# 2021 DRONE SHOW conference

**April 29, DAY1**  
Convention hall 3F

## Division | Time | Program
--- | --- | ---
### Session 1. Research Institute
11:00~11:20 | - Hoon Jung, Director of Electronics and Telecommunications Research Institute (ETRI)  
Current Status of Drone Delivery Technology and Service
- Dong-min Kim, Director, UAS Research Division, Korea Aerospace Research Institute  
MUM-T (Manned-Unmanned Teaming) Applications and R&D Approaches
11:40~12:00 | - Hyun-woo Kang, Advanced Aviation Research Dept Manager, KIAST  
Tasks and Efforts to Activate Domestic Drone industry

### Session 2. UAM and public application
10:00~11:00 | Opening ceremony
11:10~11:30 | Keynote  
Kwan-jung Yee, Professor, Department of Aerospace Engineering, SNU
- Hoon Jung, Director of Electronics and Telecommunications Research Institute (ETRI)  
Current Status of Drone Delivery Technology and Service
- Dong-min Kim, Director, UAS Research Division, Korea Aerospace Research Institute  
MUM-T (Manned-Unmanned Teaming) Applications and R&D Approaches
11:40~12:00 | - Hyun-woo Kang, Advanced Aviation Research Dept Manager, KIAST  
Tasks and Efforts to Activate Domestic Drone industry

### Session 3. Defense
13:00~14:00 | Keynote  
Kwan-jung Yee, Professor, Department of Aerospace Engineering, SNU
- Kyle Clark, Founder & CEO, BETA TECHNOLOGIES  
Electric Vertical Aircraft: Reshaping how Cargo, People and Medical Supplies will move
- Myung-jip Kim, Principal Researcher of Korea Aerospace Research Institute,  
“Aviation & Review” Blogger  
Urban Air Mobility, Today and the Future
- Man-ju Kim, Deputy Director, Forest Disaster Control Center  
The necessity and operation plan of eVTOL for smart forest management
14:15~15:00 | Panel discussion  
The Direction of development of Defense Drone  
- In-ho Shin, Director of KAIST FAST  
- Il-soo Seo, Director of ASEA DRONE Training Institute  
- Seok-Jun Hong, Vice President of Hanwha Systems Co.,Ltd.
15:40~16:20 | - Jung-won Shu, Director of TRADOC, Head of Dronebot Combat Development Center  
Direction of the development of the army drone bot combat system
- Chong Hui Kim, Principal Researcher, Agency for Defense Development  
The development direction of defense drone for cooperative operation with ground robots
- Yo-sep Hong, Korea Business Representative, Aerovironment  
The Trend and Case of U.S. Small Sized Military Drone Development
16:40~17:30 | - Panel discussion  
The Direction of development of Defense Drone  
- In-ho Shin, Director of KAIST FAST  
- Il-soo Seo, Director of ASEA DRONE Training Institute  
- Seok-Jun Hong, Vice President of Hanwha Systems Co.,Ltd.

Foreign speakers will participate in online due to the COVID-19.
### Division Program

**Session 1.**
**Drone industry’s current situation and opportunities**

- **Moderator:** Se-yeon Lee, Senior Researcher, Institute for Information & communication Technology Planning & evaluation

- **10:00–10:20**
  - Jong-Tai Jang, Principal Researcher, PhD, Korea Aerospace Research Institute (KARI)
  - Verification of Domestic Drone SW
  - David Benowitz, Head of research, DroneAnalyst
  - Growing Through Tension: Opportunities in the Drone Market

- **10:20–10:50**
  - Seung-geun Park, Business Planning Director of PNU drone
  - Metro City Busan’s UAM/PAV utilization plan in 2030
  - Eui-chol Hwang, CEO of Marine Drone Tech
  - Drones Offshore Shipment
  - Yong-wun Jung, Principal Researcher of Korea Aerospace Research Institute
  - The development of eco-friendly docking-undocking modular unmanned vehicle for D2D delivery service

**Session 2.**
**Drone logistics**

- **Moderator:** Seung-geun Park, Business Planning Director, PNU Drone

- **10:55–11:15**
  - Eui-chol Hwang, CEO of Marine Drone Tech
  - Drones Offshore Shipment
  - Yong-wun Jung, Principal Researcher of Korea Aerospace Research Institute
  - The development of eco-friendly docking-undocking modular unmanned vehicle for D2D delivery service

**Session 3.**
**Use of drones**

- **Moderator:** Hyoung Jun Kim, SVP, Intelligent Convergence Research Lab, Electronics and Telecommunications Research Institute

- **13:00–13:20**
  - Jin-Woo Kwak, Renewable Energy Specialist, Korea East-West Power
  - The development Status of Drone Diagnosis Technology for Solar Power Plants

- **13:20–13:40**
  - Jin-kyu Park, Director of System Energy Division, Korea Testing Laboratory
  - Strategy for system development and practical use of public innovation unmanned vehicle

- **13:40–14:00**
  - Eun-Kyoung Lee, General Manager, Korea Southern Power
  - A model for application of Drone in Energy plant field

**Session 4.**
**Young researchers leading new technologies for future unmanned vehicles**

- **Moderator:** Hyoung Jun Kim, SVP, Intelligent Convergence Research Lab, Electronics and Telecommunications Research Institute

- **14:05–14:25**
  - Hyeon-beom Lee, Assistant Professor, Kyungpook National University
  - Status and prospect of Camera-Based video navigation technology development

- **14:25–14:45**
  - Mingeuk Kim, Senior researcher, Korea Institute of Machinery & Materials
  - The development trend and prospect of off-road Unmanned Ground Vehicle

- **14:45–15:05**
  - Dong-kyu Lee, Assistant Professor, Korea National University of Transportation
  - The development trend and prospect of Bio-inspired Unmanned Vehicle

**Session 5.**
**The period of drone commercialization accelerated by demonstration**

- **Moderator:** Chang-Bong Kang, Director of Advanced Aviation Research Division, KIAST

- **15:05–15:20**
  - Jay Choi, CEO of NearthLAB
  - The data collection and management of facility inspection using drones

- **15:20–15:40**
  - Jae-Sung Bae, Professor, Korea Aerospace University
  - Demonstration flight and utilization of Long-Endurance Small Solar-Powered Drone

- **15:40–16:00**
  - Myung-jin Choi, CEO of Hancom Inspace
  - The introduction of Droneworks platform service

**Session 6.**
**Global public demand**

- **16:30–17:00**
  - Kun-min KIM, Administrator of Korea Trust Fund, Central American Bank for Economic Integration (CABEI)
  - Opportunities and Realities of Drone Economy in Central America

---

Foreign speakers will participate in online due to the COVID-19.
#### April 30, Day2  Convention hall 1F

**Track 2  Drone Future Technology**

<table>
<thead>
<tr>
<th>Division</th>
<th>Time</th>
<th>Program</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>09:00~</td>
<td>○ Registration</td>
</tr>
</tbody>
</table>
| **Session1, Power source** | 10:00~10:20 | - Brian Morrison, Director and Co-Founder of Alakai  
Hydrogen–The Energy for Advanced Air Mobility |
|          | 10:20~10:40 | - Benjamin Waters, CEO, WIBOTIC  
Solving the Power Problem: Wireless charging for fleets of robots and drones  
- Ji-Young Lee, Principal Researcher, Korea Electric Research Institute  
The period of Digital Transformation, Localization of electrical equipment parts for drones |
|          | 10:40~11:00 | ○ Coffee break |
| **Session2, AI & sensor** | 11:00~11:30 | - Greg Nagler, Director of Business Development APAC, FLIR System  
Deep Learning, AI, and Unmanned Systems: How thermal sensors are making existing Defense and Commercial Solutions BETTER |
|          | 11:30~11:50 | - Patrick Santucci, Global Product Communication Lead of DJI  
DJI: 15 Years of Innovation  
- Sang-Kil Kim, Assistant Professor, Pusan National University  
Machine Learning Based Ultra-low power Backscattering Communication/Sensor System for Drones |
|          | 11:50~12:10 | ○ Luncheon (no official luncheon event) |
| **Session3, Anti-drone (Moderator: Wook Kang, Professor, Korea National Police University)** | 13:10~13:35 | - Byeong-seok Lee, Professor, Korean National Police University  
(Director, Police Drone Research Center)  
Legal issues and countermeasures in the field of counter-UAS |
The R&D overview and direction of illegal drone intelligent response technology development |
|          | 13:55~14:15 | - Hyun-sang Kang, Team Leader, Electronic Warfare Civil Business of LIG Nex1 Co., Ltd  
Ground-based illegal drone detection, identification, tracking, and neutralization technology and operation system development |
|          | 14:15~14:35 | - Seung-Bum Kim, Principal Researcher / Ph.D, Korea Aerospace Research Institute  
Development of Drone-Cop Platform-Elementary Technology and Ground Control System |
|          | 14:35~14:50 | ○ Coffee break |
| **Session4, Space information (Moderator: Im pyeong Lee, Professor, University of Seoul)** | 14:50~15:10 | - Hong-gi Shin, Deputy Director, MBC  
High-precision positioning technology for drones, MBC RTK |
|          | 15:10~15:30 | - Munseok Lee, CEO of Hojung Solution co., Ltd  
Application examples and implications for global business using drones |
|          | 15:30~15:50 | - Peter Park, CEO of AngelSwing  
Today and the future of construction sites changed with drone technology |
|          | 15:50~16:10 | - Sung-heuk Jung, CEO of TerraPix  
Photogrammetry and 3D photo-realistic model |

*Foreign speakers will participate in online due to the COVID-19.*