

INTERNATIONAL CONFERENCE ON COMPUTATIONAL AND MATHEMATICAL MODELLING (ICMCM 2024)



Centre for Mathematical Modelling
Department of Mathematics
University of Colombo



10 years of excellence

PROGRAMME SCHEDULE

25th JANUARY 2024 (THURSDAY)
Day 01 - ONLINE SESSIONS

08.00 am - 09.00 am	Invited Talks : Session 01 (Online)			
	Session co-chairs: Dr. Nilusha Karunathunge, Dr. Thilini Piyatilake			
	Coordinator: Ms. Chami Kariyapperuma (Email: cpkariyapperuma@gmail.com, Phone:+94775190617)			
	Zoom link: https://learn.zoom.us/j/95771708999?pwd=U243d3E1MDdrY1RMaHQyTkFZL3g1Zz09			
08.00 am - 08.30 am	Invited Talk 01: Prof. Asep K. Supriatna			
08.30 am - 09.00 am	Invited Talk 02: Prof. Agus Suryanto			
09.00 am - 10.00 am	Technical Session I (Online 25-01-2024)			
	Session co-chairs: Dr. Nilusha Karunathunge, Dr. Thilini Piyatilake			
	Coordinator: Ms. Chami Kariyapperuma (Email: cpkariyapperuma@gmail.com, Phone:+94775190617)			
	Zoom link: https://learn.zoom.us/j/95771708999?pwd=U243d3E1MDdrY1RMaHQyTkFZL3g1Zz09 (Breakout Room: Technical Session I)			
	Paper ID	Title	Authors	Email of Corresponding Author
09.00 am - 09.10 am	icmcm001	Statistical Fuzzy Reliability of a System with Pareto Type I Life Distribution	Abdul Kalam, Cheng Weihu and Mohammad Ahmad	kalamgh85@gmail.com
09.10 am - 09.20 am	icmcm005	An Early Warning System for Dengue Controlling by Synergizing Dengue Modeling and Management	Udana Wetthasinghe ,Hasitha Erandi, Prabath Liyanage, Sanjeewa Perera and Muhammad Fakhruddin	udanakashyapa@fos.cmb.ac.lk
09.20 am - 09.30 am	icmcm032	Development of a Mobile App for the Fast Communication of Flooding in Smart Cities	K Kajeenthana and K.R.B Herath	pgest202117@eng.pdn.ac.lk
09.30 am - 09.40 am	icmcm039	Analyzing the Factors Associated with Perceived English Oral Communication Skills among Undergraduates: A Case Study	D.S. Ruwankumara and E.R.A.D. Bandara	shashika14854@gmail.com
09.40 am - 10.00 am	icmcm045	Heat Transfer of Hybrid Nanofluid Flow Over a Stretching Sheet with Higher Order Chemical Reaction: Darcy-Forchheimer Model	Puspanjali Mahapatra, Kharabela Swain and Tusar Kumar Parida	kharabela1983@gmail.com
09.00 am - 10.00 am	Technical Session II (Online 25 - 01 - 2024)			
	Session co-chairs: Prof. Anuradha Mahasinghe, Dr. Diana Kumari			
	Coordinator: Ms. Awansika Nimuthumana (Email: awansikanimuthumana@gmail.com, Phone: +94782345699)			
	Zoom link: https://learn.zoom.us/j/95771708999?pwd=U243d3E1MDdrY1RMaHQyTkFZL3g1Zz09 (Breakout Room: Technical Session II)			
	Paper ID	Title	Authors	Email of Corresponding Author
09.00 am - 09.10 am	icmcm004	Fifth Order Weighted Essentially Non-Oscillatory Scheme with new Reference Smoothness Indicator	Baby Lamkhoni and V. Ambethkar	lamkhoni5@gmail.com
09.10 am - 09.20 am	icmcm006	NsM/NsM/c Queuing Model with Heterogeneous Arrival and Servers under Catastrophe, Balking and Vacation	T. Deepika and K. Julia Rose Mary	deepikathangavel23@gmail.com
09.20 am - 09.30 am	icmcm008	Numerical Simulation of 2D Steady Flow in Lid-Driven Rectangular Domain	Jyoti and V. Ambethkar	jyotikaushik130@gmail.com
09.30 am - 09.40 am	icmcm009	Performance Analysis of MWV Queuing System under Types of Breakdowns with Encouraged Arrival in Regular Busy Period	P. Prakati and K. Julia Rose Mary	prakatidhanam@gmail.com
09.40 am - 10.00 am	icmcm055	JAYA Algorithm based Control of Three Phase CMLI using SHE Technique for MV Drive Applications	V. Joshi Manohar and Rahel Ann Johnson	joshimanohar@presidencyuniversity.in
10.00 am - 11.00 am	Tea Break			
11.00 am - 12.00 pm	Invited Talks : Session 02 (Online)			
	Session co-chairs: Dr. Yashika Jayathunga, Dr. Oshadee Peiris			
	Coordinator: Ms. Anuji Thisanka (Email: anujithisanka96@gmail.com, Phone: +94769142650)			
	Zoom link: https://learn.zoom.us/j/95771708999?pwd=U243d3E1MDdrY1RMaHQyTkFZL3g1Zz09			
11.00 am - 11.30 am	Invited Talk 03: Prof. S. Sundar			
11.30 am - 12.00 pm	Invited Talk 04: Dr. Wolfgang Bock			
12.00 pm - 01.15 pm	Technical Session III (Online 25 - 01 - 2024)			
	Session co-chairs: Dr. Yashika Jayathunga, Dr. Oshadee Peiris			
	Coordinator: Ms. Anuji Thisanka (Email: anujithisanka96@gmail.com, Phone: +94769142650)			
	Zoom link: https://learn.zoom.us/j/95771708999?pwd=U243d3E1MDdrY1RMaHQyTkFZL3g1Zz09 (Breakout Room: Technical Session III)			
	Paper ID	Title	Authors	Email of Corresponding Author
12.00 pm - 12.10 pm	icmcm019	On the Negative p - Pellian Triangles and Regular Pentagon with Rational Area	V.Sangeetha, J.Kannan, M. Mahalakshmi and P.Vijaya Shanthi	prasansangee@gmail.com
12.10 pm - 12.20 pm	icmcm022	On Generalized Countably Compact Spaces	P. Vijaya Shanthi, J. Kannan and M. Mahalakshmi	vijayashanthi26892@gmail.com
12.20 pm - 12.30 pm	icmcm034	COMSOL Multiphysics: CFD Simulations of Miscible and Immiscible Fingering Instability in Enhanced Oil Recovery	C. W. Sahabandu and M. Dewasurendra	cwsah@ou.ac.lk
12.30 pm - 12.40 pm	icmcm035	Gaussian and Bilateral Filters to Improve Quality of Chest X - Ray Pneumonia affected Image for Image Enhancement	Neeraj Bhargava, Ritu Bhargava, Surbhi Singh, Pramod Singh Rathore and Avinash Panwar	pramodrathore88@gmail.com

12.40 pm - 01.00 pm	iccmm036	Multiple Instance Learning and Gradient Boosting algorithm for Diagnostically prediction of Diabetes	Ritu Bhargava, Pramod Singh Rathore, Surbhi Singh and Megha Raghav	pramodrathore88@gmail.com
01.00 pm - 01.10 pm	iccmm040	Investigation of the Effectiveness of Goal Programming in Project Management Activities	Niroshi Pirhaveen and Vijayakumar Senthoran	niroshi@vau.ac.lk
01.10 pm - 01.20 pm	iccmm029	Solving Sweeping Problem for trees in Graph Theory	W.A.L. Niwanthi, H.D. Panditharathne and S.S.N. Perera	waniw@ou.ac.lk
12.00 pm - 01.15 pm	Technical Session IV (Online 25 - 01 - 2024)			
	Session co-chairs: Dr. Kushani De Silva, Dr. Dilruk Gallage Coordinator: Ms. Dulmi Fernando (Email: dulmife@gmail.com , Phone: +94764803845)			
	Zoom link: https://learn.zoom.us/j/95771708999?pwd=U243d3E1MDdrY1RMaHQyTkFZL3g1Zz09 (Breakout Room: Technical Session IV)			
	Paper ID	Title	Authors	Email of Corresponding Author
12.00 pm - 12.10 pm	iccmm037	Abelian Groupification of Inverse Semigroups	M.W.S. Randunu, K.M.N.M. Chathuranga and A.M.C.U.M. Athapattu	rswasni@gmail.com
12.10 pm - 12.20 pm	iccmm025	Construction of Regular and Irregular Rational Diophantine m-tuples	Manju Somanath, T. Anupreethi and V. Sangeetha	anupreethitamil@gmail.com
12.20 pm - 12.30 pm	iccmm026	Algorithms for Encryption and Decryption Involving Pell Numbers	M. Mahalakshmi, A. Deepshika and J. Kannan	maha1607laksmi@gmail.com
12.30 pm - 12.40 pm	iccmm028	Jacobi Elliptic Solutions and Stability Analysis for the (2+1)-Dimensional Complex Modified Korteweg-de Vries System of Equations	Dilakshi Thavarajah and Thilagarajah Mathanaranjan	dilakshithava@gmail.com
12.40 pm - 01.00 pm	iccmm043	Rational Function Reconstruction and Linear System Solving over Polynomial Rings	Jayantha Suranimalee and Claus Fieker	suranimalee@maths.cmb.ac.lk
01.00 pm - 01.10 pm	iccmm049	Intersection Graph of a Ring	Srinivasulu Devanaboina, Kuncham Syam Prasad, Satyanarayana Bhavanari and Abul Basar	rkbhardwaj100@gmail.com

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PROGRAMME SCHEDULE

26th JANUARY 2024 (FRIDAY)
ONSITE SESSIONS

08.00 am - 08.30 am	Registration			
08.30 am - 10.00 am	Inauguration - Board Room Faculty of Science			
	YouTube Link: https://youtube.com/live/bhpgWe2iycU?feature=share			
10.00 am - 10.30 am	Refreshments			
10.30 am - 11.30 am	Opening of 'The Swaying Equations' - Exhibition of Mathematical and Algorithmic art - The New IS & MF Laboratory (1st floor)			
11.30 am - 12.00 pm	Invited Talks - Session 03 (Onsite)			
	Session co-chair: Prof. Anuradha Mahasinghe Coordinator: Ms. Dulmi Fernando (Email: dulmife@gmail.com , Phone: +94764803845)	Session co-chair: Dr. Sulanie Perera Coordinator: Mr. Pasindu Kalhara (Email: pasinduke@gmail.com , Phone: +94767273931)	Session co-chair: Dr. Lakmi Niwanthi Coordinator: Ms. Jayamini Abeyrathna (Email: jayaminiabeyrathna@gmail.com , Phone: +94763954611)	
	Venue: ILC Building 3rd Floor Skills Lab	Venue: ILC Building 3rd Floor Discussion Room	Venue: FM Lab	
	Invited Talk 05: Dr. Ikha Magdalena	Invited Talk 06: Prof. Ratnasingham Shivaji	Invited Talk 07: Prof. Kuncham Syam Prasad	
12.00 pm - 01.00 pm	Lunch Break			
01.00 pm - 02.00 pm	Keynote Speech (Online): Prof. Thomas Goetz			
	Session chair: Dr. Yashika Jayathunga Coordinator: Ms. Sajini Vindula (Email: sajiniwittahachchi@gmail.com , Phone: 0755550442)			
	Zoom Link: https://learn.zoom.us/j/94354370392?pwd=U2Zubm83dWVhczi0S3Fjd0p3M285Zz09			
02.00 pm - 02.30 pm	Invited Talks - Session 04 (Onsite)			
	Session co-chair: Dr. Kushani De Silva Coordinator: Mr. Pasindu Kalhara (Email: pasinduke@gmail.com , Phone: +94767273931)	Session co-chair: Dr. Lakmi Niwanthi Coordinator: Mr. Youvin Jayasinghe (Email: youvinjayasinghe97@gmail.com , Phone: +94773712012)		
	Venue: ILC Building 3rd Floor Skills Lab	Venue: FM Lab		
	Invited Talk 08: Prof. S. Narayanamoorthy	Invited Talk 09: Prof. Harikrishnan Panackal		
02.30 pm - 04.15 pm	Technical Session V (Onsite 26 - 01 - 2024)			
	Session co-chairs: Prof. S. Narayanamoorthy, Dr. Kushani De Silva Coordinator: Mr. Pasindu Kalhara (Email: pasinduke@gmail.com , Phone: +94767273931)			
	Venue: ILC Building 3rd Floor Discussion Room			
	Paper ID	Title	Authors	Email of Corresponding Author
02.30 pm - 02.40 pm	icmcm002	The Rate of Convergence of the Bermudan Scheme in the Approximation of American Options	Guillaume Leduc	gleduc@aus.edu
02.40 pm - 03.00 pm	icmcm003	Counterintuitive Results Creating Weaker Food Chain Links in a Predator-Prey System in the Presence of the Fear	M.S. Sanduni Dilhani and Kushani De Silva	mstdilhanisilva@gmail.com
03.00 pm - 03.10 pm	icmcm015	Identification of the Trade-Off Feasibility Region between Positive and Negative Traits of a Predator-Prey System between DENV and Aedes Vector	P. Chathurangika, Kushani De Silva and Sanjeeva Perera	piyomic.maths@stu.cmb.ac.lk
03.10 pm - 03.20 pm	icmcm017	SPI Threshold Standardization for Sri Lanka to Identify Dry Conditions Using Gumbel-Hougaard Dependencies	Sachini Karunaratne, Kushani De Silva and Sanjeeva Perera	sachinik.maths@stu.cmb.ac.lk
03.20 pm - 03.30 pm	icmcm018	Construction of Exponential Diophantine Equations with Fortunate Numbers and Ramanujan Primes	V.Krithika and A.Vijayasankar	krithijay.24@gmail.com
03.30 pm - 03.40 pm	icmcm042	Modeling Nipah Virus Infection Dynamics with Variable Recruitment Rate	Mamta Kumari	mamtakumari2014@gmail.com
02.30 pm - 04.15 pm	Technical Session VI (Onsite 26 - 01 - 2024)			
	Session co-chairs: Dr. Ikha Magdalena, Prof. Anuradha Mahasinghe Coordinator: Ms. Dulmi Fernando (Email: dulmife@gmail.com , Phone: +94764803845)			
	Venue: ILC Building 3rd Floor Skills Lab			
	Paper ID	Title	Authors	Email of Corresponding Author
02.30 pm - 02.40 pm	icmcm012	A Centralized Emergency Medical Transportation Routing System in Sri Lanka	Sudheeraka Wickramarachchi, Kazuki Hasegawa and Wei Wu	sudheeraka.22@shizuoka.ac.jp
02.40 pm - 03.00 pm	icmcm020	Replica of the Pell's Equation of the Fourth Degree	T. Anu Preethi, Manju Somanath and V. Sangeetha	manjuajil@yahoo.com
03.00 pm - 03.10 pm	icmcm021	Exponential Diophantine triangle over G_n and S_n	A. Deepshika, J. Kannan and M. Mahalakshmi	jayram.kannan@gmail.com
03.10 pm - 03.20 pm	icmcm023	Some Annotations on Pseudo Almost Equilateral Triangles	J. Kannan, K. Raja and M. Mahalakshmi	rajakonline@gmail.com
03.20 pm - 03.30 pm	icmcm030	Mathematical Recreations using Fourier Series	Oshan Maduwage and Anuradha Mahasinghe	anuradhamahasinghe@maths.cmb.ac.lk
03.30 pm - 03.40 pm	icmcm044	A Baseline Model for Deep Neural Networks Optimization for Resource-Constrained Environments: Analysis of Models	Md Gapar Md Johar, Raafi Careem and Ali Khatibi	mdgapar@msu.edu.my
02.30 pm - 04.15 pm	Technical Session VII (Onsite 26 - 01 - 2024)			
	Session co-chairs: Prof. Kuncham Syam Prasad, Dr. Lakmi Niwanthi Coordinator: Mr. Youvin Jayasinghe (Email: youvinjayasinghe97@gmail.com , Phone: +94773712012)			

Venue: FM Lab				
	Paper ID	Title	Authors	Email of Corresponding Author
02.30 pm - 02.40 pm	iccmm046	Complements in a Lattice with Finite Goldie Dimension and Related Graph	Tapatee Sahoo, P.K. Harikrishnan, B.S. Kedukodi and S.P. Kuncham	sahoo.tapatee@manipal.edu
02.40 pm - 03.00 pm	iccmm047	Prime Generalizations of Hyperideals in Meet Hyperlattices	P. Pallavi, S.P. Kuncham, B. Vadiraja and Harikrishnan Panackal	pk.harikrishnan@manipal.edu
03.00 pm - 03.10 pm	iccmm048	Graph with Respect to Small Ideals of N-Groups	S. Rajani, B.S. Kedukodi, P.K. Harikrishnan and Kuncham Syam Prasad	syamprasad.k@manipal.edu
03.10 pm - 03.20 pm	iccmm050	Lattice with Superfluous Elements and Related Graphs	Tapatee Sahoo, P.K. Harikrishnan, B.S. Kedukodi and S.P. Kuncham	sahoo.tapatee@manipal.edu
03.20 pm - 03.30 pm	iccmm051	Introduction to n-Ary Path Norms	Varsha, Kedukodi Babushri Srinivas, S. Aishwarya and Kuncham Syam Prasad	babushrisrinivas.k@manipal.edu
03.30 pm - 03.40 pm	iccmm052	On $(\sigma, \tau) \gamma$ - Derivations in Rings	S. Aishwarya, Kedukodi Babushri Srinivas and Kuncham Syam Prasad	s.aishwarya@manipal.edu
03.40 pm - 04.00 pm	iccmm053	Different Prime Hyperideals of Hypernearings	Varsha, Kedukodi Babushri Srinivas and Kuncham Syam Prasad	varshay2602@gmail.com
04.00 pm - 04.10 pm	iccmm054	Linear Transformations and Projections on Hypervector Spaces	P. Pallavi, S.P. Kuncham, B. Vadiraja, Madeleine Al-Tahan and Harikrishnan Panckal	pk.harikrishnan@manipal.edu
04.15 pm - 04.30 pm	Tea Break			