

International Conference on Mathematics and Mathematics Education - ICMME 2025

July 05th, 2025

Technical Programme

Time		Venue	Description
Plenary Talk 1	8.30 am - 9.25 am	PGIS Conference Room	Prof. Rathnasingham Sivaji
			University of North Carolina at Greensboro, USA
			<i>Title: Analysis of classes of landscape ecological models</i>
Plenary Talk 2	1.30 pm - 2.25 pm	PGIS Conference Room	Prof. Oi-Lam NG
			The Chinese University of Hong Kong
			<i>Title: Mathematics in the Digital Age: How Computational Thinking Drives Transformative Learning</i>
Invited Talk 1 Mathematics Education	9.30 am - 10.00 am	PGIS Conference Room	Dr. Yaomingxin Lu
			California State University, Fresno, USA
			<i>Title: Mathematics Education Research in Classrooms</i>
Invited Talk 2 Mathematics Education	10.50 am - 11.20 am	PGIS Conference Room	Dr. Iresha Gayani Ratnayake
			Technical University of Darmstadt, Germany
			<i>Title: Integrating mathematics learning videos in mathematics teaching: Quality criteria to choose good videos</i>
Invited Talk 3 Pure Mathematics	10.50 am -11.20 am	C 2.4	Dr. Gayana Jayasinghe
			<i>Title: Generalizing the Archimedes-Duistermaat-Heckman Formula to Stratified Pseudomanifolds</i>

Parallel Sessions

Theme – Mathematics (Room C 2.4) – Session A1

Time	Session ID		Session Chairs	Session Coordinators
9.30-10.30	A 1		Prof. Athula Perera	Ms. Buddhini Colombage
			Dr. Rajitha Ranasinghe	Ms. Nipuni Fernando
Time	Abstract ID	Presenter ID	Presenter	Title
09.30 am- 09.45 am	21	A11	Lakshitha Fernando	AN UPPER BOUND FOR STAR CHROMATIC INDEX OF SIMPLE CONNECTED SUB-CUBIC GRAPHS <i>C.L.R. Fernando and A.M.C.U.M. Athapattu</i>
09.45 am- 10.00 am	70	A12	Anjalee Senadeera	PRODUCT CORDIAL LABELLING OF GENERALIZED HELM GRAPHS <i>A.T. Senadeera, C.L.R. Fernando and A.A.I. Perera</i>
10.00 am - 10.15 am	69	A13	Lakshitha Fernando	PRODUCT CORDIAL LABELLING OF LATTICE OF HELM GRAPHS <i>C.L.R. Fernando, A.A.I. Perera and A.T. Senadeera</i>
10.15 am- 10.30 am	62	A14	Thehara Madhuwanthi	MATHEMATICAL OPTIMIZATION AND COMPUTATIONAL GEOMETRIC PACKING ALGORITHMS FOR MAXIMIZING MATERIAL UTILIZATION IN WOOD PROCESSING <i>E.A.T. Madhuwanthi, N.G.S.S. Nanayakkara, and E.J.K.P. Nandani</i>

Theme – Mathematics (Room C 2.4) - Session A2

Time	Session ID		Session Chairs	Session Coordinators
10.50 am- 12.50 pm	A 2		Dr. Rajitha Ranasinghe	Mr. Dushyan Kumara
			Dr. Manoj Chathuranga	Ms. Buddhini Colombage
10.50 am- 11.20 am	Invited Talk by Dr. Gayana Jayasinghe			
Time	Abstract ID	Presenter ID	Presenter	Title
11.20 am- 11.35 am	34	A21	Manasi Wanasooriya	SPLITTING HOMOGENEOUS POLYNOMIALS OVER QUOTIENTS OF GROUP RINGS, SPLITTING HOMOGENEOUS POLYNOMIALS OVER QUOTIENTS OF GROUP RINGS <i>W.M.M.C. Wanasooriya and K.M.N.M. Chathuranga</i>
11.35 am- 11.50 am	8	A22	Paramesvarampillai Piriyaucksan	SOME RESULTS RELATED TO A NEW TYPE OF CONNECTEDNESS IN TOPOLOGICAL SPACES <i>P. Piriyaucksan</i>
11.50 am- 12.05 pm	22	A23	Dinusha Chandralal	Z-SETS IN LARGE SCALE GEOMETRY <i>P.D.D.A. Chandralal and A.K. Amarasinghe</i>
12.05 pm- 12.20 pm	26	A24	Nipuni De Silva	GENERALIZED CLIQUE COMPLEXES <i>N.N.M.A. De Silva and A.K. Amarasinghe</i>
12.20 pm- 12.35 pm	36	A25	Kaushalya Sakalasooriya	ANALYSING DIRECTED, WEIGHTED NETWORKS USING PERSISTENT HOMOLOGY <i>S.M.K. Sakalasooriya and A.K. Amarasinghe</i>
12.35 pm- 12.50 pm	46	A26	Arunmaran Mahenthiram	RESULTS ON VARIOUS CLOSED SETS IN BI-GENERALISED TOPOLOGICAL SPACES <i>M. Arunmaran, P. Sachivathanan and K. Kannan</i>

Theme – Mathematics (Room C 2.4) - Session A3

Time	Session ID		Session Chairs	Session Coordinators
2.30-4.15	A3		Dr. M.I.M. Ishak	Mr. Dushyan Kumara
			Dr. Chathurika Athapattu	Ms. Nipuni fernando
Time	Abstract ID	Presenter ID	Presenter	Title
2.30 pm-2.45 pm	1	A31	Anjana Gunasekara	A CASE STUDY ON REPLACEMENT THEORY TO ESTIMATE THE ECONOMIC LIFETIME OF AN OFFSET PRINTING MACHINE, <i>A.D.A.I. Gunasekara and W.B. Daundasekara</i>
2.45 pm-3.00 pm	5	A32	Arunmaran Mahenthiram	COMPUTING h- FUNCTION OF THE COMPLEMENT OF A SLIT VIA PARALLEL-SLIT MAPPING AND VALIDATION VIA DIFFERENT CONFORMAL MAPPING <i>M. Arunmaran and P. Piriylucksan</i>
3.00 pm-3.15 pm	43	A33	Sashini Roshana	PROPER LUCKY LABELLING FOR MÖBIUS LADDER GRAPHS <i>D.A.S. Roshana and A.A.I. Perera</i>
3.15 pm-3.30 pm	57	A34	Aishya Perera	GENERALIZATION OF THE SYMMETRICITY PROPERTIES OF POLYNOMIALS DEFINING DISTINGUISHED VARIETIES ON THE OPEN UNIT BIDISK <i>G.R.A.R. Perera and U.D. Wijesooriya</i>
3.30 pm-3.45 pm	64	A35	Samadhi Weerasinghe	A NOVEL CRYPTOGRAPHIC SCHEME BASED ON RADIO MEAN LABELLING <i>G.H.S.N. Weerasinghe and A.A.I. Perera</i>
3.45 pm-4.00 pm	54	A36	Himanthi Jayasinghe	SIXTH-ORDER RUNGE-KUTTA DISCRETIZATION OF THE QUADRATIC RICCATI EQUATION <i>B.H.O. Jayasinghe, W.A. Gunarathna and M.A.M. Mohamed</i>
4.00 pm-4.15 pm	56	A37	Anjalee Senadeera	CHARACTERIZATION OF INNER TORAL POLYNOMIALS VIA FINITE BLASCHKE PRODUCTS <i>A.T. Senadeera and U.D. Wijessoriya</i>

Theme – Mathematics (Room C 2.5) - Session B1

Time	Session ID		Session Chairs	Session Coordinators
9.30-10.30	B1		Prof. Dharshana Yapa	Mr. Thirendra Wijesooriya
			Dr. Anura Gunaratne	Ms. Tharaki Rathnayake
Time	Abstract ID	Presenter ID	Presenter	Title
09.30 am- 09.45 am	4	B11	CPS Pathirana	ANT COLONY OPTIMIZATION ALGORITHM TO SOLVE DETERMINISTIC MULTI-OBJECTIVE ASSIGNMENT PROBLEM <i>C.P.S. Pathirana and W.B. Daundasekara</i>
09.45 am- 10.00 am	15	B12	Thisara Herath	A NON-LINEAR OPTIMIZATION MODEL FOR COST-EFFECTIVE AND SPACE-EFFICIENT ARCHITECTURAL LAYOUT DESIGN: A CASE STUDY OF A SINGLE-STORY RESIDENTIAL BUILDING <i>H.M.H.M.G.T.M. Herath and W.B. Daundasekara</i>
10.00 am - 10.15 am	30	B13	Paramadevan Paramacutty	AN OPTIMIZATION MODEL FOR NON-PHARMACEUTICAL INTERVENTION TO CONTROL THE OUTBREAK OF COVID-19 EPIDEMIC IN SRI LANKA <i>P. Paramadevan and W.B. Daundasekara</i>
10.15 am- 10.30 am	71	B14	Ibrahim Salay	AN OPTIMIZATION TECHNIQUE TO ASSEMBLY LINE BALANCING IN APPAREL INDUSTRY <i>M.I. Salay, B.D.S.N. Senarathne, D.M.P.S. Dissanayake, P.M.K. Rajarathne, D.V.M. Jayarathna, A.P. Kularathna, J.D. Kahadawa And D.M.W.B. Daundasekara</i>

Theme – Mathematics (Room C 2.5) - Session B2

Time	Session ID		Session Chairs	Session Coordinators
10.50-12.50	B2		Prof. W.B. Daundasekara	Mr. Thirendra Wijesooriya
			Dr. Rathnamali Palamakumbura	Mr. Lakshitha Fernando
Time	Abstract ID	Presenter ID	Presenter	Title
10.50 am-11.05 am	31	B21	Miyumi Silva	A MODEL BASED ON CUSTOMER SATISFACTION TO PREDICT ROUTE-WISE LOGISTIC COSTS FOR BAKERY PRODUCT SUPPLY CHAINS <i>T.M.N. Silva and E.M.U.S.B. Ekanayake</i>
11.05 am-11.20 am	50	B22	Nusrath Mayazir	A METHODOLOGICAL APPROACH TO FLEET SIZE ESTIMATION FOR BUS TRANSPORT NETWORKS <i>N.N. Mayazir, A.H.S. Sharic and J.M.S.J. Bandara</i>
11.20 am-11.35 am	23	B23	Lasenta Fernando	OPTIMIZING INVESTMENT PORTFOLIOS USING QUADRATIC MODELLING FOR RISK AND RETURN MANAGEMENT <i>M.L.N.V. Fernando and W.N.P. Rodrigo</i>
11.35 am-11.50 am	27	B24	Harshika Attanayake	STUDY ON PARTICLE SHAPE ON MICROPOLAR NANOFLUIDS OVER AN EXPONENTIALLY STRETCHING SHEET IN A POROUS MEDIUM USING OPTIMAL HOMOTOPY ANALYSIS METHOD <i>A.M.H.I. Attanayake, W.H.D.T. Karunaratna and M.T.M. Dewasurendra</i>
11.50 am-12.05 pm	48	B25	Bamunuge De Silva	A METHOD OF DIRECTLY DEFINING THE INVERSE MAPPING FOR SOLUTIONS OF LAMINAR BOUNDARY LAYER FLOW OVER A WEDGE <i>B.S.K. De Silv</i>
12.05 pm-12.20 pm	60	B26	Dannangoda Dinanjalee	TOPOLOGICAL DATA ANALYSIS OF FINANCIAL MARKET VOLATILITY: A STUDY OF PERSISTENCE DIAGRAMS <i>D.G.J.N. Dinanjalee, A.K. Amarasinghe and J.K. Ratnayake</i>
12.20 pm-12.35 pm	59	B27	Tharaki Rathnayake	MATHEMATICAL MODELING OF THE EFFECT OF WARFARIN ON BLOOD CLOTTING IN PATIENTS WITH PROSTHETIC HEART VALVES <i>R.P.T.A. Rathnayake, A.M.P. Chandrasiri, and T.H.K.R. De Silva</i>
12.35 pm-12.50 pm	66	B28	Hansi De Silva	A MATHEMATICAL MODEL TO DESCRIBE THE BEHAVIOUR OF MITE POPULATION IN SCABIES <i>N.H.M.A. De Silva and T.H.K.R. De Silva</i>

Theme – Mathematics (Room C 2.5) - Session B3

Time	Session ID		Session Chair	Session Coordinators
2.30 pm-4.30 pm	B3		Dr. Rekha De Silva	Mr. Lakshitha Fernando
			Dr. Tharindu Dewasurendara	Ms. Tharaki Rathnayake
Time	Abstract ID	Presenter ID	Presenter	Title
2.30 pm-2.45 pm	13	B31	Malshan Gunawardhana	PERFORMANCE COMPARISON OF CLASSICAL AND QUANTUM K-NEAREST NEIGHBOUR ALGORITHMS <i>D.W.M.L. Gunawardhana and N. Yapage</i>
2.45 pm-3.00 pm	16	B32	Thakshila Samarakkody	A NOVEL MIXED INTEGER LINEAR PROGRAMMING MODEL TO SOLVE MULTIPLE TRIP VEHICLE ROUTING PROBLEM <i>T. Samarakkody</i>
3.00 pm-3.15 pm	38	B33	Madhavya Godakanda	DOMINATING COMMON FACTOR METRIC ON RATIONAL NUMBERS <i>M.A. Godakanda and K.M.N.M. Chathuranga</i>
3.15 pm-3.30 pm	49	B34	Darshana Bandarathilake	MODELLING CROCODILE POPULATION UNDER THE INFLUENCE OF ENVIRONMENTAL FACTORS <i>H.M.D.P. Bandarathilake and G.W.R.M.R. Palamakumbura</i>
3.30 pm-3.45 pm	61	B35	Desika Kumari	A UTILITY-BASED EQUILIBRIUM FRAMEWORK FOR WEATHER INDEX INSURANCE <i>K.H.A.S. Harischandra and G.N. Karunathunge</i>
3.45 pm-4.00 pm	55	B36	Dilki Hansika	STUDY OF ELLIS HYBRID NANOFLUID FLOW OVER A STRETCHING CYLINDER USING THE OPTIMAL HOMOTOPY ANALYSIS METHOD <i>W.G.D.H. Upamali, W.H.D.T. Karunarathna and M.T.M. Dewasurendra</i>
4.00 pm-4.15 pm	58	B37	Dinushi Dhananjalee	AN INNOVATIVE STATISTICAL APPROACH TO RESTRICTED TRANSPORTATION PROBLEMS <i>S.B.R.D. Dhananjalee and E.M.U.S.B. Ekanayake</i>
4.15 pm-4.30 pm	53	B38	Safwathuz Ziya	REFINEMENT OF REGULA FALSI METHOD FOR SOLVING NON-LINEAR EQUATIONS <i>H.H. Safwathuz Ziya, W.A. Gunarathna and M.A.M. Mohamed</i>

Theme –Mathematics Education (PGIS Conference Room) - Session C1

Time	Session ID		Session Chair	Session Coordinators
9.30 am- 10.30 am	C1		Prof. Sakunthala Yatigamma	Ms. Ranali Piyathilake
			Dr. Manoj Chathuranga	Ms. Lakmi Pabasara
9.30 am- 10.00 am	Invited Talk I by Dr. Yaomingxin Lu			
Time	Abstract ID	Presenter ID	Presenter	Title
10.00 am- 10.15 am	9 online	C11	Catherine Corchado	EFFECTS OF MATHEMATICS RECITATION SESSIONS ON COURSE SUCCESS AND ITS EQUITABLE IMPACT ON COLLEGE CALCULUS <i>C. Corchado</i>
10.15 am- 10.30 am	10 online	C12	Itzel Michel-Carrillo	THE IMPACT OF COHORT EXPERIENCES ON STUDENTS' SENSE OF BELONGING, ACADEMIC PERFORMANCE, AND CAREER READINESS <i>Itzel Michel -Carrillo</i>

Theme –Mathematics Education (PGIS Conference Room) - Session C2

Time	Session ID		Session Chairs	Session Coordinators
10.50 am- 12.50 pm	C2		Prof. Sakunthala Yatigammana	Ms. Ranali Piyathilake
			Mr. Saumya Bandara	Ms. Lakmi Pabasara
10.50 am- 11.20 am	Invited Talk II by Dr. Iresha Gayani Ratnayake			
Time	Abstract ID	Presenter ID	Presenter	Title
11.20 am- 11.35 am	28	C21	Shashini Nawarathne	STATISTICAL ANALYSIS OF ENGINEERING UNDERGRADUATES' PERFORMANCE ACROSS FORMATIVE AND SUMMATIVE ASSESSMENTS IN CALCULUS MODULE <i>N.G.S.A. Nawarathne, K.A.P. Malake, U.S.R. Premalal and N.G.R.M. Nawarathne</i>
11.35 am- 11.50 am	29	C22	Gaya Jayakody	BUILDING ON PRIOR KNOWLEDGE AND MAKING CONNECTIONS: CASE OF TEACHING COMPLEX NUMBERS <i>G. N. Jayakody and S. Perera</i>
11.50 am- 12.05 pm	68	C23	Farzan Mohamed Cassim	STATUS OF SECONDARY LEVEL MATHEMATICS EDUCATION IN SELECTED SCHOOLS IN KALMUNAI EDUCATION ZONE, SRI LANKA <i>M.C. Farzan, K.M.N.M. Chathuranga and M.T.M. Dewasurendra</i>
12.05 pm- 12.20 pm	3	C24	Hewage Theshan	EXAMINING THE INTERACTION OF MOTIVATION, SELF-EFFICACY, AND ACADEMIC EMOTIONS IN SHAPING MATHEMATICS LEARNING OUTCOMES: A STUDY ON UNDERGRADUATE STUDENTS IN MANAGEMENT SCIENCE IN SRI LANKA <i>H.C.T. Kumara</i>
12.20 pm- 12.35 pm	41	C25	Nirosha Dissanayaka	MATHEMATICAL CONCEPTS USED IN HUNTING METHODS BY VEDDAS IN SRI LANKA <i>R.D.N.D.K. Dissanayake</i>

Theme –Mathematics Education (PGIS Conference Room) - Session C3

Time	Session ID		Session Chairs	Session Coordinators
2.30 pm-4.00 pm	C3		Prof.Walter Senevirathne	Ms. Nipuni De Silva
			Dr. Udeni Wijesooriya	Ms. Hansi De Silva
Time	Abstract ID	Presenter ID	Presenter	Title
2.30 pm-2.45 pm	52	C31	Ushanthika Senevirathne	STRUCTURED PROBLEM-SOLVING IN MATHEMATICS EDUCATION: ENHANCING REASONING, ACCURACY, AND CONFIDENCE AMONG BILINGUAL LEARNERS <i>S.G.M.U.M. Senevirathne and S.G.M.M.M. Senevirathne</i>
2.45 pm-3.00 pm	32	C32	Nirmani Liyanage	USING KAHOOT AS A MATHEMATICS ASSESSMENT TOOL FOR JUNIOR SECONDARY LEVEL STUDENTS IN SRI LANKA <i>L.D.N.G. Liyanage, W.M.G. Udayanga and L.D.R.P. Liyanage</i>
3.00 pm-3.15 pm	47	C33	Ishara Sammani	THE EFFECT OF ACTIVITY-BASED TEACHING METHODS ON GRADE 7 STUDENTS' MATHEMATICAL ENGAGEMENT AND MOTIVATION IN WATTALA DIVISION <i>G.A. I. Sammani</i>
3.15 pm-3.30 pm	51	C34	Desika Kumari	ENHANCING STUDENTS' INTEREST AND PARTICIPATION IN MATHEMATICS LESSON DEVELOPMENT <i>Y.D. Kumari and Y.S. Kumari</i>
3.30 pm-3.45 pm	73	C35	Sutharshini Vamadeven	FACTORS AFFECTING MATHEMATICS PERFORMANCE OF GRADE 10 STUDENTS IN DIVISION 2 SCHOOLS AT HATTON EDUCATIONAL ZONE <i>V. Sutharshini and T.H.K.R. De Silva</i>
3.45 pm-4.00 pm	74	C36	Sanjeevan Anandhacumarasamy	DETERMINANTS OF MATHEMATICS ACHIEVEMENT AMONG G.C.E. (O/L) STUDENTS: A STUDY IN THE KALMUNAI EDUCATION ZONE <i>A. Sanjeevan, M.T.M. Dewasurendra and K.M.N.M. Chathuranga</i>