Pre-Conference Day, Wednesday 21 August 2024	
Time	
8:00 - 8:30	Registration and Welcome Coffee
8:30 - 12:00	Internal Organizing Committee Meeting
12:10 - 13:30	**Lunch Break**
13:30 - done	Booth Preparation ----------
18:30 - done	Welcome Dinner ----------

Conference Day #1 - Thursday 22 August 2024			
Time	**Room A: Jasmine Room** **Robotics & Mechatronics** **Zoom Link:** SCAN ME	**Room B: Rosella Room** **Smart and Unmanned Systems** **Zoom Link:** SCAN ME	**Room C: Roiboos Room** **Applications and Strategy** **Zoom Link:** SCAN ME
8:00 - 8:30	Registration and Welcome Coffee		
8:30 - 9:00	Opening Ceremony Opening speech by **H.E. Prabowo Subianto**, Minister of Defense (President Elect 2024-2029 - Republic of Indonesia)		

9:00 - 10:15	Plenary Sessions (2 Keynote Speakers) Budiman Sudjatmiko (DTC, ITB), Youmin Zhang (Moderator) C.J. Guo (MIT ILP), H.C. Park (Moderator) Youmin Zhang (Moderator) ----------
10:15 - 10:18	Moment of Silenta

10:18 - 10:30	**Coffee Break**		
Session Chair	**H.C. Park (Konkuk University, S Korea)** **Rianto Adhi Sasongko (ITB, Indonesia)**	**Taesam Kang (Konkuk University, S Korea)** **Javensius Sembiring (ITB, Indonesia)**	**Youmin Zhang (Concordia University, Canada)** **Ema Amalia (ITB, Indonesia)**
10:30 - 10:50	**Prediction and measurement of hovering flapping frequency of under various air density and gravity condition** *Lim Hyeon Jun*	**Safe drone delivery using Float drone** *Taiki Nakano*	**Revolutionizing English Proficiency with AI English Speaking Coaches** *Siti Nur Azizah Ma'ruf Amin, Rizky Andrika*
10:50 - 11:10	**Towards fast-swimming speed of fish-inspired tail-beating vehicle** *Nguyen Khanh*	***Design and manufacture of unmanned aircraft wings with Pvc foam core as internal structure*** *Maulana, Dede Satria., Nugroho, Gesang*	**Realizing a Golden Indonesia 2045: The Role of Sport for All in National Development Through a Sustainable Digital Ecosystem** *Hayono Isman, Gema Sasmita*
11:10 - 11:30	**Takeoff characteristics of flapping wings under the low air density** *Giheon Ha*	***Gardening Simulator Based on L-System Algorithm*** *Rizky Kharisma Nurhidayat Eka Putra*	***Memory and Attention Enhancement through Brain-Machine Interfaces: A Review of Current Trends*** *Reza Darmakusuma, Indrasary Yoenie, Mathias Baumert, and Gerard J*
11:30 - 11:50	**Experimental performance verification of a fast-swimming robotic fish** *Khanh Nguyen*	**Impact of Digital Technology Integration on Youth: Engineering Insights and Implications for Unmanned and Intelligent Systems** *Idris Kusumanegara*	**Dynamic Stability Derivatives Prediction of a Rectangular Wing Based on Sinusoidal and Triangle Wave Models using CFD** *Novita Atmasari*
11:50 - 12:10	**Review of Advanced Biofuel Production Processes: Innovations in Conversion Efficiency and Cost Reduction** *Fitria*	**Onsite Measurement Using CMOS MEMS Flow Sensors on Flapping Wings** *Lung-Jieh Yang*	**Investigation on Convolutional Neural Network with Interpretable Deep Learning Strategies for Concentrated and Distributed Features** *Nayottama Putra Suherman*
12:10 - 13:30	**Lunch Break**		
Session Chair	**Masafumi Miwa (Tokushima U, Japan)**	**Bambang Riyanto (ITB, Indonesia)** **Reza Darmakusuma**	**Ananda S Ivananto (Faction AI, Indonesia)** **Muhammad Iqbal (ITB, Indonesia)**

13:30 - 13:50	**Onsite Measurement Using CMOS MEMS Flow Sensors on Rotating Turbine Blades** *Lung-Jieh Yang*	**Fabrication of mimics underwater swimming robots** *Seungyeon Lee*	**Multi-Sensor Solutions for Smart Cities: Enhancing Urban Environments with AI Platform** John Hassard, Abdurrakhman *P, Agus Sukoco, Ridwan Suhud*
13:50 - 14:10	**A Lightweight Power Lines Segmentation Method based on Improved U-Net** *Yulong Zhang*	**Control System Design for Density Adaptive Flapping Wing Air Vehicle and Performance Test** *Jiyeon Yu*	**Adaptive Learning in Smart City Infrastructure: Real-Time Solutions with Faction's Technology** *Abdurrakhman P, Agus Sukoco, Rian Andriana, Ridwan Suhud*
14:10 - 14:30	**Development of a Vibration Mechanism for Testing the Performance of MEMS Sensor Under Vibrating Noise** *Jeong-Hwan, Kim*	**Position Control Tests of Water-Air Multicopter in Water (ONLINE)** *Naoki Hatsuda*	**Detecting Anomalies in Smart Cities: Innovations in Video, IoT, and Cybersecurity** *John Hassard, Nina Lestari, Dewi Tresnawati, Azizah Zakiah, Rian Andriana*
14:30 - 14:50	**Modelling of a butterfly-inspired flapping-wing Robot** *Ze Chen, Wei He*	**Multi-object Tracking on Lidar Point Clouds: A Deep Learning Approach with Greedy Matching and Mahalanobis Distance** *Bambang Riyanto Trilaksono*	**Advancing Smart Cities with AI: Integrating Acoustics, Text, Image, and Forensics** *Max Garza II, Agus Sukoco, Vitra Disa*
14:50 - 15:10	**Review of Digital Transformation in the Energy Industry: Advancements, Challenges, and Future Directions** *Rega Renata Abdullah, Dewi Tresnawati, Daniel N.*	**Bridging the Gap: Integrating Intelligent Assistant Systems from University Labs into Healthcare Practice** *Mahmoud Shafik, Indrasary Yoenie, Vidya Ikawati, Daniel N.*	**Transforming Urban Management: The Impact of Faction's Adaptive Multi-Sensor System** *Ananda S Ivannanto, Vitra Disa Pratama, Agus Sukoco, Rian Andriana*
15:10 - 15:30	**Coffee Break**		
Session Chair	**Keigo Watanabe (Okayama U, Japan)** **Nur Ahmadi (ITB, Indonesia)**	**Rais Zain (ITB, Indonesia)**	**Edi Leksono (ITB, Indonesia)**

15:30 - 15:50	**Enhancing Oil Refinery Facility Maintenance through Digital Twin Technology: A Comprehensive Review** *Arief Suhariyono, Ridwan Suhud, Abdurrakhman*	**UAVs Revolutionizing Precision Agriculture through Crop Monitoring and Pest Detection** *Ngoc Anh Vu*	**Innovations in Bidirectional Brain-Machine Interfaces for Intuitive Motor Control** *Kazutaka Takahashi, Hayato Nakamura, Benny Rio Hermanto*
16:10 - 16:30	**Advancements in High Altitude Platform Systems for Telecommunication: Autonomous Management and Communication Protocol Optimization** *Alinda Nur Fitriana*	**Utilizing UAVs for Forest Health Assessment and High-Resolution Imaging of Cover and Biodiversity** *Vishnu K Kaliappan*	**Design of Autonomous Launch System for HALE Take-off Phase with Light Based Sensors** *Derren Audric Sudarto*
16:30 - 16:50	**Preliminary Design Firefighting Amphibious UAV** *Mochammad Agoes Moelyadi*	**Rapid Prototyping: Accelerating UAV Development with Innovatidive Prototyping Methods** *Ngoc Anh Vu*	**Harnessing the Power of Digital Twins: A Critical Analysis of Seamless Integration from Design to Operations** *Edi Leksono, Abdurrakhman, Vitra Disa*
16:50 - 17:10	**Autonomous Navigation and Data Fusion Techniques for Unmanned Surface Vehicles in Bathymetric Survey** *Pouria Sarhadi*	**Bio-Inspired Locomotion and Sensing Mechanisms for Spider Robots: Enhancing Agility, Adaptability, and Robustness** *Rida Ballaoui Bouddih*	**Preliminary Design Firefighting Amphibious UAV** *Muttaqin Arya Wijaya*
17:10 - 18:00	End of Conference Day #1 Sessions & Free Time		

Conference Day #2 - Friday 23 August 2024			
Time	**Room A: Robotics & Mechatronics**	**Room B: Smart and Unmanned Systems**	**Room C: Applications and Strategy**
8:00 - 8:15	Registration and Welcome Coffee		
8:15 - 8:45	Day 2 Recap and Agenda Overview		

8:45 - 9:00	Welcoming Ceremony Welcoming Speech by: Sandiaga Salahuddin Uno (Ministry of Tourism and Creative Economy) Budi Arie Setiadi (Ministry of Communication and Information)		
9:00 - 10:15	Plenarry Sessions (4 Keynote Speakers) Kazutaka Takahashi (Ruten Inc), Agus Budiyono (Moderator) Keigo Watanabe (Okayama U), Ary Setijadi (Moderator) Bambang Riyanto (ITB), Taesam Kang (Moderator) ----------		
10:15 - 10:30	**Coffee Break**		
Session Chair	**Agoes Mulyadi (ITB, Indonesia)**	**Khairul Ummah (ITB, Indonesia)**	**Adre Mayza (Neuro Engineering Group, Jakarta)** **Jumraini (Makassar Hospital)**
10:30 - 10:50	**Determination of Optimum Box-Wing Distance Based on Longitudinal Static Stability of UAV Configuration Using CFD** *Mochammad Agoes Moelyadi*	**Neural Interface Solutions for Sensory Impairments: A Comprehensive Review** *Mathias Baumert, Vidya Ikawati, Reza Darmakusuma*	**Optimizing Brain-Computer Interfaces for Addiction Treatment through QEEG and TCCD Analysis** *Syahrul, Maria*
10:50 - 11:10	**Review of the Impact of Digital Transformation on Energy Efficiency and Transition Strategy** *Rega Renata Abdullah*	**Aerial Surveillance with UAVs for Wildlife Conservation –Population and Behavior Insights** *Vishnu K Kaliappan*	**Neurofeedback and Addiction: Utilizing QEEG-Enhanced Brain-Computer Interfaces to Diagnostic ,evaluated and treat secondary insomnia** *Adre Mayza, Elviana*
11:10 - 11:30	**Autonomous Underwater Vehicles for Underwater Inspection: Navigation and Sensing Integration** *Nico Prayogo, Bourhane Kadmiry, Pouria Sarhadi*	**Advancing Project Management: A Critical Analysis of Integrated Mega Project Management Systems** *Achmad Khoirudin*	**Revolutionizing Addiction Treatment: The Potential of QEEG- TMS - Driven Brain-Computer Interfaces** *Agus, Agung*
11:30 - 13:30	**Friday Prayer/Lunch Break**		

Session Chair	**Kazutaka Takahashi (Ruten Inc, USA)** **Gerard Juswanto (Biak Hospital, Indonesia)**	**Khoirul Anwar (Telkom University, Indonesia)** **Onny Arifianto (ITB, Indonesia)**	**Rizky Andrika (DTC-ITB, Indonesia)** **Rahmat Mulyawan (ITB, Indonesia)**
13:30 - 13:50	**Innovative Approaches to Intellegent and Emotional Quotient: Integrating QEEG with TCCD , HBOT and Brain-Computer Interface** *Jumraini, Anne, Gerard Juswanto*	**Revolutionizing Agriculture: The Role of LEO Satellites in Precision Farming** *Riza Muhida, Agung Harsoyo*	**Enhancing Industrial Maintenance: A Critical Examination of Predictive Analytics for Asset Reliability**
13:50 - 14:10	**Advancing Addiction Treatment: The Synergy of QEEG , Hyperbaric Oxigen Therapy and Brain-Computer Interface Technologies** *Retnaningsih, Hendry Gunawan*	**Enhancing Maritime Safety and Efficiency with LEO Satellite Technology** *Meiditomo S, Agung Harsoyo*	**Optimizing Industrial Operations: A Critical Analysis of Enterprise Asset Management Solutions**
14:10 - 14:30	**Managed Service in the Industrial Zones: Challenges and Opportunities** *Edy Susilo*	**LEO Satellites: Transforming Disaster Management and Emergency Response** *Riza Muhida and Agus Budiyono*	**Enhancing Work Procedure Efficiency: A Critical Evaluation of Frontline Maintenance Workflow Digitalization Solutions**
14:30 - 14:50	**The Role of Managed Service in the Village Digitalization Program** *Eko Santoso*	**Telemedicine in Remote Areas: The Impact of LEO Satellite Connectivity** *Henri Kasfy, Vidya Ikawati and Riza Muhida*	**Real-Field Experiment for UAV Communications Based on Cellular Networks toward 6G Ubiquitos Connectivities** *Dyan Ahadiansyah*
14:50 - 15:10	**Current Trends in Telecommunication Maintenance: Focus on Fiber Optic Infrastructure** *Muhammad Riza*	**Green Data Centers: Pioneering Sustainable IT Infrastructure for the Future** *Henri Kasfy, Benny Rio Hermanto*	**ICIUS Committee Meeting**

15:10 - 15:30	**Integrating AI into Fiber Optic Splice Maintenance: Challenges and Opportunities** *Asep Trena Setiawan*	**Comprehensive Environmental Assessment through Sensor Fusion on UAVs: A Multispectral, LiDAR, and Thermal Camera Integration Approach** *Kazuo Watanabe, Vishnu K Kaliappan, Harnios*	**ICIUS Committee Meeting**
15:30 - 15:45	**Coffee Break**		
Session Chair	**Djarot Widagdo (ITB, Indonesia)**	**Agung Harsoyo (ITB, Indonesia)**	**Ahmad Firdaus (ITB, Indonesia)** **Hasballah Zakaria (ITB, Indonesia)**
15:45 - 16:05	**Advancements in Portable Autonomous Underwater Vehicles: Compact Design and Deployment Efficiency** *Nico Prayogo, Pouria Sarhadi*	**Development and Testing of Agricultural Land Monitoring System on Unmanned Model Aircraft** *Irwansyah*	**Driving Economic Growth through Innovation-Based Industries** *Tedy Tri Tjahyono*
16:05 - 16:25	**Optimization and Design of Propeller of High Altitude Long Endurance Aircraft** *Angka Bayu Putranto, Muhammad Lucky Witjaksono, Faris Muhammad Tsaqi*	**Balanced Inverse-Direct Design of Airfoil using Multi-objectiveEvolutionary Algorithm and Bayesian Optimization** *Kemas Zakaria*	**Nationwide Distribution of Economic Opportunities through Technology Clusters** *Rizky Andrika*
16:25 - 16:45	**Advances in Robotic Perception: Deep Learning and Probabilistic Graphical Models** *Anton Satria Prabuwono*	**Enhancing Refinery Operations: A Critical Evaluation of Supply Chain Planning & Optimization Strategies** *Achmad Khoirudin*	**Fostering a Brain-Based Economy: The Strategic Vision of Bukit Algoritma** *Jerry Lumelle*
16:50 - 17:10	**Advancing Collaborative Task Planning and Execution: Techniques for Human-Robot Teamwork** *Anton Satria Prabuwono*	**Review of Fault Detection and Localization Methods in Fiber Optic Networks** *Muhammad Riza*	**Building Sustainable Innovation Ecosystems: The Bukit Algoritma Approach** *Ahmad Firdaus*
17:10 - 18:00	**Closing Remarks & Free Time**		