

Theme: Transformation of Scientific Discovery
to Build Innovative Partnerships for Sustainable Development

PLENARY SESSION | DAY 1**SATURDAY, 3rd AUGUST 2024 (ONSITE)****Venue:** MIPA Center Building, Brawijaya University, **Room:** MC 1.1 (1st Floor)**ZOOM Link:** <https://s.sub.ac.id/basic2024> | **Meeting ID:** 916 4988 9035 | **Passcode:** basic2024

07.30 – 08.00	Registration <i>30 minutes</i>
08.00 – 08.10	Opening ceremony, sing the National anthem “Indonesia Raya” <i>10 minutes</i>
08.10 – 08.20	Welcome Speech from BASIC 2024 Chair <i>10 minutes</i>
08.20 – 08.30	Opening speech from Rector Brawijaya University/Dean FMIPA Symbolic opening (hit the gong) <i>10 minutes</i>

SESSION 1**Moderator:** Dinia Rizqi Dwijayanti, S.Si., M.Si., D.Sc.

08.30 – 09.10	Keynote Speaker 1: Prof. Fatchiyah (Onsite) <i>Innovation Key: Transforming the Science of Cellular Nutrition Toward Sustainability in Natural Cosmetics</i> <i>40 minutes</i>
09.10 – 09.50	Keynote Speaker 2: Prof. Tatsuhiko Aizawa (Onsite) <i>Micro-/Nano-Texturing: A Linkage between IR-Optics and Heat Transfer Technology in Sustainable Society</i> <i>40 minutes</i>
09.50 – 10.00	Discussion <i>10 minutes</i>
10.00 – 10.30	Coffee Break <i>30 minutes</i>

SESSION 2**Moderator:** Dr.Sc. Lukman Hakim, S.Si., M.Sc.

10.30 – 11.10	Keynote Speaker 3: Prof. Gereon Elbers (Onsite) <i>Direct Detection of Low Molecular Weight Organic Molecules in Aerosol Particles by MALDI Mass Spectrometry</i> <i>40 minutes</i>
11.10 – 11.50	Keynote Speaker 4: Dr. Hendra Gunosewoyo (Online) <i>Indole-2-Carboxamides as Cannabimimetics: A Link to the Antitumour Efficacy</i> <i>40 minutes</i>
11.50 – 12.00	Discussion <i>10 minutes</i>
12.00 – 13.00	Lunch Break <i>60 minutes</i>

13.00 – 15.30	Parallel Session <i>150 minutes</i>
15.30 – 16.00	Break and end of the day 1 <i>30 minutes</i>

PARALLEL SESSION | DAY 1
SATURDAY, 3rd AUGUST 2024 (ONSITE)

Venue: MIPA Center Building, Brawijaya University, **Room:** 2nd Floor

ZOOM Link: <https://s.sub.ac.id/basic2024> | **Meeting ID:** 916 4988 9035 | **Passcode:** basic2024

R1: Computational Modelling & Environmental Science

(Room: MC 2.1, Participants: 7)

Moderator: Fery Widhiatmoko, S.Pd., M.Sc.

13.00 – 13.10	<i>Interior Thermal Analysis using Finite Element Method</i> <i>10 minutes</i>	CAM/O-001 Muammar Kadhafi, Kunsan National University
13.10 – 13.20	<i>AI Usage for Digital Twin of Ultrasound Image Processing</i> <i>10 minutes</i>	CAM/O-003 Sugeng Rianto, Brawijaya University
13.20 – 13.30	<i>Heart Disease Prediction Using Random Forest with Swarm Intelligence Hyperparameter Tuning</i> <i>10 minutes</i>	CAM/O-004 Afidatul Masbakhah, Brawijaya University
13.30 – 13.40	Discussion <i>10 minutes</i>	
13.40 – 13.50	<i>Classification of Liver Cirrhosis using XGBoost Algorithm with Swarm Intelligence for Hyperparameter Tuning</i> <i>10 minutes</i>	CAM/O-005 Lista Tri Nalasari, Brawijaya University
13.50 – 14.00	<i>Gadget Service Revolutionized: AI-Powered Diagnosis for Speed, Accuracy, and Personalization</i> <i>10 minutes</i>	CAM/O-006 Sulthan Rizki Pratama, Bina Nusantara University
14.00 – 14.10	<i>Analysis of Cadmium and Zinc Based on Mangrove-Sediment Association at The Asam-Asam River</i> <i>10 minutes</i>	ESE/O-005 Bunda Halang, Lambung Mangkurat University
14.10 – 14.20	<i>Phosphate Accumulation from Solution using Mg (OH)₂-Fe₃O₄/Agarose/Oxalic Acid Gel</i> <i>10 minutes</i>	ESE/O-003 Layta Dinira, Brawijaya University
14.20 – 14.30	Discussion <i>10 minutes</i>	
14.30 – 16.00	Break and end of the day 1 <i>90 minutes</i>	

R2: Chemistry

(Room: MC 2.2, Participants: 8)

 Moderator: **Anna Safitri, S.Si., M.Sc., Ph.D.**

13.00 – 13.20	<i>Potential of Organic Waste Processing for Sustainable Processing of Hospital Waste</i> 20 minutes	Invited Speaker Dr. Arie Srihardyastutie, S.Si., M.Kes.
13.20 – 13.30	Discussion 10 minutes	
13.30 – 13.40	<i>Cellulose Fiber Isolated from The Bark of Paraserianthes Falcataria</i> 10 minutes	CHE/O-002 Masruri, Brawijaya University
13.40 – 13.50	<i>Effect of Carboxymethylcellulose (CMC) and Chitosan on Layer-by-Layer (LBL) Edible Coating and Addition of Almond Oil (Prunus dulcis) for The Quality of Robusta Green Coffee Beans (Coffea canephora)</i> 10 minutes	CHE/O-003 Elvina Dhiaul Iftitah, Brawijaya University
13.50 – 14.00	<i>Development of a Microfluidic Paper-Based Analytical Devices (μPADs) for Iron (II) Determination Using Red Rose (Rosa Damascena M.) as Natural Reagent</i> 10 minutes	CHE/O-004 Hermin Sulistyarti, Brawijaya University
14.00 – 14.10	Discussion 10 minutes	
14.10 – 14.20	<i>Free Radical Scavenging Activity of Extracts and Active Fractions of Kasturi Mango (Mangifera casturi Koesterm.) Leaves</i> 10 minutes	CHE/O-005 Rurini Retnowati, Brawijaya University
14.20 – 14.30	<i>Antioxidant activity of hydrophobic fraction from Piper betle L. leaves</i> 10 minutes	CHE/O-006 Siti Mariyah Ulfa, Brawijaya University
14.30 – 14.40	<i>Determination of Erucamide Slip Additive in Polypropylene Masterbatch: Comparison of Soxhlet and Dissolution-Precipitation Method</i> 10 minutes	CHE/O-007 Eka Listari Purwaningtyas, PT. Lyondellbasell Advance Polyolefins
14.40 – 14.50	Discussion 10 minutes	
14.50 – 15.00	<i>Study of Inorganic Based Anti-Blocks as Migration Control of Slip Additive on Surface Polyethylene Monolayer Film</i> 10 minutes	CHE/O-008 Laily Aulia Agustina, LyondellBasell
15.00 – 15.10	<i>Potential of Coconut Water Fermentation with Ginger (Zingiber officinale Roscoe) to Increase Biological Activity as an Anti-inflammatory</i> 10 minutes	CHE/O-010 Sofi Nabila, Brawijaya University
15.10 – 15.20	Discussion 10 minutes	

R2: Chemistry

(Room: MC 2.2, Participants: 8)

 Moderator: **Anna Safitri, S.Si., M.Sc., Ph.D.**

15.20 – 16.00 Break and end of the day 1

40 minutes

R3: Biology & Molecular Science

(Room: MC 2.3, Participants: 7)

 Moderator: **Dr. Muhammad Yusuf, S.Si., M.Si.**

13.00 – 13.10	<i>Development of Indirect ELISA TPO Detection Kit for Hypothyroidism</i> 10 minutes	MOL/O-001 Aulanni'am, Brawijaya University
13.10 – 13.20	<i>Isolation and Characterization of TSH-Induced Antibodies in Rabbits (<i>Oryctolagus cuniculus</i>)</i> 10 minutes	MOL/O-002 Almas Dwi Khairana, Brawijaya University
13.20 – 13.30	<i>Effect of ethanol extract of Tapak liman leaves (<i>Elephantopus scaber</i> Linn.) on the production of IL-6 and TGF-β cytokines in mice with bleomycin-induced pulmonary fibrosis</i> 10 minutes	BIO/O-002 Asadig Alghoull, Brawijaya University
13.30 – 13.40	Discussion 10 minutes	
13.40 – 13.50	<i>Anti-Bacterial Activity of Flamboyant (<i>Delonix regia</i>) Leaves Extract and its Microencapsulation Based on Arabic Gum</i> 10 minutes	CHE/O-011 Yeyen Susana Senge, Brawijaya University
13.50 – 14.00	<i>Sustainable Biodiesel Production via Low-Temperature Transesterification with a Polymer-Based Heterogeneous Catalyst</i> 10 minutes	ENE/O-002 Erwanto, Brawijaya University
14.00 – 14.10	<i>Efficacy of Borrelidin and Macrolide Antibiotics Against <i>Plasmodium berghei</i>: A Literature Review</i> 10 minutes	BIO/O-004 Risqa Novita, IPB University
14.10 – 14.20	<i>Characterization and Immunogenicity Study of TPO 52 kDa Protein against Antibodies Produced in New Zealand White Rabbits (<i>Oryctolagus cuniculus</i>)</i> 10 minutes	MOL/O-003 Devi Ramadani, Brawijaya University
14.20 – 14.30	Discussion 10 minutes	
14.30 – 16.00	Break and end of the day 1 90 minutes	

R4: Environmental Science

(Room: MC 2.4, Participants: 8)

Moderator: **Dr. Ika Oktavia Wulandari, S.Si., M.Si.**

13.00 – 13.20	<i>Plastic Burning Emission: Source Detection, Emission Factor, Monitoring, and Health Impacts.</i> 20 minutes	Invited Speaker Prof. Drs. Arinto Yudi Ponco Wardoyo, M. Sc., Ph.D.
13.20 – 13.30	Discussion 10 minutes	
13.30 – 13.40	<i>Development of Graphite Composite VIA UV Curable Resins with Light Masked 3D Printing Technique</i> 10 minutes	MTS/O-002 Dionysius Joseph Djoko Herry Santjojo, Brawijaya University
13.40 – 13.50	<i>Study of curcumin release from nanoemulsion (NE-PIT) in simulated gastrointestinal system</i> 10 minutes	MTS/O-004 Zubaidah Ningsih, Brawijaya University
13.50 – 14.00	<i>Analysis of the Effect of Gelatin/Hydroxyapatite Composition on The Morphology and Microstructure of 3-Dimensional Printing Filaments</i> 10 minutes	MTS/O-005 Yoga Adi Tandanu, Brawijaya University
14.00 – 14.10	Discussion 10 minutes	
14.10 – 14.20	<i>X-Ray Scattering Radiation Dose Profile in Mammography Room in Craniocaudal and Left Mediolateral Oblique Projection Examination</i> 10 minutes	PHY/O-002 Johan Andoyo Effendi Noor, Brawijaya University
14.20 – 14.30	<i>Comparative Analysis of Herbal Ability Bajakah Wood (<i>Spatholobus Littoralis</i>), Red Betel (<i>Piper crocatum</i>), and Papuan Red Fruit (<i>Pandanus conoideus</i>) in Preventing Free Radicals Due to Rhodamine-B Injection</i> 10 minutes	PHY/O-006 Unggul Pundjung Juswonos, Brawijaya University
14.30 – 14.40	<i>Analysis of Surface Geological Structure on the Southern Cross Route Based on Landsat-8 Image Data (Case Study: Southern Region of Malang Regency)</i> 10 minutes	ESE/O-001 Didik Yudianto, Brawijaya University
14.40 – 14.50	Discussion 10 minutes	
14.50 – 15.00	<i>Effect of Photocatalyst Ratio and Exposure Time on Degradation of Methylene Blue with Photocatalyst TiO₂-Curcumin/Zeolite</i> 10 minutes	ESE/O-002 Sri Wardhani, Brawijaya University

R4: Environmental Science

(Room: MC 2.4, Participants: 8)

Moderator: **Dr. Ika Oktavia Wulandari, S.Si., M.Si.**

15.00 – 15.10	<i>Deformation Analysis Based on The Interferometric Synthetic Aperture Radar (INSAR) Method (Case Study: Earthquake 10 April 2021 in Tamanayu Village, Pronojiwo District, Lumajang)</i> 10 minutes	ESE/O-004 Endryana Seftianingtyas, Brawijaya University
15.10 – 15.20	Discussion 10 minutes	
15.20 – 16.00	Break and end of the day 1 40 minutes	

R5: Mathematics

(Room: MC 2.6, Participants: 7)

Moderator: **Indah Yanti, S.Si., M.Si.**

13.00 – 13.20	<i>Development of the Diabetes Mellitus Prediction Method Using Random Forest Classifier with Binary Gray Wolf Optimization Feature Selection</i> 20 minutes	Invited Speaker Syaiful Anam, S.Si., MT., P.h.D.
13.20 – 13.30	Discussion 10 minutes	
13.30 – 13.40	<i>Cervical Cancer Cell Images Classification Using CNN And EFFICIENTNETV2</i> 10 minutes	MAT/O-008 Indah Yanti, Brawijaya University
13.40 – 13.50	<i>Optimal Control Analysis of the Multiple-interactions HIV/AIDS Epidemic Model with Education and Antiretroviral Treatment</i> 10 minutes	MAT/O-003 Ummu Habibah, Brawijaya University
13.50 – 14.00	<i>Structure of Virtually Simple Ring</i> 10 minutes	MAT/O-004 Ari Andari, Brawijaya University
14.00 – 14.10	Discussion 10 minutes	
14.10 – 14.20	<i>Bifurcation Analysis of a Discrete Fractional Order Leslie-Gower Model of Prey-predator with Fear Effect, Allee Effect, and Interspecies Rivalry</i> 10 minutes	MAT/O-005 Sri Puji Lestari, Brawijaya University
14.20 – 14.30	<i>Pest-Predator-Refugia Plant Interaction Model with Intraspecific Competition in Predator</i> 10 minutes	MAT/O-006 Muhammad Luthfi, Brawijaya University
14.30 – 14.40	<i>Dynamical Analysis of Deposit and Loan Model with Non-Performing Loan and Deposit Withdrawal Factors</i>	MAT/O-007 Onik Febria Damayanti, Brawijaya University

R5: Mathematics

(Room: MC 2.6, Participants: 7)

Moderator: Indah Yanti, S.Si., M.Si.

	<i>10 minutes</i>	
14.40 – 14.50	<i>Implementation of Logistic Map with Feedback Control for Image Encryption and Decryption</i>	MAT/O-009 Mohammad Fahrurrozy, Brawijaya University
	<i>10 minutes</i>	
14.50 – 15.00	Discussion	
	<i>10 minutes</i>	
15.00 – 16.00	Break and end of the day 1	
	<i>60 minutes</i>	

R6: Statistics

(Room: MC 2.7, Participants: 6)

Moderator: Nur Silviah Rahmi, S.Si., M.Stat.

13.00 – 13.20	<i>Bayesian Approach Spatial Panel Regression: Exploring in Detail from a Statistical Perspective the Relationship between Disease Disasters and Economic Disasters in Indonesia</i>	Invited Speaker Dr. Dra. Ani Budi Astuti, M.Si.
	<i>20 minutes</i>	
13.20 – 13.30	Discussion	
	<i>10 minutes</i>	
13.30 – 13.40	<i>Dynamic Spatial Cluster-based Spatial Weight Matrix: A Tool for Spatial Data Science in Regional Economics</i>	STA/O-001 Rahma Fitriani, Brawijaya University
	<i>10 minutes</i>	
13.40 – 13.50	<i>Binary Logistic Regression Modeling Using the Bayesian Method – A Case Study and Simulation on the Poverty Percentage of City/District in East</i>	STA/O-004 Achmad Efendi, Brawijaya University
	<i>10 minutes</i>	
13.50 – 14.00	<i>K-Means Clustering Analysis of the Grouping of Underdeveloped Regions in Indonesia Based on the Regional Lagging Composite Index</i>	STA/O-006 Muhammad Zulfadhli, Institut Teknologi Sepuluh Nopember
	<i>10 minutes</i>	
14.00 – 14.10	Discussion	
	<i>10 minutes</i>	
14.10 – 14.20	<i>Meta Regression Analysis to Explain Heterogeneity in Employment Status and Education Level Factors that Influence Hypertension in Indonesia</i>	STA/O-009 Nur Silviah Rahmi, Brawijaya University
	<i>10 minutes</i>	

R6: Statistics

(Room: MC 2.7, Participants: 6)

Moderator: **Nur Silviah Rahmi, S.Si., M.Stat.**

14.20 – 14.30	<i>Mixed Geographically and Temporally Weighted Bivariate Poisson Inverse Gaussian Regression Model (Case Study: Number of Maternal and Neonatal Deaths in East Java Province 2018-2022)</i> 10 minutes	STA/O-014 Mohammad Zanuvar Fatih Terim, Institut Teknologi Sepuluh Nopember
14.30 – 14.40	<i>Detection Outlier in Spatial Autoregressive Models with Variance Shift Outlier Model (VSOM)</i> 10 minutes	STA/O-015 Gilbert Alvaro Souisa, Institut Teknologi Sepuluh Nopember
14.40 – 14.50	Discussion 10 minutes	
14.50 – 16.00	Break and end of the day 1 70 minutes	

R7: Applied Physics (Geophysics, Instrumentation)

(Room: MC 2.8, Participants: 10)

Moderator: **Sri Herwiningsih, Ph.D.**

13.00 – 13.10	<i>Investigating a Land Drag in Public Housing Using Geoelectric Method</i> 10 minutes	GEO/O-001 Alamsyah Mohammad Juwono, Brawijaya University
13.10 – 13.20	<i>Earthquake Hypocenter Relocation Along Sunda Subduction Zone</i> 10 minutes	GEO/O-002 Mayang Bunga Puspita, Brawijaya University
13.20 – 13.30	<i>Hydrogeological Potential Mapping Using Audiomagnetotelluric Method Approach (Case Study: Ranch Construction Area in Jepangrejo Village, Blora Subdistrict, Blora Regency, Central Java)</i> 10 minutes	GEO/O-004 Tarangga Fathur Rizqi, Brawijaya University
13.30 – 13.40	Discussion 10 minutes	
13.40 – 13.50	<i>Analysis of Changes in Coastline Morphology for the 2013-2023 Period Using the Digital Shoreline Analysis System Method (Case Study: Coastline of Pasirian Area, Lumajang Regency)</i> 10 minutes	GEO/O-005 Agil Ragita Dolfin, Brawijaya University
13.50 – 14.00	<i>Coastal Vulnerability Index Analysis of Purwodadi Village, South Malang District</i> 10 minutes	GEO/O-006 Aurelia Putri Larasati, Brawijaya University
14.00 – 14.10	<i>Analysis of Surface Geological Structure Using Landsat-8 Satellite Imagery in The Purwodadi Village Area, South Malang</i>	GEO/O-007 Abdul Khodir Jaelani, Brawijaya University

R7: Applied Physics (Geophysics, Instrumentation)

(Room: MC 2.8, Participants: 10)

Moderator: Sri Herwiningsih, Ph.D.

	<i>10 minutes</i>	
14.10 – 14.20	Discussion <i>10 minutes</i>	
14.20 – 14.30	<i>A Study of Some Particular Load Switching and an Implementation of a Control System</i> <i>10 minutes</i>	INS/O-001 Hari Arief Dharmawan, Brawijaya University
14.30 – 14.40	<i>The Effect of Region of Interest (ROI) on Colour Tone Defect Detection Accuracy in Milk Bottles Printing Using the Gray Level Co-Occurrence Matrix (GLCM) as Feature Extraction Method and Decision Tree Model</i> <i>10 minutes</i>	INS/O-003 Nina Sajidah Firdawati, Brawijaya University
14.40 – 14.50	<i>Design of Inclinometer System Using Array of MMA7361L Mems-Accelerometer for Landslide Monitoring Purposes</i> <i>10 minutes</i>	INS/O-002 Didik Rahadi Santoso, Brawijaya University
14.50 – 15.00	<i>Evaluation of Tumour Control Probability and Normal Tissue Complication Probability of Cervical Cancer Treatment Plan Treated using 3DCRT and IMRT</i> <i>10 minutes</i>	PHY/O-001 Sri Herwiningsih, Brawijaya University
15.00 – 15.10	Discussion <i>10 minutes</i>	
15.10 – 16.00	Break and end of the day 1 <i>50 minutes</i>	



PLENARY SESSION | DAY 2

SUNDAY, 4th AUGUST 2024 (ONLINE)Venue: MIPA Center Building, Brawijaya University, Room: MC 1.1 (1st Floor)ZOOM Link: <https://s.uib.ac.id/basic2024> | Meeting ID: 916 4988 9035 | Passcode: basic202408.00 – 08.30 **Registration**

30 minutes

SESSION 1

Moderator: **Anna Safitri, Ph.D.**

08.30 – 09.10

Keynote Speaker 5: Prof. Justinus A. B. Satrio*CIRESH: Pioneering International Collaborations on Regenerative Hospitality and Tourism for a Better World*

40 minutes

09.10 – 09.50

Keynote Speaker 6: Dr. Kittipong Chainok*Pore Engineering of Rare-Earth based MOFs for CO₂ Capture*

40 minutes

09.50 – 10.00

Discussion

10 minutes

10.00 – 10.30

Coffee Break

30 minutes

SESSION 2

Moderator: **Dr. Suci Astutik, M.Si.**

10.30 – 11.10

Keynote Speaker 7: Dr. Solimun*SEM Innovation in the Form of SFAM Integrated with Data Science in Pre-Application Credit Response Model Development*

40 minutes

11.10 – 11.50

Keynote Speaker 8: Prof. Adem Kilicman*A Review on Applications of Fractional Derivatives and Generalized Functions*

40 minutes

11.50 – 12.00

Discussion

10 minutes

12.00 – 13.00

Lunch Break

60 minutes

13.00 – 15.30

Parallel Session

150 minutes

15.30 – 16.00

Break and end of the day 2

30 minutes

PARALLEL SESSION | DAY 2

 SUNDAY, 4th AUGUST 2024 (ONLINE & ONSITE)

 Venue: MIPA Center Building, Brawijaya University, Room: 2nd Floor

 ZOOM Link: <https://s.uib.ac.id/basic2024> | Meeting ID: 916 4988 9035 | Passcode: basic2024

R8: Biology, Chemistry, Material Science

(Breakout Room 1, Participants: 7)

 Moderator: **Dr. Layta Dinira**

13.00 – 13.10	<i>Synthesis and Characterization of ZIF-8 at Ambient Temperature</i> 10 minutes	CHE/O-009 Husna Syaima, Mulawarman University
13.10 – 13.20	<i>Characterization of Herbal oil With Variation of Spices Ratio (Brotowali, Cengkeh, Kayu Manis, Kencur, Sambaloto) VCO</i> 10 minutes	CHE/O-012 Muhamad Agus Wibowo, Tanjungpura University
13.20 – 13.30	<i>Effect of Strontium Metal Doping on Crystal Structure and Band Gap Energy of Zinc Oxide Nanoparticles</i> 10 minutes	MTS/O-001 Heru Harsono, Brawijaya University
13.30 – 13.40	Discussion 10 minutes	
13.40 – 13.50	<i>Biocorrosion of ASTM 36 Material on Shielded Metal Arc Welding (SMAW) Electrode Type</i> 10 minutes	MTS/O-003 Herman Pratikno, Institut Teknologi Sepuluh Nopember
13.50 – 14.00	<i>Isolation and Identification of Azotobacter and Azospirillum Bacteria from Rhizosphere and Soil in the System of Rice Intensification (SRI) Fields in Pagersari Village, Pageurageung Sub-district, Tasikmalaya Regency</i> 10 minutes	BIO/O-003 Shaffrina Zhamara, Padjadjaran University
14.00 – 14.10	<i>Study of Pressure Effect on Hydrogenation Alpha-Pinene using Catalyst Nickel Nanoparticle</i> 10 minutes	CHE/O-015 Ahmad Rizqi Alima Fabri, Brawijaya University
14.10 – 14.20	<i>The Effect of Lead (Pb) Heavy Metal Elicitation on the Phenolic Content and Antioxidant Activity of Ethanol Extract from Hydrilla verticillate</i> 10 minutes	CHE/O-016 A. Ghanaim Fasya, Brawijaya University
14.20 – 14.30	Discussion 10 minutes	
14.30 – 16.00	Break and end of the day 2 90 minutes	

R9: Statistics & Computational and Modelling

(Breakout Room 2, Participants: 12)

Moderator: **Nur Silviah Rahmi, S.Si., M.Stat.**

13.00 – 13.10	<i>Development of Structural Equation Modeling Semiparametric Polinomial Integrated with Data Science Approach: Determinants of Public Interest in Banking Literacy</i> 10 minutes	STA/O-002 Adji Achmad Rinaldo Fernandes, Brawijaya University
13.10 – 13.20	<i>Hard Voting and Soft Voting Classifier: Classification Model of Death Risk in Chronic Kidney Failure Patients</i> 10 minutes	STA/O-003 Luthfatul Amaliana, Brawijaya University
13.20 – 13.30	<i>Integration of Kriging and Random Forest Method for Rainfall Interpolation</i> 10 minutes	STA/O-007 Risma Hartanti Putri Yulianing Damayanti, Brawijaya University
13.30 – 13.40	Discussion 10 minutes	
13.40 – 13.50	<i>The Comparison of Max-MCUSUM Control Chart Based on Classical and Fast-MCD Estimation</i> 10 minutes	STA/O-011 Iman Rais Afandy, Institut Teknologi Sepuluh Nopember
13.50 – 14.00	<i>Zero Inflated Poisson Regression model – A Case Study of Measles in East Java</i> 10 minutes	STA/O-010 Candra Rezzining Wulat Sariro Weni Utomo, Brawijaya University
14.00 – 14.10	<i>A Study of Temperature Change in Aquatic Ecosystem using Mathematical Modelling</i> 10 minutes	CAM/O-010 Dear Michiko Mutiara Noor, Institut Teknologi Sumatera
14.10 – 14.20	Discussion 10 minutes	
14.20 – 14.30	<i>Machine Learning Implementation for Risk Classification in Life Insurance Underwriting Assessment: A Comparative Study of SVM And XGBoost</i> 10 minutes	CAM/O-012 Muhammad Teguh Prayoga, Brawijaya University
14.30 – 14.40	<i>Child Leprosy Cases Modeling in Indonesia Using Geographically Weighted Poisson Regression Approach</i> 10 minutes	STA/O-012 Darnah, Mulawarman University
14.40 – 14.50	<i>Parameter Estimation and Hypothesis Testing Geographically Weighted Generalized Log Gamma Regression Model</i> 10 minutes	STA/O-013 Sitti Zahirah Nurdin, Institut Teknologi Sepuluh Nopember
14.50 – 15.00	Discussion 10 minutes	
15.00 – 15.10	<i>Numerical simulation of submarine landslide-induced tsunami waves using finite difference methods on staggered grid</i> 10 minutes	CAM/O-008 Rifky Fauzi, Institut Teknologi Sumatera

R9: Statistics & Computational and Modelling

(Breakout Room 2, Participants: 12)

Moderator: **Nur Silviah Rahmi, S.Si., M.Stat.**

15.10 – 15.20	<i>Modeling the decline of total fertility rate in Indonesia using a random walk model with double logistic drift for short-term predictions</i> 10 minutes	CAM/O-009 Rifky Fauzi, Institut Teknologi Sumatera
15.20 – 15.30	<i>Classification of Dengue Hemorrhagic Fever Incident Levels in Lampung Province based on Climate Factors using A Multinomial Logistic Regression Model</i> 10 minutes	CAM/O-011 Tiara Shofi Edriani, Institut Teknologi Sumatera
15.30 – 16.00	Break and end of the day 2 30 minutes	

R10: Applied Physics (Geophysics, Medical Physics)

(Breakout Room 3, Participants: 9)

Moderator: **Dr. Turhadi**

13.00 – 13.10	<i>Catalytic Pyrolysis of High-Density Polyethylene Waste into Fuel Fraction Utilizing Ni-Mo Catalyst Supported by Active Natural Zeolite</i> 10 minutes	ENE/O-001 Junifa Layla Sihombing, Universitas Negeri Medan
13.10 – 13.20	<i>An analysis of plastic waste burning gas emission using GCMS: Laboratory case study</i> 10 minutes	ESE/O-006 Azarine Aisyah Widhowati, Brawijaya University
13.20 – 13.30	<i>Hypoglycemic Activity of Brown Seaweed Kombucha (Sargassum plagiophyllum) Bioactive Compound in Rat Model Type-2 of Diabetes</i> 10 minutes	ESE/O-008 Ahmad Faris Priambodo, Faculty of Agricultural Technology
13.30 – 13.40	Discussion 10 minutes	
13.40 – 13.50	<i>Identification of Potential Slip Surfaces Based on the Dipole-Dipole Geoelectrical Method in the Landslide Prone Areas (Case Study: Wediawu Beach, Purwodadi, Tirtoyudo District, Malang Regency)</i> 10 minutes	GEO/O-003 Faridha Aprilia, Brawijaya University
13.50 – 14.00	<i>Improvement of Structural and Optical Properties of ZnO Nanoparticles Through Doping Transition Metal Aliminum and Manganese</i> 10 minutes	PHY/O-003 Heru Harsono, Brawijaya University

R10: Applied Physics (Geophysics, Medical Physics)

(Breakout Room 3, Participants: 9)

Moderator: **Dr. Turhadi**

14.00 – 14.10	<i>A Retrospective Evaluation to Estimate the Effective Dose of Patients Undergoing Whole Body¹⁸F-FDG PET/CT Examinations</i> 10 minutes	PHY/O-004 Risalatul Latifah, Brawijaya University
14.10 – 14.20	Discussion 10 minutes	
14.20 – 14.30	<i>Analysis of Diabetes Mellitus Screening Method Based on Electrical Properties of Cells Using Dielectric Method</i> 10 minutes	PHY/O-005 Muhammad Faisal, Brawijaya University
14.30 – 14.40	<i>Model of learning machine based on back-propagation knowledge based conceptual neural networks integrated with electronic nose for identifying the bioactive compounds in herbal medicines</i> 10 minutes	ESE/O-007 Fajar Hardoyono, UIN Prof. K.H. Saifuddin Zuhri Purwokerto
14.40 – 14.50	<i>Assessment of Degradation Risks at Geosites in Purwodadi Village, Tirtoyudo District, Malang Regency</i> 10 minutes	GEO/O-008 I Ketut Ari Pegatariana, Brawijaya University
14.50 – 15.00	Discussion 10 minutes	
15.00 – 16.00	Break and end of the day 2 60 minutes	

R11: Mathematics

(Breakout Room 4, Participants: 11)

Moderator: **Syaiful Anam, S.Si., MT., P.h.D.**

13.00 – 13.10	<i>Applications of the Runge-Kutta-Fehlberg Method and the Adams-Bashforth-Moulton Method to Solve a Rabies Epidemic Model</i> 10 minutes	CAM/O-002 Marsudi, Brawijaya University
13.10 – 13.20	<i>Optimal Control of Rubella Spreading Model with Vertical Transmission</i> 10 minutes	MAT/O-002 Nur Shofianah, Brawijaya University
13.20 – 13.30	<i>Generalized Regular and Normal Space in Fuzzy Bitopological Spaces</i> 10 minutes	MAT/O-010 Ahlam Ahmed Alharbi, Faculty of Science, UPM
13.30 – 13.40	Discussion 10 minutes	
13.40 – 13.50	<i>Mathematical Model of Dengue Transmission with Fogging</i> 10 minutes	CAM/O-007 Nela Rizka, Institut Teknologi Sumatera

R11: Mathematics

(Breakout Room 4, Participants: 11)

Moderator: **Syaiful Anam, S.Si., MT., P.h.D.**

13.50 – 14.00	<i>Centrality Measurement of Dengeu Transmission Represented by Correlation Graph of Daily Admitted Patient in Bandung</i> 10 minutes	MAT/O-011 Aswan Anggun Pribadi, Institut Teknologi Sumatera
14.00 – 14.10	<i>Heart Attack Risk Prediction using Random Forest with Feature Selection and Greedy Crossover Technique</i> 10 minutes	MAT/O-012 Safrizal Ardana Ardiyansa, Brawijaya University
14.10 – 14.20	Discussion 10 minutes	
14.20 – 14.30	<i>Constrained Clustering Genetic Algorithm Method for Finding Optimal Routes in CVRP</i> 10 minutes	MAT/O-013 Nur Aji Haryo Indradi, Brawijaya University
14.30 – 14.40	<i>Riemann-Stieltjes Integral in Quasilinear Metric Spaces</i> 10 minutes	MAT/O-014 Natasha Clarissa Maharani, Brawijaya University
14.40 – 14.50	<i>Heart Disease Classification Using Random Forest with Genetic Algorithm Feature Selection</i> 10 minutes	MAT/O-015 Alif Alfarizi, Brawijaya University
14.50 – 15.00	Discussion 10 minutes	
15.00 – 15.10	<i>Implementation of YOLOV6-S (You Only Look Once) Version 6 in Digital Image-Based Traffic Sign Detection and Classification</i> 10 minutes	MAT/O-016 Mochammad Yosi Pratikno, Brawijaya University
15.10 – 15.20	<i>Some Properties of Graphs with Fibonacci Numbers as Their Edges and The Wiener Index in Power Graphs of Cyclic Groups</i> 10 minutes	MAT/O-001 Darmajid, Brawijaya University
15.20 – 15.30	Discussion 10 minutes	
15.30 – 16.00	Break and end of the day 2 30 minutes	

R12: All Scope

(Room: MC 2.1, Participants: 5)

Moderator: **Indah Yanti, S.Si., M.Si.**

13.00 – 13.20	<i>Melatonin: Multifaceted Roles in Plant Physiology and Beyond</i> 20 minutes	Invited Speaker Dian Siswanto, Ph.D.
13.20 – 13.30	Discussion 10 minutes	

R12: All Scope

(Room: MC 2.1, Participants: 5)

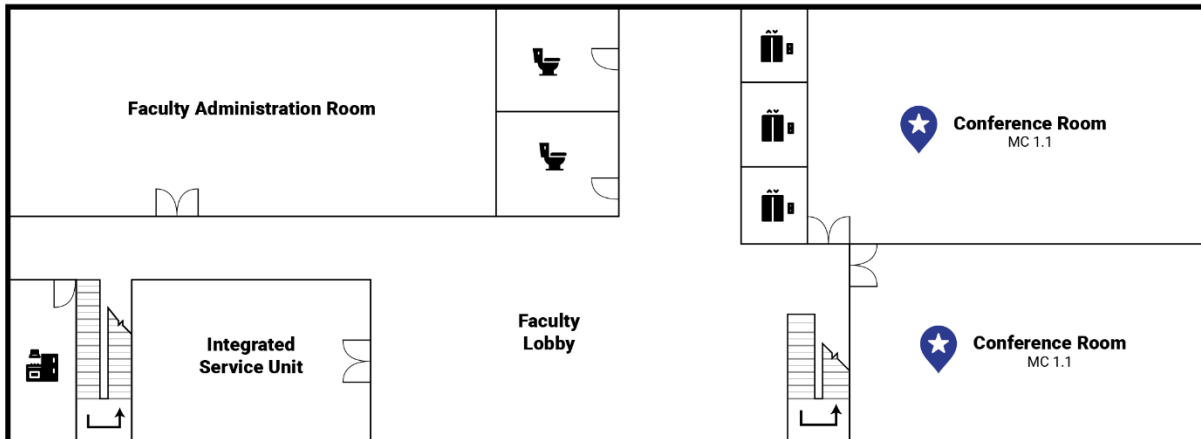
Moderator: **Indah Yanti, S.Si., M.Si.**

13.30 – 13.40	<i>Innovative Casting Method for the Production of Screen-Printed Carbon Electrodes from Coconut Shell Activated Carbon</i> <i>10 minutes</i>	CHE/O-013 Nabila Putri Aulia, Sebelas Maret University
13.40 – 13.50	<i>The Effect of Heating Treatment to Sodium Beta-Alumina Solid Electrolyte</i> <i>10 minutes</i>	CHE/O-014 Muhammad Arif Rifa'i, Sebelas Maret University
13.50 – 14.00	<i>Microencapsulation by spray drying of Tithonia diversifolia extract: design, characteristics, and antioxidant activity</i> <i>10 minutes</i>	CHE/O-001 Anna Safitri, Brawijaya University
14.00 – 14.10	<i>A Machine Learning Approach to Kriging Method for Improving Rainfall Interpolation in East Java</i> <i>10 minutes</i>	STA/O-008 Suci Astutik, Brawijaya University
14.10 – 14.20	Discussion Break and end of the day 2 <i>10 minutes</i>	

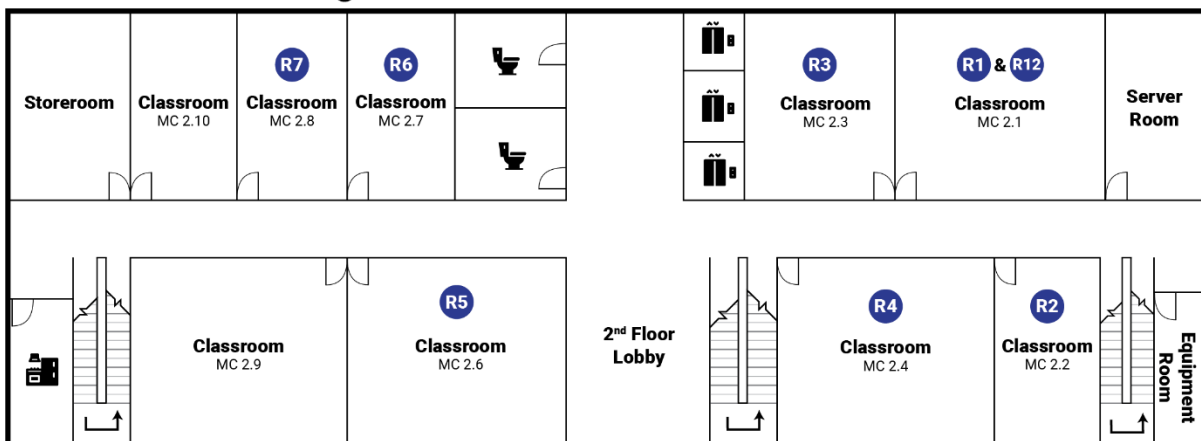


BASIC 2024 was held at the **MIPA CENTER** building, **Universitas Brawijaya, Malang City**. To get to the location, you can go through the **4 main entrance gates** of Universitas Brawijaya, as shown on the map above.

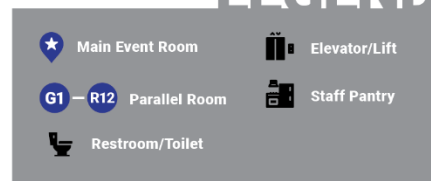
MIPA Center Building 1st Floor



MIPA Center Building 2nd Floor



LEGEND



BASIC 2024 was held on the **1st and 2nd floors** of the **MIPA CENTER building, Universitas Brawijaya**. The **main event** will be in the **conference room on the 1st floor** and **parallel sessions** will be held in the **classrooms on the 2nd floor**.