

Poster

Core Time 28 Oct. (Wed) 16:00-17:00

Room B (Main Hall)

Aerodynamics and Design: Acoustics

P002	Acoustic Characteristics Comparison of Ground Boards for eVTOL Inverted Microphone Measurements ○Min-Seo Jeong ¹ , Joong-Kwan Kim ^{1,2} (¹ Department of Aeronautical System Engineering, Hanseo University , ² Department of Unmanned Aircraft Systems, Hanseo University)
------	--

Aerodynamics and Design: Aircraft, Helicopter, AAM and UAV Design

P003	BOM-Based Sizing and Architecture of a Three-UAV System For Industrial Air-Quality Monitoring ○Min Soon Park ¹ , Jae-Sang Park ² (¹ Korea Aerospace Research Institute , ² Chungnam National University)
P004	Monte Carlo-Based Evaluation of Fastener Stiffness Uncertainty for Modal Correlation of Satellite Structures ○Wei-Chuan Wu ¹ , Po-Yuan Tung ¹ , Jen-Chueh Kuo ¹ (¹ Taiwan Space Agency)
P005	A Multi-Airfoil Morphing Tilt-Wing VTOL UAV for Enhanced Stability: Design and Aerodynamic Simulation ○Lawrence CATOLOS ¹ , Sajid NISAR ² (¹ 1st Year Masters Student , ² Associate Professor)
P006	Design and Optimization of a Electric Propulsion System with Power Distribution Control for Lift-Cruise UAVs ○Moonkyou Lee ¹ , Jin Young SUK ² , Su Hyun NAM ¹ (¹ Dbrain , ² chung-nam national Univ.)
P007-O	Design and Flight Validation of a Quadrotor Tail-Sitter UAV ○Lihang Zhou ¹ , Zhou Zhou ¹ (¹ School of Aeronautics, Northwestern Polytechnical University)
P008	Static Stability Analysis of a Blended Wing Body(BWB) Aircraft in the Conceptual Design Phase ○Sanghyun Park ¹ , Young Min Park ¹ , Jaehoon Choi ¹ , Hak Min Lee ¹ (¹ Korea Aerospace Research Institute)
P009	Energy Harvesting from Flapping-Wing Motion to Enhance the Flight Endurance of a Tailless Flapping-Wing Micro Drone ○Kaewthep SIRIROTE ¹ , Yoshinobu INADA ² (¹ Graduate School of Tokai University , ² Tokai University)
P010	Design of a Pantograph Mechanism Mounted on a Moving Vehicle for UAV Mid-Air Recovery ○Kim Young-Hun ¹ , Kim Joong-Kwan ^{1,2} (¹ Department of Aeronautical System Engineering, Hanseo University , ² Department of Unmanned Aircraft Systems, Hanseo University)

Aerodynamics and Design: Computational Fluid Dynamics

P011	Numerical Investigation of Aerodynamic Heating Induced by Shock-Shock Interaction on an Asymmetric Cylindrical Leading Edge ○Atsuki Yoshida ¹ , Ko Ogasawara ¹ (¹ Tokyo University of Science)
P012	Effects of Diffusion Modeling on the Linear Stability of a Hypersonic Boundary Layer in Thermo-Chemical Non-Equilibrium ○HYEONJIN LEE ¹ , DONGHUN PARK ¹ (¹ BUSAN NATIONAL UNIVERSITY)
P015	Deep-Learning Reconstruction of Building-Scale Urban Winds from Sparse Drone Measurements in Numerical Experiments ○Yuki Yasuda ¹ , Ryo Onishi ² , Daisuke Kubo ³ , Atsushi Oosedo ³ (¹ Japan Agency for Marine-Earth Science and Technology , ² Institute of Science Tokyo , ³ Japan Aerospace Exploration Agency)
P016	Effect of Sidewall Angle on Vortex Formation in a Submerged Inlet ○Heejae Yang ¹ , Hyoung Jin Lee ¹ (¹ Inha University)
P018	Analysis of the Effects of Wind Flow Around Chimney Structures on the Aerodynamic Performance of Multicopter UAVs Using Computational Fluid Dynamics ○Myung-Jae Kim ² , Byoung-Soo Kim ¹ (¹ Chungnam National Univ , ² Korea Aerospace Research Institute)
P021	Reduced-order Modeling of Dynamic Instability in Coupling System of Reentry Capsule with Flowfield via Mode Decomposition ○Eito Suzuki ¹ , Shintaro Sato ¹ , Naofumi Ohnishi ¹ (¹ Department of Aerospace Engineering, Tohoku University)

Aerodynamics and Design: Flow Visualization

P022	Re-laminarization in helical coil pipe flow ○Naoki Saito ¹ , Tomoki Bannno ¹ , Takeshi Kanda ¹ (¹ Chubu university)
P023	Airfoil Characterization in Low Reynolds Number Supersonic Flow for the Development of Supersonic Mars Aircraft ○Tomoyuki Takizawa ¹ , Hanyu Ryouya ¹ , Numata Daiju ¹ (¹ 東海大学)

Aerodynamics and Design: Unsteady Aerodynamics

P025-O	Fluid-Structure Interaction Analysis of Aerodynamic Damping on the Vibration Characteristics of Film-Cooled Turbine Blades ○Zhuobin Ma ¹ , Yeda Lian ¹ , Canjing Cong ¹ , Leike Yang ¹ , Hao Li ¹ , Pengfei Gao ¹ , Hang Shen ² , Lanjie Niu ² (¹ School of Civil Aviation, Northwestern Polytechnical University , ² Science and Technology on Electromechanical Dynamic Laboratory)
--------	--

Aerodynamics and Design: Wind Tunnel Testing

P026	Bidirectional Heat Flux Profiles and Thermal Structure Evaluation of a Mach 2 Jet in the 0.4 MW Arc-Heated Plasma Wind Tunnel ○Philyong Oh ^{1,2} , Seong Min Hong ^{1,2} (¹ High-Enthalpy Plasma Research Center , ² Jeonbuk National University)
P027	Conical Flapping Mechanism Based on Avian Wing Motion ○Nahyeon Kim ¹ , Woohyeok Choi ¹ , SeungUk Lee ¹ , Jong-Seob Han ¹ (¹ Applied Aerodynamics Laboratory, Chungnam National University)

P028	Experimental Investigation of Wake Characteristics of Low-Noise Propellers with Trailing-Edge Serrations ○Hong Changjin ¹ , Kim Jintae ¹ , Han Jong-Seob ¹ (¹ Chungnam National University)
------	--

Combustion and Propulsion: Cooling Systems

P030	Ignition and combustion characteristics of solid propellant under low pressure Wen Zhan ¹ , Jiang Yanfeng ¹ , Liu Peijin ¹ , ○Ao Wen ¹ (¹ Northwestern Polytechnical University)
P031	Multidisciplinary Design Optimization of a Suborbital Spaceplane Powered by a Pre-cooled Hypersonic Air-Breathing Engine ○Takuma Watanabe ^{1,2} , Hideyuki Taguchi ^{1,2} , Takahiro Fujikawa ^{3,4} (¹ Tokyo University of Science , ² Department of Mechanical and Aerospace Engineering , ³ The University of Tokyo , ⁴ Department of Aeronautics and Astronautics)

Combustion and Propulsion: Engines

P032	Numerical Study on Combustion and Emission Performance of Main Combustor for a Certain Aero-Derivative Gas Turbine ○Liu Darui ¹ (¹ Nanjing University of Aeronautics and Astronautics, China)
P033	High-Performance Premixed N2O/C3H6 Thruster for Next-Generation Small Satellites ○Seung Yeop BAEK ¹ , Tae Young LEE ¹ , Sung Gwan NA ¹ , Taegyu KIM ^{1,2} (¹ Chosun university , ² Spacelab)
P039	Test and Performance Evaluation of a 445 N-class LOx/LNG Small Rocket Engine under Varying Film-cooling Conditions Yun Hyeong Kang ¹ , Chang Han Bae ¹ , Dong Jae Jo ¹ , Tae Yun Lee ² , Seong Sik Kang ¹ , Sung Chan Ha ³ , ○Jeong Soo Kim ³ (¹ Pukyong National University , ² Hanwha Systems Co., Ltd. , ³ School of Mechanical Engineering, Pukyong National University)
P040	Path-Tracing-Based Method for Latent Fault Path Analysis in Aero-Engine Air Systems ○Jiaxing SHI ¹ , min HUANG ^{1,2} , Ziqiang DENG ¹ , Fangyou CHENG ³ , Chunping HU ³ , Xuejun LIU ¹ (¹ Beihang University , ² ReliaChina Technology Co., Ltd, Suzhou, China , ³ AECC Nanjing Aero-Propulsion Co., Ltd.)

Combustion and Propulsion: Spacecraft Propulsion

P042	Flashback and Pressure Drop Characteristics of A Nitrous Oxide-Ethane Premixed Thruster with A Sintered Metal Insert ○Sunggwon Na ¹ , Taeyoung Lee ¹ , Seungyeop Baek ¹ , Taegyu Kim ^{1,2} (¹ Chosun University , ² Spacelab)
P043	Performance Evaluation of a HAN-Based 1-N Class EQM Monopropellant Thruster with Electric Ignition ○Minwoong Kim ¹ , Taegyu Kim ^{1,2} (¹ Chosun University , ² Spacelab)
P044	Vacuum Hot-Fire and Pulse-Mode Operation of a Premixed Ethane/N₂O Thruster ○Taeyoung Lee ² , Taegyu Kim ^{1,2} (¹ SpaceLab , ² Chosun University)
P045	PERFORMANCE VERIFICATION AND SPACE ENVIRONMENT TESTING OF AN ECSP GAS PROPULSION SYSTEM FOR THE NANO-SATELLITE, GAIMSAT-1 ○Jinha Hwang ¹ , Taegyu Kim ^{1,2} , Myoungjin Kim ² (¹ Chosun University , ² Spacelab.inc)
P046	Numerical Study on the Flow Characteristics of Supersonic Retropropulsion around a Launch Vehicle ○Jeonghun Ko ¹ , Changwoo Kang ¹ (¹ Jeonbuk National University)
P047	Evaluation of the operating characteristics of a low-power external discharge End-Hall thruster ○Shuka Aono ¹ , Hiroe Shizuku ¹ , Horisawa Hideyuki ¹ , Ikeda Tomoyuki ¹ (¹ Tokai University)
P048	Operating Characteristics Evaluation of Miniature Low-power Anode-layer Hall Thrusters ○Runa Miyake ¹ , Takumi TSUJI ¹ , Tomoyuki Ikeda ¹ , Hideyuki Horisawa ¹ (¹ Tokai University)
P049	Characterization of an External-Discharge Hall Thruster Using Alternative Propellants ○Yuika Takeuchi ¹ , Kaho Suzuki ¹ , Shizuku Hiroe ¹ , Tomoyuki Ikeda ¹ , Hideyuki Horisawa ¹ (¹ Tokai University)
P050	Design Verification and Mission Scenario Validation of a Metal Additively Manufactured 20 N-Class Water Electrolysis Thruster for Lunar Exploration ○SangJoon Lhim ¹ , Minsig Hwang ¹ , Hyoung Jin Lee ¹ (¹ Inha University)
P051	Influence of Magnetic Topology on Improvement of Miniature Low-power Anode-layer Hall Thrusters ○Kaho SUZUKI ¹ , Shizuku HIROE ¹ , Hideyuki HORISAWA ¹ (¹ Tokai University)

Dynamics/Control/Avionics: ATM/CNS/UAM

P055-O	Implementation of the Kalman Filter for In-SAR Phase Unwrapping Using Experimental Data Fang Zheng ² , Zhu Huizhu ² , Zhang Haihui ² , Zhou Junqi ² , Chen Tao ² , Zhang Hengyang ¹ , ○Chen Bo ³ (¹ Airforce Engineering University of China , ² Aviation Industry of China (AVIC) , ³ Shanghai University)
P056	Operational Field Demonstration of Collaborative Tactical Flow Management System ○Daekeun Jeon ¹ , Hyounkyoung Kim ¹ , Myeongsook Jeong ¹ , Eun-Mi Oh ¹ , Somang Lee ¹ , Soyeun Kim ¹ , Younghoon Jang ¹ (¹ Korea Aerospace Research Institute)
P057	An Adaptable Agent-based Simulation Framework for Investigating Airport Ground Operations ○Chelsea Shan Xian Ng ¹ , Eri Itoh ¹ (¹ The University of Tokyo)
P059	A Macroscopic Queueing Network Simulation Model for Narita Airport Infrastructure Layout Planning ○Ryo Nakatsu ¹ , Eri Itoh ¹ (¹ The University of Tokyo)
P060	PSU System Design and Cooperative Traffic Management Architecture for Multiple PSUs in Urban Air Traffic Management ○Eun Yeonju ¹ , Jeon Daekeun ¹ (¹ Korea Aerospace Research Institute)
P061	Phased Development of Advanced Air Mobility Networks in Japan's Chubu Region: A Route and Fare Feasibility Analysis ○Taniguchi Tomohei ¹ , Yokoyama Kaito ¹ , Nishii Hiroshi ² , Shikano Aya ² (¹ Mitsubishi Research Institute , ² Juroku Research Institute)

P062	A PointPillars–CenterPoint-Based CPU–GPU Hybrid 3D LiDAR Object Perception System for UAM ○bonsoo koo ¹ (¹ Korea Aerospace Research Institute, Daejeon, Republic of Korea)
P063	Quantitative Analysis of the Impact of Corridor Width on Total Travel Time and Operational Risk in AAM Urban Access ○Taniguchi Tomohel ¹ (¹ Mitsubishi Research Institute)

Dynamics/Control/Avionics: Flight Simulation

P064	Smoother Time Optimization for LEO-Augmented GBAS ○Nam Gihun ¹ , Do Jimin ¹ , Lee Jiyeon ¹ (¹ KAIST)
P065	Navigation Performance Analysis of a Visual Positioning System for GNSS Fail-Safe Operation ○Jaewon Chang ¹ (¹ Korea Aerospace Research Institute)
P066	Design and Certification Technology for Electric Propulsion System for UAM Based on Mathematical Models: Proposal of a Method for Constructing Mathematical Models of Aircraft ○RYUICHI FUNAKISAKO ¹ , YOSHIYUKI NAKAMURA ¹ , MASAOKI YANAGIHARA ¹ (¹ Shinshu University)
P067	A 6-DOF HILS Framework with 3-DOF Testbed for eVTOL Flight-Control Verification Using Coreless-Motor-Based Aerodynamic Disturbance Emulation ○InHak Oh ^{1,2} , HeeSeok Shin ² , SungKyung Hong ^{1,2} (¹ Aerospace Systems Engineering, Sejong University, Seoul , ² Intelligent Drone Convergence, Sejong University, Seoul)
P068	Mixed Reality Flight Simulation of Trajectory-Based Operations Jeffery Omorodion ¹ , OKamoonpuri Jafer ¹ , Jeong Jeongyun ¹ , Pratik Pradhan ¹ , Amitabha Ghosh ¹ , Joon Chung ¹ (¹ Toronto Metropolitan University)
P069-O	Effects of Jet Flow on Low-Speed Aerodynamic Performance of BWB Aircraft ○Zhang Changjiu ¹ , Wang Zhen ¹ , Dong Haochen ¹ , Zhao Yan ¹ , Ma Kun ¹ (¹ AVIC the First Aircraft Institute)

Dynamics/Control/Avionics: Guidance and Control

P070	Emergency Landing Site Selection Using SOC-Dependent Dynamic Reachable Footprints for Urban Air Mobility ○Eojin Kim ^{2,3} , Sunghun Jung ^{2,3} (¹ Chosun University , ² Department of Aerospace Engineering, Chosun University , ³ Republic of Korea)
P071	Peak-First Altitude Planning for Rapid Multi-UAV Trajectory Generation in Wildfire Response Missions KIM Gague ¹ , JEONG Yangjae ¹ , OJANG Kwangwoo ¹ (¹ Electronics and Telecommunications Research Institute , ² Korea Advanced Institute of Science and Technology)
P072	Experimental Validation of Robust Sliding Mode Position and Attitude Control for an eVTOL under Wind Disturbances ○TaeGeun Park ¹ (¹ Sejong University)
P074	Dynamic Inversion Attitude Control with Stability Margin Guarantee Based on Euler-Angle Errors Derived from Quaternions ○Daiki Kikuchi ^{1,2} , Takahiro Fujikawa ^{3,4} , Hikaru Aono ^{1,2} (¹ Department of Mechanical and Aerospace Engineering , ² Tokyo University of Science , ³ Department of Aeronautics and Astronautics , ⁴ The University of Tokyo)
P075	Magnetic-Interface-Constrained Terminal Guidance and Control for Ground-Assisted Recovery of Small UAVs ○Hahyun Myung ² , Jiwan KANG ² , Sunghun Jung ² (¹ Chosun University , ² Department of Aerospace Engineering, Chosun University)
P077	Analysis of Optimal Trajectories of Minimum-Time Turns for a Small High-Performance Aircraft ○Takumi Kobayashi ¹ , Hiroyuki Takano ¹ , Takeshi Yamasaki ¹ (¹ National Defense Academy)
P078	Ascent Trajectory Optimization of a Suborbital Spaceplane with Gimbal Angle Considering Thrust-Induced Pitching Moment ○Yuha Kamata ^{1,3} , Takahiro Fujikawa ^{2,4} (¹ Department of Mechanical and Aerospace Engineering , ² Department of Aeronautics and Astronautics , ³ Tokyo University of Science , ⁴ The University of Tokyo)
P081-O	An Integrated Time-Triggered PHM Architecture for Multirotor UAV Flight Test Safety Verification and Fault-Tolerant Control ○Yifei LIU ¹ , Chao CHEN ¹ , Wensong SHEN ¹ , Yaojie MA ¹ (¹ School of Aviation Industry, Xinjiang Institute of Engineering)
P082	Probability-Aware Dual-Interceptor Trajectory Optimization under Terminal Uncertainty ○Kyungil Kwon ¹ , Yechan Yang ¹ , Donghoon Seo ¹ , Jinyoung Suk ¹ , Seungkeun Kim ¹ (¹ Dept. of Aerospace Engineering, Chungnam National Univ.)
P084	Impulsive Model Predictive Control for Satellite Formation Flying ○Jeongchan Kim ¹ , Henzeh Leeghim ¹ (¹ Chosun University)
P085	Indoor Search Drone for Fire Scenes Combining A* Path Planning and Control Barrier Functions ○Doyoon Kim ^{1,2} , Seung Keun Kim ² (¹ KARI , ² CNU , ³ Chungnam National University)
P086-O	Multivariable self-adaptive control for direct force coupling issues during carrier-based aircraft landings ○ShengQiao Wang ¹ (¹ Dalian University of Technology)
P087-O	Trajectory Prediction and Generation for High-Speed Aircraft Based on Time-Series Deep Learning and a Hybrid Dual-Driven Model ○Zuohua Huang ¹ , Mu Fan ¹ , Dan Wang ¹ (¹ Nanjing University of Aeronautics and Astronautics, China)
P088	Model-Based Rate Enhancement Filter for Low-Rate Vision-Based UAVs Attitude Control ○TaeGeon Lee ^{1,2} , Trong Dong Do ¹ , Xuan Mung Nguyen ¹ , Sung Kyung Hong ^{1,2} (¹ Department of Aerospace Systems Engineering, Sejong University , ² Department of Intelligent Drone Convergence, Sejong University)
P089	ADMM-Based Variable Responsibility Allocation with High-Order Control Barrier Functions for Safe Multi-UAV Collision Avoidance ○Jun Choi ¹ , Hyo-Sang Shin ^{1,2} (¹ Korea Advanced Institute of Science and Technology , ² Cranfield University)
P090	Shape-Aware Cargo Transport for a Free-Flyer with Control Barrier Functions ○Seongjae Kim ¹ , Hyeonjun Park ¹ (¹ Seoul National University)

P091	Time-Adaptive Ghost-Risk CVaR for Lost-Agent Avoidance in Distributed MPC ○Ha-Eun Kim ¹ , Hyo-Sang Shin ^{1,2} (¹ Korea Advanced Institute of Science and Technology , ² Cranfield University)
-------------	--

Dynamics/Control/Avionics: Navigation

P092	IMM-EKF Fusion of Magnetometer and Dual-UWB for UAV Heading Estimation under Magnetic Disturbance ○JO TaeHyeon ² , YUN SuHwan ¹ , MOON SungTae ² (¹ Railroad Safety & Environ. Div., Korea Railroad Research Inst. , ² Dep. of Intelligent Systems & Robotics, Chungbuk Nat. Univ.)
P093	Hardware-in-the-Loop Validation of a Lift-Cruise VTOL UAV for Environmental Monitoring Applications Seongjun Yoo ¹ , ○Seungbum Kim ¹ (¹ Korea Aerospace Research Institute)
P094	Unified Longitudinal Control for Lift-and-Cruise eVTOL Aircraft ○Yonghyeon Lee ¹ , Inhak Oh ¹ , Heeseok Shin ¹ , Sungkyung Hong ¹ (¹ Sejong University)
P096	Orbit Approximation Method and Accuracy Evaluation for Broadcast Ephemerides of Lunar Navigation Satellites ○Suto Yuya ¹ , Ebinuma Takuji ¹ , Sobukawa Rion ¹ (¹ Chubu University)
P097	Ground Obstacle Detection System Development Using 3D LiDAR for UAM ○INHO CHOI ¹ , Bonsoo Koo ¹ (¹ KARI)
P098-O	LLM-Semantic Enhanced Collaborative Navigation for Distributed Multi-UAV Systems Han Yue ¹ , ○Yang Zheng ¹ (¹ SADRI)
P100	Cluster-Wise Distributed Localization for UAV Swarms Using Broadcast ADS-TWR and ADMM-Based Map Consensus ○Sungmin Lee ¹ , Hyo-Sang Shin ^{1,2} (¹ Korea Advanced Institute of Science and Technology , ² Cranfield University)

Dynamics/Control/Avionics: Satellite Attitude Control

P101	Evaluation of Control Architectures for a 1U CubeSat Attitude Determination and Control System ○Serkan Burak ÖRS ¹ , Chingiz HAJIYEV ² (¹ Korean Advanced Institute of Science and Technology , ² Istanbul Gelisim University)
P102-O	Kernel Adaptive Filtering for SAR Satellite Yaw and Pitch Steering with the Complex Geometry Model Fang Zheng ¹ , Zhu Huizhu ¹ , Zhang Haihui ¹ , Zhou Junqi ¹ , Chen Tao ¹ , Zhang Hengyang ² , ○Chen Bo ³ (¹ Aviation Industry of China (AVIC) , ² Airforce Engineering University of China , ³ Shanghai University)

Dynamics/Control/Avionics: Sensors and Actuators

P105	Design of One-Touch Coupler-Based Valve Release Mechanism and Holder for On-Orbit Refueling of Reusable Orbital Transfer Vehicles ○dayeong kang ¹ , sori chon ¹ , gilsu park ¹ , teagyu kim ² (¹ chosun university , ² space rab)
P107	A Study on Ground Target Tracking Techniques Utilizing Global Motion Compensation-Based Tracking-by-Detection Sang-Hyeon Kim ¹ , ○Dae-Hyeon Jung ¹ , Gun-Hee Choi ¹ (¹ Cheongju University)
P108	Fault-Tolerant Voting Algorithm for Triple-Redundant Gyroscope in UAVs ○TaeGeon Lee ^{1,2} , Trong Dong Do ¹ , Xuan Mung Nguyen ¹ , Sung Kyung Hong ^{1,2} (¹ Department of Aerospace Systems Engineering, Sejong University , ² Department of Intelligent Drone Convergence, Sejong University)

Space Science and Applications: Earth Observation& Com...

P109	TeTra-Next-Inspired TWTA Aging Compensation Architecture for High-Throughput Ka-Band APSK Satellite Transmitters ○Hong Won PARK ¹ (¹ Korea Aerospace Research Institute)
P111	Ship Velocity Estimation in Sentinel-1 Using Sub-Aperture Displacement ○Yeonju Choi ¹ , Jeongwhan Choi ¹ (¹ Republic of Korea Navy)
P112	Adapting the NeQuick Ionosphere Model for 3D Ray Tracing Simulation of Residual Ionospheric Errors in GNSS RO ○Jaehee Chang ¹ , Jiyun Lee ¹ (¹ Korea Advanced Institute of Science and Technology)
P113	Development of a prototype tool for multi-directional surface deformation estimation using InSAR data ○Seung-Jae Lee ¹ , Sung-Ho Chae ¹ , Kwang-Jae Lee ¹ (¹ Korea Aerospace Research Institute (KARI))

Space Science and Applications: Launch Vehicles

P115	Ground Test Verification of KSLV-II Integrated Stage Separation System with Pyrotechnic Driving Units ○Minho Jang ^{1,3} , Lim Youchol ¹ , Yun Seok-teak ² , Kim Jonghoon ³ (¹ Korea Aerospace Research Institute , ² Gyrongsang National University , ³ Chungnam National University)
P116	FPGA Implementation of an IRIG 106 Chapter 7 Encoder for Video Data in the KSLV-III Telemetry System ○Wonju Yoon ¹ (¹ Korea Aerospace Research Institute)
P117	A User-Oriented Workflow for KOMPSAT-5 SAR-Based Change Monitoring and Visualization ○Sung-Ho Chae ¹ , Seung-Jae Lee ¹ , Kwan-Young Oh ¹ (¹ Korea Aerospace Research Institute (KARI))
P118	Preliminary Design of Instrumentation System Enhancements for the Propulsion System Test Complex ○Yongun Jung ¹ , Dongki Kim ¹ , Yongwook Kim ¹ , Jungho Lee ¹ , Janghwan Lee ¹ , Yoonho Song ¹ (¹ Korea Aerospace Research Institute)

Space Science and Applications: Lunar & Planetary Exp...

P119	Thermal Environment Tests of Movable Thermostating Unit for the Launch Operation of Korea Space Launch Vehicle II ○Jeong Seok LEE ¹ , Bum Seok OH ¹ , Ju Yong Ko ¹ , Soohwan JUN ¹ , Choonghyo JANG ² (¹ Korea Aerospace Research Institute , ² Enerbest Co., Ltd)
-------------	--

Space Science and Applications: Payload, Instrumentation...

P120	Integrated Verification Methodology for Multi-Mission State Transitions of LEO Earth Observation Payloads within a Single Test Window ○Seunghun Ha ¹ , Sang-Gyu Lee ¹ (¹ Korea Aerospace Research Institute)
------	--

Space Science and Applications: Small Satellites & Cube...

P121	Probabilistic Lifetime Prediction of Spacecraft Materials under Atomic Oxygen Exposure Using Monte Carlo Simulation ○Kyungjin Kwon ¹ , Guenyoung Park ¹ (¹ korea aerospace research institute)
------	--

Structures and Materials: Composite Structures

P122	Mapping Cryogenic Microcracking in Composite Laminates: How Thermal Stress Fields evolve and Drive Damage ○Wei Ma ^{4,5} , Masaaki Nishikawa ^{4,5} , Zhenzhou Wang ^{1,2,3} (¹ Institute of Cryogenics , ² Energy technology group , ³ University of Southampton, Southampton, UK , ⁴ Department of Mechanical Engineering and Science , ⁵ Kyoto University, Kyoto, Japan)
P123	Detection of Oblique Impact Damage in Carbon Fiber Reinforced Polymers Using Grid-Patterned Sensor Arrays ○Eo-Jin Jeon ¹ , Chang-Yull Lee ^{1,2} (¹ Department of Aerospace Engineering, Inha University , ² Aerospace Systems Research Institute, Inha University)
P126-O	Study on the Effect Mechanism of Bending Properties of Resin-Based Composite Laminates for Aviation and the Standardization of Test Method ○zeyang hao ¹ , yujie guan ¹ , jianjie wang ¹ (¹ China Aero Polytechnology Establishment, Beijing 100028, CHINA)

Structures and Materials: Smart Structures

P127	Design and Validation of SiCf/SiC-Based Broadband Multilayer Radar Absorbing Structures for High-Temperature Aerospace Applications ○KyungHoon Bae ¹ , KyungHoon Bae ¹ , TaeWoong Kang ¹ , JongKwang Lee ¹ (¹ Department of Mechanical engineering, Hanbat National university)
P128	Design of Frequency Selective Surface Absorbers with Multi-Value Sheet Resistance Based on Laser-Induced Graphene ○Jae-Gwang Ahn ¹ , Byeong-Cheol Choi ¹ , Byung-Woo Choi ¹ , Won-Jun Lee ^{1,2} , Jong-Kwang Lee ³ , Sang-Min Baek ^{1,2} (¹ University of Science and Technology , ² Agency for Defense Development , ³ Hanbat National University)
P129	Design and Fabrication of a Binder-Free Carbonyl Iron Powder Meta-Filled Honeycomb Core for Broadband Microwave Absorption ○Byeongcheol Choi ² , Jaegwang Ahn ² , Byungwoo Choi ² , Sangmin Baek ^{1,2} , Wonjun Lee ^{1,2} (¹ ADD , ² UST)
P130	Mapping Biological Folding Structures onto Pareto-optimal Design Space of Deployable Wings ○Keishi HIRONO ¹ , Yuta NOMURA ¹ , Natsuki TSUSHIMA ^{1,2} , Fujio TSUMORI ¹ (¹ Kyushu University , ² The University of Tokyo)
P131	Design and Fabrication of High-Loss Graphene Electromagnetic Wave Absorbers via One-Step Thermal Plasma Synthesis and Surface Pattern Optimization ○Choi Byungwoo ¹ , Choi Byeongcheol ¹ , Ahn Jaegwang ¹ , Baek Sangmin ^{1,2} , Lee Wonjun ^{1,2} (¹ University of Science and Technology (UST) , ² Agency for Defense Development (ADD))
P132	Bionic design of smart structures and icephobic applications ○LI XINLIN ¹ , LIU YANJU ¹ , LENG JINSONG ¹ (¹ Harbin Institute of Technology)

Structures and Materials: Structural Analysis

P133	MSR-Based Bayesian Optimization for High-Dimensional Finite Element Model Updating ○Jea Hyeon Shin ¹ , Junho Lee ¹ , Jeong Ho Kim ¹ (¹ Inha University)
P135	Simplified Thermal Modeling of Spaceborne Mesh Fabrics for Antenna Reflector Surfaces ○Min-Young Son ¹ , Hyun-Mo Sung ¹ , Bong-Gun Chae ² , Hyun-Ung Oh ¹ (¹ Korea Aerospace University , ² STEPLab. Ltd.)

Structures and Materials: Structural Dynamics and Control

P136	Efficient unsteady fluid–structure interaction analysis for cavitating marine composite propeller ○Sunghoon Kim ^{1,2} , Sangjoon Shin ¹ (¹ Seoul National University , ² HD Hyundai Heavy Industries)
P137	High-Strain-Rate Anisotropy of Single-Crystal Silicon: Dynamic Behavior and Structural Optimization of Aerospace MEMS Mechanisms ○Zhuobin Ma ¹ , Yeda Lian ¹ , Leike Yang ¹ , Hao Li ¹ , Pengfei Gao ¹ , Hang Shen ² , Lanjie Niu ² (¹ School of Civil Aviation, Northwestern Polytechnical University , ² Science and Technology on Electromechanical Dynamic Laboratory)
P138	Design and Experimental Modal Identification of a Sub-Scale Test Article for Ground Vibration Testing of a High-Speed Vehicle ○Jun Young Kim ^{1,2,3} , Yoon Gyungrak ^{1,2,3} , Park Sangmin ^{1,2,3} , Cho Haeseong ^{1,2,3} (¹ Jeonbuk National University , ² Department of Aerospace Engineering , ³ Republic of Korea)
P139	Creation Process of Space Structures on Ring-shaped Frame Connected by Variable Geometry Truss ○Fumihiro Inoue ² , Momoe Terata ² , Satoshi Yuzawa ² , Hideaki Tanaka ² , Yoji Ishikawa ¹ (¹ Obayashi Corporation , ² Shonan Institute of Technology)
P140	Analysis of Climber Drive Mechanism and Long Distance Experiment in Space Elevator ○Momoe Terata ² , Fumihiro Inoue ² , Satoshi Yuzawa ² , Kazuya Kato ² , Yoji Ishikawa ¹ (¹ Obayashi corporation , ² Shonan Institute of Technology)
P141-O	Quantitative Evaluation Framework and Comparative Study on Vibration Power Spectrum for Aerospace Electrical Connectors ○Yajie Zhang ¹ , Zeyuan Chang ² , Jiajia Fan ² , Lei Hou ² , Liusheng LI ¹ , Xiujian JIA ¹ , Hui GUO ¹ (¹ JONHON OPTRONIC TECHNOLOGY CO., LTD. , ² Harbin Institute of Technology)
P142-O	Kinematics Analysis and Dual-Loop PID Control of a 3-DOF Redundant Parallel Mechanism with Flexible Auxiliary Support for Aerospace Structural Testing ○Leike Yang ¹ , Yeda Lian ¹ , Zhuobin Ma ¹ , Hao Li ¹ , Pengfei Gao ¹ , Hao Wu ² , Hucheng Fan ³ , Hongxiao Chao ³ , Qiang Lei ³ (¹ Northwestern Polytechnical University , ² Xi'an University of Technology , ³ Northwest Institute of Mechanical and Electrical Engineering)
P143-O	Design and Validation of an Eccentric Motor-Driven Deployment Mechanism for Petal-Type Deployable Solid-Surface Antennas ○Gao Pengfei ¹ , Lian Yeda ¹ , Huang He ² , Li Hao ¹ , Yang Leike ¹ , Ma Zhuobin ¹ (¹ School of Civil Aviation, Northwestern Polytechnical University , ² School of Mechanics and Transportation Engineering, NPU)

Structures and Materials: Structural Testing

P144	A Study on the Development of an Automated MRO System Using AI Vision ○Seong-jun Shin ¹ , Seong-hun Kang ¹ , Yeon-gyeom Choo ¹ , Yeung-jun Jin ¹ (¹ Korea National University of Transportation)
P146	Evaluation of Material Properties of Various 7000 Series Aluminum Alloys Additively Manufactured by Wire Arc Welding ○Minki Kim ¹ , Dongyoon Kim ¹ , Junseop Yun ¹ (¹ Korea Institute of Industrial Technology)

System Engineering: Autonomous and Fault-Tolerant Systems

P147	Quantitative Safety Assessment of eVTOL Systems Based on Fault Tree Analysis ○Ju Yeong KIM ¹ , Gi Bong Hur ¹ (¹ Gyeongsang National University)
P148	A Hierarchical Optimization Method for Space Patrol Task Assignment Using Deep Neural Networks and Consensus-Based Bundle Algorithm ○WEINAN WU ¹ , LETIAN ZHANG ¹ , CHUNLIN GONG ¹ (¹ Northwestern Polytechnical University)
P149	Phase-Conditioned Multi-Fidelity Adaptive Stress Testing for Rare Safety-Critical Failure Discovery and Risk Estimation in Hybrid eVTOL Operations ○Jafer Kamoonpuri ¹ , Chung Joon ¹ (¹ Toronto Metropolitan University)

System Engineering: Communication & OBDH

P151	Trading Range for Throughput: Joint Channel Modeling and Design Space Exploration for LoRa Direct-to-Satellite Links ○Gergely Homoki ¹ , Hyochoong Bang ¹ (¹ Korea Advanced Institute of Science and Technology)
------	--

System Engineering: Digital Engineering & Model-Based Sys...

P152	A Reliability and Safety Requirement Identification Framework for Hydrogen Aeropropulsion Systems ○Cankai LI ¹ , Min HUANG ^{1,2} , Lin HAN ¹ , Ganyu PENG ² , Zhaojing WANG ³ , Chunping HU ⁴ , Xuejun LIU ¹ (¹ Beihang University , ² ReliaChina Technology Co., Ltd. , ³ Aviation Industry Development Research Center of China , ⁴ China Aviation Engine Nanjing Aero-Propulsion Co., Ltd.)
P153	A Model Calibration Method for Functional Parameters Based on Bayesian Theory ○Lin Han ¹ , Min Huang ² , Cankai Li ¹ , fangyou Cheng ³ , Zhaojin Wang ⁴ (¹ Beihang University , ² ReliaChina Technology Co.,Ltd , ³ China Aero Engine Nanjing Aviation Power Co., Ltd , ⁴ Aviation Industry Development Research Center of China)
P154	Toward a Digital Twin of a UAV Turboprop Engine: Characterizing Component Degradation Signatures ○Se eun Park ^{1,3} , Sung wook Cho ^{2,3} (¹ Department of Mechanical and Aeronautical Systems Engineering , ² Department of Aeronautical and Mechanical Engineering , ³ in Cheongju University)

System Engineering: Multidisciplinary Engineering, AI...

P155	Value Exploration of AAM Corridors Through a Systems and Design Thinking Workshop Methodology ○Yusuke Mihara ¹ , Aki Nakamoto ¹ , Noriko Moriuchi ¹ , Tomoko Iijima ¹ , Naoki Matayoshi ¹ , Masaru Nakano ¹ (¹ Keio University)
P156-O	A Heterogeneous Ensemble Learning Strategy with PSO-Optimized Weighting for Temperature Prediction of Aerospace Servo Actuation Systems ○Leike Yang ¹ , Yeda Lian ¹ , Zhuobin Ma ¹ , Hao Li ¹ , Pengfei Gao ¹ , Hao Wu ² , Hucheng Fan ³ , Hongxiao Chao ³ , Qiang Lei ³ (¹ Northwestern Polytechnical University , ² Xi'an University of Technology , ³ Northwest Institute of Mechanical and Electrical Engineering)
P157	A Refined Web Platform for Early-stage Design of Unmanned Vehicles - Designing under Uncertainties ○Inyoung Lee ¹ , Sejung Yoo ¹ , Jinkyong Kim ² , Jeongku Yun ² , Kwanjung Yee ¹ (¹ Seoul National University , ² Nextform)
P158	3D Shape Estimation of Flying Birds Using Machine Learning ○Ryotaro Sakata ¹ , Naoko Kishimoto ¹ , Yasuko Iwami ² , Naoki Tomita ² (¹ Kwansei Gakuin Univercity , ² Yamashina Institute for Ornithology)
P160	Development of a Ground-Based Experimental Testbed for Gripper Docking Verification in On-Orbit Refueling Missions ○Jinkwan Moon ¹ , Gwangmin Kim ¹ , Taegyu Kim ² , Gilsu Park ¹ (¹ Chosun University , ² Space Lab)
P161	Iterative Latin Hypercube Sampling-Based Interceptor Missile Configuration Design ○Jaehyun Jin ¹ (¹ Suncheon National University, Korea)
P162	From Aviation Investigation Reports to Evidence Anchored Accident Causation Networks ○Shiwei Xin ^{1,2} , Liang Dong ^{1,2} , Chun-Hsien Chen ^{1,2} (¹ Nanyang Technological University , ² Air Traffic Management Research Institute, Singapore)
P163-O	Sustainable eVTOL Development for Urban Mobility Xiaojia Zhao ¹ , ○Tianzheng Hu ¹ , Yihan Liu ¹ (¹ Nanjing University of Aeronautics and Astronautics)

System Engineering: Power and Thermal Management Systems

P164	Analysis of Power System Operational Conditions under Moon-Shadow Eclipse Environments for Large Low Earth Orbit Optical Satellites ○Jin Hyuck Kim ² , Hyongho Ko ¹ (¹ Chungnam National University , ² Korea Aerospace Research Institute)
------	--

System Engineering: Software Engineering & AI Applications

P165	Analyses of radiative heat flux sensor on launch vehicle ○JONGMIN KIM ¹ (¹ KOREA AEROSPACE RESEARCH INSTITUTE)
------	---