research project, also participating in the inspection standards of China Petrochemical UAVs. He has formulated and independently developed the "supervised platform for drones in the oil field". In January 2019, he has won the first prize of the Excellent Paper Award of China Petroleum Enterprise Association at the "National Intelligent Pipeline and Smart Pipe Network Technology Exchange Conference".

李睿堃

应急管理部上海消防研究所、国家消防装备质量监督检验中心主任

Li Ruikun

Senior Engineer of Shanghai Fire Research Institute of MEM/China Natinal Fire-Fighting Equipment Quality Supervision Testing Center

演讲主题

消防用无人机体系研究

内容概要

基于无人机产品技术现状及发展趋势，根据消防任务对无人机的功能及性能需求，开展以上六方面的体系研究，形成消防用无人机体系的研究报告、检验规程、系列标准、培训方案、配备规范和应用产品，将起到重要的引领、推动和规范、完善作用，最终形成消防用无人机综合体系建立。

嘉宾简介

李睿堃，应急管理部上海消防研究所、国家消防装备质量监督检验中心高级工程师，消防救援局消防装备授课专家，主要负责发光照明、指示导向、生命探测、红外成像、无人系统等消防装备的产品检验、标准制定、技术研究方面工作。是消防员照明灯具、消防用雷达生命探测仪、消防无人机系统三类产品的全国首台装备检验人、首份国家标准主写人，首个试验室建设人。同时主检并完成各类消防装备产品 600 余项；建立并完善防护等级、光电综合、生命探测、无人系统、环境综合等试验室 10 余个；研制开发各类检验仪器设备 10 余套，授权专利 6 项其中发明专利 3 项；编写并修订各类消防装备国家及行业标准 10 余项；参与消防部队授课 11 年培训学员 1500 余名；牵头并参与所级、局级、部级、国家级各类科研项目 10 余项；在国内外学术期刊和重要会议上发表论文 10 余篇，参与编写消防装备相关专著 3 部。

Topic

Research on Firefighting Drone System

Speech Abstract

Based on the current status and development trend of UAVs product technology, and function and performance requirements of the firefighting mission for the UAV, there are six aspects of the system research are carried out to form the research report, inspection procedures, series standards,training of the firefighting UAV system, equipment specifications and product application. All these researches will play an important role in guiding, promoting and standardizing and perfecting, and finally form a comprehensive system for firefighting drones.

Speaker Information

Li Ruiqi, senior engineer of Shanghai Fire Research Institute of Emergency Management Department and National Fire Equipment Quality Supervision and Inspection Center. Tutor and expert of firefighting equipment of fire department, and mainly responsible in inspection, standard setting, and technical research of lighting, indicating, life detection, infrared imaging, unmanned system, etc. He is the first national equipment inspector of the firefighter light, life detector and firefighting drone system, and also the first national standard writer and the first laboratory builder.

杨苡

北方天途航空技术发展（北京）有限公司董事长

Yang Yi

Chairman of Beijing TT Aviation Technology

北方天途航空 TTA

演讲主题

无人机及培训体系在灾情信息采集中的必要性

内容概要

无人机及培训体系在应急救援过程中的重要性，例如无人机灾情感知，无人机救援投送、无人机通信中继等。基于人工智能的线上线下无人机培训体系及应用案例。

嘉宾简介

杨苡，毕业于北京师范大学经济学专业，华中科技大学在职 MPA，清华大学 EMBA。北方天途航空技术发展（北京）有限公司创始人、国家教育部双创导师、深圳市无人机行业协会副会长。北方天途先后获得浙江省科学进步奖一等奖、国家级大北农科技奖智慧农业奖等荣誉称号。公司曾参与国家十一五、十二五、863 和 973 等无人机项目，在工业级无人机领域共取得计算机软件著作权 16 项和无人机技术相关知识产权近 160 余项，曾获得中国最佳农业植保机器人奖、中国警用装备航空类十大品牌、无人机警用装备科技创新奖、中国农用航空创新力企业等数十项荣誉。

Topic

Necessity of UAV and Training System in Disaster Information Collection

Speech Abstract

The importance of UAV and training systems in the emergency rescue process, such as the disaster awareness of drones, the drone rescue delivery, and the drone communication relay, etc. The online and offline drone training system based on artificial intelligence.

Speaker Information

Founder of Northern Tiantu Aviation Technology Development (Beijing) Co.,Ltd., Tutor of National Innovation Department in both cities and enterprises, and Vice President of Shenzhen UAV Industry Association. Northern Tiantu Aviation has won the first prize of Zhejiang Science Progress Award and the National Dabei Agricultural Science and Technology Prize-Wisdom Agriculture Award. Northern Tiantu Aviation has participated in various UAV projects such as the National Eleventh Five-Year Project, Twelve Five-Year Project, 863 and 973 projects.

张学良

深圳市大疆创新科技有限公司解决方案高级经理

Zhang Xueliang

Senior Solutions Manager of SZ DJI Technology Co., Ltd.

演讲主题

大疆无人机在应急救援领域的应用和实践

内容概要

本报告根据我国应急管理体系信息化建设的需求，结合大疆行业无人机具备的轻量化、智能化、可靠性特点及快速建模、高清视频保障等优势，从城市消防、森林消防、应急灾害救援三个主要应用场景，以实际应用案例分别阐述了无人机在应急救援领域中的重要作用。

嘉宾简介

张学良，现任大疆创新行业高级解决方案经理，长期致力于无人机在应急救援领域的应用探索，先后多次参与危化品事故、水域事故、重大火灾及重大交通事故的无人机救援保障工作，积累了丰富的现场应用经验，对无人机在应急救援领域的应用有深入的理论研究和实践。

Topic

Application of DJI UAVs in Emergency Rescue

Speech Abstract

According to the needs of informatization construction of emergency management system, this report combines the features of lightweight, intelligence and reliability and advantages of rapid modeling and ensure the quality of high-definition video, we can illustrate the important role of drones in the field of emergency rescue in three main application scenarios of urban fire protection, forest fire protection, and emergency response.

Speaker Information

Zhang Xueliang is currently the senior solution manager of the innovation industry in DJI. He has long been committed to the application of UAVs in the field of emergency rescue. He has participated in rescue various operations of dangerous chemicals accidents, water accidents, major fires and major traffic accidents. He has accumulated rich experience in field application and has in-depth theoretical reserach and practice on the application of drones in the field of emergency rescue.

李晨

北京朗威视讯科技股份有限公司董事长

Li Chen

President of Beijing Longway Broadcast Science Technology Co.,Ltd.

朗威视讯

演讲主题

应急救灾行动中的灵瞳——朗威视讯空中侦查指挥系统

内容概要

朗威视讯空中侦查指挥系统，包括直升机侦查、高清图传、应急通信、信号覆盖、空中指挥等，针对各种灾害现场环境，实现前后方信息共享与交流指挥，帮助救援团队进行高效、准确的灾害险情评定，保障救援工作顺利开展。

嘉宾简介

李晨，北京朗威视讯科技股份有限公司董事长、总经理，中国电影电视技术学会摄影摄像专业委员会常务委员，中国民用航空应急救援联盟副秘书长。国内知名传输技术团队缔造者，保有多项中国视音频无线传输记录。

Topic

The Eyes of Rescues - Reconnaissance and Command System In Helicopter Reconnaissance

Speech Abstract

The reconnaissance and command system in helicopter by longway team, including helicopter reconnaissance, high-definition image transmission, emergency communication, signal coverage, electronic fence, air command.It can provide key points to the commander such as live connection, sharing information, chain of command, assess the situation, site safety of rescue teams.

Speaker Information

Lichen,the president of Beijing Longway Broadcast Science Technology Co., Ltd. Standing member of Photography Professional Committee, China Society of Motion Picture and Television Engineers. Deputy secretary general of China Civil Aviation Emergency Rescue Alliance. The leader of longway team that a well-know transmission technology team in China.

帕特里克·马斯卡特

比利时无人机联合会主席、比利时 ID2Move 公司经理

Patrick Mascart

President of the Belgian Drone Federation
ID2Move Manager

演讲主题

比利时无人机检测中心项目 DI2MOVE

内容概要

ID2Move 是一个位于比利时的合作项目。 该项目旨在创建一个自治系统领域的创新初创企业能力中心，与比利时和国外的大学建立了强有力的合作关系。 ID2Move 提供一系列服务，以促进和支持创新解决方案的开发，包括：与比利时和国际研究中心，测试区，大公司网络，知识共享活动，共享服务和设施的特权链接。我们的核心价值观是卓越和创新，开放和包容，互惠和负责任的治理。

嘉宾简介

帕特里克·马斯卡特的职业生涯始于比利时民航局认可的飞行员和指导员。 他参与过许多欧洲项目，并对未来的欧洲无人机规则的发展有着浓厚的兴趣。 他目前是许多公司和地区政府的顾问。 比利时民用无人机联合会主席，Drone4Care 的 CIO 以及 ID2Move 的总经理。

Topic

Drone Research Center

Speech Abstract

ID2Move is a collaborative project located in Belgium. The project aims at creating a Competence Center for Innovative Startups in the field of Autonomous Systems with a strong collaboration with Universities in Belgium and abroad. ID2Move offers a series of services to foster and support the development of innovative solutions including: A privileged link with Belgian and international research centers, test zones, network of larger companies, knowledge-sharing events, shared services and facilities,… . Our core values are excellence and innovation, open and inclusive, reciprocity and Responsible governance.

Speaker Information

Patrick Mascart began his career as a pilot and instructor recognized by the Belgian Civil Aviation Administration. He followed many European projects and was particularly interested in the future European Drone Regulation. He is currently a consultant for many companies and regional governments. President of the Belgian civil drone federation, CIO of the startup Drone4Care and since last year Manager of ID2Move.

罗格尔·马里·瑟瑟

菲律宾 FEATI 大学教授、菲律宾国家空间发展计划项目负责人

Dr. Rogel Mari Sese

Professor of FEATI University, Philippines; Leader of the National SPACE Development Program

演讲主题

用于快速灾害评估及航测的新型无人机

内容概要

无人机的最新技术提升了无人机设备在各种环境下的可用范围和适用性，扩大了无人机的应用范围。近期，菲律宾三所大学、FEATI 大学 De La Salle 大学和 Ateneo de Manila 大学，开始致力于研发一种固定翼无人机，用于快速进行灾害评估，这一无人机适用于该国的群岛特质。通过使用新的专利组件，这一团队将能够向世人展示一种全新型无人机系统，该系统将适用于各种应用环境，并且成本低廉。

嘉宾简介

Rogel Mari Sese 博士是国际公认的空间科学发展专家，也是菲律宾三位天体物理学家之一。他目前是菲律宾 FEATI 大学的研究员，同时他还参与学术界，产业界，政府和国防部门的合作，推动菲律宾空间技术的应用。他率先在菲律宾开展多项航空航天发展研究，他是国家空间发展计划项目负责人，还是科技部无人机研究与发展联合会领导人物（DOST）。他被国际宇航联合会授予 2012 年新兴太空领袖奖，最近被亚洲科学家杂志评为 2018 年亚洲科学家百强之一。

Topic

Innovative UAVs for Rapid Disaster Assessment and Aerial Survey

Speech Abstract

Recent advancements in unmanned aerial vehicle (UAV) technology has led to its proliferation due to its wide availability and applicability in various scenarios. Three Philippine universities, namely FEATI University, De La Salle University and Ateneo de Manila University, has recently embarked on the development of a fixed-wing UAV for rapid disaster assessment suitable to the archipelagic nature of the country. Through the use of new, patent pending biocomposite materials combined with locally-developed technology and off the shelf components, the team was able to demonstrate a new UAV system is robust for various applications and available at a low-cost.

Speaker Information

Dr. Rogel Mari Sese is an internationally recognized expert on space science development andone of the three astrophysicists in the Philippines. He currently a University Research Fellow at FEATI University, Philippines and has worked with the academe, industry, government and defense sectors in promoting that utilization of space technology in the Philippines. He spearheaded numerous researches in aerospace development in the Philippines such as the project leader of the National SPACE Development Program and the UAV Research and Development Consortium of the Department of Science and Technology (DOST). He was awarded by the International Astronautical Federation as one of the 2012 Emerging Space Leaders, and was recently named by Asian Scientist Magazine as one of the Top 100 Asian Scientists for 2018.

亚里·华世能

世界无人机联合会法律和监管委员会主席、美圣集团总裁

Jari E. Vepsalainen

Chairman of Legal and Regulatory Commission of World UAV Federation, Chairman of Fintrade-Mercer Group

演讲主题

无人机脆弱性及端到端数据加密安全

内容概要

IPRA 加密无人机用例

1、对无人机和所有者之间的数据进行加密和签名 , 防止数据被窃听 / 窃取 / 截获

2、对无人机和所有者之间的数据进行加密和签名 , 防止无人机被劫持

3、加密无人机上的数据 , 如果无人机被盗，则禁止访问数据 "

嘉宾简介

Jari E. Vepsalainen 先生是一名律师，曾担任芬兰政府警察和检察官、宪兵、军事法庭和东部旅的指挥官。他是 Fintrade-Mercer 集团的董事长，这是一家专注于中国市场的国际集团，将安全和安保业务与战略联盟、工业制造、技术转让、企业组建、合资企业、公司法、税务规划、投资管理和品牌服务整合在一起，形成了一个全面的解决方案。Vepsalainen 先生是中国人民大学 (北京) 和中山大学 (广州) 的校友，他在 1985-1988 年期间参加了政府资助的研究项目。

Topic

Drone Vunerabilities and End-to-End Data Encryption Security

Speech Abstract

IPRA encryption use cases for drones:1. Encrypt and sign the data between the drone and owner.Prevent the data from being eavesdropped / stoled / intercepted.2. Encrypt and sign the data between the owner and the drone.Prevent the drone from being hijacked. 3. Encrypt the data on the drone. Prevent access to the data if the drone is stolen.

Speaker Information

Mr. Jari E. Vepsalainen, a lawyer by education, has served the Finland Government as Chief of Police and Prosecutor as well as Military Police, Military Court and Commendant of the Eastern Brigade. He is the Chairman of Fintrade-Mercer Group which is an international group rendering specialised in China market and integrates safety and security business with strategic alliances, industrial manufacturing, technology transfer, corporate formation, joint venture, corporate law, taxation planning, investment management and branding services into a comprehensive approach. Mr. Vepsäläinen is alumni of the People`s University of China, Beijing and Sun Yat-Sen University, Guangzhou where he conducted government sponsored research projects in 1985-1988.

许建华

中国地震应急搜救中心
技术部副主任

Xu Jianhua

Senior Engineer of
National Earthquake
Response Support Service

演讲主题

空天地一体化监测技术在地震地质灾害应用中的思考

内容概要

本次报告以重大地震和地质灾害现场应急调查监测与救援需求为核心，结合目前国内外 SAR、LiDAR、无人机倾斜摄影等技术在灾害中的应用现状，并通过四川茂县叠溪镇山体滑坡空天地监测设备实验性测试，深入分析目前在监测和调查技术上存在的问题及未来的发展方向。

嘉宾简介

许建华，高工，长期从事地震和地质灾害应急救援现场任务、技术研发应用及培训演练等工作。参与汶川、九寨沟、岷漳、苍梧、呼图壁、杂多等多次地震现场及后方应急，荣获中国地震应急搜救中心“汶川地震应急救援工作先进个人”称号。共发表论著 1 部；核心期刊论文 12 篇；参与发明专利 1 项。负责和参加科技部等 10 余项项目，其中负责 7 项。

Topic

The Application of Integrated Monitoring Technology in Seismic and Geological Disasters

Speech Abstract

This report focuses on the on-site emergency investigation, monitoring and rescue needs of major earthquakes and geological disasters,and through the experimental test of aerial monitoring equipment for landslide in diexi town, MAO county, sichuan province. Analyzing the current monitoring and investigation technology problems and future development direction Combining with the current situation of the application of SAR, LiDAR, UAV tilt photography and other technologies in disasters.

Speaker Information

Xu Jianhua,senior engineer,focus on earthquake and geological disaster emergency rescue tasks, technology research and development and application of training exercises and other work. Ms Xu has participated in Wenchuan, Jiuzhaigou, Handan, Cangwu, Hutubi, Zaduo earthquake emergency operation. Winner of the title of "Advanced Individual of Wenchuan Earthquake Emergency Rescue Work" of China Earthquake Emergency Search and Rescue Center

吴立志

中国人民警察大学消防指挥系主任

Wu Lizhi

Director of the Fire Command Department of the Chinese People's Armed Police Forces Academy

演讲主题

无人机在消防救援中的应用

内容概要

结合项目研究成果和实际灭火救援案例，概括总结了无人机在灾情侦察、灭火和综合救援三个方面应用的方法和手段；梳理分析了无人机在灭火救援领域实际应用中存在的不会用、不敢用和不愿用等问题的原因，并提出了解决问题的方案；最后，对无人机在灭火救援领域的应用进行展望，提出了一键起飞、前导智能侦察无人机，系留式大载重、长航时灭火无人机，模块化、多功能综合救援无人机平台等无人机发展新思路。

嘉宾简介

中国人民警察大学消防指挥系主任、教授、博士。主持或参与完成国家级、省部级科研项目 20 余项，参与编制公共安全行业标准 5 项，获公安部科技奖 6 项，享受公安部特殊津贴。目前，承担了“基于无人机侦检测绘的灭火救援现场辅助指挥决策研究”、“《消防无人机应用技术》课程教学体系研究”等多个部级以上项目的研究，同时主持起草的《消防无人机训练指南》等消防无人机系列行业标准正在申报中。

Topic

Application of Drones in Fire Rescue

Speech Abstract

To summarize the methods and means of applying drones in three aspects of disaster detection, fire fighting and conprehensive resecue with the research results of project and actual cases of fire rescue; To analysis problems appeared in actual application of fire fighting and rescue such as not capable, not daring and unwilling to use drones, and propose solutions for those problems. At last, present the expectation of application usage in the field of fire fighting and rescue, and new ideas for future development of drones such as take-off by one button, detection drones for guidance, fire-fighting drones with strong loading capacity and cruising capacity, and rescue drones with multi-functions.

Speaker Information

Director, professor and doctor of the Fire Command Department of the Chinese People's Armed Police Forces Academy.He hosted or participated in the completion of more than 20 national, provincial and ministerial scientific research projects, participated in the preparation of 5 public safety industry standards, won 6 science and technology awards from the Ministry of Public Security, and enjoyed special allowances from the Ministry of Public Security. At present, he has undertaken research on a number of projects at ministerial-level and above, such as the research on the auxiliary command and decision-making of fire-fighting and rescue on-site detection based on unmanned aerial vehicle and the research on the teaching system of application technology of fire-fighting drone, etc. At the same time, He drafts several industry standards of firefighting drones such as training guidance of firefighting drone is being declared.

李印

中国民用航空应急救援联盟副秘书长、航救联科技有限公司总经理

Li Yin

Deputy Secretary General of China Civil Aviation Emergency Rescue Alliance, General Manager of Aviation Rescue Alliance Technology Co., Ltd

演讲主题

空天地指挥调度服务平台解决方案

内容概要

基于应急管理部应急“一张图”打造的“空天地一体应急救援指挥调度服务平台”应急系统及前线各指挥终端设备，有效的整合各种大数据、社会各种应急救援力量、装备和前沿技术，为“安全生产、自然灾害、公共卫生、公共安全”提供“监测预警、应急通信、空地联动、多点协同、数据融合”一体化的综合辅助解决方案。

嘉宾简介

2014 年参与打造我国空域安全“天网”工程，带领团队首创“空天地一体应急救援指挥调度服务平台”及“空天地一体应急救援指挥箱”；多次参与国家重大应急救援航空救援服务，如：九寨沟地震航空救援，协调调机 5 架，救援 48 人，荣获“九寨沟地震航空救援”优秀集体称号；福建平潭沉船事故协调调机 8 架，成功救援 9 人。2017、2018、2019 作为“幸福中国行 - 零点行动”全国大型空地救援公益活动中，作为组委会活动负责人之一及运营总监，成功的指挥数百架航空器对全国的道路、河道、近海区域巡航，累计成功的救援 7 人，在活动期间最大限度的保障了老百姓的出行安全。

Topic

Emergency Command and Dispatch Service Platform Solution

Speech Abstract

Based on the emergency system of Integrated Emergency Rescue Command and Dispatching Service Platform which formed by the "one map" sysem and terminal equipment at front-line command, to effectively integrate various big data and social emergency rescue forces, equipment and advanced technologies. In order to provide a conprehensive assistance solutions with features of integration monitoring, emergency communications, air-ground linkage, multi-point coordination, data integration for the commitment of "safe production, natural disasters, public health, public safety" .

Speaker Information

In 2014, he participated in the construction of China's airspace safety project, led the team to create an emergency rescue command and dispatch service platform and emergency rescue command box; and participated in the national major emergency rescue service. In several years, he has participated in activities of national large-scale rescue public welfare as one of the member of responsible conmmittee and operation director, and successfully commanded hundreds of aircraft to cruise the roads, rivers and offshore areas of the country.

DRONE WORLD CONGRESS 2019

2019 世界无人机大会

High-tech Application of Earthquakes and Geological Disasters Forum

地震和地质灾害高新技术应用论坛

主办单位

中国地震应急搜救中心

深圳市无人机行业协会

协办单位

中国民用航空应急救援联盟

ORGANIZED BY

National Earthquake Response Support Service

Shenzhen UAV Industry Association

CO-ORGANIZED BY

China Civil Aviation Emergency Rescue Alliance

地震和地质灾害高新技术应用论坛 - 议程

6 月 21 日 09:00-17:00 | 深圳会展中心 6 层 郁金香厅

时 间	主 题	嘉 宾
08:30-09:00	签 到	
09:00-09:30	致 辞	
	应急管理部地震和地质灾害救援司领导 中国地震应急搜救中心领导 **杨金才** 第三届世界无人机大会秘书长	
	主旨演讲	
09:30-09:50	重特大自然灾害航空救援发展前景	**曲国胜** 国际应急管理学会副主席 中国地震局救援专家组组长
09:50-10:10	巨大地震地质灾害的应对措施 - 天空地一体化观测技术的应用	**徐锡伟** 中国地震局地壳应力研究所所长 中国地质学会副理事长
10:10-10:30	无人机在地质灾害调查评价与隐患早期识别中的应用	**许 强** 成都理工大学副校长
10:30-10:50	地震灾害应急响应与地质灾害决策指挥的思考	**聂高众** 中国地震局地质研究所研究员
10:50-11:10	空天地一体化地震地质灾害应急响应研究与应用	**王晓青** 中国地震局地震预测研究所研究员
11:10-11:30	雷达卫星与地质灾害 InSAR 监测应用	**葛大庆** 中国自然资源航空物探遥感中心卫星技术研发室主任
11:30-11:50	城市边坡安全失稳预警系统及应用	**谢谟文** 中关村灾害感知科学研究院院长、教授

12:00-13:30	午餐午休		
13:30-13:50	应急救援无人机应用技术	**昂海松**	南京航空航天大学教授
13:50-14:10	无人机大数据航母技术	**谭　翔**	中国科学院无人机应用与管控研究中心执行秘书长
14:10-14:30	空天地一体化监测技术在地震地质灾害应用中的思考	**许建华**	中国地震应急搜救中心高工
14:30-14:50	应急管理“一张图”的重大意义	**余卓渊**	中国科学院地理科学与资源研究所副研究员
14:50-15:10	基于信息融合技术 打造无人机灾情信息获取系统	**孙守军**	中国民用航空应急救援联盟秘书长
15:10-15:30	会间休息		
15:30-15:50	对地观测大数据及技术在地震及地质灾害中的应用	**李吉平**	北京东方至远科技股份有限公司董事长
15:50-16:10	机载 SAR 在地质灾害方面的应用	**冯　亮**	中国航天科工集团第二研究院二十三所高工
16:10-16:30	地震和地质灾害无人机技术与应用深度解析	**张世杰**	深圳飞马机器人科技有限公司副总裁
16:30-16:50	机 / 地微变雷达一体化灾害监测与预警技术	**乞耀龙**	内蒙古方向图科技有限公司总工程师
16:50-17:10	天地融合应急通信解决方案	**邹锦渝**	北京海莱特科技有限公司副总经理
17:10-17:30	华为助力应急救援数字化创新	**张佳轩**	华为技术有限公司数字政府应急行业解决方案总监

High-tech Application of Earthquakes and Geological Disasters Forum

Forum Agenda

09:00-17:00, June 21 | 6F, Tulip Hall, SZCEC

Time	Topics	Speaker
08:30-09:00	Registration	
09:00-09:30	Greeting	
	Leader of Emergency Management Department of Earthquake and Geological Disaster Rescue Leader of National Earthquake Response Support Service **Yang Jincai**, Secretary General of The 3rd Drone World Congress	
	Keynote Speech	
09:30-09:50	Prospects for the Development of Air Rescue in Severe Natural Disasters	**Qu Guosheng**, Prof. Director of S&T, National Earthquake Response Support Service (NERSS)
09:50-10:10	Countermeasures for Huge Earthquake Geological Disasters - Application of Sky-Ground Integrated Observation Technology	**Xu Xiwei**, Director of The Institute of Crustal Dynamics. Vice President of the Chinese geological society
10:10-10:30	Application of Drones in Field Investigation and Early Recognition of Potential Hazards of Geological Disasters	**Xu Qiang**, Vice President, Chengdu University of Technology
10:30-10:50	Thoughts on Emergency Response of Earthquake Disasters and Decision-Making Command of Geological Disasters	**Nie Gaozhong**, Researcher of Institute of Geology, China Earthquake Administration
10:50-11:10	Research and Application of Integrated Ground-air-space Emergency Response after Earthquake and its Induced Geological Disasters	**Wang Xiaoqing,** Professor, Institute of Earthquake Forecasting, China Earthquake Administration
11:10-11:30	Radar Satellite and Geological Disaster Insar Monitoring Application	**Ge Daqing**, The Director of Satellite Technology R&D Office of China Aero Geophysical Surveying & Remote Sensing Center for Natural Resources
11:30-11:50	Early Warning System and Application of Urban Slope Instability	**Mowen Xie**, Dean of Zhongguancun Disaster Perception Science Research Institute

12:00-13:30	Lunch & Rest	
13:30-13:50	Application Technology of Emergency Rescue Drones	**Ang Haisong**, Professor and Doctoral Tutor of Nanjing University of Aeronautics and Astronautics
13:50-14:10	UAV Big Data Carrier Technology	**Tan Xiang**, Executive Secretary General, Professor, UAV Application & Regulation Research Center of Chinese Academy of Science
14:10-14:30	The Application of Integrated Monitoring Technology in Seismic and Geological Disasters	**Xu Jianhua**, Senior Engineer of National Earthquake Response Support Service
14:30-14:50	The Significance of 'One Map' For Emergency Management	**Yu Zhuoyuan**, Associate Research Fellow of Institute of Geographical Sciences and Natural Resources Research
14:50-15:10	To Create a Drone Disaster Information Acquisition System Based on Information Fusion Technology	**Sun Shoujun**, Secretary General of China Civil Aviation Emergency Rescue Alliance
15:10-15:30	Rest	
15:30-15:50	Application of Earth Observation Big Data and Technology in Earthquake and Geological Hazards	**Li Jiping**, General Manager of Beijing Vastitude Technology Co., Ltd.
15:50-16:10	The Application of Airborne SAR in the Field of Geological Hazard	**Feng Liang**, Senior Engineer of Space Based Radar Master Room,The Twenty-third Institutions of the Second Academy of China Aerospace Science and Industry Corporation
16:10-16:30	UAV Technology and Application for Earthquake and Geological Disaster	**Zhang Shijie**, The Vice President of Feima Robotics
16:30-16:50	A Disaster Monitoring and Early-warning Technology of Integrating Airborne and Ground-based Micro Deformation Monitoring Radar	**Qi Yaolong**, the Chief Engineer of Inner Mongolia Mypattern Technology Co. LTD
16:50-17:10	Tiandironghe Emergency Communication Solution	**Zou Jinyu**, Deputy General Manager, Beijing Hylat Co., Ltd.
17:10-17:30	Huawei Accelerate the Emergency Rescue Digitaliation Innovation	**Zhang Jiaxuan**, Director of Huawei Digital Government Emergency Industry Solution

曲国胜

中国地震应急搜救中心
科技委主任、研究员

Qu Guosheng

Prof. Director of S&T,
National Earthquake
Response Support Service
(NERSS)

演讲主题

重特大自然灾害航空救援发展前景

内容概要

一、全球灾害风险与分布特点；二、在灾害应急救援中的应用；三、空中应急救援任务与挑战；四、重特大灾害应急救援需求。

嘉宾简介

中国地震应急搜救中心原总工程师（2004-2012），现任中国地震应急搜救中心科技委主任，研究员，博导，国际应急管理学会副主席，联合国人道主义协调办公室国际城市救援队能力分级测评专家；应急管理部常设专家组成员，应急管理部灭火救援专家组成员，中国地震局救援专家组组长；中国国际救援队（国家地震灾害紧急救援队）副总队长（2009-2018），中国救援队（第二支中国国际救援队）总教练（2018-），国际应急管理学会中国委员会副主席；中国民用航空应急救援联盟专家委员会主任；科技部“十三五”防灾减灾领域专家、公安部消防局标准委员会专家、北京市应急委员会专家组成员。

Topic

Prospects for the Development of Air Rescue in Severe Natural Disasters

Speech Abstract

1. Characteristics of Global Disaster Risk and Distribution; 2. Application of UAVs and High Resolution Images in Disaster Search and Rescue; 3. Tasks and Challenges of Aviation Emergency Rescue in the Future; 4. Needs of Aviation Emergency Rescue in Catastrophe SAR.

Speaker Information

Mr. Qu Guosheng, birth in 1961.2.12. Got PhD from Peking University in 1989. Full Prof. from 1999-now. Dr. and Prof. of Earth Sciences, Deputy Director and Chief Engineer (2004-2012) and Director of S&T, National Earthquake Response Support Service (NERSS) (2019-), China Earthquake Administration (CEA) (2004-2018.3) and Ministry of Emergency Management (2018.3-now). Vice President of The International Emergency Management Society (TIEMS) (2011-now), Experts Group Leader of China Earthquake SAR (2015-now), Deputy General Team Leader of China International SAR Team (CISAR) (2009-now). General Coach of China USAR (CSAR). Classifier for IEC/IER of UNOCHA. Expert of Fire Fighting Bureau of Ministry of Emergency Management. Expert of disaster mitigation group of IAP and Integrated Research on Disaster Risk (IRDR) program, ICSU Regional Office for Asia and the Pacific.

许强

成都理工大学副校长

Xu Qiang

Vice President, Chengdu University of Technology

演讲主题

无人机在地质灾害应急调查与隐患早期识别中的应用

内容概要

本报告将重点介绍无人机在近年来多次重大地质灾害应急处置中的应用，以及无人机在甘肃黑方台黄土滑坡、四川和贵州山区地质灾害隐患早期识别中的成功应用。

嘉宾简介

许强，博士、二级教授、博士生导师，现任成都理工大学副校长，地质灾害防治与地质环境保护国家重点实验室常务副主任，国家杰出青年基金获得者，教育部长江学者特聘教授，国家杰出专业技术人才，全国五一劳动奖章获得者，国务院特殊津贴专家，第十二、十三届全国政协委员，九三学社中央委员。专长于地质灾害成因机理、早期识别、监测预警与应急处置，曾多次作为国务院、国土资源部和四川省委省政府专家组核心成员，参与了我国多起重大地质灾害事故的现场调查和应急处置工作。作为核心成员完成的科研成果获国家科技进步一等奖2项，省部级科技进步奖一等奖6项，出版专著 12 部，发表学术论文 400 余篇，其中英文 SCI 收录论文 100 余篇。

Topic

Application of Drones in Field Investigation and Early Recognition of Potential Hazards of Geological Disasters

Speech Abstract

This report focuses on the successful applications of drones in emergency response of several major geological disasters in recent years, as well as the early recognition of potential hazards in loess landslides of Heifangtai, Gansu province and mountainous areas of Sichuan and Guizhou provinces.

Speaker Information

Professor Xu Qiang is Vice President of Chengdu University of Technology and Executive Vice Director of State Key Laboratory of Geohazard Prevention and Geoenvironment Protection. Professor Xu's research interests primarily focus on genetic mechanism, early recognition, monitoring and early warning, and emergency response of geological disasters. He has been directly involved in field investigation and risk mitigation of several major geological disaster events as the on-site expert representative of the State Council, the Ministry of Land and Resources and the People's Government of Sichuan Province. The self-developed Geohazards Real-time Monitoring and Early Warning System has successfully predicted five landslides few hours in advance. Professor Xu has published more than four hundred papers and 12 monographs, including over one hundred SCI papers. These include Distinguished Young Scholar by the National Science Fund, Chang Jiang Scholar by the Ministry of Education, National Labor Model by the All-China Federation of Trade Unions (ACFTU), Special Allowance Expert by the State Council and two National Science and Technology Progress Awards.

王晓青

中国地震局地震预测研究所研究员

Wang Xiaoqing

Professor, Institute of Earthquake Forecasting, China Earthquake Administration

演讲主题

空天地一体化地震地质灾害应急响应研究与应用

内容概要

以国家重点研发课题为依托，介绍天空地协同遥感监测与空间信息应急服务的优势、目标、研究内容和基本思路，展示以突发重特大地震及其次生地质灾害事件为研究对象，开展的卫星遥感 - 无人机遥感 - 地面监测网络和实地调查相结合的天空地一体化地震灾情监测、评估、应急指挥与救援的方法和技术最新进展和实际应用案例，分析其技术应用前景。

嘉宾简介

中国地震局地震预测研究所研究员、遥感与地震灾害风险评估研究室主任，中国地震局地震应急遥感技术协调组组长，享受国务院政府特殊津贴。主要从事地震灾害风险评估、地震应急遥感应用研究。牵头承担中国地震局地震应急遥感工作，提出了地震应急遥感定量评估方法和技术，并在汶川、海地、玉树、芦山、鲁甸、尼泊尔等十多次地震应急中得到应用。目前负责承担“十三五”国家重点研发计划项目课题：“一带一路”重特大地震地质灾害协同监测应急响应示范。

Topic

Research and Application of Integrated Ground-air-space Emergency Response after Earthquake and its Induced Geological Disasters

Speech Abstract

Supported on the national key R&D project of MOST, This report introduces the advantages, objectives, research contents and basic ideas of integrated ground-air-space post-earthquake emergency monitoring and information services. The latest progress and practical application cases of the methods and technologies of post-earthquake emergncy disaster monitoring, assessment, emergency command and rescue are presented combined with satellite RS, UAV RS, ground monitoring network and field survey. The application prospects of the technology are analyzed.

Speaker Information

Professor, Institute of Earthquake Forecasting, China Earthquake Administration, director of Division of Remote Sensing and Earthquake Disaster Risk Assessment Research, and head of the coordination group of earthquake emergency RS technology, CEA. Mainly engaged in earthquake disaster risk assessment, earthquake emergency RS applications. Proposed the quantitative evaluation method and technology of earthquake damage based on RS which has been applied in more than ten emergency responses after earthquakes of Wenchuan, Haiti, Yushu, Lushan, Ludian and Nepal earthquake etc.

葛大庆

中国自然资源航空物探遥感中心卫星技术研发室主任

Ge Daqing

The Director of Satellite Technology R&D Office of China Aero Geophysical Surveying & Remote Sensing Center for Natural Resources

演讲主题

雷达卫星与地质灾害 InSAR 监测应用

内容概要

本次报告围绕重大地质灾害早期识别与调查监测需求，从区域尺度上准确识别与动态监测两个层面介绍应用综合空天地遥感手段，从形态、形变和形势等层次上进行早期识别的技术思路，并结合广域 InSAR 全覆盖调查监测能力，对我国开展全覆盖识别面临的技术问题作出深刻分析，总结工程化应用需要解决的关键问题。

嘉宾简介

葛大庆，博士，教授级高工，长期从事星载雷达干涉测量（InSAR）技术研究与地质灾害监测应用，任中国自然资源航空物探遥感中心卫星技术研发室主任，是我国首颗 L 波段 SAR 卫星应用系统副总师。先后开展了全国地面沉降 InSAR 监测，国产 SAR 卫星应用论证，地基 SAR 监测技术研究等研究与应用工作，目前正在推动 InSAR 地质灾害早期识别与调查监测工程化应用，发表论文 30 余篇，专利 6 项，获得省部级奖两项。

Topic

Radar Satellite and Geological Disaster Insar Monitoring Application

Speech Abstract

This report focuses on the early identification, investigation and monitoring needs of major geological disasters. The report will introduce the application of integrated space-ground remote sensing methods on both levels of accurate identification on the regional scale and dynamic monitoring; the technical ideas for early identification in aspects of shape, deformation and situation; and combined with InSAR capabilities of investigation and monitoring in full coverage; to profoundly analyze the technical problems we faced on full coverage identification, and summarize the key issues in engeineering applications.

Speaker Information

Ge Daqing, Ph.D. and senior engineer at professor-level. He has long been engaged in spaceborne radar interferometry (InSAR) technology research and geological disaster monitoring applications. He is the Director of the Satellite Technology Research and development office of the China Natural Resources Aviation Geophysical and Remote Sensing Center and also the Deputy Chief Engineer of Satellite Application System of China's first L-ban SAR satellite. He has carried out research and application of national land subsidence InSAR monitoring, domestic SAR satellite application demonstration, and ground-based SAR monitoring technology research, etc. Currently, he is promoting the engineering application of InSAR's early identification and investigation and monitoring of geological disasters. More than 30 articles are published, and he obtained 6 patents and won provincial and ministerial awards twice.

谢谟文

北京科技大学空间技术减灾研究所所长、教授

Xie Mowen

Professor, Dean of University of Science and Technology Beijing

演讲主题

城市边坡安全失稳预警系统及应用

内容概要

基于边坡安全失稳预警理论模型及主动态势感知传感技术，将传感系统采集、计算得到的静力学指标、动力学指标及运动学指标与理论模型相结合，实现指标阈值预警、安全趋势预警、失稳早期预警。

特点：基于主动安全态势感知传感，静力、动力、运动指标一网打尽；嵌入边坡安全失稳预警理论模型，指标警示、安全预警、失稳预警专业一体化；传感、采集、分析、预警、传输、供电一体化；安装便利、重复使用、普适经济！

嘉宾简介

谢谟文，教授，博导，北京科技大学空间技术减灾研究所所长，中关村灾害感知科学研究院（筹）院长。主要研究方向：岩土工程、地质灾害、工程安全监测、GIS和遥感应用。

Topic

Early Warning System and Application of Urban Slope Instability

Speech Abstract

Based on slope instability warning theory model and active trend sensing technology, the static, dynamic and kinematic indicators collected and calculated by the sensing system are combined with the theoretical model to realize the warning of the threshold and the safety trend warning and early warning of instability.

Features: Based on active trend sensing, collect static, dynamic, and athletic indicators; Embedding slope instability early warning theory model, integration of indicator warning, safety warning, and instability warning; Sensing, acquisition, analysis, early warning, transmission, and power supply integration; Easy to install, reuse, and universal economy!

Speaker Information

Mowen Xie, professor, doctoral tutor, director of Space Technology Disaster Reduction Instituted of University of Science and Technology Beijing, Dean of Zhongguancun Disaster Perception Science Research Institute Main research directions: geotechnical engineering, geological disasters, engineering safety monitoring, GIS and remote sensing applications.

昂海松

南京航空航天大学教授、博士生导师

Ang Haisong

Professor and Doctoral Tutor of Nanjing University of Aeronautics and Astronautics

演讲主题

应急救援无人机应用技术

内容概要

鉴于无人机的机动灵活、快速响应、便于突防进入危险环境和相对成本低等特点，无人机的发展已为应急救援领域提供了新型装备，报告简要介绍不同类型无人机在环境监控、消防、灭火、抗洪救灾、交通、地震、通讯中继、处理突发事故等方面的角色特征和应用技术。

嘉宾简介

南京航空航天大学教授，博导，曾任航空宇航学院院长。现任：中国航空学会理事，中航无人驾驶航空器系统专门委员会委员，中国民用航空应急救援联盟专家委员会副主任，中国公安部警务保障专家，中国无人机任务系统及技术产业联盟常务理事，中国林业生态发展促进委员会无人机系统专业委员会主任。获国家科技进步二等奖 1 项，国防科技进步一等奖 2 项、部省级科技成果奖 10 项，国际科技奖 6 项。荣获国家级教学名师、全国模范教师、享受国务院政府特殊津贴、中航冯如航空科技精英奖、国防科技工业有突出贡献专家、中国航空工业有突出贡献专家、南京市十大科技之星等荣誉。

Topic

Application Technology of Emergency Rescue Drones

Speech Abstract

According to the features of drones such as flexibility, rapid response, easily penetrate into dangerous environment and relatively low cost, the development of drones has provided new equipment for emergency rescue. This report briefly introduces the role characteristics and application techniques in environmental monitoring, fire protection, fire fighting, flood relief, traffic, earthquakes, communication relays, and handling of unexpected incidents.

Speaker Information

Professor and Doctoral tutor of Nanjing University of Aeronautics and Astronautics and served as Dean of Aerospace Engineering. Present: Director of China Aviation Society, member of China Aviation Unmanned Aircraft System Special Committee, Deputy Director of China Civil Aviation Emergency Rescue Alliance Expert Committee, Police Security Expert of China Ministry of Public Security, Executive Director of China UAV Mission System and Technology Industry Alliance, Director of the Professional Committee of the UAV System of the China Forestry Ecological Development Promotion Committee. He won second prize of National Science and Technology Progress Award once, first prizes for National Defense Science and Technology Progress twice,10 times of scientific and technological achievements awards at province-level, and 6 times of international science and technology awards. He has won national honorary teachers, national model teachers, special government allowances from the State Council, AVIC Fengru Aviation Technology Elite Award.

谭翔

中国科学院无人机应用与管控研究中心执行秘书长，教授

Tan Xiang

Executive Secretary General, Professor, UAV Application & Regulation Research Center of Chinese Academy of Science

演讲主题

无人机大数据航母技术

内容概要

无人机大数据航母技术可最大限度地发挥个体和实体获取无人机遥感数据的价值，能生产覆盖全国、一年多次、超高分辨率的无人机遥感数据产品，具有巨大商业价值。

嘉宾简介

遥感博士，高级工程师，教授，中国科学院无人机应用与管控研究中心执行秘书长，中国感光学会理事，科技部国家遥感中心轻小型无人机应用专家工作组专家。

Topic

UAV Big Data Carrier Technology

Speech Abstract

UAV big data carrier technology can maximize the value of individuals and entities to obtain uav remote sensing data, and can produce UAV remote sensing data products covering the whole country, many times a year, and with ultra-high resolution, which has great commercial value.

Speaker Information

Doctor, senior engineer, professor, executive secretary general of UAV Application & Regulation Research Center of Chinese Academy of Science, CSIST director, NRSCC Light-Small UAS Application Specialist Group Member of MOST.

许建华

中国地震应急搜救中心
技术部副主任

Xu Jianhua

Senior Engineer of
National Earthquake
Response Support Service

演讲主题

空天地一体化监测技术在地震地质灾害应用中的思考

内容概要

本次报告以重大地震和地质灾害现场应急调查监测与救援需求为核心，结合目前国内外 SAR、LiDAR、无人机倾斜摄影等技术在灾害中的应用现状，并通过四川茂县叠溪镇山体滑坡空天地监测设备实验性测试，深入分析目前在监测和调查技术上存在的问题及未来的发展方向。

嘉宾简介

许建华，高工，长期从事地震和地质灾害应急救援现场任务、技术研发应用及培训演练等工作。参与汶川、九寨沟、岷漳、苍梧、呼图壁、杂多等多次地震现场及后方应急，荣获中国地震应急搜救中心“汶川地震应急救援工作先进个人”称号。共发表论著 1 部；核心期刊论文 12 篇；参与发明专利 1 项。负责和参加科技部等 10 余项项目，其中负责 7 项。

Topic

The Application of Integrated Monitoring Technology in Seismic and Geological Disasters

Speech Abstract

This report focuses on the on-site emergency investigation, monitoring and rescue needs of major earthquakes and geological disasters,and through the experimental test of aerial monitoring equipment for landslide in diexi town, MAO county, sichuan province. Analyzing the current monitoring and investigation technology problems and future development direction Combining with the current situation of the application of SAR, LiDAR, uav tilt photography and other technologies in disasters.

Speaker Information

Xu Jianhua,senior engineer,focus on earthquake and geological disaster emergency rescue tasks, technology research and development and application of training exercises and other work.

余卓渊

中国科学院地理科学与资源研究所副研究员

Yu Zhuoyuan

Associate Research Fellow of Institute of Geographical Sciences and Natural Resources Research

演讲主题

应急管理“一张图”的重大意义

内容概要

在统一时空框架下，构建应急管理“一张图”体系，是整合基础地理信息和应急管理的风险隐患、防护目标、队伍、物资等数据，各级部门间数据互联互通，实现“一张图灾情感知、一张图应急联动、一张图救援调度、一张图指挥决策、一张图总结评估”的重要基础，是“智慧应急、可视应急”必由之路。

嘉宾简介

余卓渊，中国科学院地理科学与资源研究所副研究员，中国科学院大学岗位教授，地图学与地理信息系统博士，中国自然资源学会资源制图专业委员会委员。主要从事地图可视化、大数据制图理论及技术、地理信息系统、资源环境制图等研究。主持和参与了国家科研项目 40 多项，负责和参与了 10 部国家专题地图集设计、编制和出版。

Topic

The Significance of 'One Map' For Emergency Management

Speech Abstract

The purpose of constructing 'one map' system for emergency management is to integrates the risk information, protection objectives, teams, materials and other data of basic geographic information and emergency management. Data exchange between departments at various levels is the important basis to achieve one-map disaster awareness, one-map emergency linkage, one-map rescue dispatch, one-map command decision, and one-map summary assessment. In order to be more efficient and effective on emergency situation.

Speaker Information

Yu Zhuoyuan, Associate Research Fellow of Institute of Geographical Sciences and Natural Resources Research,Professor of the University of Chinese Academy of Sciences, Ph.D. in Cartography and Geographic Information Systems, and member of the Resource Mapping Professional Committee of the Natural Resources Society of China. He is mainly engaged in map visualization, big data mapping theory and technology, geographic information systems, resource and environment mapping and other research. He has hosted and participated in more than 40 national research projects, and is responsible for and participated in the design, compilation and publication of 10 national thematic atlases.

李吉平

北京东方至远科技股份有限公司总经理

Li Jiping

General Manager, Beijing Vastitude Technology Co., Ltd.

东方至远 Vastitude Technology

演讲主题

对地观测大数据及技术在地震及地质灾害中的应用

内容概要

中国是世界上地质灾害最严重、受威胁人口最多的国家之一。国务院明确提出，到 2020 年要明显减少地质灾害造成的人员及财产损失。东方至远以“地球健康大数据专家”为企业愿景，历时 5 年开拓了遥感及 InSAR 技术在公共安全领域的工程化应用模式。未来，东方至远将全面利用天、地、空一体化手段，卫星遥感（天）大数据结合无人机（空）方式借助现场实地调查（地）方法，在地质灾害隐患识别与排查方面实现智能识别、科学防控的系统整体解决方案。

嘉宾简介

李吉平，北京东方至远科技股份有限公司董事长兼 CEO，专注遥感行业 30 年，是我国 InSAR 技术应用方面的专家。1992 年毕业于武汉大学航测遥感专业，1999 年获对外经贸大学工商管理硕士学位，2016 年获清华大学 EMBA 学位。北京东方至远科技股份有限公司率领团队致力于城乡安全治理和设施健康诊断，开创了我国 InSAR 技术在公共安全领域的工程化应用模式。

Topic

Application of Earth Observation Big Data and Technology in Earthquake and Geological Hazards

Speech Abstract

China is one of the countries with the most serious geological hazards and the most threatened population in the world. The State Council clearly proposed that by 2020, the loss of personnel and property caused by geological disasters should be significantly reduced. Beijing Vastitude Technology Co., Ltd. (Vastitude) takes 'earth health big data specialist' as its vision, and has created an engineering application model for RS, InSAR technology in the field of public safety. In the future, Vastitude will using Space, Sky and Terrestrial Integrated method, through by RS big data combining UAV and field investigation, in order to provide system solutions for recognition and investigation of geologic hazard hidden danger.

Speaker Information

Li Jiping is General Manager of Beijing Vastitude Technology Co., Ltd.（Vastitude）， he is a professor of InSAR technology application in China.He was graduate from Wuhan University, and got EMBA from Tsinghua University in 2016. As the leader of domestic radar remote sensing technology application, Vastitude always focuses on urban and rural security governance and facilty health diagnosis and treatment, relying on remote sensing and cloud computing.

冯亮

中国航天科工集团第二研究院二十三所空天基雷达总体室高工

Feng Liang

Senior Engineer of Space Based Radar Master Room,The Twenty-third Institutions of the Second Academy of China Aerospace Science and Industry Corporation

演讲主题

机载 SAR 在地质灾害方面的应用

内容概要

机载 SAR 具有全天时、全天候进行高分辨率成像和高精度测高的能力，在诸多遥感应用领域具有广泛的应用前景。本报告介绍了机载 SAR 在国土测绘、资源调查、环境监测、痕迹检测、灾害应急等方面的应用潜力，特别是灾害应急方面的应用技术及实际案例。

嘉宾简介

冯亮，博士，高工，毕业于北京航空航天大学电子信息工程学院，供职于中国航天科工集团二院二十三所。主要研究星载和机载合成孔径雷达（SAR）和干涉合成孔径雷达（InSAR）系统、处理及应用技术的研究。

Topic

The Application of Airborne SAR in the Field of Geological Hazard

Speech Abstract

Airborne SAR has the capability of all-weather and round-the-clock high resolution imaging and high precision height measurement. It has a wide application prospect in many remote sensing application fields. This report introduces the utilization potentiality of airborne SAR in land mapping, resource survey, environmental monitoring, trace detection, disaster emergency response,etc., especially the application technology and practical cases in disaster emergency response.

Speaker Information

Feng Liang, Ph.D., senior engineer, graduated from the School of Electronics & Information Engineering of Beijing University of Aeronautics and Astronautics, working for the Twenty-third Institutions of the Second Academy of China Aerospace Science and Industry Corporation. His research focuses on spaceborne and airborne Synthetic Aperture Radar (SAR) and Interferometric Synthetic Aperture Radar (InSAR) systems, processing and application techniques.

张世杰

深圳飞马机器人科技有限公司副总裁

Zhang Shijie

The Vice President of Feima Robotics

演讲主题

地震和地质灾害无人机技术与应用深度解析

内容概要

无人机凭借其快速、灵活、高时效的数据获取能力，在地震和地质灾害中得以广泛应用；飞马机器人自 08 年汶川地震起多次参与地震和地质灾害应急工作，从应用及需求出发、开发了系列产品；本报告将从无人机采集技术及实际案例出发，讲述无人机在地震和地质灾害中的应用。

嘉宾简介

张世杰，十余年的无人机设计与应用经验，参与多款无人机系统设计开发工作及无人机建设项目；现任飞马机器人副总裁、主管市场工作，具有丰富的无人机应用经验。

Topic

UAV Technology and Application for Earthquake and Geological Disaster

Speech Abstract

UAV have been widely used in Earthquake and Geological Disaster because of their fast, flexible and time-efficient data acquisition capabilities.Since the Wenchuan earthquake in 2008, Feima Robotics have been involved in Earthquake and Geological Disaster emergency response for many times, and have developed a series of products based on application and demand. This report will start with UAV acquisition technology and practical cases , Describe Application of UAV in Earthquake and Geological Disaster.

Speaker Information

Zhang Shijie, has more than ten years experience in UAV design and application, participates in the design and development of several UAV systems and UAV construction projects. The Vice President of Feima Robotics and in charge of market work, has rich experience in UAV application.

乞耀龙

内蒙古方向图科技有限公司总工程师

Qi Yaolong

the Chief Engineer of Inner Mongolia Mypattern Technology Co. LTD

演讲主题

机 / 地微变雷达一体化灾害监测与预警技术

内容概要

微变雷达是星载、机载雷达技术在边坡稳定性安全监测领域的具体应用，也称为地基雷达、干涉雷达、边坡雷达，采用合成孔径雷达（SAR）技术和干涉 / 差分干涉雷达（InSAR/DInSAR）技术，通过实时观测监测表面位移，结合机载雷达、激光、光学等辅助数据，进行灾害监测与预警，为各类地质体和重大工程的安全保障工作提供科学依据。

嘉宾简介

乞耀龙，中国科学院电子学研究所博士，北京航空航天大学博士后，内蒙古方向图科技有限公司总工程师。研究方向为雷达系统及雷达技术应用，主要从事地基雷达、阵列雷达、三维成像雷达系统研发及其在灾害监测、遥感测绘、多源数据一体化等领域的应用研究。承担国家自然科学基金 2 项，获省部级奖励 2 项，发表学术论文 46 篇。自 2008 年开始，长期致力于机 / 地雷达数据在各行业的实际数据获取及应用分析工作。

Topic

A Disaster Monitoring and Early-warning Technology of Integrating Airborne and Ground-based Micro Deformation Monitoring Radar

Speech Abstract

Micro Deformation Monitoring radar, also Known as ground-based radar, interferometer radar and slope monitoring radar, is a specific application of satellite-borne/airborne radar technology in the field of slope stability monitoring. Based on Synthetic Aperture Radar (SAR) technique and radar differential interferometry (DInSAR) theory, through real-time monitoring surface displacement and the combination of other auxiliary data provided by airborne radar, laser radar and optical radar, Micro Deformation Monitoring Radar can realize disaster monitoring and early warning, thus to provide a scientific basis for safeguarding all kinds of geological body and major projects.

Speaker Information

Qi Yaolong, PhD of Institute of Electronics, Chinese Academy of Sciences, postdoctor of Beijing University of Aeronautics and Astronautics, now is the Chief Engineer of Inner Mongolia Mypattern Technology Co. LTD. His research focus on the application of radar system and radar technology, including the R&D of ground-based radar system, array radar system, three-dimensional imaging radar system and their application in disaster monitoring, remote sensing mapping, multi-source data integration and other fields. He has carried out two projects funded by the National Natural Science Foundation, gained two provincial awards and issued 46 papers. Since 2008, he has been working on the actual data acquisition and application analysis of airborne/ground-based radar data in various industries.

邹锦渝

北京海莱特科技有限公司副总经理

Zou Jinyu

Deputy General Manager, Beijing Hylat Co., Ltd.

演讲主题

天地融合应急通信解决方案

内容概要

由于应急通信是在紧急情况下启动的一种特殊的通信机制。这里的紧急情况是指由于自然灾害或人为事件，导致人民的生命财产受到威胁，社会秩序出现动荡的情况。对于可列入紧急情况的自然灾害，不同的紧急情况下，对通信系统的影响也不同，有些可能会造成突发的大量通信流进而导致网络瘫痪，有些可能会直接破坏通信的基础网络和设备，而有些情况的发生地点根本没有通信网络的覆盖；同时，在不同情况下，需要应急通信发挥的作用也不尽相同。为了能够在发生紧急情况时保证通信业务正常，尽快向政府相关部门通报，减少国家损失，快速组织救助，同时也为参与救助的各种人员间的协调工作提供通信支持，通过采用无线应急自组网、卫星通信系统等技术构建快速无线应急通讯体系，保障人员、部门之间的应急通信需求。

嘉宾简介

现任北京海莱特科技有限公司副总经理，技术总监。主持公司无线自组网产品设计研发和技术工作以及卫星通信系统项目建设实施工作。

Topic

Tiandironghe Emergency Communication Solution

Speech Abstract

Emergency communication is a special communication mechanism that is activated in an emergency circumstance. The emergency circumstance here refers to the situation in which the people's life and property are threatened and the social order is turbulent due to natural disasters or human events, In different emergency situations, the impact on the communication system is also different, sudden large amount of communication flow might lead to network paralysis. Some communication network and equipment may be damaged directly and there is no coverage of the communication network at all in some cases. In different situations, the role of emergency communication is not the same.In order to ensure the communication business in an emergency situation, we will notify the relevant government departments as soon as possible, applied wireless emergency communication networks, satellite communication systems and other technologies to build a fast wireless emergency communication system to ensure the need between personnel and departments.

Speaker Information

Currently the deputy general manager and technical director of Beijing Hylat Co., Ltd. He presided over the R&D of wireless network product, as well as the construction and implementation of satellite communication system projects.

张佳轩

华为技术有限公司数字政府应急行业解决方案总监

Zhang Jiaxuan

Director of Huawei Digital Government Emergency Industry Solution

演讲主题

华为助力应急救援数字化创新

内容概要

从应急救援面临的灾害种类出发，进一步分析应急指挥救援信息化面临的痛点，着重介绍使用华为融合通信、现场通信、大数据、人工智能等先进技术如何有效的促进应急救援的融合、协同、随行和高效；

嘉宾简介

华为数字政府应急行业解决方案总监；多年从事公共安全与应急领域的信息化解决方案相关工作。参与过海内外多个灾害管理、应急救援、消防等行业重大项目设计、咨询和解决方案开发。在灾害监测、应急指挥、应急通信、公共安全大数据等解决方案场景有着丰富的实践。

Topic

Huawei Accelerate the Emergency Rescue Digitaliation Innovation

Speech Abstract

Starting from the disasters types faced by emergency rescue, Mr. Zhang will give a further analysis regarding the challege of emergency command and rescue informationization, focusing on how to use Huawei's technologies of integrated communication, on site communication, big data and artificial intelligence to effectively promote the integration, coordination and efficiency of emergency rescue.

Speaker Information

Director of Huawei Digital Government Emergency Industry Solution. Mr. Zhang has rich experience at information technology solutions for public safety and emergency industry. He has participated in the design, consulting and solution development of major projects such as disaster management, emergency rescue and fire protection at home and abroad. He also owns rich practice experience at solution scenarios such as disaster monitoring, emergency command, emergency communication, and public safety big data.

DRONE WORLD CONGRESS 2019
2019 世界无人机大会

Artificial Intelligence – Unmanned Pilot and Marine Unmanned Systems Summit
人工智能 – 无人驾驶与水域无人系统高峰论坛

主办单位

深圳市无人机行业协会
粤港澳大湾区人工智能产业人才联盟
广州带马智能科技有限公司

协办单位

深圳市海外留学归国人员协会
广州钰芯智能科技研究院有限公司

支持单位

中国船舶及海洋工程设计研究院
中国船舶工业系统工程研究院
应急管理部上海消防研究所
国家消防装备质量监督检验中心
西北工业大学航海学院

ORGANIZED BY

Shenzhen UAV Industry Association
Guangdong, Hong Kong and Macau Dawan District Artificial Intelligence and Unmanned Industry Talent Alliance
Guangzhou DaiMa Intelligent Technology Co., Ltd.

CO-ORGANIZED BY

Shenzhen Overseas Chinese Returnees Association
Guangzhou Mecart Institute of Intelligent Science and Technology Co., Ltd.

SUPPORTED BY

Marine Design and Research Institute of China
Systems Engineering Research Institute
Shanghai Fire Research Institute of Emergency Management Department
National Fire Equipment Quality Supervision and Inspection Center
School of Marine Science and Technology, NPU

人工智能 – 无人驾驶与水域无人系统高峰论坛 - 议程

6 月 21 日 09:00-17:30 | 深圳会展中心 5 层 勒杜鹃厅

时 间	主 题	嘉 宾	
08:30-09:00	签 到		
09:00-09:15	致 辞		
	部委领导、国外前政要嘉宾		
	主旨演讲		
09:15-09:30	突破，创新，助力交通智慧转型	**王国钰**	华为 企业 BG 交通解决方案部总经理
09:30-09:45	无人驾驶中人工智能的支撑和引擎	**鲍泓**	北京联合大学 教授
09:45-10:00	无人系统的网络安全挑战	**锡德伯格**	芬兰 Cyberwatch 公司 CEO 及合伙人 世界无人机联合会网络安全委员会主席
10:00-10:20	水下无人系统综述	**潘光**	西北工业大学航海学院院长、教授、长江学者
10:20-10:35	低速自主驾驶的技术要素与场景	**刘明**	香港科技大学 智能自动驾驶技术中心主任
10:35-10:50	无人驾驶安全分析	**黄凯**	中山大学教授
10:50-11:10	小型水面无人艇关键技术及未来发展	**王栋**	中国船舶及海洋工程设计研究院 高级工程师、无人艇项目总师

11:10-11:25	中国的人工智能人才培养的驱动器	**奚炎**	粤港澳大湾区人工智能产业人才联盟联盟秘书长
11:25-11:45	人工智能在遥控航空系统中的应用	**娜塔丽娅·库兹曼科**	乌克兰国立航空大学教授
11:45-12:00	百度 Apollo 生态进展与合作	**刘硕**	百度智能驾驶事业群生态合作总经理
12:00-12:10	领导嘉宾解读产业政策		
12:10-13:30	**午休**		
13:30-13:50	物联网和 AR/VR 技术在马来西亚的转变模式	**约翰·泰**	马来西亚通讯及多媒体委员会社区授权部主任
13:50-14:10	自动驾驶交通工具：人口老龄化的流动性解决方案	**唐卡恩·卡查勒姆东**	泰国皇家军事学院少校 泰国智能交通协会会长
14:10-14:35	无人机系统在海上应用现状与关键技术	**杨军**	中国船舶工业系统工程研究院 研究员
14:35-14:50	水域无人系统消防应用研究	**李睿堃**	应急管理部上海消防研究所 国家消防装备质量监督检验中心主任
14:50-15:05	应用于自动驾驶和三维测绘领域的高性能激光雷达	**胡小波**	深圳市镭神智能系统有限公司董事长 &CEO
15:05-17:05	“寻找独角兽”路演 + 点评		
17:05-17:30	**总结与鸣谢**		

Artificial Intelligence – Unmanned Pilot and Marine Unmanned Systems Summit

Forum Agenda

09:00-17:30, June 21 | 5F, Bougainillea Hall, SZCEC

Time	Topics	Speaker
08:30-09:00	Registration	
09:05-09:15	Greeting	
	Government Leaders and Foreign Former Political Leaders	
	Keynote Speech	
09:15-09:30	Breakthrough and Innovation to Help Transform Intelligent Transportation	**Wang Guoyu**, President of Enterprise BG Transportation Solutions Department, HUAWEI
09:30-09:45	Support and Engine of Artificial Intelligence in Unmanned Driving	**Bao Hong**, Professor of Beijing Union University
09:45-10:00	Cyber Security Challenge of Drones	**AAPO Cederberg**, CEO of CyberWatch, Chairman of the World UAV Federation Network Security Committee
10:00-10:20	Overview of Underwater Unmanned Systems	**Pan Guang**, Professor, President of School of Marine Science and Technology, NPU. Chang Jiang Scholars Program
10:20-10:35	Technical Elements and Scenes of Low-Speed Autonomous Driving	**Liu Ming**, Director of Intelligent Driving Center, The Hong Kong University of Science and Technology
10:35-10:50	Safety Analysis of Unmanned Driving	**Huang Kai**, Professor of Sun Yat-sen University
10:50-11:10	Key Technologies and Future Development of Small Surface Unmanned Boats	**Wang Dong**, Chief of Unmanned Boat Project, Senior Engineer of Marine Design and Research Institute of China

11:10-11:25	Driver of Artificial Intelligence Talents Training in China	**Xi Yan**, Secretary-General of the Alliance
11:25-11:45	Application of Artificial Intelligence in Remote Aviation System	**Nataliia Kuzmenko**, Professor of Ukrainian National Aviation University
11:45-12:00	Baidu Apollo's Ecological Progress and Cooperation	**Liu Shuo**, president of Eco-cooperation team, Intelligent Driving Group(IDG), Baidu
12:00-12:10	Interpretation of industrial policy by Guests	
12:10-13:30	**Lunch break**	
13:30-13:50	The transformation model of IoT and AR/VR technology in Malaysia	**John Tay**, Director of Communications and Multimedia Committee Community Authorization Department
13:50-14:10	Automated Driving Vehicles: Liquidity Solutions for Population Aging	**Tongkarn Kaewchalermtong**, Major of the Royal Thai Military Academy, President of Thailand Intelligent Transportation Association
14:10-14:35	Status and Key Technologies of UAV Systems in Offshore Applications	**Yang Jun**, Researcher of Systems Engineering Research Institute
14:35-14:50	Research on Fire Protection Application of Unmanned System in Waters	**Li Ruikun**, Senior engineer of Shanghai Fire Research Institute of MEM/China Natinal Fire-Fighting Equipment Quality Supervision Testing Center
14:50-15:05	High Performance LiDAR for Autonomous Driving and 3D Mapping	**Hu Xiaobo**, Chairman&CEO of LeiShen Intelligent System co., LTD
15:05-17:05	'Looking for a Unicorn' Road Show	
17:05-17:30	**Summary and Thanks**	

王国钰

华为技术有限公司企业 BG 交通解决方案部总经理

Wang Guoyu

Innovation ICT, Enable Smart Transportation, Huawei Technologies Co., Ltd.

演讲主题

突破，创新，助力交通智慧转型

嘉宾简介

王国钰先生是华为企业 BG 交通解决方案部总经理，主管华为交通行业解决方案的规划设计、集成验证和生态合作，致力于为航空、轨道、公路行业客户提供端到端的创新 ICT 解决方案。王先生有近 20 年的交通行业信息化研究、解决方案规划设计经验，有迪拜机场数据中心、樟宜机场视频监控、澳大利亚 PTA 轨道网络等数十个项目经验，主导深圳机场、深圳地铁等大型交通行业客户的数字化转型项目建设，对交通行业的商业模式、ICT 技术发展趋势有深刻认识和独到见解。

Topic

Innovation ICT, Enable Smart Transportation

Speaker Information

Mr. Wang Guoyu is the General Manager of Huawei Enterprise BG Transportation Solution Dept. He manages the planning and design, integrated verification, and ecosystem development for Huawei's transportation industry solutions. He and his teams are committed to providing end-to-end innovative ICT solutions for customers in the aviation, rail, and roadway industries. Mr. Wang has nearly 20 years of ICT research, solution planning, and design experience in the transportation industry. He took part in dozens of key projects such as Dubai Airport data center project, Changi Airport video surveillance project, and railway network project for Australia's PTA. He also led digital transformation projects for major transportation industry customers such as Shenzhen Airport and Shenzhen Metro, during which he gained a deep understanding of the business models and ICT technology trends of the industry.

鲍泓

北京联合大学校学术委员会常务副主任

Bao Hong

Standing Deputy Director of the Academic Committee of BUU, Beijing Union University

演讲主题

无人驾驶中人工智能的支撑和引擎

内容概要

本报告根据无人车量产所需核心技术，包括了技术核心、设计核心和业务核心，重点介绍人工智能技术在解决无人驾驶汽车量产瓶颈中的作用，也阐述了无人车是人工智能技术的最好最全面的验证平台和应用载体，预测了人工智能发展的路径及其对无人驾驶量产路径的相互依存关系。

嘉宾简介

教授、博士生导师，北京联合大学校学术委员会常务副主任等。主要兼职有中国人工智能学会智能驾驶专业委员会副主任、中国计算机用户协会理事 / 网络应用分会副理事长等。主要从事智能驾驶、认知计算、网络与分布式系统等领域的研究，主持完成的项目有国家自然科学基金委“视听觉信息的认知计算”重大研究计划项目“智能车驾驶脑认知技术、平台和转化研究”、教育部新工科项目研究与实践项目“智能时代新工科人才培养模式创新”等多项课题。

Topic

The Support and Engine of Artificial Intelligence in Unmanned Driving

Speech Abstract

Based on the key elements for the production of unmanned vehicles, including technology, design and business, this report focuses on the role of artificial intelligence technology in solving the bottleneck problems in the mass production of unmanned vehicles. It also expounds that unmanned vehicles are the best and most comprehensive verification and application platform for artificial intelligence technology, and predicts the interdependence between the development of artificial intelligence and the mass production of unmanned vehicles.

Speaker Information

Mr. Hong BAO is a professor, doctoral supervisor, Standing Deputy Director of Academic Committee of Beijing Union University, deputy director of the Intelligent Driving Committee of Chinese Association for Artificial Intelligence, vice chairman of the Network Application Branch of China Computer Users Association. Prof. BAO has long been engaged in the research on intelligent driving, cognitive computing, network and distributed systems, etc. He has hosted and completed some key research projects in recent years, including 'Research on Cognitive Technology, Platform and Conversion of Intelligent Vehicle Driving Brain' under the major research program 'Cognitive Computing of Audiovisual Information' for National Natural Science Foundation of China and 'Innovation of Cultivation Mode of New Engineering Talents in Intelligent Era' for the New Engineering Research and Practice Program of Ministry of Education.

锡德伯格

芬兰 Cyberwatch 公司 CEO 及合伙人、世界无人机联合会网络安全委员会主席

Aapo Cederberg

CEO & Partner of Cyberwatch Finland, Chairman of Cybersecurity committe of the WUAVF

演讲主题

无人机的网络安全挑战

内容概要

无人机 / 遥控 / 无人机网络安全主要关注通信渠道或车辆硬件 / 软件中的可利用漏洞。此类攻击的重点是利用无线媒体上的未加密通信来进行窃听，跨层攻击，信号干扰，拒绝服务以及丢弃与地面控制的 Wi-Fi 通信。对无人机的其他攻击涉及 GPS（全球定位系统）欺骗攻击将无人机移动到不同的目的地（可能是为了劫持无人机）。

嘉宾简介

锡德伯格先生是芬兰 Cyberwatch 公司 CEO 兼创始人。Aapo Cederberg 先生还是日内瓦安全政策中心（GCSP）全球奖学金计划的助理研究员。去年，他被任命为 Word UAV Federation（WUAVF）的主席委员会成员。 2018 年，获得了网络安全北欧奖。塞德伯格先生曾担任芬兰安全委员会秘书长六年。塞德伯格上校的早期经历包括担任国防部战略规划和远见的负责人（2005 年至 2007 年）。在此之前，他在芬兰国防军的职业生涯很长，包括在 Häme GBAD Battalion（2003 年至 05 年）担任指挥官职务，并担任芬兰常驻欧安组织代表团的高级军事顾问（1999- 2003）。

Topic

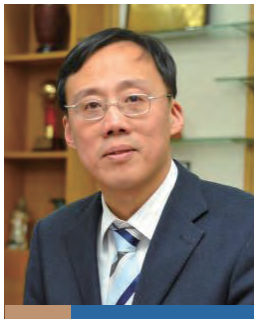
Cyber Security Challenge of Drones

Speech Abstract

UAV/RPAS/drone cyber security has largely focused on exploitable vulnerabilities in either the communication channels or the hardware/software stack on the vehicle. Such attacks have focused on exploiting unencrypted communication over wireless media to implement eavesdropping, cross-layer attacks, signal jamming, denial of service, and dropping Wi-Fi communication with ground control. Other attacks on drones involve GPS (Global Positioning System) spoofing attacks to fool the drone into moving to a different destination (possibly with the intention of hijacking the drone).

Speaker Information

Aapo Cederberg is the CEO and Founder of Cyberwatch Finland. Mr. Aapo Cederberg´s is also an Associate Fellow of the Global Fellowship Initiative at the Geneva Centre of Security Policy (GCSP). Last year he was appointed as a Chairman Committee of Word UAV Federation (WUAVF). In 2018 Aapo Cederberg was awarded with the Cyber Security Nordic prize.Mr. Cederberg has served as a Secretary General for the Security Committee of Finland for six years. Colonel Cederberg’ s earlier assignments include working as the head of Strategic Planning and foresight at the Ministry of Defense (2005 – 2007). Before this he has a long career in Finnish Defense Forces, where his latest assignments include holding the Commander position at the Häme GBAD Battalion (2003 – 05) and serving as a Senior Military Adviser at the Permanent Mission of Finland to the OSCE (1999- 2003).



潘光

西北工业大学航海学院
院长、长江学者

Pan Guang

Dean of the School of Marie Science and Technology of Northwestern Polytechnical University, Yangtze River scholar

演讲主题

水下无人系统综述

内容概要

水下无人系统（UUS）是现代海军装备的重要组成部分，是海军装备中新概念、新技术应用最为广泛的领域。报告将阐述水下无人系统的战略意义、国外发展现状及趋势、涉及到的关键技术等，提出我国发展水下无人系统的初步设想。

嘉宾简介

潘光，教授，博士生导师，教育部长江学者特聘教授，入选“国家百千万人才工程”和“新世纪优秀人才支持计划”，现任西北工业大学航海学院院长，“无人水下运载技术”工信部重点实验室主任，军委科技委某主题首席科学家。主要从事水中兵器 / 水下航行器总体设计、流体力学、水下武器发射与回收、武器系统性能仿真与评估等方面的科研和教学工作。

Topic

The Current Status and Development of Underwater Unmanned System

Speech Abstract

Underwater Unmanned System (UUS) is an important part of modern naval equipment, and it is the field where new concept and new technology are the most extensively used. The report will introduce the strategic significance of UUS, the development trend in foreign countries, and the key technologies of UUS, etc., and put forward the preliminary ideas of developing UUS in China.

Speaker Information

Pan Guang is currently Professor and Dean of the School of Marie Science and Technology, Northwestern Polytechnical University, China. He is the director of Key Laboratory of Unmanned Underwater Vehicle of Ministry of Industry and Information Technology. He was honored as Yangtze River scholar by Ministry of Education, was elected in National Talents Project, and New Century Talent Supporting Project. He works in the teaching and scientific research of design of the underwater vehicle, computational fluid dynamics, launching and retrieving of underwater weapon.

刘明

香港科技大学智能自动驾驶技术中心主任、电子与计算机工程学院助理教授

Liu Ming

Assistant Professor of Dept. Electronic and Computer Engineering Director of Intelligent Autonomous Driving Center, Hong Kong University of Science and Technology

演讲主题

低速自主驾驶的技术要素与场景

内容概要

作为拥有全球领先自主驾驶导航技术的创新型创业团队，基于十余年导航技术科研沉淀，将激光雷达、视觉与三维数据处理算法和深度学习相结合，提供从车体到软硬件及算法的 L3、L4 无人系统整体方案，已建立起围绕多传感器融合的自主导航产品产学研一体化经营体系，围绕“机器人 +AI”布局产品线、规划技术路线，掌握了全地形三维建图及导航、大范围视觉定位导航、激光视觉融合导航等先进技术，主要产品有低速无人驾驶物流车、低速无人驾驶载人接驳车、无人驾驶安防监控车、全地形机器人平台、低成本室内导航系统、融合传感器等，并可提供路面场景动态规划、无人驾驶全栈集成、低运算开销深度学习等一体化解决方案。

嘉宾简介

刘明教授，博士毕业于瑞士苏黎世联邦理工学院 (ETH)，现任香港科技大学电子与计算机工程学系助理教授、香港科技大学智能驾驶中心主任、机器人与多感知实验室主任，兼任多家知名科技公司首席科学家；在机器人领域累计发表论文 100 余篇，近五年获得了 12 次国际会议最佳论文或提名奖，以及包括中国人工智能最高奖——“吴文俊人工智能科学技术奖”在内的多项奖励。

Topic

Key Technologies in Low-Speed Autonomous Driving and Its Application

Speech Abstract

As a world-leading autonomous driving tech innovation team, their mission and dedicatation is to make accessible autonomous driving technology a reality by combining multi-sensor fusion, computer vision and deep learning together. With an emphasis on multi-sensor fusion technology, they have established an integrated management mechanism of collaborating industry, university and research. Centered on the strategy of 'Robot+AI', they have developed core technologies such as the all-terrain 3D mapping, large-scale visual navigation, and LiDAR sensor fusion navigation.

Speaker Information

Dr. Ming Liu received his Ph.D. degree from the Federal Institute of Technology (ETH) in Zurich, Switzerland. He is currently Assistant Professor of the Department of Electronics and Computer Engineering at the Hong Kong University of Science and Technology,and Director of the Intelligent Driving Center as well as Robotics and Multi-Perception Lab. He serves as the Chief scientist for several technology companies in China. He published more than 100 papers at top robotic journals and international conferences,and has been awarded 12 times Best Paper Awards or finalisted at international conferences, including Wu Wenjun Artificial Intelligence Science and Technology Award.

黄凯

中山大学教授

Huang Kai

Professor of Sun Yet-sen University

演讲主题

无人驾驶安全分析

内容概要

目前关于无人驾驶的探索正在如火如荼的进行，不论是高校、互联网巨头还是整车厂和初创公司，都着眼于自动驾驶的商业化落地。目前产业界的共识是在 2020 年左右实现”Eyes off”，也就是 Level 3 水平。与飞速发展的无人驾驶技术相关联的是由此带来的安全问题。在本次论坛中，报告人将用具体案例作为切入点探讨无人驾驶的安全性问题。

嘉宾简介

中山大学数据科学与计算机学院教授、无人系统研究所所长、博士生导师、中央组织部“青年千人”。2010 年博士毕业于瑞士苏黎世理工。主要研究方向为嵌入式 / CPS 系统的基础研究及其工业应用。工业领域涉及无人驾驶，医疗器械，仿生机器人。他曾获多项最佳论文 / 提名。

Topic

Is Autonomous Driving Safe, Technically and Biologically ?

Speech Abstract

Autonomous driving is the hotest field in recent years. Both startups and OEMs are rushed to commercialize autonomous driving techniques. The current consensus of the community is to realize 'eyes off' for consumer vehicles, i.e., Level 3. One big issue for commercializing autonomous drving is safety. In this talk, safety issue will be discussed from technical and biological perspectives with concrete use cases.

Speaker Information

Huang Kai joined Sun Yat-Sen University as a Professor in 2015. He was appointed as the director of the Institute of Unmanned Systems of School of Data and Computer Science in 2016. He was a senior researcher in the Computer Science Department, the Technical University of Munich, Germany from 2012 to 2015 and a research group leader in fortiss GmbH in Munich Germany in 2011. He obtained his Ph.D. degree in ETH Zurich, Switzerland in 2010, his MSc from University of Leiden, the Netherlands in 2005, and his BSc from Fudan University, China in 1999. His research interests include techniques for the analysis, design, and optimization of embedded systems, particularly in the automotive and robotic domains.

王栋

中国船舶及海洋工程设计研究院高级工程师

Wang dong

Senior Engineer of Marine Design and Research Institute of China

演讲主题

小型水面无人艇关键技术及未来发展

内容概要

随着无人技术在海上航行器上的运用，无人艇展现出了巨大的应用前景。本报告介绍了国内外无人艇研发的进展情况，总结了目前无人艇的艇型、动力、材料、通信、导航、感知融合、控制以及运用等的特点，指出了无人艇开发过程中的关键理论与技术难点，为下一步更加深入的研究提供参考。

嘉宾简介

王栋，高级工程师，毕业于哈尔滨工程大学。从事船舶总体设计和船舶计算机辅助设计应用开发十余年。目前担任无人艇项目总师。

Topic

Research Status and Progress of Unmanned Surface Vehicle

Speech Abstract

With the use of unmanned technology on vessels, unmanned surface vehicles (USV) have show tremendous application prospects.The current research and developemnt of USV at home and abroad is introduced. The characteristics of boat type,prower,material,communication,navigation,perception fusion,control and application of USV's development at present are summarized.Key theoretical and technical difficulties in the development of USV are presented.It provides reference for future research.

Speaker Information

Mr. Wang has graduated from Harbin Engineering University. He has been engaged in research of ship general design and computer-aided ship design for more than ten years. Now he is focus on unmanned surface vessel and serves as the general designer of small USV.

奚炎

粤港澳大湾区人工智能产业人才联盟联盟秘书长

Xi Yan

Secretary-General of the Alliance

演讲主题

中国的人工智能人才培养的驱动器

内容概要

简要阐述粤港澳大湾区人工智能产业人才联盟成立的重要意义，以及未来的发展方向。联盟如何整合高校和人工智能企业以及资本的资源，全力推进中国高校和高职院校人工智能教育与企业的深度融合，用企业的先进技术和产品和资源培养一流的人才，做好国家人工智能产业发展的人才驱动器。

嘉宾简介

奚炎教授，是粤港澳大湾区第一批人工智能教育专家，2017 开始参与教育部人工智能高校教育项目，创造性的提出了能够落地实施的并且持续培养人才的理念和方案，并且在一些高校已经成功实施，同期发起了“粤港澳大湾区人工智能产业人才联盟”，得到了多个部委和地方政府的大力支持，凝聚社会各界力量来推动大湾区乃至中国人工智能人才的培养，进一步推动中国人工智能产业的发展。

Topic

Driver of Artificial Intelligence Talents Training in China

Speech Abstract

The speech briefly expounds the significance of the establishment and the future development direction of the Artificial Intelligence Industry Talent Alliance in Guangdong, Hong Kong, Macao and Dawan District.It also explains how the alliance integrates the resources of universities and artificial intelligence enterprises and capital, and makes every effort to promote the deep integration of artificial intelligence education and enterprises in Chinese universities and higher vocational colleges, and cultivates first-class talents with the advanced technology, products and resources of enterprises. and do a good job in the development of national artificial intelligence industry.

Speaker Information

Professor Xi Yan, the first batch of Maker Education Expert in Shenzhen, first established the standardization of equipment, courses and training for young people's artificial intelligence application technology education in China.He began to participate in the Ministry of Education's Artificial Intelligence College Education Program in 2017,creatively put forward the ideas and plans that can be implemented on the ground and continue to cultivate talents,which has been successfully implemented in some universities.At the same time,he launched the "Artificial Intelligence Industry Talents Alliance in Guangdong, Hong Kong, Macao and Dawan District", which has received strong support from several ministries and local governments.The alliance aims to gather forces from all sectors of society to promote the cultivation of artificial intelligence talents in Dawan District and even in China, and further promote the development of artificial intelligence industry in China.

娜塔莉亚·库兹曼科

科学期刊办公室主任

Nataliia Kuzmenko

Head of the Scientific Periodicals Office

演讲主题

人工智能在遥控航空系统中的应用

内容概要

人工智能（AI）已经成为我们生活的一部分，从咖啡机到空间物体系统控制。 人工智能有助于解决人类所面临的全球性挑战，例如治疗疾病，降低交通事故率，应对气候变化或网络安全威胁。人工智能在远程控制飞行器系统（RPAS）中的应用是航空安全方面需要改进的重要问题。 AI 在 RPAS 中有多种应用，例如导航和任务控制，飞行状态分析，物体检测和识别，非传统定位导航和定时。

嘉宾简介

娜塔莉亚·库兹曼科，乌克兰国立航空大学高级研究员。获乌克兰国立航空大学2017年导航和交通控制工程博士学位，国际民用航空组织（ASTP / Basic, ASTP / 教师）认证的航空安全讲师；曾在航空工具开发部门接受过培训，并在“欧洲空域一体化”（位于布鲁塞尔的欧洲航空安全组织）的监管部门为 CAA / NSA 提供支持。目前的研究项目包括航空安全，碰撞检测和规避，人工智能，远程驾驶空中系统，视频流对象检测和识别，核密度估计以及神经网络。

Topic

Application of Artificial Intelligence in Remotely Piloted Aerial Systems

Speech Abstract

An artificial intelligence (AI) has already become a part of our lives from coffeemaker up to space objects systems control. AI helps to solve the biggest worldwide challenges, such as treating diseases, reducing traffic accidents rates, fighting climate changes or cyber security threats. Application of AI in RPAS is an important issue for aviation safety improvement. AI has multiple applications in RPAS such as navigation and mission control, flight state analysis, object detection and recognition, Alternative Positioning Navigation and Timing.

Speaker Information

Nataliia Kuzmenko is a senior researcher of the National Aviation University of Ukraine. She obtained her Ph.D. degree of Engineering in Navigation and Traffic Control in 2017 at the National Aviation University of Ukraine. Nataliia is certified aviation security instructor by International Civil Aviation Organization (ASTP/Basic, ASTP/Instructors). She has had a traineeship in Tool Development for support to CAA/NSA at Regulatory Division within the Directorate Single Sky (Eurocontrol, Brussels). Current research projects include aviation safety, collision detection, and avoidance, artificial intelligence, Remotely Piloted Aerial Systems, video stream object detection and recognition, kernel density estimation, neural networks.

刘硕

百度智能驾驶事业群生态合作总经理

Liu Shuo

General Manager of Ecosystem Cooperation, Baidu IDG

演讲主题

百度 Apollo 生态进展与合作

内容概要

百度 Apollo 作为全球最强大、最开放、最活跃的自动驾驶平台在业界一直发挥着引领作用。本次演讲将围绕 Apollo 生态在城市合作、教育、技术服务、硬件与车辆、开发者社区等多方面对生态现状、未来规划及扶持政策进行解读。

嘉宾简介

负责百度 Apollo 开发者生态、社区生态、教育生态、城市合作生态等团队，基于 Apollo 丰富领先的技术基础，秉承“开放能力、共享资源、加速创新、持续共赢”合作宣言，与团队共同孵化众多优质开发者项目在多场景落地运营，吸引超过 1.6 万社区开发者参与社区互动，与 100 余家国内外高校进行教育合作探索。聚集生态的力量，在北京、雄安、长沙等区域形成城市级自动驾驶之城示范。

Topic

Apollo Ecosystem Development and Cooperation Overview

Speech Abstract

As the world's most powerful, open and active autonomous driving platform, Apollo has always played a leading role in the industry. The speaker will elaborate Apollo ecosystem's status, future planning and support policies regarding city cooperation, education, technical services, hardware & vehicles and developer communities.

Speaker Information

Ms. Liu is the team leader of Apollo ecosystem cooperation, which includes developer ecosystem, community ecosystem, education ecosystem, and city cooperation ecosystem. Based on Apollo's leading technology and declaration'promote open capability, share resources-accelerate innovation, sustain mutual benefit', Ms. Liu has led her team to successfully incubate many high-quality developers and implement in multiple scenarios. More than 16,000 community developers and 100+ global and local universities are attracted to participate in community interaction and cooperation. In addtion, thanks to the attraction from Apollo ecosystem, the team has jointly work with Beijing, Xiong'an and Changsha to built best practices of 'City of Autonomous Driving'.

约翰·泰

马来西亚通信与多媒体委员会（MCMC）社区赋能部主任

John Tay

Director, Dept of Community Empowerment, Malaysian Communications and Multimedia Commission (MCMC)

演讲主题

物联网和 AR / VR 技术在马来西亚的转变模式

内容概要

案例马来西亚如何结合无人机，AR 和 VR 的应用，利用物联网推动物联网生态系统的发展。

嘉宾简介

John Tay 是马来西亚通信与多媒体委员会（MCMC）社区赋能部主任。约翰过去 16 年来一直在委员会工作。他在 ICT 行业拥有超过 30 年的经验，拥有美国俄克拉荷马州立大学的计算机科学理学学士学位和澳大利亚联邦大学的 MBA 学位。 John 在银行，航空航天，医疗保健，石油和天然气，IT 服务和电信行业有多年经验。在 MCMC，John 负责促进和协助物联网和 myMaker 计划。 John 负责推动马来西亚数字生活方式和 myMaker 倡议，以促进第四次工业革命和物联网，为马来西亚成为一个更智能的国家做出了巨大努力。myMaker 计划是一个平台汇集了学生，制造者和初创企业的创意和创新思想，为物联网和第四次工业革命的基层支持。

Topic

Paradigm Shift of IoT and AR/VR Technology in Malaysia

Speech Abstract

To share the profileration of IoT ecosystem in Malaysia using Internet of Things as enabler and to share the applications of drones and AR and VR.

Speaker Information

John Tay is the Director, Community Empowerment Department in Malaysian Communications and Multimedia Commission (MCMC). John has been with the Commission for the past 16 years. He has more than 30 years of experience in the ICT industry and holds a Bachelor of Science degree in Computer Science from Oklahoma State University, USA and MBA from Federation University Australia. John has exposure in Banking, Aerospace, Healthcare, Oil and Gas, IT Services and Telecommunications industries. John has also worked overseas for many years in various industries. In MCMC, John is responsible for promoting and facilitating Internet of Things and myMaker Movement the industries, communities and tertiary. John oversees the Digital Lifestyle Malaysia and myMaker initiative to promote the 4th Industrial Revolution and Internet of Things to gear Malaysia towards a smart nation. While myMaker initiative is a platform to promote creative and innovative ideas among students, makers and start-up as the grass root support towards Internet of Things and 4th Industrial Revolution.

唐卡恩·卡查勒姆东

泰国智能交通协会副会长

Tongkarn Kaewchalermtong

Vice President of ITS Thailand

演讲主题

自动驾驶交通工具：人口老龄化的流动性解决方案

内容概要

到 2060 年，约有 30%的社会将是老年人或年龄超过 65 岁。之前的研究显示，美国 20%的老年人根本不开车。 诸如自动驾驶汽车（AV）等具有改善健康和福祉的新兴技术具有庞大的潜在市场。 特别是老年人和残疾人能够安全，无缝地按需从 A 点到 B 点旅行。 这种流动性和独立性可以成为未来老龄化社会的交通主力之一。

嘉宾简介

唐卡恩·卡查勒姆东博士是 Chulachomklao 皇家军事学院土木工程系讲师，并在泰国智能交通系统协会担任副会长。他是新加坡国立大学李光耀公共政策学院的执行教育研究员，以及东盟工程组织联合会运输和物流工作组的主席。此前，他曾担任亚洲及太平洋经济社会委员会运输司的专家。唐卡恩·卡查勒姆东博士还曾任职于国王赞助的泰国工程学院外交事务委员会，以及泰国铁路工程协会和智能监控协会董事会委员会。他拥有史蒂文斯理工学院海洋工程（Ph.D.）和建筑管理（M.S.）以及 Mahidol 大学（B.Eng）的土木工程学位。

Topic

Autonomous Vehicles: The Mobility Solution for an Aging Population

Speech Abstract

By 2060, some 30% of the society will be elderly people or aged over 65. The previous study revealed that 20 percent of older people in USA do not drive at all. Emerging technology such as autonomous vehicles (AVs) have the potential to improve the health and well-being. Particularly senior citizens and the disabled people are able to travel from point A to point B safely, seamlessly and on-demand. This mobility and independence can significantly become one of a transportation option for an aging society in the future.

Speaker Information

Major Dr.Tongkarn Kaewchalermtong is a lecturer in Civil Engineering Department at Chulachomklao Royal Military Academy, and hold a vice-president position at Thai Intelligent Transport Systems Association. Internationally, he serves as the executive education fellow at Lee Kuan Yew School of Public Policy, National University of Singapore, and a chairperson of Transportation and Logistics Working Group, ASEAN Federation of Engineering Organizations. Previously, he served as the expert at Transport Division, Economic and Social Commission for Asia and the Pacific. Nationally, Dr.Kaewchalermtong also serves as the foreign affairs committee of the Engineering Institute of Thailand under H.M. the King's Patronage, and a board committee in both Thai Railway Engineering Association and Intelligent CCTV Association. He holds degrees from Stevens Institute of Technology in Ocean Engineering (Ph.D.) and Construction Management (M.S.), and from Mahidol University in Civil Engineering (B.Eng.).

杨军

中国船舶工业系统工程研究院研究员

Yang Jun

Research Fellow of Systems Engineering Research Institute

演讲主题

无人机系统在海上应用现状与关键技术

内容概要

随着无人机系统技术快速发展和人工智能技术日趋成熟，极大地拓展了无人机系统应用领域。无人机系统作为军民融合广泛应用的一个典型产物，可在建设“海上丝绸之路”中发挥重要作用。本报告从无人机系统当前在海上应用的现状、需求，分析出海上应用的难点，得出系统海上应用所需的关键技术，最后展望了未来发展方向。

嘉宾简介

杨军，研究员，就职于中国船舶工业系统工程研究院，现从事无人机系统设计工作，担任多型国家重点型号项目的总设计师和副总设计师、各种技术专业组、重点实验室的专家成员，发表 SCI、EI 和核心期刊文章等二十余篇。

Topic

The Marine Application and Critical Technology of The UAV System

Speech Abstract

With the rapidly development of the UAVs' technology and gradually maturity of the AI technology, the UAVs application fields were enormously expanded. The UAVs is a typical example of extensive usage in the military and civilization integration, could be played an important role in the construction of the 'the Marine Silk Road'. According to present situation and requirement of the UAVs marine application, the difficulty was analyzed, the critical technology requirement was summed up, finally,the direction of future development was expected in the speech.

Speaker Information

Yang Jun, Research Fellow, working in the Systems Engineering Research Institute(SERI), engaged in UAVs design, served as chief or deputy chief designer on several National Key Projects and expert in many kinds of professional technology team, laboratory, the articles of SCI, EI and core journals were published more than 20 papers.

李睿堃

应急管理部上海消防研究所、国家消防装备质量监督检验中心主任

Li Ruikun

Senior engineer of Shanghai Fire Research Institute of MEM/China Natinal Fire-Fighting Equipment Quality Supervision Testing Center

演讲主题

水域无人系统消防应用研究

嘉宾简介

李睿堃，应急管理部上海消防研究所、国家消防装备质量监督检验中心高级工程师，消防救援局消防装备授课专家，主要负责发光照明、指示导向、生命探测、红外成像、无人系统等消防装备的产品检验、标准制定、技术研究方面工作。是消防员照明灯具、消防用雷达生命探测仪、消防无人机系统三类产品的全国首台装备检验人、首份国家标准主写人，首个试验室建设人。同时主检并完成各类消防装备产品 600 余项；建立并完善防护等级、光电综合、生命探测、无人系统、环境综合等试验室 10 余个；研制开发各类检验仪器设备 10 余套，授权专利 6 项其中发明专利 3 项；编写并修订各类消防装备国家及行业标准 10 余项；参与消防部队授课 11 年培训学员 1500 余名；牵头并参与所级、局级、部级、国家级各类科研项目 10 余项；在国内外学术期刊和重要会议上发表论文 10 余篇，参与编写消防装备相关专著 3 部。

Topic

Research on Fire Protection Application of Unmanned System in Waters

Speaker Information

Li Rui Kun. Senior Engineer, Fire rescue equipment Expert & Lecturer of Shanghai Fire Research Institute of the Ministry of Emergency Management & China National Fire Equipment Quality Supervision & inspection Center. Mainly responsible for product inspection, standard formulation, and technical R&D of fire control equipments such as lights, instruction guidances, life detection Rader, infrared equipments & unman systems.

He is also the country's First Test Lab builder, First National Standard Writer & First Equipment Inspector of Firefighter lighting lamps, Fire Radar, and Fire UAV SYSTEM. Till now, as the main inspector has completed more than 600 fire control products. Established & improved more than 10 laboratories. Such as: protection level, photoelectric synthesis, life detection, unmanned system & environmental synthesis. More than 10 sets of specified inspection instruments were developed & 6 National patents were granted. Prepared & revised more than 10 national & industry standards for various types of firefighting equipment. Throughout the 11-years, he trained 1,500+ Fire rescue crew, Leaded & participated in 10+ scientific research projects at the all levels. He also published more than 10 papers in academic journals & major conferences in both China & overseas, and participated in 3 firefighting equipment related monographs.

胡小波

深圳市镭神智能系统有限公司董事长 &CEO

Bernie Hu

Chairman&CEO of LeiShen Intelligent System co., LTD

演讲主题

应用于自动驾驶和三维测绘领域的高性能激光雷达

内容概要

主要围绕自动驾驶和三维测绘领域的高性能激光雷达这个主题，分别从自动驾驶和三维测绘领域发展现状，自动驾驶和三维测绘用激光雷达及解决方案，镭神的技术和研发实力这三个层面展开介绍，加速推进国产激光雷达在自动驾驶和测绘行业的产业化进程！

嘉宾简介

胡小波，毕业于西安电子科技大学，中国人民大学 EMBA ，国和耶鲁学员（全球领导力培养计划）；国内资深的激光雷达、光纤激光器、光纤器件专家，原国内最大的光纤激光器企业创鑫激光创始人，从事激光雷达、光纤激光器、光纤传感、光纤通讯等光电行业工作近 20 年。2014 年 10 月作为科技部挑选的十位青年科技企业家之一随国家总理李克强出访俄罗斯青年百杰论坛。

Topic

High Performance LiDAR for Autonomous Driving and 3D Mapping

Speech Abstract

It mainly focuses on the theme of high-performance LiDAR in the field of self-driving and 3D mapping. It introduces, in three aspects, the development status of self-driving and 3D mapping,its solution and Leishen's research & development efforts in those fields in order to accelerate the industrialization of domestic Lidar.

Speaker Information

Hu Xiaobo, graduated from Xi'dian University, Renmin University of China (EMBA) and United Nations · Yale Business School(Global Leadership Training Program), is the founder of Maxphotonics Co.,Ltd,the biggest fiber laser enterprise in China,also a senior expert in the fields of LiDAR, optical fiber laser, optical fiber communication and optical fiber sensing with over 20 years experience . In 2014, Mr Hu visited Russian Youth Forum in accompany with Premier Li Keqiang, as one of ten representatives of youth science and technology entrepreneurs.

DRONE WORLD CONGRESS 2019

2019 世界无人机大会

UAV Application Standardization Forum

无人机应用标准化论坛

批准单位

中国科学技术协会

主办单位

中国科学院无人机应用与管控研究中心
深圳市无人机行业协会
中国地理信息产业协会无人机应用与管控工作委员会

AUTHORIZED BY

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UNDERTAKEN BY

The Research Center for UAV Applications and Regulation, Chinese Academy of Sciences
Shenzhen UAV Industry Association
China Geographic Information Industry Association UAV Application and Control Working Committee

无人机应用标准化论坛 - 议程

6 月 21 日 09:00-12:00 | 深航酒店 5 层 深航厅

时 间	主 题	嘉 宾	
08:00-09:00	**签 到**		
09:00-09:10	**致 辞**		
	廖小罕 中国科学院地理科学与资源研究所党委书记、副所长 中国科学院无人机应用与管控研究中心主任		
	主旨演讲（主持：谭翔）		
09:10-09:35	无人机管控和无人机低空公共航路	**廖小罕**	中国科学院地理科学与资源研究所党委书记、副所长 中国科学院无人机应用与管控研究中心主任
09:35-10:00	商业远程控制飞行器系统在全球非隔离空域中的融合应用	**约翰·斯高尔·沃克**	ISO TC20/SC16 主席
10:00-10:25	高频次迅捷无人航空器区域组网遥感观测技术	**万志强**	北京航空航天大学航空科学与工程学院副院长
10:25-10:50	欧洲无人机监管与标准化	**罗纳德·里布施**	德国标准化研究所专家、欧洲技术标准经理（大疆无人机）
10:50-11:15	中国无人机识别标准化工作进展	**卢海英**	中国电子技术标准化研究院高工
11:15-11:40	IEEE 和 IEEE 标准：推动技术创新	**赵盟**	电气电子工程师学会 / IEEE 中国区标准高级经理

UAV Application Standardization Forum

Forum Agenda

09:00-12:00, June 21 | 5F,Shenhang Hall, Shenzhenair International Hotel

Time	Topics	Speaker
08:00-09:00	Registration	
09:00-09:10	Greeting	
	Liao Xiaohan, Deputy Director General of the Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences.Director General of The Research Center for UAV Applications and Regulation, Chinese Academy of Sciences	
	Keynote Speech	
09:10-09:35	UAV Regulation and Low-altitude Public Air Route Construction	**Liao Xiaohan**, Deputy Director General of the Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences.Director General of The Research Center for UAV Applications and Regulation, Chinese Academy of Sciences
09:35-10:00	Integration of Commercial RPAS into Global, Non-segregated Airspace	**John Scull Walker**, Chairman of ISO TC20/SC16
10:00-10:25	Remote Sensing Observation Technology Based on High Frequency and Rapid UAV Regional Networking	**Wan Zhiqiang,** Vice President，School of Aeronautic Science & Engineering, Beihang University
10:25-10:50	European Drone Regulation and Standardization	**Ronald Liebsch**, DIN Expert, Technical Standards Manager Europe (DJI)
10:50-11:15	Progress of UAV Identification Standardization in China	**Lu Haiying**, Senior Engineer, China Electronics Standardization Institute
11:15-11:40	IEEE and IEEE-SA:The Force Behind Innovation	**Zhao Meng**, Standard Program Senior Manager,IEEE China

廖小罕

中国科学院地理科学与资源研究所党委书记、副所长
中国科学院无人机应用与管控研究中心主任

Liao Xiaohan

Deputy Director General of the Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences.
Director General of The Research Center for UAV Applications and Regulation, Chinese Academy of Sciences

演讲主题

无人机管控和无人机低空公共航路

内容概要

无人机运行管控涉及到空域准入、安全风险评估、定位和识别、航路规划、规障避险和即时通信等。在无人机运行最为频繁的离地几百米的低空空域，还涉及到地理位置、地形地貌、地表建筑、敏感地区、人口分布、交通路网、高塔电网分布等，需要空域管理、航空运行与地理科学等多学科交叉的融合。加强顶层设计，规划和构建服务无人机运营商和用户的低空公共航路是促进无人机运行和管控积极有序发展的重要手段和措施。

嘉宾简介

廖小罕，博士生导师。曾任科学技术部高新技术司和基础研究司副司长，国家遥感中心主任，中国航空运动协会副主席，中国空间科学学会副理事长。现从事轻小型无人机遥感应用、无人机遥感数据航母构建、无人航空器组网观测、云端管控以及低空航路构建等研究。社会兼职任中国地理信息产业协会监事长、无人机应用与管控工作委员会主任委员。

Topic

UAV Regulation and Low-altitude Public Air Route Construction

Speech Abstract

The operation and regulation for UAVs include airspace access, safety risk assessment, location and identification, air route planning, obstacle avoidance, timely communication and so on. Especially in the low-altitude airspace a few hundreds of meters above ground where UAVs operate most frequently, it also includes geographic position, topography, buildings, sensitive areas, population distribution, traffic network, high tower and power line, etc. Therefore, it is necessary to integrate multidisciplinary including airspace management, aviation operation and geographic sciences. The presentation is made on planning and constructing of low-altitude public air routes for UAVs.

Speaker Information

Mr. Liao used to work as a deputy director general on the Department of High and New Technology and the Department of Basic Research of Ministry of Science and Technology of the People's Republic of China (MOST). He also worked as the director general of the National Remote Sensing Center of China (NRSCC), the vice chair of Aero Sports Federation of China and the vice President of Chinese Society of Space Research. Mr. Liao has been engaged in the research about remote sensing applications for light and small UAVs, UAV remote sensing megadata carrier, and networking observation technology, cloud-end control and low-altitude air route construction for UAVs . He is also the supervisory of China Association for Geographic Information Society, and the chairman of the committee for UAV applications and regulation.

约翰·斯高尔·沃克

ISO TC20/SC16 主席

John Scull Walker

Chairman of ISO TC20/SC16

演讲主题

商业远程控制飞行器系统在全球非隔离空域中的融合应用

内容概要

为民用无人机系统制定统一标准以促进其进入全球空域，确保其能够与以人工驾驶飞机为主的空间安全整合。ISO TC20 SC16 一直致力于实现这一目标，并与其他标准组织开展密切合作，包括欧洲民用航空设备组织（EUROCAE），美国材料与试验协会（ASTM），航空无线电技术委员会（RTCA）和国际民航组织远程控制飞行器系统（ICAO RPAS）专家组。本演讲将介绍民用无人机系统标准与其他国际组织所制定的城市交通与空域管理的无人机系统交通管理（UTM）概念所保持的一致性。

嘉宾简介

约翰·斯高尔·沃克在航空领域拥有 54 年的丰富经验，其中包括 34 年的美国联邦航空局工作经验，曾担任空域主管，负责美国境内民用航空工作。在此之前，他曾负责美国东北部的空中交通运营。约翰·斯高尔·沃克现担任 ISO TC20 / SC16 主席，参与制定无人机系统标准，同时还是 JARUS 利益相关者咨询机构的行业副主席。作为美国联邦航空局代表团成员，他是 AIA 新兴技术空域委员会，国际无人系统协会（AUVSI）行业咨询委员会和国际民航组织远程控制飞行器系统（ICAO RPAS）专家组成员。

Topic

Integration of Commercial RPAS into Global, Non-segregated Airspace

Speech Abstract

Establishing harmonized standards for Civil Unmanned Aircraft Systems will ensure routine access to global airspace that will ensure the safe integration with manned aircraft. ISO TC20 SC16 is committed to this goal and has established a close working relationship with other standards organizations including EUROCAE, ASTM, RTCA and the ICAO RPAS Panel. This presentation will describe how standards are aligned with other international organizations in establishing UAS Traffic Management (UTM) concepts for Urban Mobility and adjusting airspace use.

Speaker Information

John has 54 years of aviation experience including 34 years with the Federal Aviation Administration. He served as the Director of Airspace, responsible for all civil airspace within the United States. Prior he was responsible for air traffic operations in the Northeast of the USA. John serves as the Chairperson of ISO TC20/SC16, developing standards for Unmanned Aircraft Systems. He serves as the industry Vice Chairperson for the JARUS Stakeholder Consultation Body. He participates with the AIA Emerging Technologies Airspace Committee, AUVSI Industry Advisory Committee and on the ICAO RPAS Panel as a member of the United States FAA Delegation.

万志强

北京航空航天大学航空科学与工程学院副院长

Wan Zhiqiang

Vice President，School of Aeronautic Science & Engineering, Beihang University

北京航空航天大学 BEIHANG UNIVERSITY

演讲主题

高频次迅捷无人航空器区域组网遥感观测技术

内容概要

针对无人航空遥感中飞行器单机作业效率低下、缺乏组网协同、载荷平台适应性差、空地之间协同支撑不足等关键问题，本报告将主要介绍高频次迅捷无人航空器区域组网遥感观测技术，探究满足日益繁杂的航空遥感任务和不断提高的航空遥感产品需求的有效途径。在报告中，将以几类观测载荷与飞行平台的集成系统及不同系统间的协同组网为例展开阐述。

嘉宾简介

万志强，飞行器设计专业教授，博士生导师，北京航空航天大学航空科学与工程学院副院长。美国航空航天学会 AIAA Associate Fellow，AIAA 自适应结构技术专业委员会委员。主要研究领域为飞行器总体设计、飞行器结构设计、飞行器气动弹性，研究对象包括固定翼飞机、微小型飞行器等。主持或参加科研课题 50 余项，获国防科学技术奖二等奖一项、三等奖一项。

Topic

Remote Sensing Observation Technology Based on High Frequency and Rapid UAV Regional Networking

Speech Abstract

Aiming at the key problems in UAV remote sensing, such as low efficiency of single aircraft operation, lack of networking cooperation, poor adaptability between load and UAV,insufficient coordination support between space and ground, Dr.Zhiqiang Wan will introduce the Remote Sensing Observation Technology Based on High Frequency and Rapid UAV Regional Networking and explore effective ways to meet the increasingly complex aviation remote sensing tasks and the increasing demand for aviation remote sensing products.In this report,several types of integrated systems and the collaborative networking between different systems will be described as an example.

Speaker Information

Dr. Zhiqiang Wan is an professor of aircraft design and a senior member of the BeihangAeroelasticity Lab in School of Aeronautic Science & Engineering, Beihang University.He is an Associate Fellow of the AIAA and a member of AIAA's Adaptive Structures Technical Committee. Prof.Wan has extensive experience and interests in aeroelasticity, structure optimization and UAV research. He presided over or participated in more than 50 related scientific research projects.

罗纳德·里布施

德国标准化研究所专家、欧洲技术标准经理（大疆无人机）

Ronald Liebsch

DIN Expert, Technical Standards Manager Europe (DJI)

演讲主题

欧洲无人机监管与标准化

内容概要

演讲将概述 2019 年欧洲最新的且成功实施的无人机规则，重点介绍欧洲三个实施类别的主要内容：“开放”、“具体”和“认证”。演讲第二部分内容将弥补欧洲法规与欧洲和国际无人机系统标准化工作之间的空缺，重点关注欧洲标准组织 ASD-STAN 的标准化工作。

嘉宾简介

罗纳德 · 里布施在航空领域拥有超过 10 年的经验，现正在无人机制造商大疆创新任职，同时他还代表德国领先的标准化机构 DIN 出席担任欧洲无人机系统（UAS）标准化工作专家。作为各类欧洲和国际无人机标准化工作组（例如 ASD STAN D5 WG8, EUROCAE WG105, ISO TC20 / SC16, ISO / IEC JTC1 / SC17 / WG12）的成员，里布施先生是无人机系统标准化领域的知名国际专家。

Topic

European Drone Regulation and Standardization

Speech Abstract

The presentation will give an overview of the new successfully implemented Drone Regulation in Europe in 2019, highlighting the main take-aways for the three in Europe implemented categories: "open", "specific" and "certified".The second part of the presentaion will bridging the gap between European Regulation and European and International UAS standardization tasks,focussing on the standardization Tasks of European Standard Organization ASD-STAN.

Speaker Information

Having more than 10 years experience in the aviation sector, Mr. Ronald Liebsch is working for the Drone Manufacturer DJI and representing the leading German Standardisation Body DIN as Expert for Standardization Tasks on Unmanned Aircraft Systems (UAS) in Europe. As member of different european and internationl Standardisation working groups on drones (e.g. ASD STAN D5 WG8, EUROCAE WG105, ISO TC20/SC16, ISO/IEC JTC1/SC17/WG12) Mr. Liebsch is an well known international expert in UAS standardization.

卢海英

中国电子技术标准化研究院高工

Lu Haiying

Senior Engineer,
China Electronics Standardization Institute

演讲主题

中国无人机识别标准化工作进展

内容概要

无人机执照与无人机识别模组工作组国家标准制订工作进展；国际标准化组织无人机执照与无人机识别模组 ISO 22460-2 标准制订工作进展；IEEE 无人机相关标准制订工作进展。

嘉宾简介

任 IEEE 1937.1 无人机载荷接口标准工作组主席，是全国航空器标准化技术委员会无人驾驶航空器系统分技术委员会（SAC/TC435/SC1）首批委员。任 ISO/IEC JTC1/SC17 WG12 无人机执照与无人机识别模组工作组项目编辑、SAC/TC28/SC17 WG12 无人机执照与无人机识别模组工作组副组长。

Topic

Progress of UAV Identification Standardization in China

Speech Abstract

Progress of Drone lisence and Drone identity module national standards working group(SAC/TC28/SC17 WG12); Progress of Drone lisence and drone identity module standards working group(ISO/IEC JTC1/SC17 WG12); Progress of drone related standards working group of IEEE.

Speaker Information

ISO/IEC JTC1/SC17 WG12 Drone license and drone identity module editor of ISO 22460-2/ Team leader of SAC/TC28/SC17 WG12/ Chair of IEEE 1937.1 Drone Payload Interface/ member of SAC/TC435/SC1 (Subcommittee 1 on UnmannedAircraft Systems of National Technical Committee 435 on Aviation Vehicles of StandardizationAdministration of China)

赵盟

电气电子工程师学会 /
IEEE 中国区标准高级经理

Zhao Meng

Standard Program Senior Manager,IEEE China

演讲主题

IEEE 和 IEEE 标准：推动技术创新

内容概要

电气电子工程师学会 (IEEE) 无人机相关标准工作组介绍以及 IEEE 和 IEEE 标准协会介绍。

嘉宾简介

赵盟是IEEE中国区标准高级经理，她的职责主要是推进新兴技术在中国的标准化，制定和执行 IEEE 标准协会中国区策略，发现并确认 IEEE 新标准领域，为 IEEE 工作组建立和工作组会议提供培训和流程支持，引导并协助本地企业和个人进行标准项目的申请，邀请和协调业界专家参与标准相关活动。在加入 IEEE 之前，赵盟有十多年标准工作经验，历任华为公司 3GPP RAN1 标准首席代表，标准营销项目经理以及中兴通讯预研高级工程师。

Topic

IEEE and IEEE-SA:The Force Behind Innovation

Speech Abstract

Standardization work on Unmanned Aerial Vehicle at IEEE as well as introduction of IEEE and IEEE-SA.

Speaker Information

Meng Zhao as the Standard Program Senior Manager, IEEE China who promotes emerging technology standardization at China, undertakes research and contributes insight/findings to IEEE-SA’s strategy, identifies new areas and lines of business for IEEE-SA to explore, invites and coordinates the participation of local and international industry and individuals in standards-related activities, provides guidance/training for IEEE working groups and working group meetings, guides and oversees progress, development, and completion of standards projects in assigned region.

DRONE WORLD CONGRESS 2019

2019 世界无人机大会

UAV Education Training and Development Forum

无人机教育培训与发展论坛

主办单位

慧飞无人机应用技术培训中心

深圳市无人机行业协会

ORGANIZED BY

Unmanned Aerial Systems Training Center

Shenzhen UAV Industry Association

支持单位

中国通用航空协会筹备组

中国航协通用航空分会

SUPPORTED BY

China General Aviation Association Preparatory Group

General Aviation Branch of China Air Transport Association

无人机教育培训与发展论坛 - 议程

6 月 21 日 09:00-12:00 | 深圳会展中心 5 层 牡丹厅

时 间	主 题	嘉 宾	
08:30-09:00	**签 到**		
09:00-09:05	主持人嘉宾介绍	**江亚东**	深圳市慧飞教育有限公司高级讲师
	致 辞		
09:05-09:15	组织方领导	**孙嘉栋**	深圳市慧飞教育有限公司总经理
09:15-09:25	行业管理部门领导		民航局相关管理部门
09:25-09:35		**丁 越**	中国通用航空协会筹备组组长
09:35-09:45		**刘道林**	警航办原副主任
09:45-09:55	**发布《2018–2019 中国民用无人机行业发展报告》**		
	主旨演讲		
09:55-10:15	无人机专业学科建设与人才培养		中国民航大学通航学院
10:15-10:35	1+X 职业教育政策解读	**李生平**	原全国测绘地理信息职业教育教学指导委员会副主任
10:35-10:55	慧飞职业教育规划	**江亚东**	深圳市慧飞教育有限公司高级讲师
10:55-11:10	测绘课程发布会	**崔 宇**	深圳市慧飞教育有限公司高级讲师
11:10-11:30	DJI 大疆创新 SDK 生态体系建设	**陈 亮**	深圳市大疆创新科技有限公司 SDK 工程师
11:30-11:50	无人机电力巡检的应用与发展	**邵瑰伟**	中国电力科学研究院主任
11:50-12:10	面向青年的国际无人机和人工智能培训	**赵豪杰**	世界无人机联合会澳大利亚分会会长 All Sun 集团首席执行官
12:10-12:30	先天缺陷者无人机培训：无人机如何助残，提升社交活动	**诺曼·得史朝维尔**	Pyxis Belgium 总经理

UAV Education Training and Development Forum

Forum Agenda

09:00-12:00, June 21 | 5F, Peony Hall, SZCEC

Time	Topics	Speaker
08:30-09:00	Registration	
09:00-09:05	Speaker Introduction	**Jiang Yadong**, Senior Instructor of UTC
	Greeting	
09:05-09:15	**Sun Jiadong**, General Manager of UTC	
09:15-09:25	China Civil Aviation Administration	
09:25-09:35	**Ding Yue**, Director of China General Aviation,Association Preparatory Group	
09:35-09:45	**Liu Daolin**, Former deputy director of the Police Aviation Management Office of the Ministry of Public Security	
09:45-09:55	Publish《2018-2019 China UAV Industry Development Report》	
	Keynote Speech	
09:55-10:15	Uav Professional Discipline Construction and Talent Training	General Aviation College of Civil Aviation University of China
10:15-10:35	1+X Interpretation of Vocational Education Policy	**Li Shengping**,Deputy Director of Former National Surveying and Mapping Geographic Information Vocational Education Committee
10:35-10:55	Huifei Vocational Education Planning	**Jiang Yadong**, Senior Instructor of UTC
10:55-11:10	Surveying and Mapping Course Conference	**Cui Yu**, Senior Instructor of UTC
11:10-11:30	Dji SDK Ecological System Construction	**Chen Liang**, SDK Engineer of DJI
11:30-11:50	Application and Development of Drone Power Inspection	**Shao Weiwei**, Business Manager of China Electric Power Research Institute
11:50-12:10	International Drone and AI Training for Youth	**Miguel Zhao**,Chief Executive, Chair of World Uav Federation Australia Chapter; Ceo of All Sun Group
12:10-12:30	Drone for Good	**Norman Deschauwer**, General Manager of Pyxis Belgium

DRONE WORLD CONGRESS 2019

2019 世界无人机大会

Military and Civilian Integration High-tech and Equipment Summit

公安军民融合高新技术与装备高峰论坛

主办单位

公安军民融合中心

深圳市无人机行业协会

ORGANIZED BY

Civil- - military Integration Center for Public Security

Shenzhen UAV Industry Association

公安军民融合高新技术与装备高峰论坛 - 议程

6 月 21 日 09:00-12:30 | 深圳会展中心 5 层 玫瑰 3 厅

时 间	主 题	嘉 宾	
08:30-09:00	签 到		
09:00-09:10	致 辞		
	闫天池 中国人民公安大学党委委员、总会计师		
	主旨演讲		
09:10-09:30	航天军工无人机技术助力“平安中国”	**马洪忠**	中国航天科工三院三〇二所所长 海鹰航空通用装备有限责任公司董事长
09:30-09:50	无人机在重大灾害应急中的应用	**张云霞**	应急管理部国家减灾中心数据中心主任
09:50-10:10	高功率激光在无人机无线功率传输中的应用	**哈尔拉莫夫·阿纳托利**	俄罗斯联邦鉴定委员会高新技术项目促进委员会副主席
10:10-10:30	彩虹无人机在军民融合领域的应用	**周乃恩**	中国航天科技集团公司第十一研究院高级工程师、彩虹无人机科技有限公司副总经理
10:30-10:50	警用无人机拯救生命 ——韩国警用无人机的现状和未来	**李柄锡**	韩国国立警察大学警察无人机研究中心主任
10:50-11:10	无人机载多光谱遥感技术在乡村复杂背景罂粟筛查中的应用	**张军强**	中科院长春光机所副研究员、长光禹辰信息技术与装备（青岛）有限公司总经理
11:10-11:30	激光扫描探测器与无人机的联动	**加藤圭三**	OPTEX（奥泰斯）APAC 营业本部长
11:30-11:50	无人机超视距自主飞行在复杂场景下的警务实战应用探讨	**褚诚浩**	千寻位置网络有限公司解决方案专家
11:50-12:10	无人机载毫米波 SAR 系统与应用	**韦立登**	中国航天科工集团二院二十三所空天基雷达总体室研究员
12:10-12:30	下一代工业级无人机的重心控制技术：4D GRAVITY（R）	**川上和文**	天次科技（深圳）有限公司总经理

Military and Civilian Integration High-tech and Equipment Summit

Forum Agenda

09:00-12:30, June 21 | 5F, Rose Hall No.3, SZCEC

Time	Topics	Speaker
08:30-09:00	Registration	
09:00-09:10	Greeting	
	Yan Tianchi, Party Committee Member of People's Public Security University of China	
	Keynote Speech	
09:10-09:30	Aerospace & Military UAV Technology —— Contributing to Building a "Safe China"	**Ma Hongzhong**, Director of Department No.302, the 3rd Institute of China Aerospace Science and Industry Corporation. Chairman of Sea Hawk Aviation General Equipment Co., Ltd.
09:30-09:50	Application of UAV in Severe Disaster Emergency Situations	**Zhang Yunxia**, Director of Data Center of the National Disaster Reduction Center of the Ministry of Emergency Management.
09:50-10:10	The Application of High-Power Lasers for the Wireless Power Transmission to a Drone	**Kharlamov Anatolii**, Vice-Chairman of the'Federal Expert Council' Assistance Agency for the Innovation Projects Implementation, State Duma of The Federal Assembly of Russian Federation
10:10-10:30	The Application of Rainbow UAV In Civil-military Integration Field	**Zhou Naien,** Deputy General Manager of Rainbow UAV Technology Co., Ltd. Senior Engineer of the 11th Institute of Aerospace Science and Technology Corp.
10:30-10:50	Police Drone Saves Lives. "Police drone now and future"	**Lee Byoung Seo**, Director of Police Drone Research Center, Changwonseobu Police Station,Korea
10:50-11:10	UAV Multi-spectral Remote Sensing Technology Application of Poppy Screening in Complex Circumstance	**Zhang Junqiang**, Associate Researcher of Changchun Institute of Optic, Fine Mechanics and Physics, Chinese Academy of Sciences. General Manager of Yusense Information Technology and Equipment Co., Ltd.
11:10-11:30	Linkage of Laser Scan Detector and UAV	**Keizo Kato**, General Manager of Asia Pacific Sales Division & Director of Greater CHINA
11:30-11:50	Discussion on Practical Application of Police UAV with Function of Autonomous Flight Beyond Visual Range in Complicated Scenes	**Chu Chenghao**, Solution Specialist of Qianxun Spatial Intelligence Inc.
11:50-12:10	UAV-based Millimeter Wave Space Based Radar System and Application	**Wei Lideng**, Researcher of Space Based Radar General Office, the 23rd Department of the 2nd Research Institue of China Aerospace Science & Industry Corp.
12:10-12:30	Next Generation Industrial Drone Technology:4D GRAVITY（R）	**Kawanoue Kazufumi**, General Manager of Aeronext Shenzhen Ltd.

闫天池

中国人民公安大学党委委员、总会计师

Yan Tianchi

Party Committee Member of People's Public Security University of China

嘉宾简介

闫天池，男，满族，中共党员，1970 年 8 月出生，博士，研究员，行政二级警监，硕士研究生指导教师。先后任中建总公司山西分公司副经理、海南省白沙黎族自治县副县长（挂职），财政部财经出版社高级经济师（副处级），中央财经大学财务处处长、总会计师，青海省发展和改革委员会副主任（挂职），中国人民公安大学计划财务处处长。现任中国人民公安大学党委委员、总会计师（副局级）。

长期从事学术和科研活动，发表学术论文 30 余篇，出版个人学术专著 2 部，主审“十一五”规划教材 2 种，主持完成国家社会科学基金项目 1 项、教育部人文社科研究项目 1 项、教育部财务司委托项目 3 项。青海省第九届青联常委，2012 年被推选为中国教育会计学会第六届常务理事。

Speaker Information

Yan Tianchi, Ph.D., researcher, administrative second-level police superintendent, and postgraduate instructor. He successively served as deputy manager of Shanxi Branch of China State Construction Corporation, deputy magistrate of Baisha Li Autonomous County of Hainan Province, senior economist of Finance and Economics Publishing Office (deputy division), director of Finance Department of Central University of Finance and Economics, chief accountant, Qinghai Deputy Director of the Provincial Development and Reform Commission, director of the Planning and Finance Division of the People's Public Security University of China. He is currently a member of the Party Committee and chief accountant of the People's Public Security University of China (deputy bureau level). He has been engaged in academic and scientific research activities for a long time, published more than 30 academic papers, published 2 academic monographs, and presided one the National Social Science Fund Project and one the Ministry of Education Humanities and Social Sciences Research Project, three the Finance Department of the Ministry of Education commissioned projects. The Standing Committee of the 9th Youth Federation of Qinghai Province and was elected as the 6th executive director of the China Education Accounting Society in 2012.

马洪忠

中国航天科工三院三〇二所所长、海鹰航空通用装备有限责任公司董事长

Ma Hongzhong

Director of Department No.302, the 3rd Institute of China Aerospace Science and Industry Corporation. Chairman of Sea Hawk Aviation General Equipment Co., Ltd.

演讲主题

航天军工无人机技术助力“平安中国”

嘉宾简介

马洪忠，中国航天科工三院无人机技术研究所所长 / 海鹰航空通用装备有限责任公司董事长。长期奋战在飞航导弹和无人机研制一线，负责多型无人机研制，现任“天鹰”无人机总设计师，兼任无人系统主题专家、中国电子学会智能无人系统分会副主任委员，中国航空学会青年委员会委员，中国宇航学会任务规划专业委员会副主任委员、无人机专业委员会和导航与控制专业委员会委员，《宇航学报》、《无人系统技术》、《战术导弹技术》编委。先后获得国家科技进步奖、国防科技进步奖等多项奖励，享受国务院特殊津贴。

Topic

Aerospace & Military UAV Technology —— Contributing to Building a "Safe China"

Speaker Information

Ma Hongzhong, Director of UAV Technology Institute of CASIC Third Academy/ Chairman of Haiying Aviation General Equipment Co., Ltd., has devoted himself to the R&D of aerodynamic missile and UAV and is in charge of the R&D of multi-type UAVs. He is currently the chief designer of the "Sky Hawk" UAV, the vice chairman of the Intelligent Unmanned System Branch of the Chinese Institute of Electronics, the member of the Youth Committee of the Chinese Society of Aeronautics, the vice chairman of the Mission Planning Committee of the Chinese Society of Astronautics, the member of the UAV Committee and the Navigation and Control Committee, and the editorial board member of the Journal of Astronautics, the Journal of Unmanned System Technology and the Tactical Missile Technology. He has won many awards including National Science and Technology Progress Award and National Defense Science and Technology Progress Award, and enjoys the State Council Special Allowance.

张云霞

应急管理部国家减灾中心数据中心主任

Zhang Yunxia

Director of Data Center of the National Disaster Reduction Center of the Ministry of Emergency Management.

演讲主题

无人机在重大灾害应急中的应用

内容概要

国家重点研发计划立项实施了“灾害现场信息空地一体化获取技术研究与集成应用示范”专项项目，将重点突破灾害现场信息获取“看得清、看得准、看得快”关键技术，通过综合应用无人机、传感器、信息处理等领域的新技术、新装备，形成灾害恶劣环境下全天时、全天候、多级响应、分步细化的现场信息获取解决方案，实现信息快速传输、处理、制图，第一时间为现场和后方指挥部提供研判信息。

嘉宾简介

张云霞，研究员，现为应急管理部国家减灾中心数据中心主任。曾先后参加汶川地震、玉树地震等数十次重特大灾害应急处置和损失评估工作；曾赴美、俄、日等多国进行防灾减灾研讨交流和救灾演练。曾参与国家战略性新兴产业发展专项、国家重点研发计划专项、国家“十二五”科技支撑项目、“北斗卫星导航系统综合减灾与应急典型示范项目”等多项国家重大科技项目的研发，主持及参与编写专著 10 余部、国家标准 2 项，先后 4 次获省部级科技奖励和民政部嘉奖。

Topic

Application of UAV in Severe Disaster Emergency Situations

Speech Abstract

The National Key R&D Program has established and implemented the special project 'Research on the Technology and Integrated Application of Disaster Site Information and Open Space Integration', which will focus on breaking through the key technologies for disaster site information acquisition. Through the comprehensive application of new technologies and equipment in the fields of drones, sensors, information processing, etc., disaster monitoring personnel can form an all-weather, multi-level response on-site solution with details in a disaster-stricken environment, and realize rapid information transmission, processing and mapping.

Speaker Information

Zhang Yunxia, researcher, is currently the director of the Data Center of the National Disaster Reduction Center of the Ministry of Emergency Management. Ms. Zhang went to the United States, Russia, Japan and other countries to conduct disaster prevention and reduction research, exchange and disaster relief drills; she participated in major national science and technology projects such as National Strategic Emerging Industry Development Special Project, the National Key R&D Program Special Project, the National “12th Five-Year” Science and Technology Support Project and the Beidou Satellite Navigation System Comprehensive Disaster Reduction and Emergency Demonstration Project.

哈尔拉莫夫·阿纳托利

俄罗斯联邦鉴定委员会高新技术项目促进委员会副主席

Kharlamov Anatolii

Vice-Chairman of the 'Federal Expert Council' Assistance Agency for the Innovation Projects Implementation, State Duma of The Federal Assembly of Russian Federation

演讲主题

高功率激光在无人机无线功率传输中的应用

内容概要

利用高功率激光进行空间通信越来越受关注，因为其难以检测、拦截，它的难点在于高功率相干激光束源的构造和光束通过像差环境的传输效果。为解决上述两个问题，可以创建一个双激光束偏转校正系统，两种类型的冷却波前校正器及可拆卸双层反射镜和压电调节器反射镜。而该系统显然也可以运用于的无人机信号传输当中。

嘉宾简介

俄罗斯杜马下的联邦鉴定委员会高新技术项目促进委员会副主席；俄罗斯科学院希尔绍夫海洋研究所海洋工程实验设计局项目主任工程师；海之星中俄海洋高新技术研究院副院长；俄法国际海洋科研联合工作组成员。

Topic

The Application of High-Power Lasers for the Wireless Power Transmission to a Drone

Speech Abstract

Atmosphere optic communication lines has been attracting more and more attention. The main reasons for its popularity include the difficultness of detecting, the impossibility of the message interception and the impossibility of its suppressions by the use of electronic warfare measures. The solution of the problem can be divided into two parts: the construction of high power coherent laser beam source and the transmission of the beam through the aberrating environment.To solve these two questions above there was created a dual laser beam deflection correction system, based on two types of cooled wavefront correctors – demorfable double-layer mirrors and piezo-regulator mirrors. Another question, that can be solved by the use of the system, is the implement of the drones for the LIDAR.

Speaker Information

Vice-Chairman of the “Federal Expert Council” Assistance Agency for the Innovation Projects Implementation, State Duma of The Federal Assembly of Russian Federation; member of the workgroup for the International Cooperation of the Russian Academy of Sciences, Head of the Project, assistant to the Director of the Laboratory of Adaptive Optics, Institute of Geosphere Dynamics, Russian Academy of Sciences; Senior researcher of the P.P. Shirshov Institute of Oceanology, Head Engineer of the Experimental Design Bureau Of Oceanological Engineering of Russian Academy of Sciences; member of the Russian-French Intergovernmental workgroup on the Ocean research.

周乃恩

中国航天科技集团公司第十一研究院高级工程师、彩虹无人机科技有限公司副总经理

Zhou Naien

Deputy General Manager of Rainbow UAV Technology Co., Ltd.
Senior Engineer of the 11th Institute of Aerospace Science and Technology Corp.

演讲主题

彩虹无人机在军民融合领域的应用

内容概要

主要介绍国内外无人机在军民融合领域应用现状，特别是中大型无人机在边境等地理、气象条件恶劣的环境下的应用。并展望未来军民融合领域无人机及无人机应用技术的发展。

嘉宾简介

长期从事无人机应用总体工作，主要研究无人机任务载荷应用、指挥控制系统以及无人机平台系统应用，通过集成创新开发了多种无人机系统应用，无人机航空物探、无人机海事应用、无人机卫星应急通信等多个项目均属国内首创，其中无人机航空物探在国际上未发现有同类产品，并投入规模化生产应用。获得国防科学技术进步二等奖 1 项，北京市科学技术奖二等奖 1 项，中国航空学会科学技术奖一等奖 1 项，中国地质学会科技进展奖 1 项，发表核心期刊学术论文 2 篇，获国家专利授权 9 项。现担任 SAC TC35/SC1 无人机国际标准委员会委员、中国民航局无人机适航专家组成员、空军无人机任务载荷专家组成员、公安部全国警务保障专家、航天科技天地通信网络技术专家组专家、中国航空协会无人机测控分会委员。

Topic

The Application of Rainbow UAV In Civil-military Integration Field

Speech Abstract

It mainly introduces the application status of public security field in domestic and abroad,especially the application of medium and large size UAVs in poor geographical and meteorological condition environment. The prospective of future development of UAV application in public security field.

Speaker Information

He mainly focus on UAV mission load applications, command and control systems, and UAV platform system applications. The projects he involved in such as UAV system application, UAV aerial geophysical exploration, UAV maritime application, UAV satellite emergency communication are the first in China. He has won the 2nd prize of National Defense Science and Technology Progress, the 2nd prize of Beijing Science and Technology Award, one 1st prize of Science and Technology Award of China Aviation Society, the 1st prize of Science and Technology Award of China Geological Society, published two academic papers for core journals, obtained 9 national patents. He is currently a member of the SAC TC35/SC1 International UAVs Standards Committee, a member of the Airworthiness Expert Team of the Civil Aviation Administration of China, an task Load expert group member of China Air Force, a national Police security specialist of the Ministry of Public Security, member of Aerospace Science and Technology Network Communication Expert Team, member of the UAV Monitoring and Control Branch of the China Aviation Association.

李柄锡

韩国国立警察大学警察无人机研究中心主任

Lee Byoung Seo

Director of Police Drone Research Center，Changwonseobu Police Station,Korea

演讲主题

警用无人机拯救生命——韩国警用无人机的现状和未来

内容概要

韩国警方正在积极研究和开发巡检失踪人员的无人机，它们还可用于交通管理和事故调查工作，韩国警方通过升级传感器和软件开发寻找失踪人员警用无人机。 在本次演讲中，我将详细阐述韩国警用无人机发展的现状和未来。

嘉宾简介

李柄锡警司毕业于韩国国家警察大学，获得了英杰大学博士学位，首尔国立大学 MPA 学位。李柄锡警司从事警察职业二十二年，担任警察无人机研究中心主任，也是国家警察大学无人机栏目的定期撰稿人，编著了《无人机拯救生命》一书。 目前，他在 CWSB 警察局担任 112 分局中心主任，致力于推广韩国警用无人机，期待与世界各地的警察和无人机企业家合作。

Topic

Police Drone Saves Lives. "Police drone now and future"

Speech Abstract

Police in the Republic of Korea are actively pursuing research and development, starting with Detecting Drones for missing persons. They will also be used for traffic management and investigation activities. Detection of missing persons The drones of the police will be developed through the advancement of sensors and software. In this presentation, I will explain the present and future of the Korean police drones in detail. I would like to ask the Korean police drones a lot of attention.

Speaker Information

Byeong-seok Lee is a police officer at Changwonseobu police station,In Korea. He completed his Ph.D.course from InJeUniversity, received MPA from Seoul National University, and graduated from Korea National Police Unitersity. During his twenty two year career as a police officer, SU. Lee decided it was time for a concentration on police drone reseach. SU. Lee is a director of police drone research center, and a regular contributor to National Police University as a Drone Architect, also wrote the book of 'Drone Saves Lives'. He recently collaborated on making manuscript and publishing with friends and colleagues, currently, he is serving as a Director of 112 Dispatch centor at CWSB Police Station, He is working in various ways to make the Korean police drones widely known in the world, He is looking forward to working with police and drone entrepreneurs around the world.

张军强

中科院长春光机所副研究员、长光禹辰信息技术与装备（青岛）有限公司总经理

Zhang Junqiang

Associate Researcher of Changchun Institute of Optic, Fine Mechanics and Physics, Chinese Academy of Sciences
General Manager of Yusense Information Technology and Equipment Co., Ltd.

演讲主题

无人机载多光谱遥感技术在乡村复杂背景罂粟筛查中的应用

内容概要

无人机技术的快速发展显著增强了公安工作的执法能力，“飞行的相机”大大降低了执法成本、提升了执法效率。乡村复杂背景罂粟筛查是缉毒民警的重点工作之一，报告介绍了复杂背景下罂粟筛查的应用需求和行业痛点，浅析了当前基于视频、影像目视解译、机器视觉解译的优缺点，分析了“光谱遥感 +AI”技术方案的优势。

嘉宾简介

张军强，博士，副研究员，主要从事星载、机载光学遥感技术及装备的研究工作，曾任中科院长春光机所空间光学部总体技术室主任，现任长光禹辰信息技术与装备（青岛）有限公司总经理，中国航空学会任务载荷及应用专业委员会委员，山东省自动化学会（八届）智慧农业专业委员会委员。在长光所具有 10 余年的多光谱、高光谱、偏振仪器研制经验，参与和主持过 921、863、国家重点研发计划、国家自然基金等工程和科研项目，带领长光禹辰团队历时 1 年成功推出了我国首台商用 6 通道多光谱相机，并开展了应急、农业、生态等领域的应用研究和产业化。

Topic

UAV Multi-spectral Remote Sensing Technology Application of Poppy Screening in Complex Circumstance

Speech Abstract

The rapid development of drone technology has significantly enhanced the law enforcement capabilities of public security work. The "flying camera" has greatly reduced the cost and improved the efficiency during on site mission.Poppy screening in rural area is one of the key tasks of anti-drug polic mission. The report introduces the application requirements and industry disadvantage of poppy screening in complex circumstance, and analyze the advantage and disadvantage of current video and visual interpretation of images, machine vision interpretation. Introduce the advantages of the "spectral remote sensing + AI" technical solution.

Speaker Information

Mr. Zhang mainly responsible for the research of spaceborne and airborne optical remote sensing technology and equipment. He used to be the director of the General Technology Department of Changchun Institute of Optic, Fine Mechanics and Physics, Chinese Academy of Sciences. He is currently the general manager of Yusense information technology and Equipment Co., Ltd., member of the Task load and application professional committee of the Chinese Aeronautical Society, member of the 8th intelligent agriculture committee of the Shandong Provincial Automation Society . He has more than 10 years of experience in the development of multi-spectral, hyperspectral and polarization instruments in Changguang.

加藤圭三

OPTEX（奥泰斯）
APAC 营业本部长

Keizo Kato

General Manager of Asia Pacific Sales Division & Director of Greater CHINA

演讲主题

激光扫描探测器与无人机的联动

内容概要

利用激光扫描技术，对周界入侵物体进行精准定位，并联动无人机到达事发地点进行警示、驱离、拍摄等一系列动作，达到高效防控、防范要求。

嘉宾简介

追手门学院大学毕业，1986 年入职 OPTEX，1987 年任职于 OPTEX 东京营业所，2000 年担任 OPTEX TAIWAN 社长，2003 年任 OPTEX KOREA 社长，2008 年出任 OPTEX 中国董事，2017 年任亚太区营业本部执行董事兼 OPTEX 中国董事、OPTEX THAILAND 董事长、OPTEX INDIA 董事长。

Topic

Linkage of Laser Scan Detector and UAV

Speech Abstract

Laser scanning technology is used to precisely locate the intrusive object around the perimeter, and UAV is connected to warn, drive away and shoot the intrusive object when it arrives at the site, resulting in a highly reliable detection system

Speaker Information

Graduated from Otemon Gakuin University.1986 Enter OPTEX; 1987 OPTEX Tokyo office; 2000 Director of OPTEX TAIWAN; 2003 Director of OPTEX KOREA; 2008 Director of Greater CHINA; 2017 General manager of Asia Pacific Sales Division & Director of Greater CHINA , Director of THAILAND, Director of INDIA.

褚诚浩

千寻位置网络有限公司
解决方案专家

Chu Chenghao

Solution Specialist
of Qianxun Spatial
Intelligence Inc.

演讲主题

无人机超视距自主飞行在复杂场景下的警务实战应用探讨

内容概要

无人机以自身独特的优势逐渐成为警务工作中的多面能手，进一步提高了公安干警的响应、决策、评估效率，加快推动公安系统的信息化建设进程。本报告主要探讨通过自主飞行巡检无人机系统应用，打造地空立体监控体系，实现公安对所属辖区进行快速空中巡逻任务。着重从飞行器超视距全天候飞行的角度，探讨复杂环境状况和低能见度情况下，在人流密集区域和偏僻区域和大范围低人流密度 2 个经典场景下的无人机执法巡查应用。

嘉宾简介

褚诚浩，千寻位置网络有限公司，解决方案专家。负责千寻位置公共安全业务方向，长期从事卫星导航系统应用技术在军事及民用领域的研究及应用推广工作。

Topic

Discussion on Practical Application of Police UAV with Function of Autonomous Flight Beyond Visual Range in Complicated Scenes

Speech Abstract

UAV has gradually become a multi-functional assistant in police work with its own unique advantages; it has imrpoved the response, decision-making and evaluation efficiency of public security officers, and accelerate the process of construction informatization of the public security system. This report mainly discusses that through the application of UAV with its function of autonomous operation and inspection; create a stereoscopic monitoring system; in order to achieve the Air patrol mission rapidly. Focusing on the application of drones on law enforcement in two classic scenarios: crowded areas and remote areas of large populations under the situation of complex environment geologically and low visibility.

Speaker Information

Chu Chenghao, Soulution Specialist of Qianxun Spatial Intelligence Inc. .He is responsible for the public safety business of the company, and has long been engaged in research and application promotion of application technology of satellite navigation system in both military and civilian fields.

韦立登

中国航天科工集团第二研究院二十三所空天基雷达总体室研究员

Wei Lideng

Researcher of Space Based Radar General Office, the 23rd Department of the 2nd Research Institue of China Aerospace Science & Industry Corp.

中国航天科工集团

演讲主题

无人机载毫米波 SAR 系统与应用

内容概要

无人机载毫米波 SAR 具有全天时、全天候进行高分辨率成像和高精度测高的能力，在诸多遥感应用领域具有广泛的应用前景。本报告简单介绍了无人机载毫米波 SAR 的项目背景、系统组成、性能指标、技术特点及使用要求，重点讨论了其在国土测绘、资源调查、环境监测、痕迹检测、灾害应急等方面的应用技术及实际案例。

嘉宾简介

韦立登，博士，研究员，毕业于清华大学电子工程系。先后供职于中科院电子所、中国航天科工集团二院二十三所。二十年专注于合成孔径雷达（SAR）和干涉合成孔径雷达（InSAR）系统、处理及应用技术的研究，参与了包括 863 重点项目、973 重大项目、国家大科学工程项目等多部 SAR/InSAR 系统的研制工作。曾荣获省部级科技进步一等奖 3 项、国家授权发明专利 6 项，出版论著及发表学术论文 30 余篇。

Topic

UAV-based Millimeter Wave Space Based Radar System and Application

Speech Abstract

UAV-based millimeter-wave SAR system has the capability of high-resolution imaging and high-precision altimetry, and has wide application prospects in many remote sensing area. This report briefly introduces the project background, system composition, performance indicators, technical characteristics and application requirements of the UAV-based millimeter-wave SAR project, focusing on application technology and case study in the aspects of land mapping, resource survey, environmental monitoring, trace detection, disaster emergency, etc.

Speaker Information

Dr. Wei Lideng, graduated from the Department of Electronic Engineering, Tsinghua University, has worked in the Institute of Electrics, Chinese Academy of Sciences and the Twenty-three Institute of China Aerospace Science and Industry Corporation. For over 20 years, he has focused on the research of synthetic aperture radar (SAR) and interferometric synthetic aperture radar (InSAR) systems, processing and application technologies. He also participated in the development of several SAR/InSAR systems including 863 keynote projects, 973 keynote projects, and national large science projects. He has won three 1st prizes for provincial level science advance award, six6 national invention patents, and has published more than 30 academic papers.

川上和文

天次科技（深圳）有限公司总经理

Kawanoue Kazufumi

General Manager of Aeronext Shenzhen Ltd.

AERONEXT

演讲主题

下一代工业级无人机的重心控制技术: 4D GRAVITY（R）

内容概要

研究开发无人机体系架构，实现无人机和多旋翼机身的理想形式。Aeronext 把“姿势控制 ”作为实现的无人机体系架构的核心主题，并从根本上重新评估了 UAV 的机体构造 ，开发了独立的重心控制技术 4D GRAVITY® 。我们已经建立了强大的专利组合，使 4D GRAVITY® 成为无人机的标准技术，致力于在全球扩展 4D GRAVITY® 技术许可业务。在日本已经试飞了几款装载 4D GRAVITY® 技术 的工业无人机，与日本的几家制造商建立了业务合作伙伴关系，并计划通过许可证 授权，批量生产 装载有 4D GRAVITY® 技术 的工业无人机。为了未来的全球扩张，我们计划在中国市场进行全面的业务推广。

嘉宾简介

2015 年他在台湾和深圳开始了无人机行业研究，为日本和中国的行业参与者组织了无人机主题的交流活动以及商务考察。他目前居住在深圳，主要通过深圳和大湾区新型行业、政府和学术界之间的本地网络，建立与行业团体、企业家社区等良好关系。他在无人机领域有着丰富知识，并在中日无人机行业建立了广泛的人际网络。2019 年 5 月天次科技（深圳）有限公司成立后，就任总经理。

Topic

Next Generation Industrial Drone Technology:4D GRAVITY（R）

Speech Abstract

Aeronext is the laboratory of next generation of drone architecture to realize the ideal aircraft for UAV and multi-copter. Aeronext puts "attitude control " as their center theme and develops drones equipped with the original gravity control technology; " 4D GRAVITY® " . Aeronext will establish the unparalleled and essential value " 4D GRAVITY®" technology, and make it " mandatory" technology for UAV, by putting 3 elements together as one package, Core technology, IP portfolio and Brand and will conduct 4D GRAVITY® license business globally. Has announced several conceptual models for specific use cases, Aeronext " Next " series, and has already announced the business partnership agreement with some reliable Japanese manufactures to start to build the commercialization and mass production system for Aeronext" Next " series. Aeronext will launch license business globally stating with Chinese market.

Speaker Information

He started his research about UAV industry in Taiwan and Shenzhen in 2015, and organized a variety of cross cultural events and business tours related to UAV . Now he is living in Shenzhen to help cross-border communication for people from government, university , industrial association, and business field in Shenzhen and Greater Bay Area, especially in UAV industry. 2019 MAY, Aeronext established the first overseas branch in Shenzhen and he became a General Manager.

DRONE WORLD CONGRESS 2019
2019 世界无人机大会

Global UAV Association Chairman Seminar Forum
中外无人机会长论坛

批准单位

中国科学技术协会

AUTHORIZED BY

China Association for Science and Technology

主办单位

深圳市无人机行业协会
全国无人机协会合作互助联盟
世界无人机联合会

UNDERTAKEN BY

Shenzhen UAV Industry Association
National UAV Association Cooperative and Mutual Aid Alliance
World UAV Foderation

中外无人机会长论坛 - 议程

6 月 21 日 09:00-12:00 | 深圳会展中心 5 层 玫瑰 1 厅

时 间	主 题	嘉 宾	
08:00-09:00	签 到		
09:00-09:10	致 辞		
	杨金才 全国无人机协会合作互助联盟理事长、深圳市无人机协会会长		
	各国无人机发展、管理等介绍		
09:10-09:30	无人机在日本的相关活动及未来远景	**野波健藏**	自主控制系统实验室有限公司创始人兼董事、日本无人机联盟主席
09:30-09:50	韩国无人机工业的发展趋势与途径	**朴宽民**	韩国无人机协会主席
09:50-10:10	无人机在工业社会中的应用方向	**金泰佑**	亚洲咨询集团会长
10:10-10:30	战略和领导力是成功创新的基础	**凯瑟琳·波尔**	澳大利亚无人机应用协会主席
10:30-10:50	土耳其无人机项目	**海达尔·艾茨**	土耳其航空协会大学终身发展研究部主任 世界无人机联合会土耳其分会会长
10:50-11:30	对话交流		
	1、无人机创新应用 2、5G、AI 等新技术对无人机产业的影响 3、无人机产业的瓶颈与突破		
11:30-11:45	渤海招商局项目推介		
	领创渤海智谷，筑梦航空绿城	**张振民**	沧州渤海新区党工委委员 沧州市驻上海办事处主任

Global UAV Association Chairman Seminar Forum

Forum Agenda

09:00-12:00, June 21 | 5F, Rose Hall No.1, SZCEC

Time	Topics	Speaker
08:00-09:00	**Registration**	
09:00-09:10	**Greeting**	
	Yang Jincai, Chief director of National UAV Association Cooperative and Mutual Aid Alliance; Chairman of Shenzhen UAV Industry Association	
	Introduction to the development and management of drones in various countries	
09:10-09:30	Japanese Drone Activities and Future Prospective	**Kenzo Nonami**, Founder and director of Autonomous Control Systems Laboratory, Ltd. Chairman of Japan Drone Consortium
09:30-09:50	Approaches and Trend in Korean Drone Industry	**Park Kwan Min**, Chairman of Korea Drone Association
09:50-10:10	Direction For Application of Drones in Industrial Society	**Kim Tae Woo**, Chairman of Asian Consulting Group
10:10-10:30	Strategy and Leadership as the Foundation for Successful Innovation	**Dr Catherine Ball**, President of Australian UAV Association for Applications
10:30-10:50	UAV Project of Turkey	**Haydar Ates**, Director of Lifelong Development Implementation and Research of University of Turkish Aeronautical Association; President of Turkey Chapter of WUAVF
10:50-11:30	**Dialogue**	
	1. Innovative application of drones 2.The impact of new technologies such as 5G and AI on the UAV industry 3.Bottlenecks and breakthroughs in the drone industry	
11:30-11:45	**Project introduction and promotion of Bohai Merchants Bureau**	
	Leading creation of smart valley in Bohai, and building dream of aviation green city	**Zhang Zhenmin**, Member of party committee in Bohai new district, Director of Cangzhou City Office in Shanghai

野波健藏

自主控制系统实验室有限公司创始人兼董事；
日本无人机联盟主席

Kenzo Nonami

Founder and director of Autonomous Control Systems Laboratory, Ltd.
Chairman of Japan Drone Consortium

演讲主题

日本无人机活动及未来展望

内容概要

本文将结合一些技术问题与国内监管情况介绍日本无人机的研发水平和应用现状，尤其是最适用的使用案例。此外，还将对不久的将来进行预测，包括日本政府的活动。

嘉宾简介

野波健藏博士自 1994 年以来一直是千叶大学机械工程系的教授。野波健藏博士于 2008 年到 2013 年期间担任千叶大学的副校长。目前，野波健藏博士是千叶大学的名誉教授，也是名为“自主控制系统实验室有限公司”的创始人、董事，还是包括 300 多家公司的日本无人机协会的主席。他最近的研究方向在全自动无人驾驶飞机，即配备 GPS 或 GPS 的环境、使用先进机器人技术和机电一体化的全自动无人驾驶多旋翼直升机和 VTOLs 无人机。

Topic

Japanese Drone Activities and Future Prospective

Speech Abstract

The state of the art of R&D level and many usecases of drone aplication in Japan will be presented with some technical issues and domestic reguration. In particular, most applicable usecase are introduced. Also, near future prospective will be also predicted including Japanese government activities.

Speaker Information

Dr. Kenzo Nonami has been a full professor in Department of Mechanical Engineering at Chiba University since 1994. Dr. Kenzo Nonami was in charge of Vice President of Chiba University from 2008 to 2013. Right now, Dr. Nonami is an emeritus professor at Chiba University, founder and director of his company called "Autonomous Control Systems Laboratory, Ltd." and a Chairman of Japan Drone Consortium which includes more than 300 companies.

朴宽民

韩国无人机协会主席

Park Kwan Min

Chairman of Korea Drone Association

演讲主题

韩国无人机产业的发展方向和趋势

内容概要

1. 韩国无人机产业发展的政策和制度
2. 在政府部门公共机构中使用无人机
3. 无人机行业的崛起

嘉宾简介

朴宽民先生是韩国无人机协会主席，出版了韩国首个无人机杂志，旨在发展韩国的无人机产业，开展了国内事件管理、技术开发支持、安全飞行应用开发等各种活动。同时他也是国际无人机体育联合会的第一任主席，领导世界无人机运动的发展和扩展。他在美国南加州大学获得城市规划硕士学位，在檀国大学获得同一领域的博士学位。目前，他是檀国大学研究生院房地产与建筑学副教授，并且是韩国土地和住房公司绿色城市委员会的董事会成员。 作为城市规划专家，他根据 Pangyo Alphadom City 和仁川米丹城市发展公司的首席执行官的经验，正在规划一个使用无人机的智能城市。

Topic

Approaches and Trend in Korean Drone Industry

Speech Abstract

1.Policies and system for development of the drone industry in Korea

2. Utilization of drones in government departments public institutions

3. The rising drone industry

Speaker Information

Mr. Kwanmin Park established Korea Drone Association. Elected as its president, he published the Korea's first drone magazine, and an application for safe flight management, aiming to expand drone culture regarding safety, and to activate drone industry. He also was elected as the first president of Drone Sports International, leading development and expansion of drone sports in the world. He was awarded a Master's degree in Urban Planning by University of Southern California, USA, and a Ph.D in the same field by Dankook University. Currently, he is an associate professor of Real Estate & Construction at the graduate school of Dankook University and is a board member of Green City Committee at Korea Land & Housing Corporation. As an expert of urban planning, he is planning a smart city using drones based on the experience of being a CEO of Pangyo Alphadom City and Inchon Midan City Development.

金泰佑

亚洲咨询集团会长

Kim Tae Woo

Chairman of Asian Consulting Group

演讲主题

无人机在工业社会中的应用方向

内容概要

1. 目前无人机的作用：摄像、测量、侦察、轻型运输、农业保障等。
2. 技术能力：飞行时间、领域寿命、电机极限等。
3. 近期支持角色：货物运输支持——开发可运输 1 吨以下货物的无人机。
4. 国际航空发展主题：无人机之间的无跑道作业

嘉宾简介

亚洲咨询集团会长，亚洲咨询（深圳）有限公司董事长，全日空海淘顾问，深圳市无人机行业协会国际顾问，韩国无人机协会顾问，韩国无人机行业振兴协会顾问，韩国产业融合协会顾问，韩中协会顾问，世界经营战略协会理事。

Topic

Direction For Application of Drones in Industrial Society

Speech Abstract

1. Current drones role: camera shooting, surveying, reconnaissance, light transportation, agricultural support, etc.
2. Technical ability: Flying time, field life, motor limit, etc.
3. Near future support role: cargo transportation support - Development of transportable drone of cargo below 1 ton.
4. International airline development theme: Operation between drones without runways.

Speaker Information

ASIAN CONSULTING CORP / Chairman / CEO

ASIAN CONSULTING (SHENZHEN) CO.,LTD / Chairman

ALLIANCE CARGO DIRECT / Adviser

China Shenzhen UAV Association / International Adviser

Korean Drone Association / Adviser

Korea Drone Industry Promotion Association / Adviser

Korea Technology Convergence Association / Adviser

Korean-China Association / Adviser

International Collaboration Strategy Association / Chairman

凯瑟琳 • 波尔

澳大利亚无人机应用协会主席

Dr Catherine Ball

President of Australian UAV Association for Applications

演讲主题

战略和领导力是成功创新的基础

内容概要

随着越来越多人都是受过技术培训的专家转型派生公司和创建初创企业，从业务角度来看，对战略和领导力的重新需求为创新提供了坚实的基石。由于许多人在大学里接受的技术培训缺乏商业资格。我们具有澳大利亚认证资格的创业专家正在协助航空、航天和无人机领域的创业家们，以确保他们的商业成功。

嘉宾简介

凯瑟琳 · 波尔博士是国际公司 URS 在澳大利亚、新西兰的远程遥控飞机系统 (RPAS) 技术负责人，并在 2013 年领导完成 URS 第一个超越视线 RPAS 项目在澳大利亚的交付。波尔博士正在研究各种各样的项目，包括无人系统 (空中、陆地和水生), 以进行环境监测。她最近的工作包括在现有的石油和天然气工业监测框架、海洋和环境监测、国际发展、能力建设、商业计划咨询和数据管理实践改进范围内为创新和新技术提供技术支持。凯瑟琳 · 波尔博士在处理各种环境条件和分辨率下的复杂数据集方面有超过 15 年的经验。

Topic

Strategy and Leadership as the Foundation for Successful Innovation

Speech Abstract

With many people as technically trained experts now creating spin-off companies and start-ups there is a renewed need for strategy and leadership from a business perspective to provide a strong foundation stone for innovation. With many people trained at university in technical streams lacking any business qualifications we are risking our start-ups facing a 'glass cliff'. In aviation, aerospace, and the world of drones, we are now supporting our entrepreneurial experts with Australian accredited qualifications to secure their business success.

Speaker Information

Dr. Ball was the Remotely Piloted Aircraft Systems (RPAS) technical lead for international company URS within Australia and New Zealand, and led the delivery of URS's first Beyond Line of Sight RPAS project in Australia in 2013. As a sought after voice in industry, Dr. Ball is working across a diverse portfolio of projects including unmanned systems (aerial, terrestrial, and aquatic) for environmental monitoring. In particular, her most recent works include the provision of technical support for innovation and new technology within existing monitoring frameworks for the oil and gas industry, marine and environmental monitoring, international development, capacity building, business plan advisory, and data management practice improvement. Dr. Ball has over 15 years' experience in handling complex data sets from various environmental conditions and resolutions.

海达尔 • 艾茨

土耳其航空协会大学终身发展研究部主任 、世界无人机联合会土耳其分会会长

Haydar Ates

Director of Lifelong Development Implementation and Research of University of Turkish Aeronautical Association; President of Turkey Chapter of WUAVF

演讲主题

土耳其无人机项目

内容概要

介绍无人机行业在土耳其的现状 包括无人机类型、无人机公司、无人机飞手。

嘉宾简介

海达尔博士来自土耳其安卡拉，现为土耳其航空协会大学（土耳其第一所独特的航空航天科学大学）管理专业教员。他拥有四个不同专业领域的硕士学位，在土耳其安卡拉的哈斯特帕大学获得博士学位。海达尔博士在文学方面很有造诣，曾在土耳其出版很多书籍，也参与过美国和瑞士两国的书籍章节撰写，他的文章也经常在国际领域发表出版。海达尔博士曾在土耳其军队担任过军官，之后以上校的身份退休。在其在任期间，他曾在世界各地冲突多发地区负责指挥过国内外的部队与组织，如担任巴勒斯坦西岸的国际部队指挥官、北约国际安全援助部队阿富汗的中部军区司令等。

Topic

UAV Project of Turkey

Speech Abstract

Speaking about the status of the drone industry in Turkey, including drone types, drone companies, drones flyer, etc.

Speaker Information

Asst. Prof. Dr. Haydar ATE, PhD, is from Ankara, Turkey. He is the faculty member of University of Turkish Aeronautical Association, first and unique university of Turkey on aviation and space sciences. His major is management. He has 4 master degrees from different areas. His PhD is from Hacettepe University, Ankara, Turkey. He has lots of books in Turkey, book chapters in USA and Switzerland, and articles published in international area. Dr. Haydar ATE also served in Turkish Army as an officer and retired as Colonel. During his career he commanded national and multinational troops and organizations in conflict areas around the world, such as Multinational Force Commander in West Bank, Palestine, NATO lSAF（International Security Assistance Force）Central Commander in Afghanistan etc.

DRONE WORLD CONGRESS 2019

2019 世界无人机大会

International UAS Standardization Association&
Standard Innovation Forum

国际无人系统标准化协会标准创新论坛

批准单位

中国科学技术协会

主办单位

国际无人机系统标准化协会（筹）
深圳市无人机行业协会

协办单位

中国航空工业集团公司洛阳电光设备研究所

AUTHORIZED BY

China Association for Science and Technology

ORGANIZED BY

International UAS Standardization Association
China Shenzhen UAV Industry Association

CO-ORGANIZED BY

Luoyang Institute of Electro-optical Equipment of AVIC

国际无人系统标准化协会标准创新论坛
- 议程

6 月 21 日 13:30-17:30 | 深航酒店 5 层 深航厅

时 间	主 题	嘉 宾
13:00-14:00	**签 到**	
	主持：舒振杰 国际无人机系统标准化协会秘书长	
	致 辞	
14:00-14:05	致欢迎词	协会常务副理事长
14:05-14:25	致辞	中华人民共和国外交部领导 中华人民共和国工业和信息化部领导 中国国家标准化管理委员会领导 中国民用航空局领导
14:30-15:10	**国际无人机系统标准化协会有关情况介绍**	
	1、协会概况 2、协会章程	
15:10-15:20	**协会领导宣读“无人机标准化”行业宣言**	
15:20-15:30	**合影、茶歇**	
15:30-16:15	**沙龙议题一：无人机产业的瓶颈与突破** **主持：周震博 北京云无忧大数据科技有限公司副总经理**	
	石靖敏 原工业和信息化部装备工业司副巡视员 **方永红** 中国直升机设计研究所技术总监 **齐俊桐** 一飞智控（天津）科技有限公司 董事长 **张 黎** 辽宁壮龙无人机科技有限公司总经理 **吕振义** 深圳市科卫泰实业发展有限公司总经理 **Patrick Mascart** 比利时无人机联合协会主席 **Ashley C. Gordon** 澳大利亚布里斯班世界无人机大会总监	
16:20-17:15	**沙龙议题二：全球化视野下的无人机标准制定** **主持：胡应东 中国航空综合技术研究所高级工程师**	
	杨 非 民航局空管办空管处调研员、民航局民用无人驾驶航空器管理领导小组办公室总协调人 **张红刚** 中国航空工业集团公司洛阳电光设备研究所副总师 **白俊强** 西北工业大学无人系统研究院院长、教授 **王佳胜** 广东省标准化研究院高级工程师 **陈萍萍** 深圳市赛为智能股份有限公司高级研究员 **Dimitri Fontaine** 比利时 Qualitics Sprl 公司主管合伙人 **崔镕晚** 韩国建设生活环境试验研究院高级研究工程师	
17:15-17:35	**论坛总结、闭幕辞**	

International UAS Standardization Association& Standard Innovation Forum

Forum Agenda

13:30-17:30, June 21 | 5F, Shenhang Hall, Shenzhenair International Hotel

Time	Topics	Speaker
13:00-14:00	**Registration**	
	Host: Shu Zhenjie, Secretary General of UASA	
14:00-14:05	**Greeting**	
14:05-14:25	Welcome Speech	UASA Executive Vice Chairmen
	Greeting	Ministry of Foreign Affairs of the People's Republic of China Ministry of Industry and Information Technology of the People's Republic of China Standardization Administration of the People's Republic of China Civil Aviation Administration of China
14:30-15:10	**UASA Introduction**	
	1. UASA Overview 2. UASA Articles	
15:10-15:20	**UAS Industry Standardization Declaration**	
15:20-15:30	**Group Photo & Tea Break**	
15:30-16:15	**Salon Topic 1: Bottlenecks and Breakthroughs of UAS Industry** **Host: Zhou Zhenbo, Deputy General Manager of 5U Cloud**	
	Shi Jingmin, Former Deputy Counselor of Ministry of Industry and Information Technology of the People's Republic of China **Fang Yonghong**, CTO of China Helicopter Research and Development Institute **Qi Juntong**, Founder & CEO of EFY Intelligent Control (Tianjin) Technology Co., Ltd. **Zhang Li**, General Manager of Liaoning Zhuanglong Unmanned Aerial Vehicle Technology Co.,Ltd. **Lv Zhenyi**, General Manager of Shenzhen Keweitai Industrial Development Co., Ltd. **Patrick Mascart**, President of Belgian Drone Federation,CEO of Scorpix SPRL **Ashley C. Gordon**, Director of World of Drones Congress Pty Limited	
16:20-17:15	**Salon Topic 2: UAS Standards Development Under Globalization Background** **Host: Hu Yingdong, Senior Engineer of AVIC China Aero-Polytechnology Establishment**	
	Yang Fei, Investigator of Air Traffic Control Department of CAAC, General Coordinator of UAS Management Leading Group of CAAC **Zhang Honggang**, Deputy Chief Engineer of Luoyang Institute of Electro-optical Equipment of AVIC **Bai Junqiang**, Dean and professor of UAS Research Department in Northwestern Polytechnical University **Wang Jiasheng**, Senior Engineer of Guangdong Institute of Standardization(GDIS) **Chen Pingping**, Senior Researcher of Artificial Intelligence Institute of Shenzhen Sunwin Intelligent Co., Ltd. **Dimitri Fontaine**, Managing Partner of Qualitics Sprl **Yong Man Choi**, Senior Research Engineer of Korea Conformity Laboratories.	
17:15-17:35	**Closing Ceremony**	

石靖敏

原工业和信息化部装备工业司副巡视员

Shi Jingmin

Former Deputy Counselor of Ministry of Industry and Information Technology of the People's Republic of China

中华人民共和国工业和信息化部

演讲主题

民用无人机的管理政策和发展趋势

内容概要

近年来，民用无人机产业发展迅猛，给社会经济发展众多领域带来新的机遇，也对传统航空监管体系提出了巨大挑战，如何保障无人机安全、高效运行成为世界各国共同面临的难题。本报告介绍了中国民用无人机管理的法律、法规、部门规章以及标准制定和颁布情况，以及地方法规、主要行业协会管理的情况，并提出了对民用无人机管理发展的见解。

嘉宾简介

石靖敏，高级工程师，中国航空学会科技咨询工作委员会副主任、通用飞机及无人机首席专家；1982 年毕业于西北工业大学航空无线电工程系。曾在航空精密机械研究所，原航空部、航空航天部、中国航空工业总公司、国防科工委供职。长期从事航空工程研制和技术研究项目的管理，以及航空工业发展规划和政策研究制定等行业管理工作。任国家空管委办公室牵头组织的无人驾驶航空器管理法规起草专班主要成员，民航无人驾驶航空器适航法规起草组专家。

Topic

Regulation and Trends of Civil Use UAV

Speech Abstract

In recent years, UAV industry has developed rapidly, bringing new opportunities to many fields of social and economic development. It also poses a huge challenge to the traditional aviation regulatory system. How to ensure the safe and efficient operation of UAV has become a common concern faced by many countries in the world. This report discuses the laws, regulations, departmental rules, standards development and promulgation as well as local regulations, management of major industry associations related to UAV in China, and presents insights of UAV development in the future.

Speaker Information

Mrs. Shi, Senior Engineer, Deputy Director-General of Science and Technology Advisory Committee of Chinese Society of Aeronautics and Astronautics, Chief Expert of General Unmanned Aerial Vehicle(UAV) . She studied Aeronautical Radio Engineering in Northwestern Polytechnical University (NPU), and graduated from NPU in 1982. She has worked in Avic Beijing Precision Engineering Institue, former Ministry of Aeronautics, Ministry of Aeronautics and Astronautics, Aviation Industry Corporation of China,Ltd., Commission on Science, Technology and Industry for National Defense. She has long been engaged in the management of aviation engineering development and related research projects, as well as strategic planning, policy study and development of aviation industry. Mrs. Shi is the main member of the regulation drafting group led by the Office of the National Air Traffic Management Bureau for unmanned aerial vehicle (UAV) management, and also expert of drafting group for airworthiness regulation for UAV.

方永红

中国直升机设计研究所
技术总监

Fang Yonghong

CTO of China Helicopter Research and Development Institute

沙龙研讨主题

无人机产业的瓶颈与突破

内容概要

目前我国无人直升机存在性能差，载荷低，任务范围狭窄，作用有限。缺少综合化、规范化的无人直升机系统训练体系，急需建立建全无人直升机训练保障体系，提高无人直升机训练保障能力。在无人直升机研发方面，重点突破有人/无人直升机协同、无人直升机集群、重型外吊挂、共轴刚性旋翼、倾转旋翼等关键技术，以实现在装备体系中与能有人直升机、固定翼飞机搭配协同。

嘉宾简介

方永红，中国直升机设计研究所技术总监，享受国务院政府特殊津贴，国家无人机领域专家。长期从事直升机和无人直升机技术研究与型号研发，担任多个无人直升机型号总设计师，在无人直升机系统工程、系统总体、飞行控制等研究领域取得丰硕成果，先后荣获国家级科学技术奖一等奖 1 次，二等奖 2 次，三等奖多次，为我国无人机事业发展作出了重大贡献。

Topic

Bottlenecks and Breakthroughs of UAS Industry

Speech Abstract

At present, China's unmanned helicopters have poor performance, low load, narrow mission range and limited effect. Lack of integrated and standardized unmanned helicopter system training system, it is urgent to establish a complete unmanned helicopter training support system to improve the training capacity of unmanned helicopters. In the development of unmanned helicopters, the key breakthroughs are technologies such as manned/unmanned helicopter coordination, unmanned helicopter clusters, heavy-duty external suspension, coaxial rigid rotors, tilting rotors, etc, to achieve manned helicopters and fixed in the equipment system. Wing aircraft with synergy.

Speaker Information

Yonghong Fang is CTO of CHRDI and national drone expert, enjoys the special government allowance of the state council.He has long been engaged in helicopter and drone technology research and development,served as chief designer of several unmanned helicopters.He has made grate achievements in the research of unmanned helicopter systerm engineering,general flight control and other fields,won thefirst prize of national science and technology award once,the second prize twice and the thrid prize many times.made great contribution to the development of China's drone industry.

齐俊桐

一飞智控（天津）科技有限公司创始人、董事长

Qi Juntong

Founder & CEO of EFY Intelligent Control (Tianjin) Technology Co., Ltd.

沙龙研讨主题

无人机产业的瓶颈与突破

内容概要

无人机产业当前还是处于一个快速发展的阶段，在这背后我们可以看到控制、平台等技术发展对产业的推动作用。但是我们也能看到受限于无人机的续航、载重、安全性，管控等因素，目前无人机在很多行业还没有完全爆发。在下一阶段我觉得我们应该更加积极地推动电动化、积极拥抱 5G，积极地将无人机的标准落地，让无人机飞行更安全应用更深入。

嘉宾简介

齐俊桐，天津大学教授、博士生导师，一飞智控（天津）科技有限公司创始人，天津市第十七届人民代表大会代表。2015 年至今在天津大学、一飞智控（天津）科技有限公司开展空中机器人技术研究、成果转化工作。多年来致力于控制机器人自主控制、集群控制技术研发及应用工作，主持国家 973、863、自然基金重点项目等 40 余项，获中国青年五四奖章、天津市杰出企业家等奖励。

Topic

Bottlenecks and Breakthroughs of UAS Industry

Speech Abstract

The UAV industry is still in a stage of rapid development,behind which we can see the driving effect of control technique and platform technology. However, we can also see that due to the limited factors such as flight endurance, load capacity, safety issue and supervision mechanism, UAV have not yet fully exploded in many industries. In the next stage, I think we should more actively promote electrification, embrace 5G, and bring the standard of UAVs to the ground, so as to make UAVs safer and more suitable for application.

Speaker Information

Juntong Qi, professor, doctoral supervisor of Tianjin University, founder of EFY Intelligent Control (Tianjin) Technology Co.,Ltd, representative of the 17th People's Congress in Tianjin. Since 2015, he has been working on research and the transformation of aerial robotic technological achievements in Tianjin University and EFY Intelligent Control (Tianjin) Technology Co., Ltd. Over the years, Prof. Qi has been devoting his time in the development and application of robot autonomous control and cluster control technologies. He has been in charge of over 40 projects, including Tianjin Natural Science Project, 863 National Hi-Tech Project, 973 National Hi-Tech Project, National Sci-Tech Support Project, etc. He was awarded China 'May 4th Youth Medal' , and Tianjin Outstanding Entrepreneur Award, etc.

张黎

辽宁壮龙无人机科技有限公司创始人、总经理

Zhang Li

Originator & General Manager of Liaoning Zhuanglong Unmanned Aerial Vehicle Technology CO.,LTD.

沙龙研讨主题

无人机产业的瓶颈与突破

内容概要

当前无人机行业刚起步，基础比较薄弱，一是技术亟待提升，二是市场刚需强烈，三是无人机标准尚需制定，为落实制定实施标准化战略，推进“中国标准 2035”项目研究，要聚焦助力创新驱动发展，积极对接第四次工业革命和国家创新驱动发展战略。

嘉宾简介

张黎，高级工程师，ISO/TC20/SC16 WG1 委员，“兴辽英才计划”创新团队入选者。辽宁壮龙无人机科技有限公司创始人、总经理。主要参与完成自主研发的“油动调速控制多旋翼无人机”经中国科学院、中国工程院 3 位院士共 9 位专家评价达到国际领先水平。主持或参与国家应急消防局 2018 年重点攻关科研计划项目等一批国家和省市层次高技术研发及产业化项目 (课题)10 余项。研究成果获授权并全部转化专利（含国际专利）30 余项。曾先后创办多家公司，在军工、航空等高新技术产业拥有多年企业管理经验，行业经验丰富。

Topic

Bottlenecks and Breakthroughs of UAS Industry

Speech Abstract

At present, the UAV industry has just started and its foundation is relatively weak. There are many reasons. First, the technology needs to be improved urgently. Second, There is huge market needs. Third, UAV standards need to be formulated. In order to implement the standardization strategy and promote the research of 'China Standards 2035', we should focus on promoting innovation-driven development, actively docking with the fourth industrial revolution and the national innovation-driven development strategy, and promote it with high standards.

Speaker Information

Zhang Li, Senior Engineer, Member of ISO/TC20/SC16 WG1, was selected as the innovative team of 'Liaoning Revitalization Elite Program'. Founder and General Manager of Liaoning Zhuanglong UAV Technology Co., Ltd. She participated in the independent research and development of 'Oil-driven Speed Control Multi-Rotor Unmanned Aerial Vehicle', which has been evaluated to be international leading level by 9 experts from 3 academicians of the Chinese Academy of Sciences and the Chinese Academy of Engineering.She presided over or participated in more than 10 national and provincial-level high-tech R&D and industrialization projects, such as the key research projects of the National Emergency Fire Bureau in 2018. Her research have been authorized and transformed into more than 30 patents (including international patents). She has established many companies successively. She has many years of experience in management of high-tech industries such as military industry and aviation.

吕振义

深圳市科卫泰实业发展有限公司总经理

Lv Zhenyi

General manager of Shenzhen Keweitai Industrial Development co., LTD

ALLTECH®

科卫泰

沙龙研讨主题

无人机产业的瓶颈与突破

内容概要

借助于人工智能等先进技术和无人机标准化的建设，基于云计算、雾计算等网络架构，实现高度自动化、自主化、智能化的新一代工业无人机系统，将促使无人机行业再次腾飞。同时在行业细分领域，和行业相关技术的紧密结合，无人机将进一步增强垂直化应用，进而扩大无人机在各行业的快速发展和市场规模。

嘉宾简介

吕振义，深圳市科卫泰实业发展有限公司创始人兼总经理，山东科技大学教授，研究生导师，现任国家林业局森林防火工程技术研究中心学术委员会委员、中国地理信息产业协会无人机应用与管控工作委员会副主任委员，多年来致力于微波传输及无人机系统研究。先后获得过军队科技进步二等奖、南京市科技进步二等奖，被评为宝安区高层次人才。

Topic

Bottlenecks and Breakthroughs of UAS Industry

Speech Abstract

With the help of advanced technologies such as artificial intelligence and the standardization of UAV systems, a new generation of industrial drone systems that are highly automated, autonomous and intelligent based on cloud computing, fog computing and other network architectures will drive the drone industry. Take off again. At the same time, in the industry segmentation, and the close integration of industry-related technologies, UAVs will further enhance the verticalization application, thereby expanding the rapid development and market scale of UAVs in various industries.

Speaker Information

Lv Zhenyi, founder and general manager of Shenzhen Keweitai Industrial Development Co., Ltd., professor of Shandong University of Science and Technology, postgraduate tutor, is currently a member of the Academic Committee of the Forest Fire Prevention Engineering Technology Research Center of the State Forestry Administration, and the UAV application and control of China Geographic Information Industry Association. The deputy director of the working committee has been working on microwave image transmission and drone system research for many years. He has won the second prize of the military scientific and technological progress and the second prize of Nanjing Science and Technology Progress Award, and was named as a high-level talent in Baoan District.

阿什利·戈登

澳大利亚布里斯班世界无人机大会总监

Ashley C. Gordon

Director of World of Drones Congress Pty Limited

沙龙研讨主题

无人机产业的瓶颈与突破

内容概要

澳大利亚昆士兰州是世界上第一个采用全州政府无人机战略的州政府 / 省政府之一。昆士兰无人机战略 (QDS) 是建立在昆士兰州的优势之上，并利用该州的创新成功。昆士兰州的无人机产业拥有强大的投资和增长，并得到了世界标准研发能力和高技能劳动力的支持。QDS 的五个主要目标是 :1. 吸引国内和国际投资 ; 2. 提高行业和劳动力能力 ; 3. 增加研究和发展 ; 4. 支持对社区友好的无人机政策 ; 5. 改善政府服务。

嘉宾简介

Ashley 是澳洲无人机世界大会（WoDC）的董事和联合创始人，该会议自 2017 年起每年在澳大利亚昆士兰州布里斯班举行 .WoDC 是澳大拉西亚 / 太平洋地区规模最大，最著名的无人机行业大会。WoDC 是关于在企业，政府服务，农业和国防部门实施无人机技术。Ashley 于 1985 年在澳大利亚共同创立了 Carillon 会议管理有限公司已成功组织了 600 多次重要会议和国际贸易代表团。 他曾在澳大利亚的联邦州和地方政府担任会议事务顾问，并且是众多行业和相关咨询委员会的成员。

Topic

Bottlenecks and Breakthroughs of UAS Industry

Speech Abstract

One of the first state/provincial governments in the world to introduce a state-wide whole-of-government strategy for drones was Queensland in Australia. The Queensland Drone Strategy (QDS) has been developed to build upon Queensland's strengths and leverage the state's innovation success. Queensland's drone industry has strong investment and growth, supported by world standard research and development capabilities and a highly skilled workforce. The five key objectives of the QDS are: 1. attracting national and international investment; 2.increasing industry and workforce capability; 3. Increasing research and development; 4. Supporting community-friendly drone policies and 5. Improving government service delivery.

Speaker Information

Ashley is a Director and Co-Founder of the World of Drones Congress (WoDC) which has been held in Brisbane, Queensland, Australia annually since 2017. WoDC is the largest and most notable drone industry congress in the Australasian/Pacific region. WoDC is about the implementation of drone technology across business, government services, agriculture and defence sectors. Ashley co-founded Carillon Conference Management Pty Limited (CCM) in Australia in 1985. CCM has successfully organised more than 600 major conferences and international trade missions. He has served as an advisor on conference matters to Federal, State and local Governments throughout Australia and is a member of numerous industry and related advisory boards.

周震博

北京云无忧大数据科技有限公司副总经理

Zhou Zhenbo

Deputy general manager of Beijing 5U-cloud Date Technology co.,ltd

云无忧大数据 5U Cloud ™

沙龙研讨主题

无人机产业的瓶颈与突破

内容概要

在过去的十年中无人机在遥感、测绘、空中摄影、巡检、警用安防等领域取得了飞速的发展。伴随应用规模的扩大，无人机产业的瓶颈也日渐凸显，沙龙邀请产业专家、大型无人机技术负责人和人工智能专家从无人机性能、安全性、自主性以及融入国家空域等各种先进技术方向探讨无人机产业发展突破口。

嘉宾简介

中国低空安全研究中心研究员；北航无人机专委会副主任；民航局授权运营无人机云系统负责人；中国人民保险北京分公司首台套重大科技专项顾问；ISO/TC20/SC16 工作组专家，工作经历包括无人驾驶航空器系统研发、生产、制造、运营、管控及人员培训工作。参与起草工信部《关于促进和规范民用无人机制造业发展的指导意见》、《无人机生产制造行业规范条例》；参与多项无人驾驶航空器国标及行业标准起草。

Topic

Bottlenecks and Breakthroughs of UAS Industry

Speech Abstract

In the past decade, unmanned aerial vehicles (UAS) have made rapid development in the fields of remote sensing, mapping, aerial photography, patrol inspection and security for police.With the expansion of application scale, the bottleneck of UAV industry has become increasingly prominent. Salon invited industry experts, large UAV technical leaders and artificial intelligence experts to discuss the development breakthrough of UAV industry from the aspects of UAV performance, safety, autonomy, integration into national airspace and other advanced technologies

Speaker Information

Research fellow of China low-altitude safety research center; Deputy secretary general of beihang UAV committee; The civil aviation authority authorizes the person in charge of the operation of UAV cloud system; China people's insurance Beijing branch of the first set of major science and technology special adviser; Working group expert of ISO/TC20/SC16, working experience includes R&D, production, manufacturing, operation, control and personnel training of unmanned aircraft system. To participate in the drafting of guidelines on promoting and regulating the development of civilian UAV manufacturing industry by the ministry of industry and information technology and regulations on UAV production and manufacturing industry; Participate in the drafting of several national and industrial standards for unmanned aircraft.

张红刚

中国航空工业集团公司洛阳电光设备研究所副总工程师

Zhang Honggang

Deputy Chief Engineer of Luoyang Institute of Electro-optical Equipment of AVIC

沙龙研讨主题

全球化视野下的无人机标准制定

内容概要

随着无人机的快速发展，光电任务载荷随无人机在农业植保、电力巡检、警用执法、地质勘探、环境监测、森林防火以及影视航拍等领域得到了广泛的应用。光电任务载荷功能、性能、接口等要求都来源于主机，不同主机在机械接口、电气接口、数据接口和维护接口要求各不相同，给产品研制带来了压力，突显了协调形成光电任务载荷接口通用要求的重要意义。

嘉宾简介

张红刚，博士，中国航空工业集团公司洛阳电光设备研究所副总工程师，长期从事机载光电任务载荷研究工作，承担多项国家重点工程与空装重点项目研究任务，主持和参与编制了国家军用标准、航空行业标准和航空工业集团公司标准十余项，多次荣获国防、航空工业集团、河南省科技成果奖。

Topic

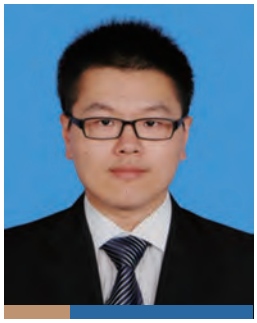
UAS Standards Development Under Globalization Background

Speech Abstract

With the rapid development of unmanned aerial vehicles (UAV), EO payload is widely used in agricultural plant protection, electric power patrolling, police law enforcement, geological exploration, environmental monitoring, forest fire prevention and film aerial photography. As the function, performance, interface and other requirements of the EO payload are all required by the customers, and the different customers have different requirements on the mechanical, electrical, data and maintenance interface, these bring pressure to the product development, and, meanwhile, highlight the importance of coordinating common requirements for EO payload interfaces.

Speaker Information

Zhang Honggang, Ph.D., deputy chief engineer of Luoyang Institute of Electro-optical Equipment of AVIC, is engaged in the research of airborne electro-optical (EO) payload. He undertook many key projects launched by national and Equipment Department of PLA Air Force, and presided over and participated in the compilation of more than 10 national standards as national military standard, aviation industry standard and AVIC's standard, and won many awards for National Defense, AVIC and Science and Technology Achievement Award of Henan province.



王佳胜

广东省标准化研究院高级工程师、主任助理

Wang Jiasheng

Senior Engineer of Guangdong Institute of Standardization(GDIS)

GDIS

沙龙研讨主题

全球化视野下的无人机标准制定

内容概要

无人机正处于快速增长的爆发期，人工智能技术的迅猛发展，创新应用场景不断涌现，无人机产业已成为智能无人系统中最具活力的一个新兴市场。标准对新兴行业发展具有引领和规范作用，对面向场景的无人机产业进行智能程度分析，推动产业构建基于人工智能工具与流程的转型发展新模式。

嘉宾简介

王佳胜，广东省标准化研究院高级工程师，从事高新技术产业标准化工作，广东省无人智能技术标准化技术委员会秘书长、广东省无损检测标准化技术委员会副秘书长，全国无人驾驶航空器标准化分技术委员会（SAC/TC435/SC1）委员，主持省部级项目多项，曾获广东省机械工程学会一等奖，获授权美国发明专利 1 项，并作为主要起草人完成行业标准、地方标准共 7 项，编著 2 部。

Topic

UAS Standards Development Under Globalization Background

Speech Abstract

UAVs are in a period of rapid growth, with the rapid development of AI technology, innovative application scenarios continue to emerge. The UAV industry has become one of the most dynamic emerging markets in unmanned intelligent system. Standards play a leading and normative role in emerging industries development. Promoting a new development transition model which based on AI appliance and processes.

Speaker Information

Wang Jiasheng, Senior Engineer of Guangdong Institute of Standardization(GDIS) and secretary general of Technical committee on Unmanned Intelligent Technology Standardization of Guangdong Province(GD/TC 128), a member of the National Subtechnical Committee for the Standardization of UAVs (SAC/TC435/SC1), has been engaged in the high-tech industrial standardization. Having presided over a number of provincial and ministerial projects and has won the first prize of Guangdong Institute of Mechanical Engineering.

陈萍萍

深圳市赛为智能股份有限公司人工智能研究院副院长、高级研究员

Chen Pingping

Deputy dean and Senior Researcher of Artificial Intelligence Institute of Shenzhen Sunwin Intelligent Co., Ltd.

赛为智能 sunwin

沙龙研讨主题

全球化视野下的无人机标准制定

内容概要

随着 5G 时代的到来，系留无人机技术的行业应用衍生出新的特点。此演讲将就 5G 与系留无人机技术结合的行业应用特点、技术发展趋势及标准化进展进行简单介绍。

嘉宾简介

陈萍萍，赛为智能人工智能研究院副院长 / 高级研究员，西北工业大学与德国宇航院推进技术研究所联合培养博士，国际标准化组织航空航天器技术委员会无人机分委会 WG2 工作组专家。目前主要负责研究院新技术发展评估，系留无人机系统新技术创新、政策与标准化工作。

Topic

UAS Standards Development Under Globalization Background

Speech Abstract

With the advent of 5G era, the industry application of tethered uav technology has derived new characteristics. This speech is to give a brief introductionof the application characteristics, future technology development trends and standardization progress of tethered Unmanned Aircraft System combined with the 5G.

Speaker Information

Chen pingping, deputy director and senior researcher of Aritificical Intelligence institute of Shenzhen Sunwin Co., Ltd. She got the Doctor degree from the joint doctoral program of Northwestern Polytechnical University and DLR Institute of Propulsion Technology, and now she is also the expert of WG2 working group of ISO/TC 20/SC 16. Currently she is responsible for the evaluation of new technology development of the institute, the innovation, policy and standardization of new technology of tethered Unmanned Aircraft System.

迪米特里·方丹

QUALITICS SPRL 公司
主管合伙人

Dimitri Fontaine

Managing Partner of
QUALITICS SPRL

沙龙研讨主题

全球化视野下的无人机标准制定

内容概要

Qualitics 公司一直致力于高压电力线，叶片检测，桥梁和高架桥的配电网络领域的工作。主要进行深层基础设施检查，如常规检测，结构裂缝检测，缺漆和腐蚀。Qualitics 的智能设备试验和自动化试点及人工智能软件系统可以评估工业结构的整体状态。这是评估维护需求和指定预防计划的关键依据，得以最大限度地提高结构的可用性能和效率。

嘉宾简介

迪米特里·方丹引领 Qualitics 内部人工智能解决方案的开发工作。电子工业工程学学士，计算机科学硕士和人工智能大学学历（比利时蒙斯大学）。方丹先生不断提升自己的技术技能（特别是在人工智能子领域，如计算机视觉，深度学习和强化学习等方面）。方丹先生在工业和嵌入式实时软件开发方面也拥有丰富经验，随时迎接新的项目挑战。他还曾担任过滑翔机飞行员；在接受专业培训后，获得比利时无人驾驶飞行员执照。

Topic

UAS Standards Development Under Globalization Background

Speech Abstract

Our company is active in the sectors of the electricity distribution networks for high voltage power lines, blade Inspections, bridges and viaducts. Mainly doing deep infrastructures inspections such as default detection, crack detection of the structure, lack of painting and corrosion. Qualitics smart device implementing and automated pilot and its Artificial Intelligence software system allows to evaluate the overall state of industrial's structures. This is a key information to evaluate maintenance needs and program preventive actions to maximize the disponibility or the efficiency of the structure.

Speaker Information

Dimitri Fontaine leads the development of Artificial Intelligence Solution within Qualitics. He holds an Industrial Engineering degree in electronic, a Master in Computer Sciences and a University Certificate in Artificial Intelligence (University of MONS). He has always been driven by an insatiable curiosity for engineering sciences and he is constantly developing his technical skills (especially in the following artificial intelligence sub-fields like computer vision, deep learning and reinforcement learning). Dimitri has also a strong experience in industrial and embedded real-time software development and he is always ready to embrace new challenging projects. As former glider pilot, Dimitri followed the required training to get his Belgian Drone Pilot licence.

崔镕晚

韩国建设生活环境试验研究院高级研究工程师、KCL 青岛法人前任总经理

Yong Man Choi

Senior Research Engineer of Korea Conformity Laboratories. Former head of KCL Qingdao Branch(China)

沙龙研讨主题

全球化视野下的无人机标准制定

内容概要

结合韩国政府推进的标准化以及认证制度实施等整体政策方向和趋势，从无人机产品观点介绍韩国的行业标准 KS 标准制度和 KC 认证制度。

1. 韩国无人机行业发展趋势；2. 无人机行业发展条件；3. KS 制度介绍；4. 韩国无人机行业标准化趋势；5. KC 制度介绍；6. 无人机领域 KC 认证流程；7. 无人机领域标准化以及认证相关 KCL 业务介绍。

嘉宾简介

高丽大学以及中国海洋大学国际贸易专业毕业。韩国建设生活环境试验研究院 (KCL) KSKC 审核员资质 14 年。 KCL（KCL: 韩国政府设立，韩国最大权威检测认证机构）青岛法人前任总经理。

Topic

UAS Standards Development Under Globalization Background

Speech Abstract

The speech will briefly explain the efforts in Korea to promote the UAV market by providing proper Standardization and Certification system. Korean Standard(KS) and Korea Certification(KC) for UAV will be mainly introduced. 1. Growth prospects in Korean UAV industry; 2. Requirements of UAV industry invigoration; 3. Korean Standard(KS) system introduction; 4. UAV standardization efforts in Korea; 5. Korea Certification(KC) system introduction; 6. KC procedures for UAV; 7. KCL support regarding UAV standardization and certification.

Speaker Information

Graduated Korea University and China Ocean University with major in International trade. 14 years of experience as a KS (Korean Standard) and KC (Korea Certification) inspector in Korea Conformity Laboratories (KCL), one of the largest testing institute established by Korean government. Former head of KCL Qingdao Branch in China.

胡应东

中国航空综合技术研究所高级工程师

Hu Yingdong

Senior Engineer,
AVIC China Aero-Polytechnology Establishment (CAPE)

航空工业综合所
AVIC CAPE

沙龙研讨主题

全球化视野下的无人机标准制定

内容概要

无人机系统作为信息时代高技术含量的产物，在世界各国得到广泛应用，其产业发展正处于快速增长的爆发期。标准对新兴行业发展具有引领和规范作用，为进一步规范行业发展，提升行业竞争力和产品质量，引领技术创新和技术融合，打造高效产业链，本沙龙拟邀请国内外无人机领域专家一起在全球化视野下探讨无人机系统标准的制定工作，以期能切实发挥标准化工作对行业发展的引领和支撑作用，推动无人机系统技术和行业的健康、有序、持续发展。

嘉宾简介

胡应东，中国航空综合技术研究所高级工程师，国际标准化组织航空航天器技术委员会无人机分技术委员会(ISO/TC 20/SC 16)专家，先后从事民用飞机航电系统设计，民用无人机系统标准化、检测与安全性技术研究工作，并作为主要负责人支撑国家标准委、工业和信息化部等八部委联合发布《无人驾驶航空器系统标准建设指南（2017-2018 年版）》，参与编制《民用无人驾驶航空器系统分类及分级》等 10 余项无人机领域各级各类标准。

Topic

UAS Standards Development Under Globalization Background

Speech Abstract

As a product of high-tech content in the information age, UAS has been widely used in various countries in the world, and its industrial development is in the explosive period of rapid growth. Standards play a leading and normative role in the development of emerging industries. In order to further standardize industry development, enhance industry competitiveness and product quality, lead technological innovation and technology integration, and create an efficient industrial chain, The Salon intends to invite experts in the field of UAS all over the world to discuss the standardization of UAS in the perspective of globalization. It is hoped that the standardization work will play a leading and supporting role in the development of the industry, so as to promote the healthy, orderly and sustainable development of UAS technology and industry.

Speaker Information

Hu Yingdong, Senior Engineer of AVIC China Aero-Polytechnology Establishment (CAPE) and expert of ISO UAS Sub-Technical Committee (ISO/TC 20/SC 16), has been engaged in the design of civil aircraft avionics system, the research of civil UAS standardization, testing and safety technology, and has been the main person in charge of supporting the SAC, MIIT and other ministries jointly issued 'the Guidelines of Standard Roadmap Construction for Unmanned Aircraft Systems (2017-2018 edition)', and participated in the compilation of more than 10 standards in the field of unmanned aircraft system at all levels, such as classification and Classification of Civil Unmanned Aircraft System.

DRONE WORLD CONGRESS 2019
2019 世界无人机大会

UAV New Material & New Technology Forum
无人机新材料新技术论坛

主办单位

深圳市无人机行业协会
深圳市塑胶原料同业公会

支持单位

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中南大学
南方科技大学
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深圳市嘉美尤弘贸易有限公司
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ORGANIZED BY

Shenzhen UAV Industry Association
Shenzhen Plastic Material Association

SUPPORTED BY

Shenzhen University
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Shenzhen Plasway Business Network Co., Ltd.
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Shenzhen Juchuang Polymer Materials Co., Ltd.
Guangdong Silver Age Sci.& Tech. Co., Ltd.
Shenzhen Jiameiyouhong Trading Co., Ltd.
Zhejiang Juhua Science and Technology Center Co., Ltd.
Japanese Nippon Electric Company

无人机新材料新技术论坛 - 议程

6 月 21 日 14:00-17:30 | 深圳会展中心 5 层 牡丹厅

时 间	主 题	嘉 宾
14:00-14:30	签 到	
14:30-14:40	致 辞	
	党 雍 深圳市塑胶原料同业公会会长	
	熊 明 深圳市塑胶原料同业公会副会长	
14:40-17:30	主旨演讲	
	无人机燃料电池技术	**王 雷** 深圳大学材料学院院长、教授
	无人机锂离子电池的轻量化	**李新海** 中南大学教授
	聚碳酸酯及合金材料在无人机领域的创新应用	**胡志刚** 广东银禧科技股份有限公司技术总监
	纳米改性高分子基轻量化复合材料	**孙大陟** 南方科技大学研究员、副教授
	日本无人机飞行控制系统以及 API 接口开发及材料的相关应用	**西泽俊浩** 日本 NEC 公司经理
	从材料科学视角浅谈无人机轻量化	**赵大鹏** 湖南大学副教授
	含氟聚合物的最新应用与开发	**周承义** 浙江巨化技术中心有限公司 ETFE 项目负责人

UAV New Material & New Technology Forum

Forum Agenda

14:00-17:30, June 21 | 5F, Peony Hall, SZCEC

Time	Topics	Speaker	
14:00-14:30	Registration		
14:30-14:40	Greeting		
	Dang yong, President of Shenzhen Plastic Material Association		
	Xiong Ming, Vice-president of Shenzhen Plastic Material Association		
14:40-17:30	Keynote Speech		
	Fuel Cell Techonogly for Drones	**Wang Lei**	Professor, the Dean of College of Materials Science and Engineering, Shenzhen University
	Light Weight Design of Lithium Ion Battery for Drones	**Li Xinhai**	Professor of Central South University
	Innovative Application of Polycarbonate and Alloy Materials in UAV Field	**Hu Zhigang**	Technical director of Guangdong Silver Age Sci.& Tech. Co., Ltd.
	Polymer Nanocomposites for Light-weight Applications	**Sun Dazhi**	Associate Professor of Southern University of Science and Technology
	Development of Drone Traffic Management System and API Interface and Related Materials in Japan	**Toshihiro Nishizawa**	Manager of NEC Corporation.
	The Light-weighting of Drones: from the Perspective of Materials Science	**Zhao Dapeng**	Associate Professor of Hunan Univeristy
	Recent Applications and Development of Fluorinated Polymers	**Zhou Chengyi**	Leader of Fluorinated Polymer Products, Zhejiang Juhua Science and Technology Center Co., Ltd.

党雍

深圳市塑胶原料同业公会会长

Dang Yong

President of Shenzhen Plastic Material Association

嘉宾简介

深圳市塑胶原料同业公会、东莞市塑胶产业发展促进会会长，普拉司网创始人。

Speaker Information

President of Shenzhen Plastic Material Association & Dongguan Plastic Industry Association. Founder of PLAS (plasway.com).

熊明

宝聚合塑料创始人、董事总经理、深圳市塑胶原料同业公会副会长

Xiong Ming

General manager of Materials Association. Shenzhen Baojuhe Plastics Co., Ltd ; Vice President of Shenzhen Plastic Material Association

嘉宾简介

熊明，宝聚合塑料创始人、董事总经理。从事高分子塑料原材料研发生产二十多年，核壳结构甲基丙烯酸脂橡胶国产化实现者。耐冲击 PMMA 国产化先锋，熟悉塑料高分子材料在光学膜、电子膜材，型材、板材等多领域应用及相关产业领域。致力于多相新材料跨行业跨产业应用研究与实践。

Speaker Information

Xiong Ming is the founder and managing director of the Baojuhe Plastics Co., Ltd., who has been engaged in the research, development, and production of polymer plastic materials for more than 20 years. He has achieved the domestic production of methacrylate rubber and impact resistant PMMA. He is familiar with a wide application on polymer plastic based optical film, electronic film, Plastic sheets, etc.. Furthermore, he has also been involved in various researches in other related fields.

王雷

深圳大学材料学院
院长、教授

Wang Lei

Professor, the Dean of College of Materials Science and Engineering, Shenzhen University

演讲主题

无人机燃料电池技术

内容概要

目前主要以锂离子充电电池为动力电源的无人机存在续航时间短的问题严重阻碍了其更广泛的应用。燃料电池具有长续航能力的突出优势，本演讲主要介绍长续航无人机用燃料电池技术及其当前进展。

嘉宾简介

王雷教授现任深圳大学材料学院院长，深圳高分子材料与制备技术重点实验室主任，南山区人大常委，广东省青年科协理事，深圳市高分子协会常务理事，主要从事高分子能源材料和燃料电池等研究。

Topic

Fuel Cell Techonogly for Drones

Speech Abstract

At present, the problem of short duration of drones powered by lithium-ion rechargeable batteries has seriously hindered its wider application. Fuel cell has outstanding advantages of long endurance. This speech mainly introduces fuel cell technology for long endurance drones and its current progress.

Speaker Information

Wang Lei, Professor, the Dean of College of Materials Science and Engineering, Shenzhen University; Director of Shenzhen Key Laboratory of Polymer Materials and Preparation Technology; the member of Nanshan District People's Congress Standing Committee. His research interests focus on polymer energy materials and fuel cells.

李新海

中南大学教授

Li Xinhai

Professor of Central South University

演讲主题

无人机锂离子电池的轻量化

内容概要

锂离子电池作为无人机的动力来源，直接影响无人机的航程与航时，是制约无人机发展与应用的关键因素。锂离子电池的轻量化则是提升无人机长续航能力的重要途径之一。在满足无人机锂离子电池安全特性、功率特性的前提下，提高锂离子电池质量能量密度是实现其轻量化的有效途径。本报告将从高比容量锂离子正负极材料研究、高能量密度电池体系及锂离子电池结构化三个方面来阐述无人机锂离子电池轻量化策略。

嘉宾简介

李新海，教授、博士生导师、国家“万人计划”科技创业领军人才，中国有色金属学会冶金物理化学学术委员会主任委员。从事冶金、材料与电化学的基础理论研究与新技术开发。注重应用冶金物理化学基本原理，开发锂离子电池负极材料、正极材料、动力电池等产业化技术，相关成果获国家科技进步二等奖 1 项，省部级一等奖 4 项。

Topic

Light Weight Design of Lithium Ion Battery for Drones

Speech Abstract

As the power source of drones, the performance of lithium ion battery directly affects the voyage and the endurance of drones, which plays a key role in the development and application of drones. The light weight design of lithium ion battery can effectively improve the long endurance capability. On the premise of meeting the demand of safety, high power characteristics of the drones, increasing the energy density of the lithium ion battery is the useful route to fulfill the light weight design. This report will elucidate the strategies of light weight design from three aspects: a, the anode and cathode materials with high capacity for lithium ion battery; b, high energy density lithium ion battery design; and c, the structuring of lithium ion battery into drones.

Speaker Information

Professor Li Xinhai is one of the National 'Ten Thousand Plan' technology entrepreneurship leading talents, who also serves in the metallurgical physical chemistry academic committee of Chinese nonferrous metals society as a chairman. He is expertise in the fundamental research of metallurgy, materials and electrochemical and its corresponding technology. Focused on utilizing the basic theory of metallurgical physical chemistry, he developed the large scale production techniques for manufacturing the anode materials, cathode materials, and power battery in the lithium-ion battery field. Based on the outstanding R&D achievements, he won 1 prize at national level (second prize of national science and technology progress), and 4 first prizes at provincial and ministerial level.

胡志刚

广东银禧科技股份有限公司技术总监

Hu Zhigang

Technical director of Guangdong Silver Age Sci.& Tech. Co., Ltd.

演讲主题

聚碳酸酯及合金材料在无人机领域的创新应用

内容概要

聚碳酸酯及合金材料，在较宽的温、湿度范围内具有良好而恒定的电绝缘性，是优良的绝缘材料。此外，具有良好的难燃性，使其在电子电器行业形成了广阔的应用领域，可用于无人机电池及电路板等周边制件。聚碳酸酯及其合金材料是刚性与韧性的有机结合体，可用于生产机体、内部支架、手柄等部件。聚碳酸酯及其合金材料尺寸稳定性高，在零件精度要求较高的部件也显示出了极高的使用价值。

嘉宾简介

从事聚碳酸酯及合金材料多年，在聚碳酸酯及其合金应用于照明、家电、汽车、电子电器等领域经验丰富。其带领开发的高阻燃特性 PC 及其合金，光扩散 PC、耐候 PC 及其合金等材料广泛应用于各行各业。承担东莞市院士站、电磁屏蔽、高性能聚碳酸酯、国家仪器等项目，授权专利 5 篇，获得广东省科技进步二等奖。

Topic

Innovative Application of Polycarbonate and Alloy Materials in UAV Field

Speech Abstract

Polycarbonate and Polycarbonate alloy are excellent insulating materials with good and constant electrical insulation in a wide range of temperature and humidity. In addition, they have good flame retardancy, which has formed a broad application field in the electronic and electrical industry. Polycarbonate and Polycarbonate alloy can be used in peripheral parts of unmanned aerial vehicle batteries and circuit boards. Polycarbonate and Polycarbonate alloy materials are the organic combination of rigidity and toughness, which can be used to produce shell, internal bracket, handle and other parts. In addition, polycarbonate and its alloy materials have high dimensional stability, and show high application value in parts requiring high precision.

Speaker Information

Hu Zhigang graduated from South China University of Technology and has been engaged in polycarbonate and alloy materials for many years. He has rich experience in the application of polycarbonate and its alloy in lighting, household appliances, automobiles, electronics and other fields. The high flame-retardant PC and its alloys, light diffusion PC, weather-resistant PC and its alloys and other materials developed by he are widely used in all walks of life. Participate in Dongguan Academician Station Project, Electromagnetic Shielding Project, High Performance Polycarbonate Project, National Instruments Project, etc.Authorized 5 Patents, Second Prize for Scientific and Technological Progress of Guangdong Province.

孙大陟

南方科技大学研究员、副教授、中组部“青年千人计划”专家

Sun Dazhi

Associate Professor of Southern University of Science and Technology

演讲主题

纳米改性高分子基轻量化复合材料

内容概要

高分子基复合材料由于其质量轻、机械性能好、易加工、耐腐蚀等优点，发展迅速，广泛的应用于航空航天、汽车、轨道交通、医疗器械等领域。随着纳米材料科学与技术的发展，通过纳米改性的高分子复合材料的性能和功能进一步提升。本报告综述高分子基复合材料技术发展与应用领域，着重介绍纳米材料的制备与分散技术，以及高分子纳米复合材料的最新研究进展；报告还将分析与展望高分子基轻量化复合材料技术发展的趋势及其在无人机领域的应用。

嘉宾简介

孙大陟博士，清华大学化学工程专业本科及硕士毕业，2009 年获美国德州农工大学博士学位，随后在美国布鲁克海文国家实验室从事博士后研究工作；2012 年 12 月回国，任南方科技大学材料科学与工程系副教授 / 研究员，并入选中组部第十批“千人计划”（青年千人项目）。孙大陟博士主要从事高分子及纳米材料的研发工作，已发表论文 40 余篇，撰写 2 个专业书籍章节，申请国内外专利 30 余项。孙大陟博士主持多项新材料产业化项目，其中“先进纳米润滑材料”产业化项目成果入选 2018 年“全国大众创业万众创新活动周”主会场展示，获“2018 中国颠覆性创新奖”Top 50，并被录入《2018 年中国颠覆性创新蓝皮书》。

Topic

Polymer Nanocomposites for Light-weight Applications

Speech Abstract

Polymer-based composite materials have been increasingly used in aerospace including drones, automobile, rail transportation, medical devices, and so on, due to their light weight,excellent mechanical properites, ease to process, resistance to corrosion, etc. With the incorporation of nanomaterials, polymer nanocomposites exhibit superior properties and thus broaden the applications of polymer-based light-weight materials. This presentation will review the technological development of polymer-based composites and their applications, state the recent progress on nanomaterials and polymer nanocomposites, and provide future prospections on light-weight polymeric materials, especially for drone applications.

Speaker Information

Dr. Sun Dazhi got his Bachelor and Master Degrees in Tsinghua University, Beijing, China and PhD in Texas A&M University, USA. After post-doc research at Brookhaven National Lab in USA, he joined Southern University of Science and Technology in Shenzhen as an Associate Professor in 2012. His main research area includes polymers and nanomaterials, especially focusing on fabrication and dispersion of nanomaterials, engineering plastics, polymer-based composites for light-weight applications. Dr. Sun is also a recipient of National Thousand Youth Talents Plan in 2013.

西泽俊浩

日本 NEC 公司经理

Toshihiro Nishizawa

Manager of NEC Corporation.

演讲主题

日本无人机飞行控制系统以及 API 接口开发及材料的相关应用

内容概要

新能源和工业技术开发组织（NEDO）已经为无人机飞行管理系统和 API 接口的开发提供了 2 年的资金。NEC 和其他主要的日本公司已经在福岛机器人实验区域测试了系统和 API 接口。 我们想解释一下交通管理系统的架构和 API 的发布。

嘉宾简介

NEC 公司，PS 网络业务推广部门经理。无人机系统交通管理研发项目负责人。NEC 是 DRESS（生态可持续社会无人机和机器人）UTM 架构项目的日本联盟的领导者公司。DRESS 是日本的国家项目，由 METI（经济贸易和工业部）和 NEDO（新能源和工业技术开发组织）组织。在该联盟中，NEC 负责 UTM 体系结构的规范。

Topic

Development of Drone Traffic Management System and API Interface and Related Materials in Japan

Speech Abstract

New Energy and Industrial Technology Development Organization(NEDO) has funded for the development of drone flight management system and API interface for 2 years. NEC and other major Japanese companies already tested the system and API interface in the test field, Fukushima Robot Test Field. We'd like to explain the archtecture of traffic management system and publication of APIs.

Speaker Information

Manager of NEC Corporation, PS Network Business Promotion Division.Project Leader of Research and development of Unmanned Aerial System Traffic Management.

NEC is the leader company of Japanese consortium for UTM architecture project in DRESS (Drones and Robots for Ecologically Sustainable Societies). DRESS is a national project in Japan, which is organized by METI (Ministry of Economy Trade and Industry) and NEDO (New Energy and Industrial Technology Development Organization). In the consortium, NEC is responsible for specifications of UTM architecture.

赵大鹏

湖南大学副教授

Zhao Dapeng

Associate Professor of
Hunan Univeristy

演讲主题

从材料科学视角浅谈无人机轻量化

内容概要

如今，无人机的发展正日益受到社会的关注，这主要是由于其在诸如森林防护、搜索救援、执法行动和空中监视等军事及民用领域的广泛应用前景。而轻量化一直是无人机发展的重要方向。传统的轻量化方法包括材料优化与结构优化。本报告主要以材料科学视角，从材料的选择、设计与制造浅谈结构部件的轻量化。

嘉宾简介

赵大鹏，湖南大学副教授。2014 年博士毕业于德国科特布斯勃兰登堡工业大学力学、电子与工业工程系材料学专业。目前主要从事钛合金、镁合金等轻金属的制备与性能优化等相关研究。已发表 SCI 论文 20 余篇，主持国家自然科学基金 1 项。

Topic

The Light-weighting of Drones: from the Perspective of Materials Science

Speech Abstract

At present, there is a significant interest in drones with diverse capabilities for both military and civilian applications, such as forest protection, search and rescue, law enforcement and aerial surveillance. There is also a growing need for light-weighting of drones. Typical implementations of light-weighting involves use of high performance materials and optimization of structures. This work reviews the principal approaches used in light-weighting of aerospace component from the perspective of materials science, including materials selection, design and fabrication.

Speaker Information

Dr. Dapeng Zhao is currently an associate professor in Hunan Univeristy. He received his Ph.D degree in Materials Science from the Brandenburg University of Technology Cottbus-Senftenberg, Germany in 2014. Dr. Zhao's research primarily focus on the fabrication as well as the optimization of mechanical properties and biocompatibility of titanium and magnesium alloys. Dr. Zhao has authored tens of SCI papers in these field.

周承义

浙江巨化技术中心有限公司 ETFE 项目负责人

Zhou Chengyi

Leader of Fluorinated Polymer Products, Zhejiang Juhua Science and Technology Center Co., Ltd.

巨化集团有限公司 JUHUA GROUP CORPORATION

演讲主题

含氟聚合物的最新应用与开发

内容概要

含氟聚合物，不粘、防油、耐磨、耐温等特性，其优异的性能，产品正在全社会各个领域广泛应用，近年来，国产品质的逐渐提升，中高端份额也在逐渐扩大，向军工、航空航天延伸。演讲内容主要介绍含氟聚合物的品种、特性，加工技术，以及应用案例，发展前景等。

嘉宾简介

周承义，毕业于浙江工业大学管理工程专业，目前就职于浙江巨化技术中心有限公司，具有生产管理、工程建设管理、新产品研发、市场营销管理等经验，长期从事含氟聚合物的生产技术、产品应用、市场推广、营销策划等工作，对含氟聚合物 FEP、PTFE、PVDF、PFA、ETFE 等有着多年的技术应用、产品应用、市场推广等理论和实战经验，有着丰厚的社会基础及产品链资源，特别是对 FEP、ETFE 产品，是我国产业化创新的最早开发的前沿发人才，积累了诸多的理论、实践经验，能为市场提供一系列应用解决方案。获得各类成果奖励 15 项，发表论文 5 篇。

Topic

Recent Applications and Development of Fluorinated Polymers

Speech Abstract

Fluorine-containing polymers, non-stick, oil-proof, wear-resistant, temperature-resistant and other characteristics, their excellent performance, products are widely used in all areas of society. In recent years, the quality of domestic products has been gradually improved, and the share of high and middle-end is gradually expanding, extending to military industry, aerospace. The lecture mainly introduced the varieties, characteristics, processing technology, application cases and development prospects of fluorinated polymers.

Speaker Information

Zhou Chengyi, graduated from Zhejiang University of Technology, majoring in business administration, is currently working in Zhejiang Juhua Science and Technology Center Co., Ltd. with experience in production management, engineering construction, new product development and marketing. He has been engaged in the production technology, product application and sales of fluorinated polymers for a long time. For many years, he has been selling fluorinated polymers FEP, PTFE, PVDF, PFA and ETFE. Especially for FEP and ETFE products, he is one of the earliest practitioners in China's industrial production. He has accumulated a lot of theoretical and practical experience, and can provide a series of application solutions for customers. He has made 15 achievements and published 5 papers.

DRONE WORLD CONGRESS 2019

2019 世界无人机大会

Anti-UAV and Low-altitude Security Management Forum

反无人机与低空安全管理论坛

主办单位

中国无人机产业联盟
全国无人机协会合作互助联盟
深圳市无人机行业协会

ORGANIZED BY

China UAV Industry Alliance
National UAV Association Cooperation and Mutual Aid Alliance
Shenzhen UAV Industry Association

反无人机与低空安全管理论坛 - 议程

6 月 21 日 13:30-17:00 | 深圳会展中心 5 层 玫瑰 3 厅

时 间	主 题	嘉 宾	
13:30-14:00	签 到		
14:00-14:10	致 辞		
	张忠孝 中国安全防范产品行业协会秘书长		
	主旨演讲		
14:10-14:25	基于当前环境的无人机飞行管理设想	**陈金良**	西华大学航空航天学院执行副院长、教授
14:25-14:40	高端自动射频跟踪以及观测解决方案	**托尔斯滕**	阿奥尼亚股份有限公司首席执行官
14:40-14:55	反制无人机技术浅析	**陶军生**	公安部警用装备库首席专家、公安部装财局原副局长、警航办原主任
14:55-15:10	民航重大任务期间无人机防控工作	**李福海**	民航局公安局五处处长
15:10-15:25	反无人机训练：从新手到专家之路	**马修·杰拉德**	比利时 DeltaCopter 公司首席执行官
15:25-15:40	“无人机 + 人工智能”的安全管理问题	**胡传平**	铁道警察学院副院长
15:40-15:55	搭建无人机空地一体化管控平台，探索公安交通管理执法新模式	**范厚本**	安徽省公安厅交警总队总队长
15:55-16:10	大型活动安保反无人机难点问题研究	**范万岗**	中国人民警察大学警卫系警卫战术教研室主任
16:10-16:25	以“智慧新警务”促进无人机治安管理	**申 斌**	广东省公安厅治安管理局副处长
		辜少辉	广州市公安局天河区分局副局长、无人机管理试点办公室主任
16:25-16:40	警用无人机及反制装备检测与标准应用	**李 牧**	公安部特种警用装备质量监督检验中心

Anti-UAV and Low-altitude Security Management Forum

Forum Agenda

13:30-17:00, June 21 | 5F, Rose Hall No.3, SZCEC

Time	Topics	Speaker
13:30-14:00	Registration	
14:00-14:10	Greeting	
	Zhang Zhongxiao, Secretary General of China Security and Protection Industry Association	
	Keynote Speech	
14:10-14:25	Conception of UAV Flight Management Based on Current Environment	**Chen Jinliang**, Executive Vice President, Professor, The School of Aeronautics and Astronautics, Xihua University
14:25-14:40	Advanced Automatic RF Tracking and Observation Solution	**Thorsten Chmielus**, CEO of Aaronia AG
14:40-14:55	Brief Ideas on the Anti-UAV Technology	**Tao Junsheng**, Chief Expert of Ministry of Public Security Police Equipment Expert Group
14:55-15:10	UAV Prevention and Control during Major Civil Aviation Missions	**Li Fuhai**, Director of the 5th Departments in the Public Security Bureau of the Civil Aviation Administration
15:10-15:25	DeltaCopter Creates Drone-Protec : from Schools for Young Pilots, to Training Private Security Agencies	**Matthieu Gerard**, CEO of DeltaCopter
15:25-15:40	Safety Management Issues of UAV+AI	**Hu Chuanping**, Deputy Dean of the Railway Police Academy
15:40-15:55	Setting Up an Integrated Control Platform for UAV and Exploring New Mode of Law Enforcement for Public Security Traffic	**Fan Houben**, Captain of the Traffic Corps of Anhui Public Security Department
15:55-16:10	Difficulties of Anti-UAV in Large-scale Event Security	**Fan Wangang**, Director of Department of Security, People's Police University of China
16:10-16:25	Promoting Drone Security Management with "Smart New Police Service"	**Shen Bin**, Deputy Director of the Public Security Bureau of the Guangdong Provincial Public Security Bureau
		Gu Shaohui, Deputy Director of Tianhe District Bureau of Guangzhou Public Security Bureau, director of the drone management pilot office
16:25-16:40	Testing Technology and Application of Police UAV and Counter-UAV Equipment	**Li Mu**, Main inspector of UAV and Counter-UAV equipment, Ministry of Public Security Testing Center

张忠孝

中国安全防范产品行业协会秘书长

Zhang Zhongxiao

Secretary General of China Security and Protection Industry Association

嘉宾简介

张忠孝，中国安全防范产品行业协会秘书长、公安部科信局副巡视员，2012 年 11 月起在中国安全防范产品行业协会工作，任协会秘书长并担任《中国安防》杂志主编、《中国安全防范认证》杂志主编。同时还担任全国安全防范报警系统标准化技术委员会 (SAC/TC100) 副主任委员。张忠孝曾负责中国安全技术防范认证中心全面工作，组织并参与《安防实体防护产品》、《防盗报警产品》、《汽车行驶记录仪》、《车身反光标识》等强制性产品认证实施规则的修订与实施。确保认证流程的规范化，认证结果的唯一化。

Speaker Information

Mr. Zhang Zhongxiao, General secretary of China Security & Protection Industry Association, deputy inspector of Bureau of Information Technology, Ministry of Public Security. He works for China Security & Protection Industry Association since November 2012. He is the General Secretary of the Association and served as chief editor of "China Security and protection" and "China Security Protection Certification". At the same time, he served as the vice chairman of National technical committee for standardization of security and alarm systems.Zhang Zhongxiao was responsible for the comprehensive work of the China Security Technology Protection Certification Center, and organized and participated in the revision and implementation of mandatory product certification standards of security entity protection products, burglar alarm, vehicle traveling data recorder and reflective mark of car body, etc. To ensure the standardization of certification process and the uniqueness of certification results.

陈金良

西华大学航空航天学院
执行副院长 教授

Chen Jinliang

Executive Vice President, Professor, The School of Aeronautics and Astronautics, Xihua University

演讲主题

基于当前环境的无人机飞行管理设想

内容概要

针对目前人们热切关注的无人机违法违规飞行盛行的问题，分析了我国无人机的发展现状，梳理了我国当前无人机飞行环境和问题致因，在分析借鉴国外无人机飞行管理经验的基础上，提出了基于我国当前空管环境下的实施分级分类管理、划设专用空域疏导消费、开展军地联动军民共管、加大违规飞行处罚力度等无人机飞行管理设想。

嘉宾简介

陈金良，教授，中国航空学会无人机分会专员，国家标准委无人机分标准委委员，国家空管专家，空军空管专家，空军飞行安全专家组成员，先后曾任飞行员、飞行管制员、飞行管制室主任、飞行管制系主任等职。先后主持并参与 19 项国家空管重点科研项目，获军队科技进步奖三项，军事理论奖二项，发表专业学术论文 50 余篇，出版专著 5 本教材 4 本。被评为全国空管先进个人。

Topic

Conception of UAV Flight Management Based on Current Environment

Speech Abstract

In view of the prevailing problem of UAV illegal black flight, the development and problems of UAVs will be analyzed. On the basis of international UAV flight management experience, a drone flight management concepts will be proposed, UAV flight shall be administered under the principles of classified management, special airspace can be set up to guide consumption, the construction of civil-military and military-regional should be implemented, and severe punishment and oppression those who break the law and officials guilty of dereliction of duty may be set up.

Speaker Information

Commissioner of the UAV Branch of the Chinese Society of Aeronautics and Astronautics, member of the UAV Branch of the Standardization adminstration, National Air Traffic Management Specialist, Air Traffic Control Specialist, Member of the Air Force Flight Safety Expert Group, Pro. Chen has served as a pilot and flight controller, Director of Flight Control Room, Director of Flight Control Department. He has presided over and participated in 19 national key scientific research projects in the field of air traffic control, and won three military scientific and technological progress awards, two military theoretical awards. He has published more than 50 professional academic papers, and four monographs. Pro. Chen awarded as advanced individual in national air traffic control.

托尔斯滕

阿奥尼亚股份有限公司
首席执行官

Thorsten Chmielus

CEO of Aaronia AG

演讲主题

高端自动射频跟踪以及观测解决方案

内容概要

1. 实时测量无人机或雷达等设备的射频发射；
2. 极高的覆盖范围，公里数取决于无人机类型；
3. 能够与不限数量的无人机同时工作；
4. 接收器的大小和数量不限，可任意扩展。

嘉宾简介

1986 年到 1988 年间，索斯顿·托尔斯滕在美因茨 IBM 实习和学习。1988 年到 1990 年，他在达姆施塔特技术大学学习计算机科学。1990 年，他创立了 XPERT 公司，开发和生产康懋达家用电脑系统的成像卡和加速卡。 2003 年，索斯顿·托尔斯滕创立了德国安诺尼公司，开发和生产频谱分析仪和天线。2003 年至今，索斯顿担任德国安诺尼公司的首席执行官。

Topic

Advanced Automatic RF Tracking and Observation Solution

Speech Abstract

1.Real-time measurement of the RF emissions from drones / UAVs, radar etc.

2.Extremely high coverage, several kilometers depending on the drone type

3.Works with unlimited number of drones at the same time

4.Unlimited in size & numbers of receivers, arbitrary scalable and expandable

Speaker Information

Thorsten Chmielus, born in 24th Feb, l966. From 1986 to 1988, he started his internship and studies at IBM Mainz. From 1988 to 1990, he studied Computer Science at Technical University Darmstadt. In 1990, he founded XPERT (Company) of development and production of graphic and accelerator cards for Commodore home computer systems. In 2003, he founded Aaronia AG of development and production of spectrum analyzers and antennas. From 2003 on, he serves as CEO of Aaronia AG.

陶军生

公安部装财局原副局长
公安部警用航空管理办
公室原主任

Tao Junsheng

Chief Expert of Ministry of Public Security Police Equipment Expert Group

演讲主题

反制无人机技术浅析

内容概要

近年来，随着无人机应用领域不断扩大，无人机产业发展迅猛，但是这也为社会公共安全带来新的挑战，据媒体报道利用无人机驶入禁飞区威胁航道安全，从事偷拍、走私、甚至恐怖袭击的案例时有发生。除了从加强监管，从源头遏制无人机的滥用外，如何防范不法分子运用无人机犯罪，从未一个热门的亟待解决的问题。

嘉宾简介

公安部警用装备库首席专家

公安部装备财务局原副局长

公安部警航办原主任

公安部特种警用装备标准化技术委员会原主任

Topic

Brief Ideas on the Anti-UAV Technology

Speech Abstract

In recent years, the application field of drones has been expanding, and the drone industry is developing rapidly. But it also brings new challenges to social public security. According to media reports, drones entering the no-fly zone threatened the safety of the channel, and cases involving the use of drones for sneak shots, smuggling, and even terrorist attacks occurred from time to time. In addition to strengthening supervision and curbing the abuse of drones from the source, how to prevent criminals from using drones to commit crimes has become a hot issue that needs to be solved urgently.

Speaker Information

Former deputy director of the equipment finance bureau of the ministry of public security

Former Director of Police Aviation Management Office of the Ministry of Public Security

Technical Committee on special police equipment of standardization Administration of the ministry of public security

李福海

民航局公安局五处处长

Li Fuhai

Director of the 5th Departments in the Public Security Bureau of the Civil Aviation Administration

演讲主题

民航重大任务期间无人机防控工作

内容概要

民航重大任务期间无人机违法违规飞行防控工作基本原则、职责分工，以及实战保障工作要求。

嘉宾简介

李福海，博士研究生学历、高级工程师、硕士研究生导师。现任民航局公安局五处处长，主要负责民航安保信息法规标准体系建设、民航公安情报信息与指挥勤务管理体系建设，组织开展民航安保科技创新应用研究。

Topic

UAV Prevention and Control during Major Civil Aviation Missions

Speech Abstract

The principles and responsibilities of prevention and control illegal flight during Major Civil Aviation Missions.

Speaker Information

Ph.D., Senior Engineer, Master's Tutore. Currently, he is the Director of the 5th departments in the Public Security Bureau of the Civil Aviation Administration, in charge of the construction of civil aviation security information regulation and standards system, civil aviation public security intelligence information and command management system, lead the research of development of civil aviation security technology innovation application.

马修·杰拉德

比利时 DeltaCopter 公司首席执行官

Matthieu Gerard

CEO of DeltaCopter

演讲主题

反无人机训练：从新手到专家之路

内容概要

作为一家从事培训飞行员的机构，培养反无人机团队是我们另一项工作。保护 VIP 客户是一项复杂的任务，它需要由合格的专业人员来执行，而这些专业人员也需要通过多个专业领域的培训。这些培训必须定期更新，以应对不断变化的风险。最近，无人机袭击在委内瑞拉和也门再次发生，这些袭击攻击力强大，并且很难被未经训练的团队发现。我们的目的就是通过特殊的反无人机训练，以应对日益增长的使用无人机攻击的潜在威胁。

嘉宾简介

DeltaCopter 是一家总部位于比利时的公司，拥有不同的无人机相关项目：

1、比利时无人机学校，欧洲最好的培训中心之一；2、Drone-Trips 机构，仅仅对无人驾驶飞行员出售类似潜水式学习；3、Wings For Humanity 机构，保护动物和自然；4、Drone-Protec，训练反无人驾驶。

Topic

DeltaCopter Creates Drone-Protec : from Schools for Young Pilots, to Training Private Security Agencies

Speech Abstract

Training young pilots has been our job for 3 years now, and we still do this. Training anti-drone teams is another level of work, but the challenge is appealing, and the endgame is worth it. Protecting VIP's is a complex task, executed by qualified professionals, specialised and trainied in multiple domains. Keeping these trainings up to date must be regular, in order to prevent new and diversified risks. Recent drone attacks agains Venezualian president, and a Yemenite command center show these threats are real, very efficient, and very difficult to detect for untrained teams on the field. We aim to adress this need by creating special anti-drone training.

Speaker Information

DeltaCopter is a company based in Belgium, owning different drone related projects:

1. Belgian Drone School, one of the best training centers in Europe; 2.Drone-Trips, selling trips similar to snorkeling trips, but for drone pilots; 3.Wings For Humanity, protecing animals and nature; 4.Drone-Protec, training anti-drone brigades.

胡传平

铁道警察学院副院长

Hu Chuanping

Deputy Dean of the Railway Police Academy

演讲主题

“无人机 + 人工智能”的安全管理问题

内容概要

人工智能的发展，使无人机的功能性得到极大提升。但具备自主决策的无人机的出现，使得诸多新型风险出现。如何让越来越智能化的无人机合理合规使用，成为一个亟待解决的重要问题。

嘉宾简介

胡传平，博士，研究员，博士生导师，现任铁道警察学院副院长，历任公安部上海消防研究所所长，公安部第三研究所所长。

Topic

Safety Management Issues of UAV+AI

Speech Abstract

The development of artificial intelligence has greatly improved the functionality of drones. However, the emergence of drones with independent decision-making has led to many new risks. How to make more and more intelligent drones reasonable and compliant to use has become a significant issue to be solved urgently.

Speaker Information

Hu Chuanping, Ph.D., researcher, doctoral tutor, currently deputy dean of the Railway Police Academy, served as director of the Shanghai Fire Research Institute of the Ministry of Public Security, director of the 3rd Institute of the Ministry of Public Security.

范厚本

安徽省公安厅交通警察总队总队长

Fan Houben

Captain of the Traffic Corps of Anhui Public Security Department

演讲主题

搭建无人机空地一体化管控平台，探索公安交通管理执法新模式

内容概要

针对无人机在安徽公安交通管理工作中的目前实际应用和未来发展构想进行探讨。

嘉宾简介

范厚本，现任安徽省公安厅交通警察总队总队长。历任安徽省公安厅治安警察总队副总队长， 安徽省公安厅科技处处长， 安徽省公安厅禁毒总队总队长。

Topic

Setting Up an Integrated Control Platform for UAV and Exploring New Mode of Law Enforcement for Public Security Traffic

Speech Abstract

Discussion on the current practical application and future development of UAVs in management of Anhui public security traffic.

Speaker Information

Fan Houben, Captain of the Traffic Corps of Anhui Public Security Department. He served as the deputy head of the Public Security Corps of Anhui Public Security Department, the Director of the Science and Technology Department of Anhui Public Security Department, and the Chief of the Anti-drug Corps of Anhui Public Security Department.

范万岗

中国人民警察大学警卫系警卫战术教研室主任

Fan Wangang

Director of Department of Security, People's Police University of China

演讲主题

大型活动安保反无人机难点问题研究

内容概要

低空安全领域反无人机是个国际性难题，世界各国都在积极研发反无人机技术，以有效防范无人机“袭击”。基于项目研究成果及当前反无人机实际，结合近年来大型活动安保中无人机“黑飞”、恐怖袭击等典型案例分析，梳理总结无人机“袭击”的特点、反无人机面临的主要难题，提出了解决问题的主要策略；最后，针对无人机“袭击”的发展动态，对大型活动安保任务中反无人机的发展趋势进行展望。

嘉宾简介

中国人民警察大学警卫系警卫战术教研室主任，教授，第二届全国公安高等教育教学名师。主持或参与完成国家级、省部级科研项目 10 多项，参与重大活动警卫应急处突手册编写、主编国家级及省部级教材等 5 部，获省部科技、教学成果奖 3 项。

Topic

Difficulties of Anti-UAV in Large-scale Event Security

Speech Abstract

Anti-UAV is an international problem in the field of low-altitude security.Many countries are researching anti-UAV technology.This report analyzes typical cases such as UAV Black Flying and UAV terrorist attack in large-scale security in recent years,summarizes the characteristics of UAV attack,and puts forward the strategies to solve the problems of anti-UAV.And last,discusses the developing trend of anti-UAV in large-scale event security.

Speaker Information

Professor of People's Police University of China,the second National famous teacher of Public Security higher Education,presided over and participated more than ten national projects and ministerial projects,edited five national and ministerial textbooks,won three science and technology achievement awards and teaching achievement awards of the Ministry of Public Security.

李牧

公安部特种警用装备质量监督检验中心

Li Mu

Main inspector of UAV and Counter-UAV equipment, Ministry of Public Security Testing Center

演讲主题

警用无人机及反制装备检测与标准应用

内容概要

警用无人机及反制装备国家及行业标准解析，检测及行业应用情况简介。

嘉宾简介

李牧，博士，毕业于北京理工大学复杂系统智能控制与决策国家重点实验室，师从陈杰院士。现就职于公安部特种警用装备质量监督检验中心，负责警用无人机和无人机反制装备研究工作。

Topic

Testing Technology and Application of Police UAV and Counter-UAV Equipment

Speech Abstract

Analysis of standards, testing and industry application of Police UAV and Counter-UAV equipment.

Speaker Information

Mu Li, Ph.D, Graduated from State Key Laboratory of Intelligent Control and Decision of Complex Systems, Beijing Institute of Technology, Who’s tutor is Academician Jie Chen. Currently working at the Ministry of Public Security's Special Police Equipment Quality Supervision and Inspection Center , Responsible for Testing Technology of Police UAV and Counter-UAV equipment.

DRONE WORLD CONGRESS 2019

2019 世界无人机大会

Application of 3D Printing Technology in UAV Industry Forum

3D 打印在无人机行业应用研讨会

主办单位

深圳市无人机行业协会

未知大陆

协办单位

中国 3D 打印产业联盟

深圳市三维智造研究院

深圳市 3D 打印行业协会 (筹)

ORGANIZED BY

Shenzhen UAV Industry Association

UNLANDS

CO-ORGANIZED BY

China 3D Printing Industry Alliance

Shenzhen 3D Intelligent manufacture Research Institute

Shenzhen 3D Printing Industry Association

3D 打印在无人机行业应用研讨会 - 议程

6 月 21 日 13:30-17:00 | 深圳会展中心 5 层 玫瑰 1 厅

时 间	主 题	嘉 宾
13:30-14:00	签 到	
14:00-14:10	致 辞	
	李荣岳 未知大陆 CEO	
	主旨演讲	
14:15-15:00	3D 打印技术应用的发展趋势	**李荣岳** 未知大陆 CEO
15:05-15:50	3D 打印技术在无人机和珠宝领域的应用	**庞永兵** 深圳市德制信文化科技有限公司总经理
15:55-16:40	3D 打印技术在文创和工业设计领域的应用	**李富华** 广州畅德科技有限公司总经理
16:45-17:00	观众提问、嘉宾互动	

Application of 3D Printing Technology in UAV Industry Forum

Forum Agenda

13:30-17:00, June 21 | 5F, Rose Hall No.1, SZCEC

Time	Topics	Speaker
13:30-14:00	**Registration**	
14:00-14:10	**Greeting**	
	Li Rongyue, CEO of UNLANDS	
	Keynote Speech	
14:15-15:00	Development Trend of 3D Printing Technology Application	**Li Rongyue** CEO of UNLANDS
15:05-15:50	The Application of 3D Printing Technology in the Field of Drones and Jewelry	**Pang Yongbing** General Manager of Shenzhen Dezhixin Culture Technology Co., Ltd.
15:55-16:40	The Application of 3D Printing Technology in the Field of Cultural Innovation and Industrial Design	**Li Fuhua** General manager of guangzhou changde technology Co., Ltd.
16:45-17:00	**Audience Questioning, Guest Interaction**	

李荣岳

未知大陆 CEO

Li Rongyue

UNLANDS CEO

未知大陆
UNLANDS

演讲主题

3D 打印技术应用的发展趋势

内容概要

3D 打印技术的本质、3D 打印技术的发展与趋势、未知大陆 2019 年策略。

嘉宾简介

李荣岳，河北衡水人，毕业于河北工业大学，电气工程及自动化专业，现任深圳市时空探索科技有限公司总经理，中国 3D 打印产业联盟发起人，深圳技师学院先进制造技术专业顾问委员会副主任委员，曾于 2016 年 11 月接受《央视财经》专访，对 3D 打印技术应用与发展趋势有独到见解，目前主导国内领先的基于 3D 打印技术的工业互联网平台建设与运营工作。

Topic

Development Trend of 3D Printing Technology Application

Speech Abstract

The essence of 3D printing technology, the development and trend of 3D printing technology, the UNLANDS' 2019 strategy.

Speaker Information

Li Rongyue, graduated from Hebei University of Technology, majoring in electrical engineering and automation. He is currently the general manager of Shenzhen Space Time Exploration Technology Co., Ltd., the founder of China 3D Printing Industry Alliance, and the vice chairman of the Advanced Manufacturing Technology Professional Advisory Committee of Shenzhen Technician College. In November 2016, he received an exclusive interview with CCTV Finance, which has present unique insights into the application and development trend of 3D printing technology. He currently leads the construction and operation of the leading domestic industrial internet platform based on 3D printing technology.

庞永兵

深圳市德制信文化科技有限公司总经理

Pang Yongbing

General Manager of Shenzhen Dezhixin Culture Technology Co., Ltd.

演讲主题

3D 打印技术在无人机和珠宝领域的应用

内容概要

在无人机领域，3D 打印技术主要是用在其前期的开发和后期产品模型的制作。对于珠宝领域，可以通过我们的逆向扫描和非方画图技术制作出 3D 图档，再利用 3D 打印技术将产品打印出来，然后送到珠宝加工厂进行批量生产。

嘉宾简介

庞永兵先生，毕业于昆明理工大学（模具设计与制造）专业。毕业后一直从事 3D 打印及制作，曾在陕西恒通智能机器有限公司担任工程部主管。2012 年独自创立深圳市深信德文化科技有限公司、深圳市德制信文化科技有限公司，任总经理。

Topic

The Application of 3D Printing Technology in the Field of Drones and Jewelry

Speech Abstract

In the field of UAV, 3D printing technology is mainly used in initial development and model post-production. In the field of jewelry, we can make 3D files via our reverse scanning and non-square drawing technologist, then print out the products by using 3D printing technology, before send them to jewelry processing plants for mass production.

Speaker Information

Mr. Pang Yongbing, graduated from Kunming University of Technology (Mold Design and Manufacturing) . After graduation, he has been engaged in 3D printing and production, in charge of Engineering Department of Shanxi Hengtong Intelligent Machinery Co., Ltd. In 2012, Shenzhen Shenxinde Culture Technology Co., Ltd. and Shenzhen Dezhixin Culture Co., Ltd. were founded.

李富华

广州畅德科技有限公司
总经理

Li Fuhua

General Manager of
Guangzhou Changde
Technology co. LTD

演讲主题

3D 打印技术在文创和工业设计领域的应用

内容概要

工业设计与文创不是设计一个物品，我们设计的东西要能生产、能制造、能流通、能使用、能回收，这是设计要考虑的。没有系统思维的设计师不是好设计师。一个好设计师的思考点必须跨过设计，不能钻在技巧或者是手段上，一定要思考整体。不可否认，工业设计伴随着产品设计的整个生命周期，从设计到验证，再到产品成型，工业设计都扮演着重要的角色。随着技术的更新与快速发展，工业设计中越来越多地出现了 3D 打印的身影。同时，伴随着 3D 打印技术的不断进步与打印材料种类的与日俱增，3D 打印技术在工业设计中的优势也越来越明显。可以预见，未来 3D 打印一定会在工业设计领域得到越发广泛的应用。3D 打印是解决设计是否合适的一种办法。如果没有 3D 打印，那么原型设计只能停留在构想阶段。3D 打印机给用户带来切实的体验，让他们将 3D 打印的概念落实到生活中。他们直观的看见 3D 打印的效果，就能随时进行合适的修改，设计的迭代，将设计从概念发展到产品。

嘉宾简介

广州畅德科技有限公司——创始人 / 总经理，广东省 3D 打印标准化技术委员会——委员，广东省 3D 打印产业技术创新联盟——理事，广东省机械工程学会增材制造（3D 打印）分会——理事。

知识产权：申请 / 授权专利软著知识产权共计：20 项，其中：发明专利 1 项、实用新型专利 10 项、外观 8 项、软著 3 项，商标 2 项。

获奖荣誉：2017 年中国创新创业大赛（广东赛区）先进制造行业优胜奖；2017 年广州番禺区创新企业之星 50 强；2017 年中国 3D 打印科技创新领域先进个人；2018 年首届“番青杯”青年创新创业大赛二等奖；2019 年广州番禺区创新科技人才。

专注 3D 打印技术设备与应用，研究开发多年，熟悉增材制造（3D 打印）的相关技术工艺路线，以及相关的行业应用（工业设计与制造、文创等），工业生产的痛点，能够给传统企业的数字化转型提供 3D 打印的解决方案。

Topic

The Application of 3D Printing Technology in the Field of Cultural Innovation and Industrial Design

Speech Abstract

Industrial design is to things can be produced, can be manufactured, can be circulated, can be used, can be recycled. It is undeniable that industrial design plays an important role in the whole life cycle of product design, from design to verification, and then to product molding. With the updating and rapid development of technology, more and more 3D printing appears in industrial design. At the same time, with the continuous progress of 3D printing technology and the increasing variety of printing materials, the advantages of 3D printing technology in industrial design are becoming more

and more obvious. It can be predicted that 3D printing will be more and more widely used in the field of industrial design in the future. 3D printing is a way to solve the appropriateness of design. 3D printers give users a real experience, allowing them to implement the concept of 3D printing into their lives. When they see the effect of 3D printing intuitively, they can make appropriate changes at any time, iterate the design, and develop the design from concept to product.

Speaker Information

Founder / General Manager,Guangzhou Changde Technology Co., Ltd. Technical committee for standardization of 3d printing in guangdong province member;Member of the Technical Innovation Alliance of the 3D Printing Industry in Guangdong Province;Guangdong Mechanical Engineering Society Additional Material Manufacturing (3D Printing) Branch-Director; Intellectual property: the total number of soft intellectual property rights of application / authorization patents is 20, including 1 patent for invention, 10 patents for utility model, 8 items for appearance, 3 items for soft patent and 2 items for trademark.;Award-winning Honor: 2017 China Innovation and Entrepreneurship Competition (Guangdong Competition area) Advanced Manufacturing Industry Award; Top 50 innovative enterprises in Panyu District, Guangzhou in 2017; advanced individuals in 3D printing science and technology innovation in China in 2017; second prize in the first " "Pangqing Cup" " Youth Innovation and Entrepreneurship Competition in 2018; In 2019, innovative scientific and technological talents in Panyu District of Guangzhou focused on 3D printing technology equipment and applications, studied and developed them for many years, and were familiar with the related technical and technological routes of material addition manufacturing (3D printing), as well as related industry applications (industrial design and manufacturing). Wen Chuang, etc., the pain point of industrial production, can provide 3D printing solution for the digital transformation of traditional enterprises.

DRONE WORLD CONGRESS 2019

2019 世界无人机大会

UAV Surveying Industry Communication Forum

无人机测绘行业交流论坛

主办单位

深圳市无人机行业协会

深圳纵横无人机科技有限公司

支持单位

中航国际投资有限公司

中国科学院地理科学与资源研究所

福建经纬测绘信息有限公司

成都纵横自动化技术股份有限公司

成都纵横大鹏无人机科技有限公司

成都纵横融合科技有限公司

ORGANIZED BY

Shenzhen UAV Industry Association

Shenzhen JOUAV TECH Co., Ltd

SUPPORTED BY

AVIC international capital Co.,Ltd

Institute of geography and resources, Chinese academy of sciences

Fujian jingwei surveying and mapping informantion Co.,Ltd

Chengdu jouav Automation Tech Inc.

Chengdu Dapeng JOUAV Intelligencesystem Co.,Ltd

Chengdu JOUAV Integeration Tech Co.,Ltd

无人机测绘行业交流论坛 - 议程

6 月 21 日 13:30-17:00 | 大中华喜来登酒店 6 层 汉厅

时 间	主 题	嘉 宾	
13:30-14:00	签 到		
14:00-14:40	致 辞		
	刘道林 警航办原副主任 **任 斌** 成都纵横自动化技术股份有限公司董事长 **宋 兵** 中航国际投资有限公司总经理		
	主旨演讲		
14:40-15:30	复合翼无人机在低空遥感中的应用	**张 峻**	成都纵横大鹏无人机科技有限公司副总经理
15:30-15:50	飞思相机无人机应用	**多夫 . 卡林斯基**	飞思工业相机 CEO
15:50-16:00	茶歇		
16:00-16:40	无人机大数据航母	**廖小罕**	中国科学院地理科学与资源研究所党委书记、副所长
16:40-17:20	机载雷达系统技术与应用	**苟 娟**	成都纵横融合科技有限公司副总经理
17:20-18:00	无人机综合服务的应用	**张永年**	福建经纬测绘信息有限公司总工程师

UAV Surveying Industry Communication Forum
Forum Agenda

13:30-17:00, June 21 | 6F, Han Hall, Sheraton Shenzhen Futian Hotel

Time	Topics	Speaker
13:30-14:00	Registration	
14:00-14:40	Greeting	
	Liu Daolin, Former deputy director of the Police Aviation Management Office of the Ministry of Public Security **Bill Ren**, Founder and Chairman of Chengdu JOUAV Automation Tech inc. **Bing Song**, General manager of AVIC INTERNATIONAL CAPITAL CO.,LTD	
	Keynote Speech	
14:40-15:30	Application of VTOL Fixed Wing UAV in Low Altitude Remote Sensing	**Zhang Jun**, Vice general manager of Chengdu Dapeng jouav Intelligencesystem Co.,Ltd
15:30-15:50	PHASE ONE Camera in UAV Application	**Dov. Kalinski**, CEO of PHASE ONE
15:50-16:00	Break	
16:00-16:40	Big Data of Drone	**Liao Xiaohan**, Secretary of the Party Committee and Deputy Director of the Institute of Geographical Sciences and Natural Resources Research, Chinese Academy of Sciences
16:40-17:20	Technology and Application of Airborne LiDAR System	**Gou Juan**, Vice General Manager of Chengdu JOUAV Integeration Tech Co.,Ltd
17:20-18:00	General Application of UAV	**Zhang Yongnian**, Chief Engineer of Fujian Jingwei Surveying and Mapping Informantion Co.,Ltd

刘道林

警航办原副主任

Liu Daolin

Former deputy director of the Police Aviation Management Office of the Ministry of Public Security

嘉宾简介

刘道林 ,1957 年 10 月生 , 公安部警用航空管理办公室原副主任 , 二级警监。历任空军航空兵第 15 师司令部标图员、领航员、参谋、科长、指挥所所长 , 空军大校军衔。2004 年调公安部工作 , 先后任公安部警用航空管理办公室处长 , 办公室副主任，具有丰富的航空管理经验。

Speaker Information

Liu Daolin, born in October 1957, former deputy director of the Police Aviation Management Office of the Ministry of Public Security, Secondary police commissioner. He has served as the charter, pilot, staff, section chief, director of the command post and senior colonel of the 15th Division of the Air Force Aviation. In 2004, he was transferred to the Ministry of Public Security, and served as the director of the Police Aviation Management Office of the Ministry of Public Security and the deputy director of the office. He has extensive experiences in aviation management.

任斌

成都纵横自动化技术股份有限公司董事长兼总经理

Bill Ren

The chairman and general manager, Chengdu Jouav Automation Tech Inc.

JOUAV
CW SERIES VTOL FIXED WING UAV SYSTEM

演讲主题

无人技术的行业应用趋势

内容概要

近年来，无人机的应用越来越广泛，中国在民用消费级、工业级无人机的研发、生产和应用处于国际领先地位，随着我国工业无人机政策的落地，进入到健康生长模式的工业无人机产业将迎来黄金的发展时期。本演讲通过分析目前工业无人机行业应用场景介绍，分析工业无人机行业发展趋势。

嘉宾简介

本科毕业于清华大学工程力学系工程力学专业，获得中国空气动力研究与发展中心硕士学位，曾在美国田纳西大学宇航研究院作访问学者，获得全军科技成果二等奖两项。担任成都市无人机产业协会会长，中国航空学会专家，在微型无人飞行器的总体设计、飞行控制与导航算法等方面具有深厚的技术积累。

Topic

Industrial Application Trends Of UAV Technology

Speech Abstract

In recent years, the application of UAV is more and more extensive. China is in the leading position in the research, development, production and application of civil consumption and industrial UAV. With the implementation of China's industrial UAV policy, the healthy growth model of the industrial drone industry will enable it to usher in a golden age of development. This speech introduces the application scenarios of industrial UAV industry and analyses the development trend of industrial UAV industry.

Speaker Information

Mr.Bill Ren graduated from the Department of Engineering Mechanics of Tsinghua University with a bachelor's degree in engineering mechanics. He obtained a master's degree from the China Aerodynamics Research and Development Center. He was a visiting scholar at the Institute of Aerospace Research at the University of Tennessee in the United States and won Second prize of the PLA's scientific and technological achievements.He is the president of Chengdu UAV Industry Association and an expert of China Aviation Society. He has deep technical accumulation in the overall design, flight control and navigation algorithms of micro unmanned aerial vehicles.

宋兵

中航国际投资有限公司
总经理

Song Bing

General Manager of AVIC International Holding Corporation (AVIC INTL)

中航国际

演讲主题

无人机应用在海外的趋势

内容概要

近年来，我国无人机产业在国家的高度重视下，充分发挥后发优势，初步确立了国际领先的行业地位，无人机正在成为继“中国高铁”之后又一张走遍全球的国家名片。本演讲通过分析目前全国先进无人机设备市场现状，总结全球的无人机的应用发展趋势，供参考。

嘉宾简介

中南财经政法大学民商法硕士，中欧国际工商学院 EMBA 宋兵先生具有超过 16 年的管理经验，曾在深圳高新区、深圳市科技工业贸易和信息化委员会及深汕特别合作区等多个经济管理岗位任职。

Topic

UAV technology in Overseas Market Situation

Speech Abstract

In recent years, under the great attention of the state, China's drone industry has fully utilized its late-comer advantages and initially established its leading position in the world. UAVs are becoming a national business card after the “China High-speed Railway”. This speech analyzes the current status of the national advanced UAV equipment market and summarizes the application development trends of UAVs around the world for reference.

Speaker Information

Master of Civil and Commercial Law in Zhongnan University of Economics and law (ZUEL); EMBA(Executive Master of Business Administration) of China Europe International Business School (CEIBS);Mr.Bing Song has more than 16 years of management experience and has worked in various economic management positions in Shenzhen High-tech Zone, Shenzhen Science and Technology Industry Trade and Information Technology Committee and Shenzhen-Shantou Special Cooperation Zone.

多夫·卡林斯基

飞思工业相机 CEO

Dov Kalinski

CEO of PHASE ONE

演讲主题

飞思相机无人机应用

内容概要

Phase One Industrial 提供精确驱动的解决方案，简化了测绘和测量过程。凭借多样化且易于集成的产品系列，我们提供无限，准确和可靠的航空数据，使用户能够毫不费力地执行摄影测量和绘图任务，捕获高分辨率图像，以及创建 2D 和 3D 地图。

嘉宾简介

担任丹麦飞思公司工业相机 CEO

Topic

PHASE ONE Camera in UAV Application

Speech Abstract

Phase One Industrial offers precision-driven solutions that simplify mapping and surveying processes. With a diverse and easy-to-integrate line of products, we provide unlimited, accurate, and reliable aerial data that enables users to effortlessly execute photogrammetry and mapping missions, capture high-resolution images, and create 2D and 3D maps.

Speaker Information

As CEO of Phase One Industrial

Global UAV Contribution Award 2019
2019 全球无人机贡献奖

为表彰对全球无人机行业发展作出突出贡献的人士，世界无人机大会组委会举行“2019 全球无人机贡献奖”评选。评选范围包括各国无人机协会会长、国内外无人机公司总裁、技术专家及相关知名人士。每年评选一次，每次评选 5-7 名。全球无人机贡献奖评选委员会关注企业可持续发展，以中立客观的立场和严格的审核标准，使调查和审核具有很高的可信度和权威性。评委会从技术创新、环境保护、社会责任、企业影响力、品牌知名度、个人魅力、产品市场占有率及对全球无人机产业发展进步贡献等八个方面进行调查访问，综合考量，最终确定 “全球无人机贡献奖名单”。

In recognition of the outstanding contributions to global UAV industry, Global UAV Contribution Award 2019 is scheduled to be convened by organizing committee during Drone World Congress from 20th to 22th June, 2019. All candidates are global experts from internationally recognized UAV industry organizations, entrepreneurs and the award will be published annually. Each session will select 5 to 7 candidates who have made a great contribution to the industry development.

Concerning objective standards, strict audit regulation, high degree of credibility and authority of the award, the evaluation of the final winner of the "Global UAV Contribution Award" will focus on the following 8 aspects mainly: technology innovation, environmental protection, social responsibility, corporate influence, brand awareness, personal charm, company market share proportion and contribution to global UAV industry development.

Global UAV Contribution Award 2019
2019 全球无人机贡献奖

AWARD WINNER
获奖者

约翰·斯高尔·沃克
John Scull Walker

ISO TC20/SC16 主席
Chairman of ISO TC20/SC16

江文彦
Jiang Wenyan

昊翔电能运动（昆山）产品有限公司董事主席
Chairman of the Board of Directors of Yuneec Co.,Ltd.

齐俊桐
Qi Juntong

一飞智控（天津）科技有限公司创始人兼董事长
Founder & CEO of EFY Intelligent Control (Tianjin) Technology Co., Ltd.

伊赛安柯
Volodymyr Isaienko

乌克兰航空大学校长、乌克兰科学院院士
Rector of National Aviation University Of Higher School Of Ukraine
Academician Of Academy Of Sciences

胡华智
Hu Huazhi

亿航智能设备（广州）有限公司董事长兼 CEO
Chairman and CEO of EHang Intelligent Equipment (Guangzhou) Co., Ltd.

克里斯多夫·斯特拉查
Christoph Strecha

Pix4D 无人机测绘与摄影测量公司创始人兼 CEO
Founder and CEO of Pix4D - Drone mapping & Photogrammetry

安德鲁·垂鸠
Andrew Tridgell

国际开源者联盟主席
Chairman of the ArduPilot Org.

约翰·斯高尔·沃克

ISO TC20/SC16 主席

John Scull Walker

Chairman of ISO TC20/SC16

获奖理由

约翰·斯高尔·沃克在航空领域拥有 54 年的丰富经验，其中包括 34 年的美国联邦航空局工作经验，曾担任空域主管，负责美国境内民用航空工作。在此之前，他曾负责美国东北部的空中交通运营。约翰·斯高尔·沃克现担任 ISO TC20 / SC16 主席，参与制定无人机系统标准。他同时还是 JARUS 利益相关者咨询机构的行业副主席。作为美国联邦航空局代表团成员，他是 AIA 新兴技术空域委员会，国际无人系统协会（AUVSI）行业咨询委员会和国际民航组织远程控制飞行器系统（ICAO RPAS）专家组成员。

Winner Information

John has 54 years of aviation experience including 34 years with the Federal Aviation Administration. He served as the Director of Airspace, responsible for all civil airspace within the United States. Prior he was responsible for air traffic operations in the Northeast of the USA. John serves as the Chairperson of ISO TC20/SC16, developing standards for Unmanned Aircraft Systems. He serves as the industry Vice Chairperson for the JARUS Stakeholder Consultation Body. He participates with the AIA Emerging Technologies Airspace Committee, AUVSI Industry Advisory Committee and on the ICAO RPAS Panel as a member of the United States FAA Delegation.

江文彦

昊翔电能运动（昆山）产品有限公司董事主席

Jiang Wenyan

Chairman of the Board of Directors of Yuneec Co.,Ltd.

获奖理由

江文彦毕业于香港科技大学，获得工商管理硕士学位。1998 年至今江文彦创立和担任香港杰翔投資有限公司董事主席、香港优利国际有限公司董事主席、中誉（上海）电子董事、昊翔电能运动（昆山）产品有限公司董事主席、优力电能运动（昆山）有限公司董事、Yuneec 集团董事长。

始终专注于电能航空业的进步与发展，2018 年联合创建贝聿铭基金会，为联合发起人及联合主席。《多轴飞行器》发明（设计）人。

Yuneec 搭载 Intel RealSense 芯片的六旋翼无人机 Typhoon H RealSense 在 2016 美国消费电子展 （CES）中大放异彩，荣获“最佳无人机奖”、2016 年亚洲消费电子展（CES Asia）“最佳无人机奖”；2018 年台风 H Plus 获 Videomaker Best of CES 大奖；2019 年 Mantis Q 一款折叠便携的掌上无人机，高效节能设计使它的空中续航力长达 33 分钟，获 CES 创新大奖。

Winner Information

Jiang Wenyan graduated from the Hong Kong University of Science and Technology with a master's degree in business administration. Since 1998, Jiang Wenyan has been the Chairman of the Board of Directors of Hong Kong Jiexiang Investment Co., Ltd., Chairman of the Board of Directors of Hong Kong Top Profit International Co., Limited; Director of Zhongyu (Shanghai) Electronics, Chairman of the Board of Directors of Yuxiang Electric Energy (Kunshan) Products Co., Ltd. Director of Sports (Kunshan) Co., Ltd., Chairman of Yuneec Group.

She is Always focusing on the advancement and development of the electric aviation industry, she established the Pei Ming Foundation jointly as a co-founder and co-chairman and the inventor (design) of 'Multi-Axis Aircraft'.

Yuneec's six-rotor UAV Typhoon H RealSense with Intel RealSense chip shines at the 2016 Consumer Electronics Show (CES), winning the "Best Drone Award"; another "Best Drone Award" at the 2016 Asia Consumer Electronics Show (CES Asia); Typhoon H Plus won the Videomaker Best of CES Award in 2018; Mantis Q was a portable handheld drone and its energy-efficient design made it last for 33 minutes and won the CES Innovation Award in 2019.

齐俊桐

一飞智控（天津）科技有限公司创始人、董事长

Qi Juntong

Founder & CEO of EFY Intelligent Control (Tianjin) Technology Co., Ltd.

获奖理由

齐俊桐中国科学院模式识别与智能系统博士研究生毕业，现任天津大学电气自动化与信息工程学院教授、博士生导师，一飞智控（天津）科技有限公司董事长兼总经理。

多年来致力于无人机自主控制、集群控制技术研发及应用工作。一飞智控（天津）科技有限公司创始人，主持国家 973、863、自然基金重点项目等 40 余项，获中国青年五四奖章、国家“万人计划”科技创业领军人才、国家创新人才推进计划创新创业人才、中国专利优秀奖、辽宁省科技进步一等奖、天津市创新人才推进计划青年科技人才、天津市杰出企业家等奖励。

Winner Information

Qi Juntong graduated from the Chinese Academy of Sciences with a Ph.D. in pattern recognition and intelligent systems. He is currently a professor and doctoral supervisor at Institute of Electrical Automation and Information Engineering, Tianjin University. He serves as the CEO & General Manager of EFY Intelligent Control (Tianjin) Technology Co., Ltd.

He has been engaged in technical research and development and application of independent control and cluster control of drones for years. He is The founder of Yifei Zhizhi (Tianjin) Technology Co., Ltd., He has been in charge of over 40 projects, including Tianjin Natural Science Project, 863 National Hi-Tech Project, 973 National Hi-Tech Project, National Sci-Tech Support Project, etc. He was awarded China "May 4th Youth Medal", Leading Talents in Science and Technology Entrepreneurship under the National "Ten Thousands Talents Program", Innovative and Entrepreneurial Talents of National Innovative Talents Promotion Program, China Patent Excellence Award, First Prize of Liaoning Province Scientific and Technological Progress Award, Young Science and Technology Talents of Tianjin Innovative Talents Promotion Program, and Tianji Outstanding Entrepreneur Award, etc.

伊赛安柯

乌克兰航空大学校长
乌克兰科学院院士

Volodymyr Isaienko

Rector of National Aviation University Of Higher School Of Ukraine
Academician Of Academy Of Sciences

获奖理由

伊赛安柯拥有生物科学博士学位，长期在乌克兰教育和科学领域的中央行政当局工作，2000 年，历任乌克兰航空航天大学系主任、副院长、院长、副校长，2016 年担任校长。他直接参与组织和建立乌克兰教育机构的许可认证制度，并且他是 TACIS 国际项目、乌克兰教育机构的许可和认证的协调者。与此同时，他发表了 200 多篇科学论文，包括 3 本教科书，12 本教程，2 本专著，2 本词典，3 本参考书，10 项版权证书和专利。他的个人奖项有：乌克兰教育卓越奖；“佩特罗·莫吉拉”奖以及乌克兰内阁荣誉文凭。

Winner Information

He received a Doctorate in biological sciences and worked in the central executive authorities in the field of education and science for years. He served as associate professor, a head of the department, a Dean of the Faculty and a Director of the Institute from 2000 to 2008. He was appointed to the post of Interim Rector in 2016. He was directly involved in organizing and establishing the licensing and accreditation system of educational institutions of Ukraine, and was the Coordinator of the international project of TACIS and licensing and accreditation of educational institutions of Ukraine. At the same time, he is an author of more than 200 scientific works, including 3 textbooks, 12 tutorials, 2 monographs, 2 dictionaries, 3 reference books, 10 copyright certificates and patents. His personal awards are: Award pin "Excellence in Education of Ukraine"; award pin "Petro Mohyla" and the Honorary Diploma of the Cabinet of Ministers of Ukraine.

胡华智

亿航智能设备（广州）有限公司董事长兼 CEO

Hu Huazhi

Chairman and CEO of EHang Intelligent Equipment (Guangzhou) Co., Ltd.

获奖理由

胡华智毕业于清华大学计算机科学与技术专业，曾承担 2008 年北京奥运会的应急调度系统、北京 999 急救中心指挥调度平台、广东省应急指挥调度平台等大型项目的建立。2013 年，胡华智投身智能无人机的研发，2014 年 4 月创立亿航智能公司，负责企业管理与产品研发。胡华智带领研发团队进行无人机行业应用研发，2016 年首创纯电力低空中短途载人级自动驾驶飞行器（AAV），以及无人机指挥调度系统，开创“城市空中立体交通（UAM）”领域。2018 年开始，于全球进行大量飞行演示。2019 年，获得中国民航局审批，亿航智能成为全国首家且唯一载人无人机试点单位，协助中国民航局开展载人无人机的运行风险分析、适航标准制定和验证。

先后被工信部授予 2016 云计算突出贡献人物奖，被《快公司》评为 2016 年中国最具创意商业人物 100 强，并入选 2016 广东年度经济风云榜。亿航智能在 2016 年被《快公司》评选为“全球最佳创新公司”；2018 年先后入选由工信部评选的中国产业创新榜“最具投资价值 50 强”，由艾媒咨询发布的《2018 中国华南新经济行业独角兽榜单》，中金投 X 在达沃斯论坛上公布的“中国 AI 50 强 (China AI Top 50)”榜单。

Winner Information

Hu Huazhi graduated from Tsinghua University with a major in computer science and technology. He has undertaken the establishment of the 2008 Beijing Olympic Games emergency dispatch system, the Beijing 999 Emergency Center command and dispatch platform, and the Emergency Command and Dispatching Platform for Guangdong Province. In 2013, Hu Huazhi engaged in the research and development of intelligent drones. In April 2014, he founded EHang Intelligent Company, responsible for enterprise management and product development.

Hu Huazhi led the R&D team to research and develop the UAV application within the industry. In 2016, he pioneered the R&D of manned Autonomous Aerial Vehicle (AAV) with pure electric at low-altitude and short distance, and the drone command and dispatch system. To create the "Urban Air Mobility (UAM)" field. Beginning in 2018, a large number of flight demonstrations were conducted around the world. In 2019, with the approval of the Civil Aviation Administration of China, EHang Intelligent became the first and only pilot unit for manned drones in China, assisting the Civil Aviation Administration of China in carrying out operational risk analysis, airworthiness standard formulation and verification of manned drones. He was awarded the 2016 Cloud Computing Outstanding Contribution Award by the Ministry of Industry and Information Technology. He was named one of the Top 100 Most Creative Business Person in China by "Fast Company" and was selected in the Annual Top Economic list in 2016. In the same year,EHang Intelligent was selected as "Best Innovative Company in the World" by "Fast Company" ; in 2018, it was selected in "Top 50 Most Valuable Investment Value" by China Ministry of Industry and Information Technology, the New Economy Industry Unicorn List of Southern part of China, and China AI Top 50 on the World Economic Forum.

克里斯多夫·斯特拉查

Pix4D 无人机测绘与摄影测量公司创始人兼首席执行官

Christoph Strecha

Founder and CEO of Pix4D - Drone mapping & Photogrammetry

获奖理由

克里斯多夫·斯特拉查博士是 Pix4D 的 CEO 与创始人，Pix4D 是一家从事软件研发与销售的瑞士公司，其产品将手工、无人机或地面拍摄的图像转换为测绘等级的精确地理位置的点云、正射镶嵌图、三维纹理模型。

克里斯多夫·斯特拉查于 2008 年获得了比利时鲁汶天主教大学的博士学位，并完成了他的多视角立体视觉论文，也曾出版过许多学术文章。他的研究兴趣包括结构、运动技巧与城市建模。从过去到现在，他一直参与着摄影测量和遥感领域的国际社团中一些委员会的工作。为了表彰其在计算机视觉和无人机摄影测量进行三维重建等方面的显著成就，世界公认的 Carl Pulfrich Award(卡尔普弗里奇奖) 在 2015 年为其颁奖。

Winner Information

Dr. Christoph Strecha is the CEO and founder of Pix4D, a Swiss company which develops and markets software for production of survey grade 3D models and orthomosaics from images.

Strecha received a PhD from the Catholic University of Leuven (Belgium) in 2008, and completed his thesis on multi-view stereo, and he has also published many academic articles. His research interests include structure and motion techniques and city modeling. He was and is involved in the work of several Commissions of the International Society for Photogrammetry and Remote Sensing. In recognition of his remarkable achievements in three-dimensional reconstruction of computer vision and drone photogrammetry, the world-recognized Carl Pulfrich Award was presented to him in 2015.

安德鲁·垂鸠

国际开源者联盟主席

Dr. Andrew Tridgell

Chairman of the ArduPilot Org.

获奖理由

Tridge 是澳大利亚计算机程序员，拥有澳大利亚国立大学计算机科学系的博士学位，是一位知名的开源开发人员，多年来一直担任着自动驾驶仪国际开源者项目的领导者。他专注于固定翼飞行和低阶系统开发，为国际开源者组织带来了 30 多年的软件开发经验。

Tridge 领导 CanberraUAV 组织的技术开发，这是一个致力于开发低价的搜索与救援无人机的非营利组织。他还是 2012 年、2014 年和 2016 年内陆挑战赛的获胜者。他是 Samba 文件服务器的开发者和贡献者，也是 Rsync 算法的联合开发者。他开发了许多其他广为人知的免费开源工具。

他拥有澳大利亚国立大学计算机科学系的博士学位，且于 2018 年 12 月 11 日获得了澳大利亚国立大学的理学博士荣誉学位。

Winner Information

Tridge is an Australian computer programmer. He is a well known open source developer and has been a leader in the ArduPilot project for many years. Specializing in both fixed wing flight and low-level system development, Tridge brings more than 30 years of software development experience to ArduPilot.

Tridge also leads the technical development of CanberraUAV, a non-profit dedicated to developing affordable search and rescue UAVs, and the winners of 2012, 2014 and 2016 Outback Challenge competitions. He is the author of and a contributor to the Samba file server, and co-inventor of the Rsync algorithm as well as many other well known and widely used Free/Open-source based tools.

Tridge has Ph.D. in Computer Science from ANU and 11th December 2018 he received Doctor of Science Honorary Degree from Australian National University as well.

The Drone World Congress 2019
Drone Racing Challenge
2019 世界无人机大会 · 无人机竞速挑战赛

地点： 深圳会展中心 3 号馆
时间： 2019 年 6 月 20-22 日

Location: Hall 3, Shenzhen Convention and Exhibition Center
Time: June 20 to June 22, 2019

主办单位

中国无人机竞速联盟
青海省体育局
中共果洛州委
果洛州人民政府
深圳市无人机行业协会

协办单位

青海省无人机运动协会
深圳天空竞技场科技有限公司
深圳创世泰克科技有限公司
株洲南方航空高级技工学校
翼飞科技（深圳）有限公司

赞助单位

深圳市格瑞普电池有限公司
深圳市富斯科技有限公司
乾丰模型有限公司
深圳天空领域科技有限公司司
江西新拓实业有限公司
深圳斗皮科技（DOPEdro）科技有限公司
深圳市飞盈佳乐电子有限公司
狼天科技 (深圳) 有限公司
中翼体育竞技 (深圳) 有限公司

ORGANIZED BY

Chinese Drone Racing Alliance
Qinghai Provincial Sports Bureau
Communist Party Guoluozhou Committee
The People's Government of Guoluozhou
Shenzhen UAV Industry Association

ASSOCIATED BY

Shenzhen sky arena technology co. Ltd.
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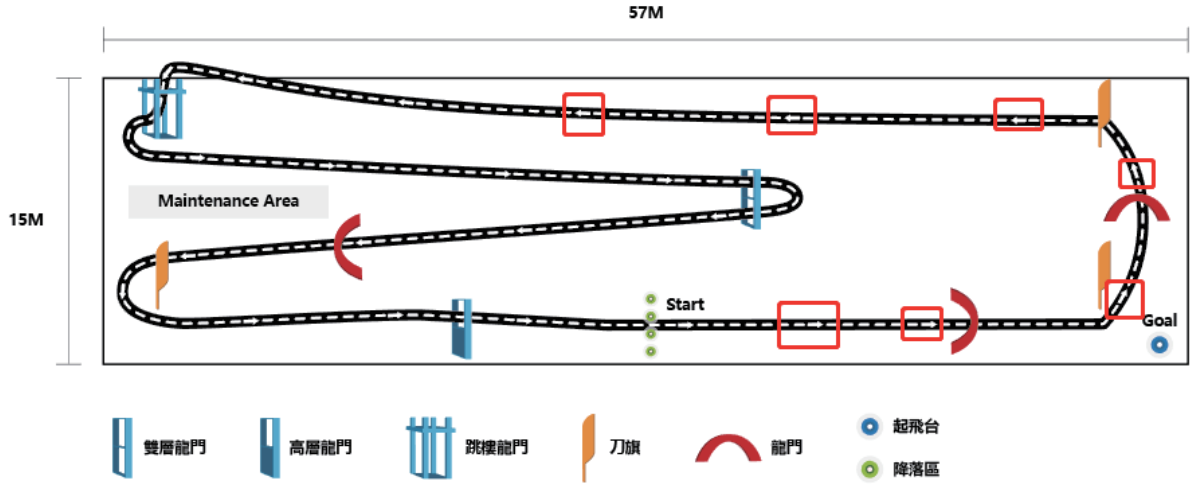

6 月 19 日报到
6 月 20 日预赛
6 月 21 日决赛
6 月 22 日决赛
8 月 5 日晋级 青海果洛国际高原无人机挑战赛

June 19 Registration
June 20 Preliminary Contest
June 21 Final Contest
June 22 Final Contest
August 5 Promotion Race - International Drone Challenge Race in Qinghai Guoluo Plateau

办赛宗旨

落实国家科教兴国的战略，持续推动航空运动发展，吸引社会及公众对以无人机为载体飞行运动的关注和支持。此外，希望通过这次机会，统合深圳的优越资源，通过赛事创新，吸引更多优秀的国内外飞手前来参赛，打造世界级无人机经典赛事，达到以巅峰赛事资源为平台结合其他资源，加速无人机产业的交流发展的目的。

PURPOSE OF RACING EVENT

To fulfill the national strategy of rejuvenating the country through science and education; to promote the development of aviation sports continuously; and to attract the attention of society and public in order to follow and support drone sports. In addition, to integrate advanced resources through this opportunity; to attract more and more talented drone racers globally through the continuous innovation of the competition and build up a drone competition league worldwide. Finally, to integrate other resources with the platform of this drone league to meet the purpose of accelerating of communication and development within the drone industry.