

## ICDSME2025 Conference

### Parallel Session for Oral Presentation (6th November 2025)

Venue	Petra 1	Petra 2	Taj Mahal	Giza	Machu Picchu	Great Wall
<b>Sessions</b>	<b>Parallel Session 1A</b>	<b>Parallel Session 1B</b>	<b>Parallel Session 1C</b>	<b>Parallel Session 1D</b>	<b>Parallel Session 1E</b>	<b>Parallel Session 1F</b>
Chairmans	Mrs. Margaret Trias (CDA)	Mr. Nor Zamri Sondor (LUAS)	Ir. Jerry Betie Chin Timothy Asson (Sarawak Energy Berhad)	Dr. John Paulus Pantouw (INACOLD)	Mrs. Clare Raska (CDA)	Assoc. Prof. P. Geol. Gs. Ts. Dr Rohayu Che Omar (UNITEN)
Plenary (9.50-10.10 am)	-	-	AP. Dr. Lloyd Hock Chye Chua (Deakin University)	Dr. Amanda Ashworth (ENTURA)	Prof. Dr. Zulfaquer Ahmad (INCOLD)	Mr. Vivek P. Kapadia (INCOLD)
Themes (10.10 am - 10.55 am)	Surveillance, Data Monitoring and Evaluation	Integrated water resources management	Sustainable Dam and Reservoir Management	Advancing Sustainable Hydropower	Best Practices in Dam Safety Management & Governance	Dam Rehabilitation and Other Risk Reduction Measures
<b>COFFEE BREAK (10.55 am -11.15 am)</b>						
<b>Sessions</b>	<b>Parallel Session 2A</b>	<b>Parallel Session 2B</b>	<b>Parallel Session 2C</b>	<b>Parallel Session 2D</b>	<b>Parallel Session 2E</b>	<b>Parallel Session 2F</b>
Chairmans	Dr. Amanda Ashworth (ENTURA)	Ir. Dr. Norazlina Bateni (UNIMAS)	AP. Dr. Rosmina Ahmad Bustami (UNIMAS)	Mr. Vivek P. Kapadia (INCOLD)	Dr. Adrián Morales Torres (iPresas)	Dr. Martin Wieland (SwissDAMS)
Themes (11.15 am - 1.00 pm)	Surveillance, Data Monitoring and Evaluation	Integrated water resources management	Sustainable Dam and Reservoir Management	Advancing Sustainable Hydropower	Best Practices in Dam Safety Management & Governance, and Dam Safety Assurance Under Climate Change	Dam Rehabilitation and Other Risk Reduction Measures
<b>LUNCH BREAK (1.00 pm - 2.15 pm)</b>						
<b>Sessions</b>	<b>Parallel Session 3A</b>	<b>Parallel Session 3B</b>	<b>Parallel Session 3C</b>	<b>Parallel Session 3D</b>	<b>Parallel Session 3E</b>	<b>Parallel Session 3F</b>
Chairmans	Preparing for Closing Ceremony	Mr. Tony Bennett (CDA)	Mr. Darul Hisham Saman (TNB GENCO)	Mr. Tony Ting Tiew Whong (Sarawak Energy Berhad)	Mr. Mohd Hazri Moh Khambali (JPS)	Mr. Richard Donnelly (CDA)
Themes (2.15 pm - 3.00 pm)		Operation, Maintenance and Emergency Management	Operation, Maintenance and Emergency Management	Advancing Sustainable Hydropower	Dam Safety Assurance Under Climate Change	Operation, Maintenance and Emergency Management

## Oral Presentation Session

6 <sup>th</sup> November 2025 (Conference, Day 2) Petra 1		
<b>Time</b>	<b>PARALLEL SESSION 1A</b>	
<b>Chairman: Mrs. Margaret Trias (CDA)</b>		
<b>THEME: SURVEILLANCE, DATA MONITORING &amp; EVALUATION</b>		
<b>10.10 am</b>	<b>ID 031</b>	Dam Safety Assessment - Spillway Structure Computational Modelling for Damage Assessment: Case Study Temengor Spillway, Sg. Perak Hydroelectric Scheme Jansen Luis Luis Alexander, Muhammad Mustaqim Omar, Mohd Edzham Fareez Othman, Shamsul Amri Sulaiman
<b>10.25 am</b>	<b>ID 088</b>	Dam Safety Management – Instrumentation System Monitoring at Bakun Hydroelectric Plant in Sarawak, Malaysia Jonathan Kung Yew Tiong, Tiew Whong Ting
<b>10.40 am</b>	<b>ID 099</b>	Geo-Resistivity Monitoring and FLAC2D Modelling for Landslide Risk Management in Slope-Prone Terrains Nur Salina Rosli, Rohayu Che Omar, Nor Hazwani Nor Khalid, Amina Hanna Zainal Abidin, Warishah Abdul Wahab, Rasidi Yamin, Yin Jeh Ngui, Marcus Dobbs
<b>10.55 am</b>	<b>COFFEE BREAK</b>	
<b>Time</b>	<b>PARALLEL SESSION 2A</b>	
<b>Chairman: Dr. Amanda Ashworth (ENTURA)</b>		
<b>THEME: SURVEILLANCE, DATA MONITORING &amp; EVALUATION</b>		
<b>11.15 am</b>	<b>ID 008</b>	Performance Evaluation of Dam Monitoring Systems Following the Landslide Event: A Case Study of Kenyir Dam Ismail Faruq Serip Mohamad, Hafizul Fahmi Roslan, Darul Hisham Saman, Mohd Hafiz Rosni
<b>11.30 am</b>	<b>ID 089</b>	Machine Learning-Based Short-Term Multi-Step Forecasting of Reservoir Water Levels at Batang Ai HEP Using XGBoost with Operational Input Chris Aaron Anak Winston
<b>11.45 am</b>	<b>ID 079</b>	Premium advantage of a calibrated finite element model for a dam under operation S. P. Banihashemi, M.M Zakeri
<b>12.00 pm</b>	<b>ID 049</b>	Analysis of Potential Megathrust Earthquake on Tsunami Disasters in Pangandaran, West Java Fransiskus Sean Tanlie, Evi Anggraheni, Benazir

**6<sup>th</sup> November 2025  
(Conference, Day 2)  
Petra 1**

<b>12.15 pm</b>	<b>ID 105</b>	Numerical Assessment of Slope Instability Adjacent to Tidal Gate Structures in the Northern Region of Peninsular Malaysia under Transient Seepage Conditions.
		Ahmad Luqman Mohd Salehuddin, Zulkefli Mustaffa, Lariyah Mohd Sidek
<b>12.30 pm</b>	<b>ID 065</b>	Seismic Hazard Assessment of Klang Gates Dam Using Deterministic and Probabilistic Approaches
		Ahmad Fakhri Bin Ishak, Meldi Bin Suhatriil
<b>12.45 pm</b>	<b>ID 021</b>	Machine Learning-Based Prediction of Water Levels from Rainfall Data: A Case Study of Batu Dam, Malaysia
		Azazkhan I. Pathan, Lariyah Mohd Sidek, Hidayah Basri, Harsh Shah, Mohd Hazri Moh Khambali, Muhammad Izzat Azhar Khebir
<b>1.00 pm</b>	<b>LUNCH BREAK</b>	

**6<sup>th</sup> November 2025  
(Conference, Day 2)  
Petra 2**

<b>Time</b>	<b>PARALLEL SESSION 1B</b>	
	<b>Chairman: Mr. Nor Zamri Sondor (LUAS)</b>	
<b>THEME: INTEGRATED WATER RESOURCES MANAGEMENT</b>		
<b>10.10 am</b>	<b>ID 007</b>	Water Availability and Water Yield Analysis for Kenyir Dam Catchment
		Mohd Rashid Radzi, Nor Aima Syazwani, Meldi Suhatri
<b>10.25 am</b>	<b>ID 084</b>	NucleaRace: A STEM Outreach Initiative Promoting Radiation Awareness Near Hydro Dams
		Nuraslinda Anuar, Wei Eng Ang, Rogemah Ramli, Mohd Syukri Yahya
<b>10.40 am</b>	<b>ID 077</b>	Assessment of Rainfall and Water Level at Rajang River Pre- and Post-Bakun Hydroelectric Plant Construction
		Rosmina A Bustami, Marjorie M L Moses, Norazlina Bateni, Darrien Y S Mah, Charles H J Bong
<b>10.55 am</b>	<b>COFFEE BREAK</b>	
<b>Time</b>	<b>PARALLEL SESSION 2B</b>	
	<b>Chairman: Ir. Dr. Norazlina Bateni (UNIMAS)</b>	
<b>THEME: INTEGRATED WATER RESOURCES MANAGEMENT</b>		
<b>11.15 am</b>	<b>ID 059</b>	Water Stress, Risk Analysis Assessment on Lombok Island, Indonesia
		Rizki Aulia Putra, Evi Anggraheni
<b>11.30 am</b>	<b>ID 072</b>	Integrated Water Resources Management Towards Sustainability Water in Selangor
		Haslina Amer, Nor Zamri Sondor, Siti Haida Ramli
<b>11.45 am</b>	<b>ID 076</b>	Impact of Bakun Hydroelectric Plant (HEP) Dam on Water Quality Parameters in the Rajang River
		Nor Azalina Rosli, Inawati Othman, Ahmad Kueh Beng Hong, Muhammad Kamal Rusyaidi Mohtar, Ahmad Adzhar Khairulzaim, Nuqman Nadeem Sharkawi
<b>12.00 pm</b>	<b>ID 121</b>	The Development of Physically Based Dam Breach Model of a Rockfill Dam using EMBREA: A Case Study of Kenyir Dam
		Nur Zafirah Zainudin, Lariyah Mohd Sidek, Hidayah Basri, Mohd Ruzaimi Yalit, Rasidi Yamin, Sarbani Anjang Ahmad, Darul Hisham Saman, Noryusuhariq Mohd Yusof
<b>12.15 pm</b>	<b>ID 070</b>	Economic–Environmental Analysis of Dam Failure Losses with Emphasis on Public Health Consequences in Iran: A SWOT-Based Approach
		Ehsan Farhadi, Hossein Sadeghi Saghdel, Lotfali Agheli, Samira Motaghi

<b>6<sup>th</sup> November 2025 (Conference, Day 2) Petra 2</b>		
<b>12.30 pm</b>	<b>ID 087</b>	Integrated Water Resources Management in Sarawak's Hydropower Catchments: Insights from the Murum, Bakun, and Batang Ai Hydropower Plants Joan Alicia Joseph Blandoi, Joyce Janggu
<b>12.45 pm</b>	<b>ID 112</b>	Linking Wastewater Treatment Life Cycle Assessment to Integrated Water Resources Management: Insights from Global Trends and Relevance for Malaysia Nurul Hani Mardi, Hayana Dullah, Mohd Hafiz Zawawi, Ali Najah Ahmed, Nur'atiah Zaini, Marlinda Abd Malek
<b>1.00 pm</b>	<b>LUNCH BREAK</b>	
<b>Time</b>	<b>PARALLEL SESSION 3B</b>	
	<b>Chairman: Mr. Tony Bennett (CDA)</b>	
<b>THEME: OPERATION, MAINTENANCE AND EMERGENCY MANAGEMENT</b>		
<b>2.15 pm</b>	<b>ID 010</b>	Tunnel Integrity Inspection Under Site Constraints and Complex Inspection Challenges: A Case Study of Menglang Tunnel, Cameron Highlands-Batang Padang Hydroelectric Scheme Mohd Hafiz Rosni, Hafizul Fahmi Roslan, Ismail Faruq Serip Mohamad, Darul Hisham Saman, Muhammad Mustaqim Omar
<b>2.30 pm</b>	<b>ID 011</b>	Implementation Of the Early Warning System Web-Based Application for The Cirata Dam Break Flood Emergency Connected to The Android System Bambang Wahyu Jatmiko, Rendy Pratna, Haris Pradipta Putra

6 <sup>th</sup> November 2025 (Conference, Day 2) Taj Mahal		
Time	PARALLEL SESSION 1C	
<b>Chairman: Ir. Jerry Betie Chin Timothy Asson (Sarawak Energy Berhad)</b>		
<b>THEME: SUSTAINABLE DAM AND RESERVOIR MANAGEMENT</b>		
9.50 am	G 002	<b>Plenary Session 1</b>
		Floating Photovoltaic Applications in Hydropower Dams Plenary Speaker: Assoc. Prof. Dr. Lloyd Hock Chye Chua (Deakin University, Australia)
10.10 am	ID 020	Flood Risk Analysis from Hypothetical Dam Break of Batu Dam Using Open-Source Hydrodynamic Modelling Approach
		Lariyah Mohd Sidek, Azazkhan I. Pathan, Hidayah Basri, Harsh Shah, Mohd Hazri Moh Khambali, Muhammad Izzat Azhar Khebir
10.25 am	ID 052	Sediment Flushing of Sengguruh Reservoir: Key to Reservoir Capacity Recovery and Renewable Energy Optimization
		Kamsiyah Windianita, Arief Budiyanono, Sugik Edy Sartono, Fahmi Hidayat
10.40 am	ID 036	Check Dams as a Mitigation Strategy for Sedimentation in Hydropower Reservoirs: A Case Study of Ulu Jelai, Cameron Highlands
		Ahmad Fadhli Mamat, Rahsidi Sabri Muda, Mohamad Amirul Hafiz Abd Hamid
10.55 am	<b>COFFEE BREAK</b>	
Time	PARALLEL SESSION 2C	
<b>Chairman: Assoc. Prof. Dr. Rosmina Ahmad Bustami (UNIMAS)</b>		
<b>THEME: SUSTAINABLE DAM AND RESERVOIR MANAGEMENT</b>		
11.15 am	ID 057	Application of Electrical Resistivity Tomography (ERT) in Enhancing the Accuracy of Phreatic Surface Evaluation for Dam Stability Assessment
		Hendra Jitno, Henny D Purnamasari, Ibadurrahman A Dzikro, Abdul Salam
11.30 am	ID 017	Sustainable Development and Analysis of Check Dam Systems for Ulu Jelai Hydroelectric Scheme Focusing on Hydraulic and Stability Aspects
		Mohd Edzham Fareez Othman, Jansen Luis Luis Alexander, Muhammad Mustaqim Omar, Lariyah Mohd Sidek, Hidayah Basri
11.45 am	ID 041	Sedimentation Analysis of Susu Reservoir and Formulation of Mitigation Strategies

<b>6<sup>th</sup> November 2025</b> <b>(Conference, Day 2)</b> <b>Taj Mahal</b>		
		Azwin Zailti Abdul Razad, Wan Haryati Wan Abdullah, Norhidayah Selamat, Roshidi Kamis, Shamsul Amri Sulaiman, Wan Amirul, Saifuddin Zakaria, Hidayah Basri, Lariyah Mohd Sidek, Mazura Nor Zulkifli, Nik Muaz Kamel
12.00 pm	ID 068	Decarbonization of the Cibeet Dam Project: Comparative Carbon Emission Assessment of RCC and Earthfill Construction Methods Through Fly
		Phelix Ghibran, Alfin Septya Nugroho, Aqua Budinata, Riyanto Wibowo, Ahmad Sidik
12.15 pm	ID 058	Strength and Deformation Characteristics of Asphaltic Concrete Core Embankment Dams Built in the Tropical Region
		Hendra Jitno, Aris Rinaldi, Slamet Lestari, Aries Firman
12.30 pm	ID 042	Adaptive Mechanical Systems for Safe Dam Operations
		Nur Aqilah Nadiah Azley Ariff
12.45 pm	ID 114	The National Reservoir Inflow Forecasting System (NaRIF) in Malaysia: Real-Time Flood Forecasting System
		Hidayah Basri, Lariyah Mohd Sidek, Muhammad Yunus Ahmad Mazuki, Wan Hazdy Azad, Mohd. Hazri Moh Khambali, Mohamad Amiruddin Zulkefli, Nur Alyaa Hazrin, Siti Syairah Atiqah binti Azhar, Kim Irvine, Lloyd Chua Lloyd Chua
1.00 pm	<b>LUNCH BREAK</b>	
Time	<b>PARALLEL SESSION 3C</b>	
<b>Chairman: Mr. Darul Hisham Saman (TNB GENCO)</b>		
<b>THEME: OPERATION, MAINTENANCE AND EMERGENCY MANAGEMENT</b>		
2.15 pm	ID 071	Insitu Balancing, Vibration Measurement and Analysis on 50 MW Francis Turbine Hydro Power Station
		Zahir Fikri bin Zulkifli Jasmin, Mohd Rashid bin Mohd Radzi, Mohd Aswad bin Abdol Rani, and Ismail bin Roslan
2.30 pm	ID 067	Evaluation of Risk Management Impact on Project Schedule Performance: Case Study of Jlantah and Temef Dam Package 4 Construction Using Schedule Performance Index and Schedule Deviation
		Muhammad Asyqar Raasyaad, Alfin Septya Nugroho, Eko Suyono, Nugraha

6 <sup>th</sup> November 2025 (Conference, Day 2) Giza		
Time	PARALLEL SESSION 1D	
Chairman: Dr. John Paulus Pantouw (INACOLD)		
THEME: ADVANCING SUSTAINABLE HYDROPOWER		
09.50 am	ID G001	<b>Plenary Session 2</b> A holistic approach to assessing feasibility of pumped hydro energy storage and conventional hydropower; prioritising maximum long-term value.
		Plenary Speaker: Dr Amanda Ashworth (ENTURA)
10.10 am	ID 028	Geomembrane Lining for Rockfill Dams in Hydropower and Pumped Storage Schemes
		Jonghao Su, John Cowland
10.25 am	ID 034	Geospatial Analysis on Identification of Suitable Land for Construction of Solar Power Plant Interconnection Facility (SPPIF) in Hydro Power Station
		Muhammad Ammar bin Jakrin, Mohd Rashid bin Mohd Radzi
10.40 am	ID 082	Prediction of Water Level using Machine Learning Techniques: Batu Dam as Case Study
		Saad Sh. Sammen, Lariyah Mohd Sidek, and Nisreen Jawad Rasheed
10.55 am	COFFEE BREAK	
Time	PARALLEL SESSION 2D	
Chairman: Mr. Vivek P. Kapadia (INCOLD)		
THEME: ADVANCING SUSTAINABLE HYDROPOWER		
11.15 am	ID 081	Floating Solar Photovoltaic Systems on Dam Reservoirs: Potential and Challenge Toward National Energy Transition Roadmap (NETR)
		Mohd Aswad bin Abdol Rani, Kamaruddin Bin Abd Aziz, Mohd Rashid bin Mohd Radzi, Ismail bin Roslan
11.30 am	ID 040	Site Selection for Pumped Hydro Energy Storage Project
		Safwan Asnawi Bin Ahmad Zaki, Azwin Zailti Binti Abdul Razad, Noryusuhasriq Bin Mohd Yusof, Nurmalisa Fazrina Binti Ismail, Mohd Lutfil Hadi bin Ramli, Ahmad Redha bin Sahrom, Ibrahim bin Abdul Aziz, Muhammad Hafiz bin Abdullah
11.45 am	ID 097	Assessing Biodiversity Offset in Malaysian Hydropower: A Conceptual Indicator Framework for Dam Projects
		Norhayati Mat Husin, Bakhtiar Alrazi, Inaliah Mohd Ali, Shayuti Mohamed Adnan, Azrinawati Mohd Remali @ Abd. Jalil
12.00 pm	ID 074	Utilization of the Sutami Reservoir for the Development of Floating Solar Power Plants

		Sugik Edi Sartono, Adi Bowo Kusumo, Nugroho Hari Anggoro Suyono, Muhammad Adnan maulana, Fahmi Hidayat, Hamim Ghufroni, Abdul Razaq
12.15 pm	ID 038	Floating Solar Technology and Its Potential Synergizing with Hydropower Infrastructure for Renewable Energy Optimization
		Muhammad Mustaqim Omar, Jansen Luis Luis Alexander, Shamsul Amri Sulaiman, Mohd Edzham Fareez bin Othman
12.30 pm	ID 110	CFD-Based Investigation of Flow Dynamics of Pergau Dam Spillway
		Nurul Husna Hassan, Mohd Hafiz Zawawi, Mohd Rashid Mohd Radzi, Mohamad Aizat Abas, Mohd Remy Rozainy Mohd Arif Zainol, Hayana Dullah
01.00 pm	<b>END &amp; LUNCH BREAK</b>	
Time	<b>PARALLEL SESSION 3D</b>	
<b>Chairman: Mr. Tony Ting Tiew Whong (Sarawak Energy Berhad)</b>		
<b>THEME: ADVANCING SUSTAINABLE HYDROPOWER</b>		
02.15 pm	ID 035	Advancing Sustainable Hydropower in Malaysia: A Comprehensive Review of Tenaga Nasional Berhad's Hydro Life Extension Program (HLEP)
		Roshidi Bin Khamis, Sarunan Letchmanan
02.30 pm	ID 122	Advancing Sustainable Rural Electrification through ESG-Driven Micro Hydro System Development in Pos Lenjang, Lipis, Pahang, Malaysia
		Mohamad Faizal Sani, Nurul Husna Zainal Abidin,

6 <sup>th</sup> November 2025 (Conference, Day 2) Machu Picchu		
Time	PARALLEL SESSION 1E	
Chairman: Mrs. Clare Raska (CDA)		
THEME: BEST PRACTICES IN DAM SAFETY MANAGEMENT & GOVERNANCE		
9.50 am	ID G004	<b>Plenary Session 3</b> Piano Key Weirs; Advancements and Future Research
		Plenary Speaker: Prof. Dr. Zulfaquer Ahmad (INCOLD)
10.10 am	ID 009	Strengthening Disaster Risk Governance: Insights from Malaysia's Approach to Dam Safety Management
		R.S. Muda, I. Tukiman, M.R. Hussain
10.25 am	ID 013	Comprehensive Failure Mode Identification for Risk-Informed Decision Making in Dam Safety Management: A Case Study of Sultan Abu Bakar Dam
		Lariyah Mohd Sidek, Siti Mariam Alias Omar, Sarbani Anjang Ahmad, Hidayah Basri, Darul Hisham Saman, Noryusuhariq Mohd Yusof, Adrian Morales Torres
10.40 am	ID 045	Complete Feature for Dam Safety, Operation Reliability and Environmental Sustainability in Merangin HEPP 350 MW
		Jumadil Syam, Sulistianto, Faruq Assegaf, Alimuddin Sewang, Aries F. Firman
10.55 am	COFFEE BREAK	
Time	PARALLEL SESSION 2E	
Chairman: Dr. Adrián Morales Torres (iPresas)		
THEME: BEST PRACTICES IN DAM SAFETY MANAGEMENT & GOVERNANCE		
11.15 am	ID 075	Rapid Risk Indexing: A Tool for Risk-Informed Dam Safety Prioritization
		C. Richard Donnelly, P.A. Zielinski, E. Halpin, J. Quebbeman, C.R. Singh, Z.M. Ziegelhoefer
11.30 am	ID 078	Development of Dam Safety Index (DSI) for Five Major Dams of Pakistan to Evaluate Dam Safety, Ensure Better Maintenance and Timely Preventive Measures
		Zahid Majeed, Zia ur Rehman, Mian Waqar Ali Shah
11.45 am	ID 022	The Risk Informed Decision Making (RIDM) for TNB Genco Dam Safety Program – Case Study for Temengor Dam
		Nurmalisa Fazrina Binti Ismail, Noryusuhariq Bin Mohd Yusof, Shamsul Amri Sulaiman, Darul Hisham Saman, Hidayah Basri, Lariyah Mohd Sidek
THEME: DAM SAFETY ASSURANCE UNDER CLIMATE CHANGE		
12.00 pm	ID 091	Beyond the Crest: Assessing Bakun Dam's Resilience to Future 1-in-50 and 1-in-100 AEP Events

		Jerry Betie Chin Timothy Asson
12.15 pm	ID 033	Assurance for Dam Safety and Resiliency under Climate Change
		Rosidha Febriana, Muhamad Rusdi Bhaharuddin
12.30 pm	ID 053	Projected Inflow and Outflow Extremes under Climate Change in Kenyir Catchment and Implications for Dam Safety
		Mohd Edzham Fareez Othman, Lariyah Mohd Sidek, Hidayah Basri, Ahmed El-Shafie, Ali Najah Ahmed, Jansen Luis Luis Alexander, Muhammad Mustaqim Omar, Shamsul Amri Sulaiman
01.00 pm	<b>END &amp; LUNCH BREAK</b>	
Time	<b>PARALLEL SESSION 3E</b>	
<b>Chairman: Mr. Mohd Hazri Moh Khambali (JPS)</b>		
<b>THEME: DAM SAFETY ASSURANCE UNDER CLIMATE CHANGE</b>		
02.15 pm	ID 016	Evaluating Climate Resilience of Kenyir Hydroelectric Scheme Using Integrated RVI and SPEI Models
		Mohd Edzham Fareez Othman, Lariyah Mohd Sidek, Hidayah Basri, Ahmed El-Shafie, and Ali Najah Ahmed
02.30 pm	ID 039	Evaluation of Dam Safety Challenges in the Climate Change Era: A Southeast Asian Regional Perspective
		Nugraha, Setyadi Hartomo

6 <sup>th</sup> November 2025 (Conference, Day 2) Great Wall		
Time	PARALLEL SESSION 1F	
Chairman: Assoc. Prof. P. Geol. Gs. Ts. Dr Rohayu Che Omar (UNITEN)		
THEME: DAM REHABILITATION AND OTHER RISK REDUCTION MEASURES		
9.50 am	ID G003	<b>Plenary Session 4</b> Application of Geosynthetics in Dam Engineering Plenary Speaker: Mr. Vivek P. Kapadia (INCOLD)
		Rehabilitation of Exposed Geomembrane in RCC Dams: Case of Susu Dam with Global Best Practices 'Ammar Taqi Borhan, Shamsul Amri Sulaiman, Wan Amirul Wan Hussin, Mohd Fauzi Abdullah, Mohd Zul-azri Zaimi
10.10 am	ID 023	Case Studies of Rehabilitation of Dams with Geomembrane Liners Installed in the Dry and Underwater John Cowland, Jonghao Su
		Analysis Of Bamboo Fiber Reinforced Concrete (FRC) To Reduce Thermal Crack Potential in The Leuwikeris Dam Construction Ilham Putra Pratama, Alfin Septya Nugroho, Elly Yuliasari, Fariz Kurnia Aziz
10.25 am	ID 027	Analysis Of Bamboo Fiber Reinforced Concrete (FRC) To Reduce Thermal Crack Potential in The Leuwikeris Dam Construction Ilham Putra Pratama, Alfin Septya Nugroho, Elly Yuliasari, Fariz Kurnia Aziz
		Ilham Putra Pratama, Alfin Septya Nugroho, Elly Yuliasari, Fariz Kurnia Aziz
10.40 am	ID 069	Ilham Putra Pratama, Alfin Septya Nugroho, Elly Yuliasari, Fariz Kurnia Aziz
10.55 am	COFFEE BREAK	
Time	PARALLEL SESSION 2F	
Chairman: Dr. Martin Wieland (SwissDAMS)		
THEME: DAM REHABILITATION AND OTHER RISK REDUCTION MEASURES		
11.15 am	ID 120	Risk Assessment and Mitigation Measures of DID Hydraulic Structures in Central Region of Peninsular Malaysia Zakiyyah Muhammad, Zakaria Che Muda, Mohd Khardzir Husain, Munir Khan, Sheikh Ahmad Farhan Kamal Hazari, Ahmad Faisal Mohd Ghazali, Ilyas Mansor, Ahmad Mahdi Kamin, Nur Amer Mohd Sabrek
		What's Up with this Contractor?: (Some insights into selecting the right contractor) Darren George Protulipac
11.30 am	ID 109	Assessment and Rehabilitation Work for Puah Headrace Tunnel U2, Hulu Terengganu Hydroelectric Scheme Muhamad Fairuz Nadzmie Badrul Azman, Md Yuzeiry Md Yasin, Azizul Hassani Abd Rahman, Mohd Faizal Musa, Muhammad Mustaqim Omar
		Assessment and Rehabilitation Work for Puah Headrace Tunnel U2, Hulu Terengganu Hydroelectric Scheme Muhamad Fairuz Nadzmie Badrul Azman, Md Yuzeiry Md Yasin, Azizul Hassani Abd Rahman, Mohd Faizal Musa, Muhammad Mustaqim Omar
11.45 am	ID 025	Assessment and Rehabilitation Work for Puah Headrace Tunnel U2, Hulu Terengganu Hydroelectric Scheme Muhamad Fairuz Nadzmie Badrul Azman, Md Yuzeiry Md Yasin, Azizul Hassani Abd Rahman, Mohd Faizal Musa, Muhammad Mustaqim Omar
		Assessment and Rehabilitation Work for Puah Headrace Tunnel U2, Hulu Terengganu Hydroelectric Scheme Muhamad Fairuz Nadzmie Badrul Azman, Md Yuzeiry Md Yasin, Azizul Hassani Abd Rahman, Mohd Faizal Musa, Muhammad Mustaqim Omar
12.00 pm	ID 046	Evaluation of the Adequacy of the Riprap Dimensions of the Sutami Dam Due to Reservoir Wave Loads Satria Wahyu Oetomo, Kamsiyah Windianita, Arief Budiyantono, Sugik Edy Sartono, Fahmi Hidayat
		Evaluation of the Adequacy of the Riprap Dimensions of the Sutami Dam Due to Reservoir Wave Loads Satria Wahyu Oetomo, Kamsiyah Windianita, Arief Budiyantono, Sugik Edy Sartono, Fahmi Hidayat

12.15 pm	ID 047	Construction of 125 m High Concrete Gravity Dam in Subansiri Lower Hydro Electric Project (2000MW)-India -A Case Study
		Rao Mushraf Ali Khan
12.30 pm	ID 054	Active Fault Zone As Renewable Energy Potential Source (Small Hydroelectric Power Plant and Geothermal Power Plant) And Geological Hazard Risk (Earthquake and Landslide) Potential Source
		Asmaruddin Surya Ariyanto
01.00 pm	<b>END &amp; LUNCH BREAK</b>	
Time	<b>PARALLEL SESSION 3F</b>	
<b>Chairman: Mr. Richard Donnelly (CDA)</b>		
<b>THEME: OPERATION, MAINTENANCE AND EMERGENCY MANAGEMENT</b>		
2.15 pm	ID 083	Development of Emergency Action Plan for Paya Peda Dam Using IR4.0 Technologies
		H.S. Cheok, O.C.L. Aaron, Zakiyyah Muhammad, Mohd Hazri Moh Khambali, Asmadi Ahmad, Wan Hazdy Azad, Abdul Halim Abdul Aziz, Aliya Mhd Zahir
2.30 pm	ID 092	Operation, Maintenance and Emergency Management at Sultan Ismail Petra Pergau, Power Station: A review
		Ganesh Rao, Shamsul Amri Sulaiman

## Poster

<b>THEME: SUSTAINABLE DAM &amp; RESERVOIR MANAGEMENT</b>	
<b>Paper ID</b>	<b>Paper Title and Authors</b>
<b>6</b>	Sustainable Sediment Management and Preservation of Ringlet Lake, Cameron Highlands: A Collaborative Corporate Social Responsibility (CSR) Initiative
	Syahida Farhan Azha, Lariyah Mohd Sidek, Hidayah Basri, Nor Syafiqah Kamal
<b>85</b>	Challenging Decision of Base Soil Selection from Variable Earthfill Materials in Alluvial Flood Plain – Implications to Dam Safety
	Aqsa Bukhari, Dr. Zaheer Muhammad Malik
<b>118</b>	Range-dependent Threshold of Transportation Network and Infrastructure for Impact-based Flood Forecasting for Extreme Weather
	Siti Noratiqah Mohamad Deros, Norashidah Md Din, Lariyah Mohd Sidek, Sazali Osman, Fazli Ali Hassan
<b>119</b>	Hydrodynamic Modeling of Kenyir Dam with Flood Events and Dam Break Scenarios for Flood Risk Assessment along Sungai Terengganu
	Lariyah Mohd Sidek, Hidayah Basri, Wan Zafida Wan Ghazali, Norlida Mohd Dom, Mohd Zaharifudin Muhammad Ali, Nur Farazuie Md. Said, Syahida Farhan Azha, Ruzaimie Yalit
<b>P027</b>	Flood Resilience and Climate Adaptation for Asset Protection in the Energy Supply Industry Using Flood Mitigation Software (FaMouS).
	Lariyah Mohd Sidek, Nur Eleynaa Rostam, Hidayah Basri, Syahida Farhan Azha, Nur Alyaa Hazrin, Sarbani Anjang Ahmad, Darul Hisham Saman, Noryusuhasriq Mohd Yusof
<b>P028</b>	Flood Hazard Mapping Downstream of Kenyir Dam in the Terengganu River Basin Utilizing Advanced Machine Learning Techniques
	Fara Aiza Md Sanin, Lariyah Mohd Sidek, Hidayah Basri, Siti Noratiqah Mohamad Deros, Norlida Mohd Dom, Mohd Zaharifudin Muhammad Ali, Roshidy Nasrol Abu Bakar, Muhammad Haziq Muhammad Dun, Mohd Ruzaimie Yalit, Muhammad Yunus Marzuki
<b>P029</b>	Development of Impact-Based Forecasting Consequences for Dam Failure Flood Hazards Downstream of Kenyir Dam
	Lariyah Mohd Sidek, Siti Noratiqah Mohamad Deros, Fara Aiza Md Sanin, Norlida Mohd Dom, Mohd Zaharifudin Muhammad Ali, Roshidy Nasrol Abu Bakar, Muhammad Haziq Muhammad Dun, Hidayah Basri, Faezah Hanum Mansor
<b>P030</b>	Water Level Forecasting using LSTM Deep Learning Algorithm in Muar River Basin
	Kah Hoong Kok, Lariyah Mohd Sidek, Ruzaimie Yalit, Hafiz Ishak, Norlida Mohd Dom, Roshidy Nasrol Abu Bakar, Muhammad Haziq Muhammad Dun
<b>P031</b>	Determination of Rainfall Thresholds for Flood Onset in Southern Region-Zone 2B under the Development of the National Flood Forecasting and Warning System (NaFFWS)

	Lariyah Mohd Sidek, Amirah Hanim Mohd Puad, Faezah Hanum Mansor, Norlida Mohd Dom, Roshidy Nasrol Abu Bakar, Muhammad Haziq Muhamad Dun
--	---

<b>THEME: SURVEILLANCE, DATA MONITORING &amp; EVALUATION</b>	
<b>Paper ID</b>	<b>Paper Title and Authors</b>
<b>19</b>	Evaluating Seepage Water Quality Parameters in Embankment Dam Systems
	Nurshahira Mohd Noh, Nur Amirah Aziz, Syahida Farhan Azha, Lariyah Mohd Sidek, Zakiyyah Muhammad, Sheikh Ahmad Farhan Hazari
<b>50</b>	Dam Safety Assessment Using Back-Analysis: A Case Study of Karkheh Dam
	Mohammad Salehinik, Ahmadreza Tabibnejad
<b>86</b>	Seepage Problems in Downstream Face of Earthfill Embankment Dams, Causes and Proposed Solutions
	Sheikh Ahmad Fahan bin Kamal Hazari, Dhieyatul Husna binti Ismail, Zulkefli bin Mustaffa, Lariyah binti Mohd Sidek
<b>90</b>	Seismic Vulnerability of Murum Dam: Analyzing Spillway and Penstock Performance under Earthquake Loads
	Imtiyaz Akbar Najar, Raudhah Ahmadi, Rosmina Ahmad Bustami, Mohd Shazwan Bin Mohamad Aziz, Bilal Ahmad Najar, Dayang Siti Afiqah Abang Kamaruddin, Azira Taip
<b>95</b>	A Comparative Review of Statistical and Machine Learning Models in Dam Behavior Evaluation and Monitoring
	Nur Aliesya Mohd Azmi, Lariyah Mohd Sidek, Hidayah Basri, Syahida Farhan Azha, Nur Farazuien Md Said
<b>102</b>	Landslide Threat Assessment of Transmission Towers in Hilly Terrain
	Warishah Abdul Wahab, Rohayu Che Omar, Kian Joo Kho, Nur Salina Rosli, Nur 'Aishah Zarime
<b>103</b>	Integrated IMRS - Geophysics - Modelling Approach for Resilient Slope Management and Disaster Risk Reduction
	Amina Hanna Zainal Abidin, Rohayu Che Omar, Badariah Soleman, Nor Hazwani Nor Khalid, Rasyikin Roslan
<b>116</b>	A Web-Based System for Landslide Insurance Premium Estimation by Integrating COPE and Hazard Scores
	Nazrul Ahmed Chowdhury, Badariah Solemon
<b>063</b>	Site-Specific Geological and Seismic Characterization for Klang Gates Dam
	Ahmad Fakhri Bin Ishak, Meldi Bin Suhatriil
<b>064</b>	Seismotectonic Modelling and Source Characterization for Seismic Hazard Analysis at Klang Gates Dam
	Ahmad Fakhri Ishak, Meldi Suhatriil

<b>THEME: OPERATION, MAINTENANCE &amp; EMERGENCY MANAGEMENT</b>	
<b>Paper ID</b>	<b>Paper Title and Authors</b>
14	Flood Inundation and Dam Break Analysis for Emergency Response Plan: Case Study of Kenyir Hydroelectric Dam
	Nur Farazuien Md Said, Lariyah Mohd Sidek, Hidayah Basri, Sarbani Ahmad Anjang, Noryusuhariq Mohd Yusof, Mohd Ruzaimi Yalit
32	Emergency Action Plan: Leveraging Experience for Future Application in Dam Safety
	Nor Syafiqah Kamal, Hidayah Basri, Lariyah Mohd Sidek, Nur Farazuien Md. Said, Zakiyyah Muhammad, Mohd Hazri Mohd Khambali, Engku Ahmad Khalil Azhar Engku Mohamed, Sheikh Ahmad Farhan Kamal Hazari

<b>THEME: DAM SAFETY ASSURANCE UNDER CLIMATE CHANGE</b>	
<b>Paper ID</b>	<b>Paper Title and Authors</b>
12	Impact of Climate Change on Power Generation Facilities in Peninsular Malaysia based on the Standard Precipitation Evapotranspiration Index (SPEI)
	Nur Alyaa Hazrin, Muhammad Yunus Ahmad Mazuki, Lariyah Mohd Sidek, Hidayah Basri, Sarbani Anjang Ahmad, Noryusuhariq Mohd Yusof
55	Atmospheric Carbon Removal: The Role of DAC in Climate Mitigation
	Mohammad Sherjeel Javed Khan, Lariyah Mohd Sidek, Sadiq Abdullah Abdo Alkhadher, Hidayah Basri
80	Development and Analysis of Intensity-Duration-Frequency (IDF) Curves with Climate Change for Energy Facilities in Peninsular Malaysia
	Nur Zafirah Zainudin, Hidayah Basri, Lariyah Mohd Sidek, Nur Aliesya Mohd Azmi, Sarbani Anjang Ahmad, Noryusuhariq Mohd Yusof

<b>THEME: DAM REHABILITATION &amp; OTHER RISK REDUCTION</b>	
<b>Paper ID</b>	<b>Paper Title and Authors</b>
93	Fine Content Effects on the Stability and Compaction Behavior of Hydraulic Fills in Sustainable Dam Engineering
	Khairul Bashar Khan, Lariyah Mohd Sidek, Hidayah Basri, Mohamed Ahmed Hafez Ahmed
106	An Integrated Multi-Sensor Approach for Slope Monitoring and Its Application to Dam Safety
	Nor Hazwani Nor Khalid, Rohayu Che Omar, Fathoni Usman, Badariah Soleman
113	Integrated Slope Stability and Debris Flow Modelling Using Slope/W, RAMMS, and FLO-2D for Rainfall-Induced Hazards
	Nur Salina Rosli, Rohayu Che Omar, Nor Hazwani Nor Khalid, Warishah Abdul Wahab, Azizul Hassani Abd Rahman, Rasidi Yamin, Yin Jeh Ngui, Marcus Dobbs

<b>THEME: BEST PRACTICES IN DAM SAFETY MANAGEMENT &amp; GOVERNANCE</b>	
<b>Paper ID</b>	<b>Paper Title and Authors</b>
<b>18</b>	Enhancing Dam Safety Through Strategic Risk Evaluation: The Screening Tools Approach at Batu Dam
	Lariyah Mohd Sidek, Hidayah Basri, Muhammad Yunus Marzuki, Muhammad Izzat Azhar Khebir, Siti Mariam Allias Omar, Norziana Jamil, Zeitney Karmilla Kaman, Mohd Hazri Moh Khambali
<b>29</b>	Quantitative Risk Analysis of Internal Erosion Vulnerabilities in Temengor for Dam Sustainability
	Lariyah Mohd Sidek, Hidayah Basri, Ahmad Fauzan Abdul Hamid, Siti Mariam Allias Omar, Nur Farazuien Md Said, Sarbani Anjang Ahmad, Darul Hisham Saman, Noryusuhariq Mohd Yusof, and Muhammad Izzat Azhar Khebir
<b>111</b>	Integrated Approach of Universal Soil Loss Equation (USLE) and Geographical Information System (GIS) for Assessing Soil Loss Erosion Risk in Reservoir Management.
	Lariyah Mohd Sidek, Dzahir Rashidi Mohd Dzaki, Nor Azura Ishak, Norlida Binti Md. Dom, Amirah Hanim Mohd Puad, Norashidah Md Din, Siti Noratiqah Mohd Deros, Hidayah Bte Basri

<b>THEME: INTEGRATED WATER RESOURCES MANAGEMENT</b>	
<b>Paper ID</b>	<b>Paper Title and Authors</b>
<b>73</b>	Reservoir Sedimentation: Causes, Impacts, and Sustainable Management Strategies for Hydropower Operations in Malaysia — A Case Study of Susu Reservoir
	Sadeq Abdullah Abdo Alkhadher, Lariyah Mohd Sidek, Mohammad Sherjeel Javed Khan, Syahida Farhan Azha, Hidayah Basri, Ahmad Fauzan Abdul Hamid
<b>98</b>	Tourism Prospects for Large Dam Farming Communities in Cameron Highlands, Malaysia
	Zuraidah Ali, Izzaamirah Ishak, Lariyah Mohd Sidek, Syahida Farhan Azha, Hidayah Basri, Nur Farah Shazana Rashidi
<b>100</b>	Bio-VegeGrout: A Biocement-Based Enhancer for Soil Strength Improvement
	Wan Aisyah Fadilah Wae AbdulKadir, Rohayu Che Omar, Farah 'Atiqah Abdul Azam
<b>101</b>	Enhancing Social Awareness and Resilience of Dam - Adjacent Communities in Cameron Highlands through Disaster Interactive Games (DIG)
	Izyan Fadilah Che Malid, Rohayu Che Omar, Farah 'Atiqah Abdul Azam, Wan Aisyah Fadilah Wae AbdulKadir Usin, Warishah Abdul Wahab , Zakaria Mohammed
<b>104</b>	Bio-Vege-Grout Card Game – Protect Slopes, Safe Community
	Muhammad Shukri Mohamed Shariff, Rohayu Che Omar, Farah 'Atiqah Abdul Azam, Nor Hazwani Nor Khalid, Warishah Abdul Wahab

<b>THEME: ADVANCING SUSTAINABLE HYDROPOWER</b>	
<b>Paper ID</b>	<b>Paper Title and Authors</b>
<b>ID 056</b>	Hydropower-Floating Solar Photovoltaic Hybrid Systems Operational Benefits Hydropower
	Muhammad Najmi bin Hamzah