



UUVS-OMAN 2026

CONFERENCE

SULTAN QABOOS UNIVERSITY

9-11
FEB
2026

MUSCAT



جامعة السلطان قابوس
Sultan Qaboos University



IEEE
OMAN SECTION

3rd International Conference on Unmanned Vehicle Systems
Intelligent Systems for Industrial Challenges

Conference Technical Program

9-11 Feb 2026

Sultan Qaboos University
Muscat, Oman



Conference Day 1

Workshops, Monday, 9th February 2026 (College of Engineering, SQU)

08:00 - 08:30	Welcome & Registration
08:30 – 10:00	Workshop A <i>Evolution of Drones and Their AI & Sensing Technologies with focus on various Inspections in the Oil & Gas Industry</i> Presenters (ESBAAR): Hassan Al Lawati, Maha Al Salti, Mohamed Al Hinai, and Enas Haddad
08:30 – 10:00	Workshop B <i>Robust Motion Control of Autonomous Underwater Vehicles</i> Presenter: Dr. Ahmed Chemori, LIRMM University of Montpellier, CNRS, France
08:30 – 10:00	Workshop C <i>Anti-UAV Systems: Technology, Operations and Use Cases</i> Presenter: Dr. Mansur Celebi, Sinan Advanced Industries
10:00 - 10:30	Tea/Coffee Break
10:30-12:30	Workshop A [Cont.] <i>Evolution of Drones and Their AI & Sensing Technologies with focus on various Inspections in the Oil & Gas Industry</i> Presenters (ESBAAR): Hassan Al Lawati, Maha Al Salti, Mohamed Al Hinai, and Enas Haddad
10:30-12:30	Workshop B [Cont.] <i>Robust Motion Control of Autonomous Underwater Vehicles</i> Presenter: Dr. Ahmed Chemori, LIRMM University of Montpellier, CNRS, Franc
10:30-12:30	Workshop C [Cont.] <i>Anti-UAV Systems: Technology, Operations and Use Cases</i> Presenter: Dr. Mansur Celebi, Sinan Advanced Industries
12:30 - 14:00	Lunch Break
14:00-16:00	Workshop A [Cont.] <i>Evolution of Drones and Their AI & Sensing Technologies with focus on various Inspections in the Oil & Gas Industry</i> Presenters (ESBAAR): Hassan Al Lawati, Maha Al Salti, Mohamed Al Hinai, and Enas Haddad

Conference - Day 2

Tuesday, 10th February 2026 (Grand Hall, SQU)

08:00 - 08:45	Registration	
08:45 - 08:50	Recitation of Holy Quran	
08:50 - 09:00	Welcome Address by the Dean	
09:00 - 09:10	Opening Remarks by the Chair, Organizing Committee	
09:10 - 09:30	Announcement of Design Competition Winners	
09:30 - 10:00	Opening of Exhibition	
10:00 - 10:30	Tea/Coffee Break	
10:30 - 11:15 (35 min + 10 min Q&A)	Keynote #1	
11:15 - 11:35 (15 min + 05 min Q&A)	Industry Use-Case Presentation 1	
11:35 - 11:55 (15 min + 05 min Q&A)	Industry Use-Case Presentation 2	
11:55 - 12:15 (15 min + 05 min Q&A)	Industry Use-Case Presentation 3	
12:15 - 12:35 (15 min + 05 min Q&A)	Industry Use-Case Presentation 4	
12:35 - 13:05 (25 min + 05 min Q&A)	Invited Talk #1	
13:05 - 14:15	Lunch Break	
14:20 – 16:00	Parallel Session # 1	Parallel Session # 2
14:20 - 14:40 (15 min + 05 min Q&A)	<i>Design and Implementation of a Hybrid Fuel Cell-Battery-Supercapacitor System for the Long-Endurance Stork UAV</i> Tedjani Mesbahi , Thomas Pavot , Renaud Kiefer , Edouard Laroche (France)	<i>Prescribed Performance Cooperative Design for the UAV-UGV System: Vision-based Guidance Control Approach</i> Jawhar Ghommam , (Oman), Ibrahim Naimi (Oman), Saif-sinan Al-Abduljaleel Saif (Canada), Maarouf Saad , (Canada)
14:40 - 15:00 (15 min + 05 min Q&A)	<i>Early Exiting U-Net for Efficient Processing on UAVs: A Case Study in Environmental Monitoring</i> Luca Sartori Boni , Mohamed Moursi , Norbert Wehn , Bilal Hammoud (Germany)	<i>Resilient Reconfiguration and Fault-Tolerant Cooperative Control of MAS under Permanent Link Failures within a Hybrid-Systems Framework</i>

		Estrada Jonathan (France) , Mohamed Djemai (France) , Bernardino Castillo-Toledo (Mexico) , Michael Defoort (France)
15:00 - 15:20 (15 min + 05 min Q&A)	<i>Real-Time Fault Detection and Reconstruction for Autonomous Vehicles: A KPCA Digital Twin Approach</i> Romdhane Nasri (Tunisia) , Majdi Mansouri (Oman) , Zouhaier Affi (Tunisia) , Vicenç Puig (France)	<i>Sustainable Flight Path Optimization for UAVs in Variable Environments</i> Keerthana Perumal (Oman)
15:20 - 15:40 (15 min + 05 min Q&A)	<i>Design Methodology and Aerodynamic Validation of an In-House 3D-Printed Fixed-Wing UAV Using XFLR5 and CFD Simulation</i> Hamed Al Subhi , Hamed Al Subhi , Nasra Al-Maskari, (Oman)	<i>Drone-based Estimation of Chlorophyll-a in Reservoirs: A Cubist-based Ensemble Model</i> Soheil Ghasemnezhad (Iran) , Mohammad Reza Nikoo, (Oman) , Mahmoud Mashal (Iran) , Malik Al-Wardy, (Oman)
15:40 - 16:00 (15 min + 5 min Q&A)	<i>Experimental Validation of Finite-Time Robust Control for Autonomous Vehicles using QCar</i> Younes Lahiouel (Canada) , Yassine Kali (Canada) , Maarouf Saad (Canada) , Baptiste Bancel, (Canada) , Jawhar Ghommam (Oman) .	<i>AI-Enabled Unmanned Vehicle Systems for Transforming Healthcare Delivery: Strategic Applications and Roadmap for Oman's Public Health System</i> Anas Ansari (Taiwan) , Abdullah Ansari (Oman) , Khalifa Al Jabri (Oman) , Jing-Ming Guo (Taiwan) , Abdul Rahman Ansari (India) , H.E. Khodke (India)

Conference - Day 3

Wednesday, 11th of February 2026 (Conference & Exhibition Halls, SQU)

08:30 – 09:15 (35 min + 10 min Q&A)	Keynote #2	
09:20 - 9:50 (25 min + 05 min Q&A)	Invited Talk #2	
10:00 - 10:30	Tea/Coffee Break	
10:30 - 10:50 (20 min + 05 min Q&A)	Industry Use- Case Presentation 5	
10:50 - 11:10 (20 min + 05 min Q&A)	Industry Use- Case Presentation 6	
11:10 - 11:30 (20 min + 05 min Q&A)	Industry Use-Case Presentation 7	
11:30 - 11:50 (20 min + 05 min Q&A)	Industry Use-Case Presentation 8	
12:00 – 13:00	Parallel Session # 3	Parallel Session # 4
12:00 – 12:20 (15 min + 5 min Q&A)	<i>DookFlight: A Drone Simulator Platform for Studying Advanced Controllers</i> Navid Nasiri (Oman) , Morteza Mohammadzaheri (Oman)	<i>Transportation of the future: the idea behind the integration of alternative energy sources and autonomous systems</i> Agnes Csiszárík-Kocsir (Hungary) , János Varga (Hungary)
12:20 – 12:40 (15 min + 5 min Q&A)	<i>Reliability Analysis of Aeronautical Structures: A Stochastic Approach to Periodic Structures</i> Mohamed Guedri (Tunisia)	<i>Integrated UAV-based Mapping and Cloud-Based System for Digital Twin Creation of Historical Sites: A Case Study of Mutrah Fort</i> Mohammed Eldiasty (Oman) , Alya Al-Hashim (Oman)
12:40– 13:00 (15 min + 5 min Q&A)	<i>Practical PID Tuning for Quadcopter Stability: Experimental Results</i> Aybak Ahmad (Jordan) , Sereen N Alzu'bi (Jordan) , Tarek A. Tutunji (Jordan)	
13:00 – 14:10	Lunch Break	
14:10 – 14:40 (25 min + 5 min Q&A)	Invited Talk # 3	
14:40 – 16:00	Parallel Session # 5	Parallel Session # 6
14:40- 15:00 (15 min + 5 min Q&A)	<i>Auto Road Inspector: Road Damage Recognition and Reporting System</i> Wahaj Hoti (Oman) , Asma Ismail Al Balushi (Oman) , Ruba Said Al Humaidi (Oman) , Ragavesh Dhandapani (Oman)	<i>YOLO-Powered UAV Imaging for Precise Detection of Fungal Infections in Palm Trees</i> Omer Eldirdiry (Oman) , Mawadda Khalifa Alwardi (Oman) , Alhasan Hilal Alshekaili, Sr(Oman) , Hamza Abdullah Alismaili (Oman) , Alwaleed Aldahmani (Oman)

15:00 – 15:20 (15 min + 5 min Q&A)	<i>A Robust Model-Based Corrector Iterative Learning Control for Mecanum Robots: Comparative Analysis of Adaptive Architectures</i> Nayan Banik (USA) , Jawhar Ghommam (Oman) , Mohammad habibur Rahman (USA)	<i>Drone Thermal Cameras System for Accurate Temperature Measurements in Oil Fields Using AI</i> Salim Almamari (Oman) , Moudafer Alwahibi (Oman) , Abdullah Alshehhi (Oman) , Ahmed Tabook (Oman) , Ahmed Al Maashri (Oman) , Hadj Bourdoucen (Oman)
15:20 – 15:40 (15 min + 5 min Q&A)	<i>Traffic congestion perdition using vehicle trajectories from Drone and combined Graph Attention and Temporal Convolutional Network</i> Hana Gharrad (France) , Nesrine Ouled Abdallah (Oman)	<i>Assessment of Drone Imagery for Water Quality Estimation in Wadi Dayqah Reservoir</i> Sadegh Nehi (Iran) , Mohammad Reza Nikoo (Oman) , Malik Al-Wardy (Oman) , Sadegh Vanda (Iran) , R. Kerachian (Iran) , Navid Nasiri (Oman)
15:40 – 16:00 (15 min + 5 min Q&A)	<i>Machine Learning-Based Fault Classification for KPCA Digital Twin Model Predictive Control in Autonomous Vehicles</i> Romdhane Nasri (Tunisia) , Majdi Mansouri (Oman) , Zouhaier Affi (Tunisia) , Vicenç Puig (France)	<i>Stable Fault-Tolerant Control for Autonomous Vehicles: Model Predictive Control with Digital Twin Integration</i> Romdhane Nasri (Tunisia) , Majdi Mansouri (Oman) , Zouhaier Affi (Tunisia) , Vicenç Puig (France)

Conference Banquet

Wednesday, 11th of February 2026

Honoring Guests & Sponsors