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Call for Papers

Researchers, Scientists, Engineers, Academicians, Private and Public Industry Professionals, Entrepreneurs and Students are invited to present their latest unpublished research findings relevant to ICASE 2019 themes and topics. Kindly submit the abstract of 250-400 words in Microsoft Word Format (not PDF) at ICASE conference Management System. (icase.ist.edu.pk)

Important Dates

Call for Papers	February 15, 2019
Abstracts Submission Deadline	April 15, 2019
Abstracts Acceptance Notification	May 15, 2019
Manuscripts Submission Deadline	July 30, 2019
Manuscripts Acceptance Notification	September 25, 2019
Registration Fee Deadline	October 10, 2019
Conference	Nov 12 - 14, 2019

Conference Publication

Selected papers will be published in IEEE Xplore and remaining papers will be published in ICASE 2019 proceedings.

Poster Session

A poster session will be held focusing the main thematic areas of the conference. The best posters will be awarded with certificates.

Workshops, Trainings & Tutorials

ICASE 2019 will offer various workshops and trainings related to the main tracks of the conference. For participation and details, kindly visit the conference website.

Panel Discussions & Forum 360

ICASE 2019 will host various Panel Discussions and Forum 360 related to the main themes of the conference where experts will share their valuable experiences and latest research findings.

Exhibition & Technology Marketing Seminar

During the conference, space will be provided for exhibition at nominal fee. Universities, industries & other organizations interested to display their projects/products will also be offered a time slot to market their products/ideas to the conference participants.

Venue

The Sixth International Conference on Aerospace Science & Engineering (ICASE 2019) will be held at Institute of Space Technology, Islamabad, Pakistan. The nearby areas are rich in art, traditions and history, namely Margalla Hills, Faisal Mosque, Rawal Lake, Saidpur Village, Wah Gardens etc. Neighboring ancient city of Taxila, historic Buddhist sites, Gurdwara Panja Sahib and the famous Hill Station of Murree also provide opportunity for sight-seeing during and after the conference.

Life & Health Insurance

Life & major health insurance shall be the responsibility of the participant or his/her organization.

Registration Fee

National	Professional	PKR 5000
	Student	PKR 2500
International	Professional	USD 400
	Student	USD 200

Conference Secretariat

Institute of Space Technology
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Partners & Sponsors



Sixth International Conference on AEROSPACE SCIENCE & ENGINEERING

Institute of Space Technology
Islamabad, Pakistan

November 12-14, 2019

In collaboration with

Belt and Road Aerospace Innovation Alliance
(BRAIA)



› Institute of Space Technology

Institute of Space Technology (IST), one of the premier institutes in Pakistan, is a federally chartered, degree awarding institute offering graduate and baccalaureate programs in Aerospace, Avionics, Electrical, Mechanical, Materials Science & Engineering, Space Science, Remote Sensing & GISc, Astronomy & Astrophysics, Global Navigation Satellite Systems (GNSS) and Applied Mathematics & Statistics. IST has been ranked amongst the top four engineering universities of Pakistan.

› The Belt and Road Aerospace Innovation Alliance (BRAIA)

The Belt and Road Aerospace Innovation Alliance (BRAIA) was initiated by Northwestern Polytechnical University (NPU), China and Chinese Society of Astronautics (CSA) and established on April 23, 2017 in Xi'an. BRAIA is an international organization with NPU as its Permanent Secretariat, and is formed by universities, research institutes, and academic organizations, and enterprises mainly in the aerospace field.

The mission of BRAIA is to enhance the international cooperation on aerospace technology and application. Its focus is to promote the substantial cooperation among BRAIA members in talent cultivation, scientific research, technology development and applications etc. BRAIA now has 51 members from 14 countries including Algeria, America, Australia, Bangladesh, Belgium, China and Egypt, France, Italy, Pakistan, Russia, Spain, Ukraine and United Kingdom.

› Scope of the Conference

International Conference on Aerospace Science & Engineering (ICASE) is a regular biennial event to provide an International forum in which scientists, researchers, engineers, academicians, private and public industry professionals, entrepreneurs, and students from all over the world get a chance to interact and discuss the latest themes and trends related with Aerospace Science and Engineering. It provides a platform to share experiences, foster collaborations across industry and academia, and to evaluate emerging technologies and developments across the globe in the fields of space science, technology and application. ICASE facilitates in establishing dialogues leading to long lasting technical cooperation among the scientists and engineers of the developing and developed countries.

› Conference Themes & Topics

1. Aeronautics and Astronautics

- Modeling and Design of Aero Engines
- Aerodynamics
- Aero Elastic Modeling
- Aero Dynamic Heating in Aerospace Vehicles
- Fault Detection
- Dynamics of Aerospace Structures
- Finite Element Analysis
- Computational Fluid Dynamics
- Air Vehicle Systems and Technologies
- Novel Aero Engine Concepts
- Artificial Intelligence in Aircraft Design
- Aerospace Robotics and Challenges
- Design of Solid, Liquid and Hybrid Rocket Motors and Propellants
- Advances in Space Propulsion, Thermal & Power Concepts
- Satellite Launch Facilities and Vehicles
- Aerospace Manufacturing
- Tribology
- Unmanned Aircraft Technologies
- Modern trends in Avionics Systems Design

2. Satellite Technology & Applications

- Emerging Technologies for Small Satellite Designs and Operations (Micro, Nano, Pico)
- Small Spacecrafts for Deep Space Explorations
- Novel Instruments and Payloads
- Space Debris and its Mitigation Techniques
- Ground Segment Technology and Services
- Space Mission Analysis and Design
- Satellite Subsystems Design
- Advances in AODCS of Satellites
- Advances in Earth Observation Satellite Systems
- Technologies for Satellite Communication and Navigation Systems
- Nano-Technology for Space Missions
- Antennas and Radars
- Student Satellite Projects and CanSat
- Satellite Based Image Processing
- Space Environmental Effects and Spacecraft Protection
- Space Systems Engineering-Methods, Processes and Tools
- Small Satellite Clusters and Constellations in Space
- 5G in Space

3. Mechanical Engineering for Aerospace Applications

- Dynamics and Vibration
- CAD/CAM/CIM/CFD
- Computational Mechanics
- Fatigue and Fracture Mechanics
- Fluid Mechanics and Machinery
- Heat and Mass Transfer
- Instrumentation and Control
- Internal Combustion Engines
- Robotics Automation and Control

- Fluid and Thermal Systems
- Rapid Prototyping
- Mechatronics
- Renewable Alternative Energy
- Finite Element Analysis
- Manufacturing in Mechanical Engineering

4. Aerospace Materials Design and Engineering

- Developments in Aerospace Materials and Applications
- Space Materials and Structures
- Nanotechnology Materials and Applications in Space Technology
- Designing of Alloys, Polymers and Composites
- Advanced Material Characterization Techniques
- Coatings for Thermal Protection
- Material Degradation in Space Environment
- Failure of Aerospace Structures
- Energy Conversion Materials
- Sensors
- Quality Control in Aerospace Materials

5. Guidance, Navigation & Control and GNSS

- Dynamic System Modeling & Analysis
- Multi-Sensor Data Fusion
- Tracking & Control
- Autonomous Control and Unmanned Systems
- Guidance, Mission Control and Operations
- System Identification & Linearization
- Parameter Estimation & Control
- Fault-Tolerant Control
- Distributed Simulation Technologies
- Hardware in the Loop Simulation
- Launch and Orbital Systems and Simulation
- Artificial Intelligence
- Nonlinear Dynamics and Control
- Flight Formation & Control
- Software and Hardware GNSS Receivers
- GNSS Signal in Space
- Algorithms for Positioning and Navigation
- Interference and Spoofing Technologies and Countermeasures
- GNSS Ionospheric Threats
- Indoor Positioning
- NAV-COM Integration and Positioning
- GNSS Integration with Other Navigation Systems
- GNSS-GIS Applications
- Cognitive Positioning Architectures
- Location Based Services and Applications
- GNSS Augmentation Systems
- GNSS Reliability, Interoperability and Availability
- GNSS Timing Applications
- Emerging Navigation Satellite Systems
- Big Data Analytics and GNSS Applications
- GNSS Based Internet of Things (IoT) and Augmented & Virtual Reality

6. Astronomy, Astrophysics & Astrobiology

- Galaxies & Cosmology
- Star Clusters
- Solar System
- Gravitational Astrophysics
- Celestial Mechanics
- Computational Astrophysics
- Planets Ionospheres and Magnetospheres
- Scientific Instrumentation
- Solar and Stellar Physics
- Cosmic Rays and Gamma Astronomy
- High Energy Astrophysics
- Interstellar Medium
- Microgravity Science and Applications
- Variable Stars & Exoplanets
- Artificial Intelligence and Data Mining in Astronomy
- Black Holes to White Dwarfs & Neutron Stars
- Scientific Instruments to Astronomical Instruments: Tools and Techniques
- Gravitational Astrophysics to Relativity and Gravitational Waves
- Astrostatistics
- Life Beyond Earth
- New Technologies for Life Detection

7. Remote Sensing, GIS & Space Applications

- Urban and Regional Planning
- Environmental Monitoring
- Topography, Geology and Geomorphology
- Soil Erosion and Soil Moisture
- Remote Sensing and GIS Modeling
- Resource Inventory and Management
- 3D Mapping and Visualization
- Aerosols and Air Pollution
- Meteorology, Precipitation and Clouds
- Radar, LIDAR and SAR Remote Sensing
- Hyperspectral Remote Sensing
- Spatial Decision Support Systems
- Agriculture and Food Security
- Forestry and Management
- Natural Hazards and Disaster Mitigation
- Biodiversity Conservation and Management
- Coastal and Marine Management
- Spatial Data Infrastructures and Standardization
- Sensor Systems and Platforms
- Geospatial System Development
- Biomass and Carbon Cycle
- Glacier and Climate Change
- Hydrological Applications
- Mineral Exploration
- Oceanology and Satellite Altimetry
- Alternate Energy
- Geostatistics

8. Mathematical & Statistical Modeling for Space Applications

- Bayesian Computation and Data Analysis Methods

- Mathematical Modeling and Applications
- Big Data Analysis
- Multivariate Data Analysis
- Computational Optimization
- Reliability and Survival Analysis
- Computational Fluid Dynamics
- Computational Graph Theory
- Probability and Stochastic Applications
- Computational Number Theory
- Sampling Theory and Small Area Estimation
- Theoretical and Applied Computational Geometry
- Differential and Partial Differential Equations
- Mathematical Methods in Materials Modeling and Simulations
- Computational Solid Mechanics
- Computational Elastoplasticity/Inelasticity
- Fluid-Structure Interactions
- Mesh Free Methods
- Mathematical Optimization
- Cryptography
- Spatial Statistics

9. Space Policy, Law and Management

- International Space Treaties
- National Space Laws and Regulatory Issues
- Space Policy Challenges and Principles
- Space Stability and International Cooperation
- New & Private Actors in Space
- Space Sustainability
- Spectrum Management
- Peaceful Use of Space
- Space Security

10. Space Technology Education and Popularization

- Space Science and Technology Roadmaps
- Technology Transfers and Spinoffs
- Space Education and Awareness
- Space Technology Applications and Economic Benefits
- Industry-University Collaboration
- Enabling the Future - Developing the Space Workforce
- Space Culture: Innovative Approaches for Public Engagement in Space