



ECRISA 2026

Conference Pamphlet

29th and 30th January 2026
Mount Lavinia Hotel

Organized by Arthur C Clarke Institute for Modern Technologies

29 th January 2026		30 th January 2026			
Time	Maitland State Room	Time	Maitland State Room	Horizon Room	
8.00 am onwards	Registration				
9.00- 11.00 am	Inauguration Ceremony	8.30- 10.30 am	Session M_03 Data Science for Environment and Sustainability	Session 2-1 Intelligent System for Personalized Wellbeing and Sustainable National Digital Infrastructure	
		10.30 – 11.00 am	Tea Break – Networking and Refreshments		
11.00- 11.30 am	Tea Break- Networking and Refreshments	11.00 am – 13.15 pm	Session M_04 Engineering Innovations at the Intersection of Energy, Environment, and Digital Transformation		
11.30 am – 1.30 pm	Session M_01 Observational Astronomy, Instrumentation, and Space Data Analytics				
			13.00- 13.45 pm		Lunch
13.30 – 14.30 pm	Lunch		13.45 – 16.00 pm		Session M_05 Smart Industrial Systems, Automation, and Digital Engineering for Sustainable and Intelligent Operations
14.30 - 16.45 pm	Session M_02 Geospatial Analytics, Remote Sensing, and Environmental Intelligence for Climate- Resilient Planning	16.00 – 17.00 pm		Session M_06: Poster Session	
16.45 - 17.15 pm	Technical Session by International Water Management Institute (IWMI)	17.00 – 17.30 pm	Closing address		
17.15 – 17.30 pm	Closing Remarks – Day 1				
17.30 pm	Tea/ Coffee Break				

29th January 2026

09.00 – 11.00 hrs

Inauguration Ceremony

**Join Zoom
Meeting**

<https://learn.zoom.us/j/99885270222?pwd=YHI4IdEMzQHwqeb5CjtEr7GP1eYJfD.1>

8.30 - 9.00 am

Registration

Event

Compere

Mr. Sonal Paravithana

Convener

Ms. Umeshika Fonseka

9.00 – 9.05 a.m.

Lighting of Oil Lamp

9.05 – 9.10 a.m

National Anthem

9.10 – 9.15 a.m

Welcome Speech by Eng. Kaveendra Sampath
Chair, ECRISA 2026

9.15 – 9.20 a.m

Introductory Remarks by Snr. Prof. Chandana Jayaratne
Chairman, ACCIMT

9.20 – 9.25 a.m

Introduction to ACCIMT by Eng. Kavindra Jayawardene
Deputy Director General -Technical Operations

9.25 – 9.30 a.m

Address by Mr. Y. L. M. Navavi
Secretary, Ministry of Science & Technology

9.30 – 9.55 a.m

Keynote Speech - 1 by Dr. Hans Wijayasuriya

9.55 – 10.20 a.m

Keynote Speech - 2 by Dr. Mansoor Leh

10.20 – 10.25 a.m

Address by the Chief Guest by Prof. Crishantha Abeysena
Hon. Minister of Science & Technology

10.25 – 10.30 a.m

Vote of Thanks by Ms. Umeshika Fonseka
Secretary, ECRISA 2026

Group Photo

29th January
11.30- 13.30 hrs

Maitland State Room (Hybrid)

Session M_01

Observational Astronomy, Instrumentation, and Space Data Analytics

Join Zoom Meeting <https://learn.zoom.us/j/93074891740?pwd=9XbYqpy4Kv51socuwMQmN0QcE85kM8.1>

Session Chair		Session Co-chair	Session Compere
Prof. Aloy Perera		Mr. Saraj Gunasekara	Lakshani Karunaratne
Session Coordinator		Mr. Kaveendra Sampath (+94 77 298 5395)	
Time	Paper ID	Title	
11.30 - 11.45 am		<i>Session Chair's Address</i>	
11.45 - 12.00 am	ECRISA035	<i>CALIBRATION OF A LOCALLY MADE TELESCOPIC MIRROR GRINDING MACHINE FOR FABRICATING TELESCOPE PRIMARY MIRROR (K. D. K. M. Dharmasiri)</i>	
12.00 - 12.15 am	ECRISA017	<i>AN INVESTIGATION OF 7 NON-ECLIPSING SU UMA SYSTEMS USING TESS DATA (D. B. T. L. S. Piyadasa)</i>	
12.15 – 12.30 am	ECRISA036	<i>CLASSICAL CEPHEID CANDIDATES IN THE GLOBULAR CLUSTER NGC 121: A MULTI-MISSION STUDY WITH HST AND TESS (R. M. B. M. B. Alawathugoda)</i>	
12.30 - 12.45 am	ECRISA004	<i>BLACK HOLES AS ENERGY-ABSORBING REACTORS: A FRAMEWORK FOR ELEMENT FORMATION AND THE THERMODYNAMICS OF COSMIC EVOLUTION (P. A. Liyanage)</i>	
12.45 - 13.00 am	ECRISA010	<i>SUPER NYQUIST ANALYSIS OF COMBINED QUARTERS OF KEPLER LIGHT CURVES: KIC 8264492 (J. A. D. M. Dharmathilaka)</i>	
13.00 - 13.15 am	ECRISA031	<i>MACHINE LEARNING APPROACHES FOR EXOPLANET DETECTION AND CLASSIFICATION: A COMPARATIVE STUDY OF TRADITIONAL AND DEEP LEARNING MODELS WITH EXPLAINABLE AI (E.D.L.L.S Edirisingha)</i>	
13.15 - 13.30 am		<i>Session Co-Chairs Conclusion</i>	

29th January 2026 14.30 - 16.45 hrs		
Maitland State Room (Hybrid)		
Session M_02 Geospatial Analytics, Remote Sensing, and Environmental Intelligence for Climate-Resilient Planning		
Join Zoom Meeting	https://learn.zoom.us/j/93651677666?pwd=3iFrqG8tf1OoPLHcqyz2oD64C9xakW.1	
Session Chair		Session Co-chair
Prof. R Bandara		Dr. S. P. Chaminda
Session Coordinator		Mr.Dumindu Jayawardene (+94 70 255 3815)
Time	Paper ID	Title
14.30 - 14.45 am		<i>Session Chair's Address</i>
14.45 - 15.00 am	ECRISA012	<i>CAN GIS AND RS TECHNIQUES REVEAL THE IMPACT OF OPEN LANDFILLS ON AIR QUALITY? A CASE STUDY OF COLOMBO, SRI LANKA</i> <i>(T. A. T. K. G. Jayathilaka)</i>
15.00 - 15.15 am	ECRISA051	<i>IDENTIFICATION OF SITES FOR SOLAR POWER PLANTS IN SRI LANKA USING SOLAR RADIATION AND CLOUD COVER</i> <i>(G. N. H. Wanigaratne)</i>
15.15 – 15.30 am	ECRISA056	<i>ASSESSING THERMAL DISCOMFORT TRENDS IN COLOMBO: A 30 YEAR PERSPECTIVE</i> <i>(H. S. C. Peiris)</i>
15.30 - 15.45 am	ECRISA060	<i>A NOVEL LIDAR-INTEGRATED FLOOD SIMULATION MODEL FOR ENHANCED RISK MAPPING</i> <i>(W. W. H. N. Waduge)</i>
15.45 - 16.00 am	ECRISA020	<i>PRIORITIZING URBAN HEAT MITIGATION IN COLOMBO: A LUCIS-BASED APPROACH TO BALANCING COMPETING LAND-USE GOALS</i> <i>(B. N. Ranaweera)</i>
16.00 - 16.15 am	ECRISA057	<i>CHARACTERIZING LANDSLIDE GEOMETRY USING AIRBORNE LIDAR DATA TO AID LANDSLIDE RISK INSIGHTS FROM META MOVEMENT DATA (MARCH 2024–APRIL 2025)</i> <i>(D. L. T. R. Kumari)</i>
16.15 - 16.30 am	ECRISA003	<i>NON-LINEAR MODELING OF CHLOROPHYLL-A DYNAMICS IN THE INDIAN OCEAN AROUND WESTERN SRI LANKA</i> <i>(E. T. S. Madhubhashini)</i>
16.30 - 16.45 am		<i>Session Co-Chairs Conclusion</i>

30th January 2026 08.30 - 10.30 hrs		
Maitland State Room (Hybrid)		
Session M_03 Data Science for Environment and Sustainability		
Join Zoom Meeting	https://learn.zoom.us/j/95511928732?pwd=G2ww5LldF2a4ehEoufVy9AXzIj1FAg.1	
Session Chair		Session Co-chair
Dr. DR Welikanna		Dr. Sandun M. Dassanayake
Session Coordinator		Mr.Thilina Wijebandara (+94 71-237 3057)
Time	Paper ID	Title
08.30 – 08.45 am		<i>Session Chair's Address</i>
08.45 – 09.00 am	ECRISA034	<i>REAL TIME CLOUD TYPE CLASSIFICATION FROM GROUND-BASED IMAGES USING A CONVOLUTIONAL NEURAL NETWORK (W. M. S. Dasun)</i>
09.00 – 09.15 am	ECRISA019	<i>ANALYSIS OF THE MV X-PRESS PEARL DISASTER AND ITS IMPACT ON COASTAL AND OCEAN WATERS USING REMOTE SENSING (W. M. I. V. Wickramasinghe)</i>
09.15 – 09.30 am	ECRISA048	<i>SPATIAL AND TEMPORAL VARIATION OF HUMAN MOBILITY INTENSITY IN COLOMBO DISTRICT: INSIGHTS FROM META MOVEMENT DATA (MARCH 2024–APRIL 2025) (R. K. A. R. Ranasinghe)</i>
09.30 – 09.45 am	ECRISA013	<i>TOWARDS CLIMATE-SMART AGRICULTURE: A BIG DATA AND CLUSTERING APPROACH FOR CROP RISK AND YIELD PREDICTION USING INDIAN AGRICULTURAL DATA (P. B. W. S. R. Kumarasinghe)</i>
09.45 – 10.00 am	ECRISA005	<i>INTELLIGENT ECOETL: AN ENERGY-AWARE FRAMEWORK FOR SUSTAINABLE EXTRACT-TRANSFORM-LOAD OPERATIONS IN BIG DATA PROCESSING (W. D. J. I. Senarathna)</i>
10.00 – 10.15 am	ECRISA061	<i>INFLUENCE OF LUNAR PHASE ON THE CALVING AND ARTIFICIAL INSEMINATION IN DAIRY COWS. (W. G. S. Ridmika)</i>
10.15 – 10.30 am		<i>Session Co-Chairs Conclusion</i>

30th January 2026 08.30 - 11.00 hrs		
Horizon Room (Hybrid)		
Session H_01 Intelligent Systems for Personalized Wellbeing and Sustainable National Digital Infrastructure		
Join Zoom Meeting	https://learn.zoom.us/j/93071246786?pwd=bqklcmgrFNalqkAyZVYArIWbb9DGJU.1	
Session Chair		Session Co-chair
Dr. Nirosha Wedasinghe		Dr. Asanka Sayakkara
Session Coordinator		Mr.Andun Cooray (+94 71-110 9772)
Time	Paper ID	Title
08.30 – 08.45 am		<i>Session Chair's Address</i>
08.45 – 09.00 am	ECRISA014	<i>A HYBRID MACHINE LEARNING FRAMEWORK FOR BIOMARKER DISCOVERY IN CHRONIC INFLAMMATORY DISEASES: BEYOND ATOPIC DERMATITIS</i> <i>(Y. K. K. M. K. Gayathri)</i>
09.00 – 09.15 am	ECRISA006	<i>SYSTEMATIC REVIEW OF AI APPLICATIONS IN ORTHODONTIC SURGERY AND TREATMENT PLANNING: DIAGNOSTIC PERFORMANCE AND EXPLAINABILITY TOOLS</i> <i>(W.R.D.M. Ruhansa.I.S. Wickramasinghe)</i>
09.15 – 09.30 am	ECRISA044	<i>ENHANCED CNN ARCHITECTURE FOR MULTI-LABEL SKIN CONDITION CLASSIFICATION FOR PERSONALIZED SKINCARE RECOMMENDATIONS</i> <i>(J. M. H. Kithmini)</i>
09.30 – 09.45 am	ECRISA070	<i>A CONCEPTUAL FRAMEWORK FOR A GOVERNMENT-LED DIGITAL MARKETPLACE TO ENABLE SRI LANKA'S TECHNOLOGICAL DEVELOPMENT AND CONNECT LOCAL IT TALENT WITH NATIONAL AND INTERNATIONAL PROJECTS</i> <i>(M. D. R. A. K. Abeyratne)</i>
09.45 – 10.00 am	ECRISA015	<i>ANALYSIS OF LONG-DISTANCE PUBLIC TRANSPORT DRIVING BEHAVIOUR USING GPS DATA.</i> <i>(J. K. D. D. Radika)</i>
10.00 – 10.15 am	ECRISA065	<i>A COMPREHENSIVE ANALYSIS OF NEED FOR AN AUTOMATED SOLID WASTE SEGREGATION AND MANAGEMENT SYSTEM FOR THE PORT OF COLOMBO, SRI LANKA</i> <i>(V. V. Liyanaarachchi)</i>
10.15 – 10.30 am	ECRISA062	<i>LEVERAGING CONVOLUTIONAL NEURAL NETWORK (CNN) CAPABILITIES TO DEVELOP A PORTABLE FIRE DETECTION DEVICE FOR PRELIMINARY BUILDING WORK</i> <i>(M. F. M. Usman)</i>
10.30 – 10.45 am	ECRISA023	<i>HEMOGLOBIN ESTIMATION AND ANEMIA SEVERITY CLASSIFICATION VIA PPG SIGNAL EXTRACTED FROM MOBILE FINGERTIP VIDEOS</i> <i>(Nipuni Vithana)</i>
10.45 – 11.00 am		<i>Session Co-Chairs Conclusion</i>

30th January 2026

11.00 - 13.15 hrs

Maitland State Room (Hybrid)

Session M_04

Engineering Innovations at the Intersection of Energy, Environment, and Digital Transformation

Join Zoom Meeting

<https://learn.zoom.us/j/95223566637?pwd=VrYorO3bJlI738aQARixJTYstG2kZX.1>

Session Chair

Session Co-chair

Session Comphere

Prof. (Mrs.) J.M.J.W. Jayasinghe

Dr. Uditha Wijewardena

Oshadi Thalpwila

Session Coordinator

Mr.Theekshana Piyadasa (+94 76 614 2095)

Time

Paper ID

Title

11.00 – 11.15 am

Session Chair's Address

11.15 – 11.30 am

ECRISA021

*DEVELOPMENT OF AN ULTRASONIC DEVICE TO MITIGATE MARINE MAMMAL DEPREDATION IN FISHERIES
(Vijayagopal Vijayavahini)*

11.30 – 11.45 am

ECRISA067

*SHAPING ELECTRIFIED MOBILITY: UNVEILING THE DYNAMICS BEHIND CONSUMER INTENTIONS FOR ELECTRIC CAR PURCHASES IN SRI LANKA
(A. N. Nuwan)*

11.45 – 12.00 am

ECRISA007

*LIFE TIME DETERMINATION OF VARIOUS TYPES OF LEAD ACID BATTERIES
(T. C. Peiris)*

12.00 – 12.15 pm

ECRISA059

*ADOPTION OF INTELLIGENT PROCESS AUTOMATION IN THE TELECOMMUNICATION INDUSTRY—A SYSTEMATIC LITERATURE REVIEW
(U. P. Mihiranga)*

12.15 – 12.30 pm

ECRISA063

*UTILIZING MODERN ADVANCED DIGITAL TECHNOLOGIES TO ENHANCE THE ROLE OF QUANTITY SURVEYORS IN SRI LANKA
(H. M. Eshan Akalanka)*

12.30 – 12.45 pm

ECRISA042

*DESIGN AND PERFORMANCE EVALUATION OF A SUPERCAPACITOR–BATTERY HYBRID ENERGY STORAGE SYSTEM FOR OFF-GRID PV APPLICATIONS
(T. R. Amaraweera)*

12.45 – 01.00 pm

ECRISA043

*DEVELOPMENT OF A COST-EFFECTIVE SUPERCAPACITOR-ASSISTED PV SYSTEM FOR RELIABLE DC MICROGRID OPERATION
(N. R. Premarathna)*

01.00 - 01.15 pm

Session Co-Chairs Conclusion

30th January 2026

13.30- 15.45 hrs

Maitland State Room (Hybrid)

Session M_05

Smart Industrial Systems, Automation, and Digital Engineering for Sustainable and Intelligent Operations

Join Zoom Meeting <https://learn.zoom.us/j/95549632511?pwd=TevPIfsURzKHG9bDuUc6C7oHvxZuCA.1>

Session Chair

Session Co-chair

Session Comphere

Dr. Ajith Pasqual

Dr. Sankalpa Gamwarige

Oshadi Thal pawila

Session Coordinator

Mr.Theekshana Piyadasa (+94 76 614 2095)

Time

Paper ID

Title

01.45 – 02.00 pm

Session Chair's Address

02.00 – 02.15 pm

ECRISA026

*DEVELOPMENT OF AN INTELLIGENT FAULT DIAGNOSIS SYSTEM WITH REAL-TIME MONITORING AND ADJUSTMENT RECOMMENDATIONS FOR THERMIC HEATERS
(D. M. D. P. Sasindu)*

02.15 – 02.30 pm

ECRISA064

*DESIGN AND DEVELOPMENT OF A LOW-COST 3D PRINTING SYSTEM FOR SUSTAINABLE CEMENTITIOUS CONSTRUCTION: A PROTOTYPE IMPLEMENTATION
(P. G. T. I. Jayarathna)*

02.30 – 02.45 pm

ECRISA072

*DATA PATTERN CONVERSION FOR LEGALIZED WEIGHING INDICATOR INTERFACE BETWEEN HIWEIGH X1 AND EVEREST INSTRUMENTS MONITORING SYSTEM: A SRI LANKA FIRST
(L. D. R. P. Liyanage)*

02.45 – 03.00 pm

ECRISA025

*REAL-TIME INDUSTRIAL SCADA SYSTEM FOR DATA VISUALIZATION, PREDICTIVE ANALYTICS, AND PERFORMANCE OPTIMIZATION
(N. M. W. G. H. Madhushan)*

03.00 – 03.15 pm

ECRISA055

*SMART LOCATION-BASED TOURISM INFORMATION SYSTEM: INTEGRATING GPS AND BEACON TECHNOLOGIES FOR ENHANCED VISITOR EXPERIENCES IN SRI LANKA
(N. D. S. Jayawardene)*

03.15 – 03.30 pm

ECRISA054

*ADOPTION AND SECURITY CHALLENGES OF BIG DATA STORAGE IN CLOUD ARCHITECTURES: GOVERNMENT VS. PRIVATE SECTOR IN SRI LANKA
(H. P. N. Warnasooriya)*

03.30 – 03.45 pm

ECRISA011

*DESIGN OF A TIME-BASED EXTERNAL RESET MECHANISM TO IMPROVE MICROCONTROLLER SYSTEM RELIABILITY
(G. L. D. V. I. Gurubewila)*

03.45 - 04.00 pm

Session Co-Chairs Conclusion

30th January 2026
13.30 - 16.15 hrs

Horizon Room (Hybrid)

Session H_02

Multimodal AI for Human-Centric Automation

Join Zoom Meeting

<https://learn.zoom.us/j/99028086427?pwd=k4AuLzNRX8JHRwkj1FaVfd2Jkl8bc4.1>

Session Chair

Session Co-chair

Session Co-chair

Session Comphere

Prof. Janaka Wijayanayake

Eng. D. S. Wickramasinghe

Dr. Susara Thenuwara

Nilushika Jayawardhana

Session coordinator

Mr.Thilina Wijebandara (+94 71-237 3057)

Time

Paper ID

Title

01.30 - 01.45 pm

Session Chair's Address

01.45 – 02.00 pm

ECRISA018

DEEP LEARNING APPROACHES FOR SINHALA HANDWRITTEN CHARACTER RECOGNITION
(M. L. Karunaratne)

02.00 – 02.15 pm

ECRISA058

INTELLIGENT EXAM EVALUATION SYSTEM WITH AI BASED ANALYTICS
(K. D. S. Udayanthika)

02.15 – 02.30 pm

ECRISA009

A SURVEY ON ADVANCEMENTS IN COMPUTATIONAL TOOLS FOR MATHEMATICS EDUCATION
(C. K. Jayaweera)

02.30 – 02.45 pm

ECRISA039

QUANTUM NEURAL NETWORKS IN THE NISQ ERA: ARCHITECTURES, CHALLENGES, AND APPLICATIONS
(K. W. Palihakkara)

02.45 – 03.00 pm

ECRISA050

AUTOMATED EVALUATION OF HANDWRITTEN ANSWER SCRIPTS USING VISION-LANGUAGE MODEL AND SENTENCE TRANSFORMATION
(G. R. Lakpriya)

03.00 –03.15 pm

ECRISA066

BENCHMARKING CODE GENERATION MODELS FOR QUANTUM COMPUTING: LARGE LANGUAGE MODELS VS. FEYNMAN MULTI-AGENT SYSTEM ON IBM QISKIT V2
(A. C. Gammanpila)

03.15 – 03.30 pm

ECRISA046

NATURAL LANGUAGE INTERFACES FOR NETWORK CONFIGURATION USING LARGE LANGUAGE MODELS: BUILDING HUMAN INTENT AND AUTONOMOUS NETWORK MANAGEMENT
(S. C. J. Bandara)

03.30 – 03.45 pm

ECRISA022

FUSION-BASED DEEP LEARNING APPROACH FOR COMPREHENSIVE HUMAN BEHAVIOR ANALYSIS FROM VISUAL CUES
(A. K. N. Duminda)

03.45 - 04.00 pm

Session Co-Chairs Conclusion

30th January 2026
16.00 - 17.00 hrs

Maitland State Room

Session M_06
Poster Presentation

Session Chair

Session Co-chair

Session Co-chair

Dr. Ajith Pasqual

Dr. Janaka Adassuriya

Dr. Gayantha Kodikara

Session coordinator

Mr. Mohomad Rila (+94 71-444 1501)

Registration ID

Title

ECRISA052

INTEGRATED CONTROL SYSTEM FOR INDUCTION MOTORS WITH VFD, PID, PLC, AND HMI
(Vijayasothy Vijayagopal)

ECRISA053

DESIGNING A BLOCKCHAIN-POWERED HEALTHCARE DATA MANAGEMENT SYSTEM TO ENHANCE SECURITY AND PRIVACY
(Y. G. Sampath Costa)

ECRISA069

IoT base smart stick
(M. K. K. weerasinghe)

ECRISA037

Enhanced EEG-Based User Authentication Using Machine Learning Optimization
(M. A. M. Kumanjana)

ECRISA027

SELF-DEFENDING SMART NETWORK WITH ML-POWERED INTRUSION DETECTION AND RESPONSE
(R. M. S. Madushan)

ECRISA068

Usage of Artificial Intelligence in Development and Improvement of Plant-Based medicine
(Ravichandran Rasika)

ECRISA049

Leveraging Artificial Intelligence for Smart Diet Planning and Nutritional Guidance: A Digital Tool for Nutrition Professionals
(R. M. N. A. Bandara)

ECRISA002

INFORMATION DISTILLATION TRANSFORMER WITH LAYER-SCALED WEIGHT SHARING AND POOLED SPATIAL GATING FOR EFFICIENT SUPER RESOLUTION
(M. J. A. Rasool)



Thank You

