

Schedule of SYMOMATH 2024

Main Schedule of SYMOMATH 2024

Wednesday, 10 July 2024

Time	Activity
08.30 - 09.30	Registration + coffee break
09.30 - 09.50	Opening talk (IBMS, Organizing, Dean)
09.50 - 10.10	Photo session
10.10 - 10.50	Keynote talk 1: Nico Stollenwerk Title: The Role Of Import And Increasing Mosquito Abundance In Vector-borne Disease Invasion Scenarios
10.50 - 11.30	Keynote talk 2: Edy Soewono Title: An analysis of Trichogramma and Jatiroto flies parasitoids in controlling the stem borer pests in sugar cane plantation
11.30 - 13.00	Lunch break
13.00 - 13.40	Keynote talk 3: Sanjeewa Perera Title: Actuarial Models To Evaluate Financial Burden of Epidemic Outbreak
13.40 - 14.20	Keynote 4: Thomas Goetz Title: Social Models and Epidemiology
14.20 - 14.30	Preparation for parallel session
14.30 - 15.50	Invited talk 1: Nuning Nuraini, Setia Pramana, Fatmawati, and Uditha Prabhath L. Parallel Session 1
15.50 - 16.15	Coffee break
16.15 - 17.15	Parallel Session 2
17.15	End of 1st day activity.

Thursday, 11 July 2024

Time	Activity
08.30 - 09.00	Registration + coffee break
09.00 - 10.20	Parallel Session 3
10.20 - 10.30	Preparation for keynote session
10.30 - 11.10	Keynote talk 5: Maira Aguiar Title: Within-host Models Unravelling The Dynamics Of Dengue Reinfections
11.10 - 11.50	Keynote talk 6: Hadi Susanto Title: Visualizing Dynamics using Lagrangian Descriptors
11.50 - 13.00	Lunch break
13.00 - 14.40	Invited talk 2: Agus Suryanto, Fajar Adi Kusumo, Asep K. Supriatna, Sarini Abdullah Parallel Session 4
14.40 - 14.50	Preparation for Keynote 7
14.50 - 15.30	Keynote talk 7: Abdessamad Tridane Title: Meta-heuristic optimization control of pandemic in a mass religious gathering
15.30 - 15.50	Closing
15.50	The end of 2nd day activity

Friday, 12 July 2024

Time	Activity
13.30 - 14.00	Go to Taman Mini Indonesia Indah. Meeting point in Margo Hotel
14.00 - 19.00	Activity in Taman Mini Indonesia Indah
19.00 - 21.00	Dinner

Parallel Schedule of SYMOMATH 2024

Wednesday, 10 July 2024

Parallel Session 1 (14.30 - 15.50 WIB)

Room 201

Time	ID	Title	Authors
14.30 - 15.00	Invited Speaker 01	Modeling Climate Impact on Dengue Map Early Warning	Nuning Nuraini
15.00 - 15.30	Invited Speaker 02	Benthic Habitat Mapping using Satellite-based Machine Learning Approaches	Setia Pramana
15.30 - 15.50	32294	Joint Impact of Climate Factors on Dengue Transmission: Evidence from Colombo	Chamila Niroshanie, Hasitha Erandi, Sanjeewa Perera, Yashika Jayathunga

Room 202

Time	ID	Title	Authors
14.30 - 14.50	32288	Analyzing The Performance of Hybrid Machine Learning Models on Epidemic Disease: Learning From COVID19 Data	Muhammad Zaki Almuza- kki
14.50 - 15.10	32416	Implementation of Ensemble Bagging Support Vector Machine for Pneumonia Disease Detection on Protein Sequences	Muhammad Rayhanafraa Gibran Maulana, Gianinna Ardaneswari, Siti Aminah
15.10 - 15.30	32450	Development of Text Question Answering (TQA) using BioMistral Large Language Models (LLMs) Approach in Cancer	Sayyid Abdullah, Alhadi Bustaman
15.30 - 15.50	32550	Reconstruction and Performance Evaluation of the BioMistral Language Model in Detecting Bias in Biomedical Field	Indah Fitrialita Indah

Room 203

Time	ID	Title	Authors
14.30 - 15.00	Invited Speaker 03	Fractional-Order Model of HIV Transmission on Workplace Productivity with Real Data	Fatmawati
15.00 - 15.30	Invited Speaker 04	Multi-platformed Proactive Dengue Management System – ProDMS	Uditha Prabhath L.
15.30 - 15.50	32453	Implementation of Moving Average Filter in SARIMA-ANN-BP and SARIMA-SVR Methods for Forecasting Pneumonia Incidence in DKI Jakarta	Muhammad Majid Rafi Musyaffa, Gatot Fatwanto Hertono, Bevina Desjwandira Handari

Room 204

Time	ID	Title	Authors
14.30 - 14.50	32353	Dynamical Analysis of a Predator-Prey Model with Allee Effect and Prey Group Defense	Resmawan Resmawan, Agus Suryanto, Isnaini Darti, Hasan S. Panigoro
14.50 - 15.10	32385	Analysis Of Fractional Order Mathematical Models To Study The Dynamics Of Carbon Dioxide Concentration In The Atmosphere	Moh Nurul Huda
15.10 - 15.30	32460	Mathematical Model of a Food Chain in Mangrove Ecosystem Involving Mud Crabs and Its Predator with Variable Carrying Capacity	Emli Rahmi, Hasan S. Panigoro
15.30 - 15.50	32530	PHI-2 Doctor Model: Detecting and Analyzing Bias in Biomedical NLP Systems	Desi Arti

Parallel Session 2 (16.15 - 17.15 WIB)

Room 201

Time	ID	Title	Authors
16.15 - 16.35	32457	Numerical Simulation Mathematical Models Of Inland Fisheries	Choirul Basir, Asep Kuswandi Supriatna, Sukono, and Jumadil Saputra
16.35 - 16.55	32431	An Improved Deep Learning Based Cervical Cancer Detection Using Hybrid PMD Filter and CLAHE Based Preprocessing	Ach Khozaimi
16.55 - 17.15	32435	Implementation of Dual Ensemble Method Based on Random Forest-AdaBoost in Detection of Pneumonia Disease Using Protein Sequences	Deby Febriani, Siti Aminah, Gianinna Ardaneswari

Room 202

Time	ID	Title	Authors
16.15 - 16.35	32445	Harvesting on mature age class in a single population fishery model considering implicit marine reserve area and critical biomass level	Arjun Hasibuan
16.35 - 16.55	32459	Unraveling the Impact of Fear on a Fractional-Order SIS Prey-Predator Model	Hasan S. Panigoro, Emli Rahmi
16.55 - 17.15	32456	The Dynamical Analysis in The Detritus Food Chain with refuge of Detritivores	Dian Savitri, Abadi Abadi, Riska Wahyu Romadhonia

Room 203

Time	ID	Title	Authors
16.15 - 16.35	32301	Optimal Control Problems in Dengue Haemorrhagic Fever Management Using Active Case Finding and Fumigation Interventions	Gladys Nathania Banuarea
16.35 - 16.55	32429	The Effect of Intervention on Mathematical Model of Tuberculosis and Malaria Coinfection	Fatuh Inayaturohmat, Nursanti Anggriani, Asep Kuswandi Supriatna, Md. Haider Ali Biswas
16.55 - 17.15	32452	Mathematical Model Of The Dissemination Of Student's Learning Motivation And Interest In Mathematics Learning	Ati Maryati, Nursanti Anggriani, Asep Kuswandi Supriatna, Ema Carnia

Room 204

Time	ID	Title	Authors
16.15 - 16.35	32451	Mathematical Model Of The Influence Of Planting Refugia Crops And Pesticide Application On The Spread Of Rice Tungro Disease	Rika Amelia, Nursanti Anggriani, Asep Kuswandi Supriatna, Noor Istifadah
16.35 - 16.55	32424	The Role of Prey Refuge in a Ratio-Dependent Prey-Predator Model with Variable Functional Response	Abadi Abadi, Dian Savitri, Sunu Kuntjoro
16.55 - 17.15	32415	A Time-Delayed Mathematical Modeling for Monkeypox Transmission with Incubation Period	Muhammad Akbar Hidayat, Fatmawati Fatmawati, Cicik Alfiniyah

Parallel Schedule of SYMOMATH 2024

Thursday, 11 July 2024

Parallel Session 3 (09.00 - 10.20 WIB)

Room 201

Time	ID	Title	Authors
09.00 - 09.20	32448	Reconstruction of the Phi-2 Method for Text-Based Question-Answering Related to Diabetes Disease Using the MedAlpaca Dataset	Muhammad Ridho
09.20 - 09.40	32444	Performance Analysis of Variational Autoencoder (VAE) in Identifying Molecular Subtypes of Cervical Cancer using Multiomics Data	Hardianti Ekaputri
09.40 - 10.00	32447	XGBoost Classifier with Bat Algorithm Hyperparameter Tuning for Prediction Patient Survival	Syaiful Anam, Imam Nurhadi Purwanto, Dwi Mifta Mahanani
10.00 - 10.20	32437	Bias Correction of Reported Tuberculosis Cases in West Java Using Bayesian Methods	Fanny Kartika Sari, Arrofiatuz Zahra, Melly Melly, Iko Sutrisko Prakasa Lay, Shionita Dwilani Nainggolan, Kamal Khairudin Sukandar, Nuning Nuraini

Room 202

Time	ID	Title	Authors
09.00 - 09.20	32307	The Mathematical Model of Tuberculosis Intervention Considers Human Concern	Eka Dwi Agustina Ginting
09.20 - 09.40	32417	Bifurcation Analysis of Dengue Hemorrhagic Fever Model with Logistic Growth Rate in Aquatic Stage	Herri Sulaiman
09.40 - 10.00	32434	Mathematical Modeling for Bacterial Dynamics in Oral Biofilm: An Early Study	Sanubari Tansah Tresna, Nursanti Anggriani, Herlina Napitupulu, Wan Muhamad Amir W Ahmad
10.00 - 10.20	32306	Implementation of the Non-Standard Finite Difference Numerical Scheme in the Predator-Prey Model with Cannibalism and Harvesting in the Prey Population	Prisalo Luis Graciano

Room 203

Time	ID	Title	Authors
09.00 - 09.20	32300	Mathematical Modeling of Addiction with Frequency of Contact Incidence Term	Ghilmana Sarmad
09.20 - 09.40	32317	Optimal Control of Monkeypox Transmission Dynamics with Human Mobility Considerations	Abdullah Hasan Hassan, Dipo Aldila, Muhamad Hifzhudin Noor Aziz
09.40 - 10.00	32295	Predictive analysis of dengue trends in four different countries	Maneesha Dilki, Hasitha Erandi, Sanjeewa Perera, Muhammad Fakhrudin
10.00 - 10.20	32315	Exploring the Potential of the Novel Vaccine 'PfSPZ' in Controlling Malaria Transmission in Indonesia Through Mathematical Modeling	Iffatricia Haura Febiriana

Room 204

Time	ID	Title	Authors
09.00 - 09.20	32314	Performance Analysis of Random Forest and XG-Boost for Tuberculosis Patient Treatment Outcomes Classification in Depok City	Nurrochmi Andina, Dipo Aldila, Bevina Desjwiandra Handari
09.20 - 09.40	32320	Dynamic Simulation of Parkinson's Disease and ALS Propagation in the Brain: A Reaction-Diffusion on Brain Networks Approach	Muhammad Zaidan Faza Al Arsyad
09.40 - 10.00	32419	Spider Monkey Optimization in Feature Selection for Gene Expression Data Analysis	Desy Lusiyanti
10.00 - 10.20	32420	Implementation of K-Prototypes with Feature Selection in Clustering Cervical Cancer Patients based on Risk Factors	Wanda Puspita Hati, Devvi Sarwinda, Bevina Desjwiandra Handari

Parallel Session 4 (13.00 - 14.40 WIB)

Room 201

Time	ID	Title	Authors
13.00 - 13.30	Invited Speaker 05	Dynamics of a Discrete Single Species Logistic Model Under Harvested and Feedback Control	Agus Suryanto
13.30 - 14.00	Invited Speaker 06	Breast Cancer Model for Neutropenia due to Chemotherapy Effects: an overview and case studies	Fajar Adi Kusumo
14.00 - 14.20	32325	Optimal Control And Model Analysis Of The Spread Of Pneumonia In Toddlers In East Java Using The Pontryagin Minimum Principle	Basuki Widodo, Kamiran, Nur Asiyah, Lukman Hanafi, Denisa D. Syahputri
14.20 - 14.40	32404	On the fractional order of Richard growth model	Windarto, Fatmawati, Ahmadin Ahmadin

Room 202

Time	ID	Title	Authors
13.00 - 13.20	32436	Kolmogorov-Arnold-Informed Neural Networks: Advancing AI in Epidemiological Modeling	Erland Rachmad Ramadhan
13.20 - 13.40	32427	A Reinforcement Learning Based Decision-Support System for Mitigate Strategies During COVID-19: A Systematic Review	Utti Marina Rifanti, Lina Aryati, Nanang Susyanto, Hadi Susanto
13.40 - 14.00	32337	The epidemic forest reveals the spatial pattern of the spread of acute respiratory infections in Jakarta	Yuki N. Nasution, Marli Y. Sitorus, Kamal Sukandar, Nuning Nuraini, Mochamad Apri, Ngabila Salama
14.00 - 14.20	32312	Performance Analysis of Conditional Positional Encoding Vision Transformer Model with Convolution Stem in Classifying Tuberculosis Disease on Chest X-Ray Image	Muhammad Habil Amardias, Gianinna Ardanawari, Bevina Desjwiandra Handari
14.20 - 14.40	32463	Optimal Control Strategies for Enhancing the Effectiveness of Chemotherapy, Radiotherapy, and Immunotherapy in Cancer Model	Esther Yolandyne Bunga

Room 203

Time	ID	Title	Authors
13.00 - 13.30	Invited Speaker 07	A mathematical model of Hantavirus transmission	Asep K. Supriatna
13.30 - 14.00	Invited Speaker 08	Bayesian Survival Time Model for Early Detection of Pre-Eclampsia	Sarini Abdullah
14.00 - 14.20	32442	Dynamic Analysis Of Mathematical Model Interaction Of Therapist And People With Bipolar Disorder	Indah Nursupriana, Nursanti Anggriani, Nuning Nuraini, Yudi Rosandi
14.20 - 14.40	32428	Modeling Zika Virus Dynamics: Stability Analysis and Parameter Estimation with Asymptomatic Infections	Diki Fernandi, Fatmawati Fatmawati, Miswanto Miswanto

Room 204

Time	ID	Title	Authors
13.00 - 13.20	32446	Dynamic Analysis of a Mathematical Model for Immune Response to SARS-CoV-2 Infection	Usman Pagalay, Abdul Khayi
13.20 - 13.40	32308	Calculation of Insurance Premium for Pneumonia in Jakarta Using an Epidemiological Model Approach	Rachel Octaviani Putri
13.40 - 14.00	32440	Mathematical Analysis Impulse Buying Phenomenon Using Modified Lotka-Volterra Predator-Prey Model	Cintami Magdalena, Dewi Handayani, Jessica Jocelyn Jakson, Felice Fisichella, Katlaina Levanka Samsir, Olyfia Pisthea Cahya Putri
14.00 - 14.20	32313	A Deterministic Approach of Host-Vector Model for Calculating Insurance Premiums: Dengue Hemorrhagic Fever Disease Case	Latifa Aulia Esmananda
14.20 - 14.40	32465	Analysis of the effects of non-compliance with quarantine on controlling disease transmission	Erlina Nita Sumadya