

17th IOE Graduate Conference :: Paper Details
Purwanchal Campus, Dharan : Jan 2-3, 2026 (Poush 18-19, 2082)

Day 1 (Jan 2, 2026)

11:45 - 13:45

Session A1: Integrated Approaches to Agricultural Sustainability *		
ID	Paper Title	Presenter
576	The Adaptation of Local Strategies for the Water Scarcity in Rainfed Farming System	Suman Sah
592	Quantitative Analysis of Wheat Yield Gap Using Auacrop Simulation Models in Kailali District	Bijaya Acharya
599	Assessment Of Climate Change Impact And Potential Adaptation Measures On Wheat Yield In Southern Part Of Nepal Using Dssat Model	Uttam Prasad Lamichhane
606	Assessment of Soil Quality and Agricultural Suitability in Post-Flood Koshi Floodplains	Parmanand Joshi
656	Impact of Soil Texture on Irrigation Water Requirement and Irrigation Scheduling of Wheat and Mustard in Nepal Using CROPWAT	Aashika Adhikari
658	Impact of Scientific Research and Field Trials on Rice Cultivation in Tarahara, Nepal	Shree Hari Poudel
669	Impact of Labor Shortage on the Growth of Agricultural Mechanization: A Trend Study Based on Sunsari District	Niroj Thapa
673	Assessment Of Crop Water Requirement For Wheat Crop In Saptari District Using Cropwat Model	Bishal Thapa

Day 1 (Jan 2, 2026)

14:00 – 15:15

Session B1: Climate Resilience in Water Systems *		
ID	Paper Title	Presenter
591	Hydrological Impacts of Climate Change in the Chameliya River Basin Using the SWAT Model	Siddha Singh Sawod
609	A Systematic Review of Water Quality Degradation in the Kathmandu Valley, Nepal: Implications for Public Health and Urban Water Security	Aanya Shrestha
624	Comparative Analysis of Water Quality Indices: Evaluating Water Quality of Indrapur Small Town Water Supply Project Using Weighted Arithmetic and CCME Method: Water Quality Index	Anil Timsina
681	Pre-Feasibility Assessment of Rainfall-Runoff and Flood Risk Using the SCS-CN Method in Koshi Rural Municipality, Sunsari District, Nepal	Pranay Bhagat
715	Flood Susceptibility Mapping in Flood-Prone Zones of Chisang River, Letang Municipality Using GIS and Multi-Criteria Decision Analysis	Rupesh Adhikari

Session B2: Landslide Susceptibility & Slope Mitigation		
ID	Paper Title	Presenter
602	Landslide Susceptibility Mapping Of Myagdi District Using Random Forest	Prashanna Giri
671	Stability Assessment and Mitigation of Cut Slope Landslides: A Case Study of Twin Khola, Narayanghat-Mugling Road Section.	Aayush Yadav
680	Stability Analysis of Steep Cut Slopes: A Case Study of Forsidol-Dukuchhap Road Section, Lalitpur	Sagar Jha
684	Landslide Susceptibility Mapping using Machine Learning: A case study of Kaski, Nepal	Resham Pun Magar

Session B3: Smart Mobility and Transport Systems		
ID	Paper Title	Presenter
583	The Performance Analysis And Socio-Economic Impact Factors For Transition Towards Electric Vehicle In Nepal	Aman Shrestha
617	The Geotechnical Response of Flexible Pavement in Critical Road Geometries Under Dynamic Vehicle Loading: A State-of-the-Art Review	Prashanna Shrestha
622	Performance Evaluation of Stop Control at Uncontrolled Un-signalized Intersection	Prajwal Paudel
660	Stochastic Clustering and Insertion Heuristic for Vehicle Routing	Jayant Kumar Jha

Session C1: Seismic Resilience and Structural Performance		
ID	Paper Title	Presenter
568	Optimum Location of Shear wall in Multistorey Building	Neshil koirala
569	Influence of Crack Location and Depth on the Modal Properties of a Fixed-Simply Supported Beam	Shishir Gyawali
598	Numerical Modelling of FRP Reinforced Masonry Behavior Using Simplified Micro Method	Aastha Adhikari
631	Performance evaluation of seismic isolation in Kathmandu high rise building under NBC 105 :2020	Sunil Raj Pandey
653	Design and Comparison of Site-Specific Response Spectra with Code-Based Spectra for a Site in Kathmandu Valley	Swastika
703	Rapid Seismic Prioritization of Bridges: A Case Study from Kathmandu Ring Road, Nepal	Ram Chandra Poudel

Session C2: Computer Vision & Medical Imaging Innovations		
ID	Paper Title	Presenter
612	Hybrid Deep Learning Model for Cervical Cell Classification	Rabi Raj Yadav
625	DevanagariAttentionCNN: An Enhanced Deep Learning Approach for Handwritten Devanagari Character Recognition	Pranaya Nakarmi
640	An Explainable Deep Learning Framework for Tomato Fruit Disease Segmentation and Classification	Nisha Sharma
652	Automated Dental Structure Segmentation and Pathology Detection Using Mask R-CNN and U-Net	Sweekar Dahal
667	Patch Based Generative Quantum Classical Medical Image Denoising	Dilip Rai
699	A Dual-Branch Fusion Of A Graph Convolutional Network And Spectral-Spatial Adaptive Weighted For Hyperspectral Image Classification	Bhuwan KC
711	Denoising in Brain MRI Using Subband-specific Adaptive Wavelet Thresholding with Optimized Liner Prediction Factor	Sudip Prasad Neupane

Session C3: Power Quality, Grid Protection, and EV Charging		
ID	Paper Title	Presenter
578	Energy Demand Redistribution Analysis for Public EV Fast Charging Station: Case Study of NEA Ratnapark	Bikash Babu Shrestha
587	Power Quality Improvement in Grid Connected PV System using DVR with PSO Tuned PI Controller under Various Load and Fault Conditions	Anil Lama
590	The Use of ANN for Fault Classification and Localization at Underground Distribution Feeders at Gautam Buddha International Airport	Madan Thapa Magar
601	Enhancement of Power Quality in Power Distribution Systems Using Dynamic Voltage Restorer (DVR) and Optimized Placement	Bigyan Pokharel
632	Impact Analysis of Electric Vehicle (EV) Charging on Medium Voltage Distribution Feeder Network (Sanepa Feeder)	Om Bikram Shah
694	PV Active Power Curtailment for Distribution Network Management	Jay prakash Rajak
702	Multifunctional Algorithm For Protection of Radial Distribution Network with DG	Ataur Rahaman Khan

Session D1: Distributed Energy and Smart Grids

ID	Paper Title	Presenter
608	Stabilization and Enhanced Frequency Response Rate of HTGS via Aggressive Damping and PI Governor Control	Roshan Kumar Sharma
618	Design and Control of a Multi-Port Energy Router for Smart Community	Sandesh Dhungana
645	Grid connected Virtual Synchronous generator based on Virtual Impedance Control Strategy	Om Prakash Jaiswal
651	Virtual oscillator controlled parallel inverter-based grid connected microgrid	Niroj Dahal
661	Maximum Hosting Assessment of Distributed Generations in Distribution Systems	Lokesh Karna
668	Optimal Distributed Generation Planning and Reconfiguration of Distribution Networks with Network Expansion Planning for Future Load Growth	Rabison Poudel
704	Optimum Power Flow of 11KV Distribution System of Okhaldhunga Feeder with Distributed Generation using <u>Deterministic and Probabilistic Approach</u>	Keshab Khatri
705	Optimizing Hosting Capacity in Active Distribution Network Through Strategic Deployment of Battery Energy Storage System	Rajan Yadav

Session D2: AI for Sentiment, Language, and Cybersecurity

ID	Paper Title	Presenter
573	NEPSE Index Prediction using Deep Learning Integrated with Sentiment Analysis	Rashmi Tiwari
579	A Sentiment Analysis of Amazon Book Reviews Using Machine Learning and Explainable AI	Sunny Kumar Sah
613	Modeling of Guided Channel for Anomaly Detection using Compressive Sampling	Bibek Gautam
614	Real-Time Sentiment Mining of YouTube Comments: A Comparative Study of Classical, Sequential, and Transformer Models	Prabin Chalaune
674	User and Entity Behavior Analytics for Insider Threat Detection	Aarati Kumari Mahato
677	A Sliding-Window Transformer Model for Subject-Independent Emotion Recognition on the WESAD Dataset	Sandesh Bashyal
683	Limitations of Multilingual Transformer Models: A case study on Nepali News Classification	Rashmi Tiwari
712	Shapley Additive Explanations For Detection Of Domain Generation Algorithms In Doh Traffic	Bipin K.C

Session D3: Advances in Geotechnical Engineering

ID	Paper Title	Presenter
570	Physics Informed Machine Learning for Predicting Pile Load Capacity from Soil Parameters	Bipul Mainali
582	Reliability Analysis for Tunnel Supports System by Using Finite Element Method– A Case Study : Sunkoshi Marin Diversion HRT	Ayush Sedai
593	Cyclic One-Dimensional Compression Behaviour and Stiffness Evolution of Melamchi Sand	Binod Adhikari
600	Numerical Analysis of Geogrid Reinforced Shallow Foundation Overlying Low Plastic Silty Soil	Sudeep Neupane
634	Settlement Analysis of Labim Mall Using PLAXIS-3D	Anurag Poudel
636	The Numerical Analysis of Laterally Loaded Pile in Sandy Soil	Pooja Singh
665	Comparative Analysis of Settlement Behavior of Transmission Tower Foundations with Different Foundation Types Using Plaxis 3D	Janak Kumar Thapa

Session E1: Waste Management and Sustainable Systems*

ID	Paper Title	Presenter
603	The Role of Informal Sector In Solid Waste Management Of Itahari Submetropolitan City, Nepal	Subash Giri
604	The Study of Physical Composition Of Dumping Site Waste And Preparation Of Waste Flow Diagram Of Itahari Sub Metropolitan City, Nepal	Kamal Chapagain
605	Sanitary Landfill Requirements for Existing Municipal Solid Waste Management in Dharan Sub-Metropolitan City	Bigyan Tamang
610	Comparative Performance Evaluation of Landfill Liner Systems for Leachate Leakage and Contaminant Release	Kundan Safi
628	The Performance Evaluation of Lab-scale Microbial Fuel Cell treating landfill leachate and Electricity Generation under variable operating conditions.	Pradip Mandal

Session E2: Sustainable Construction Practices and Management

ID	Paper Title	Presenter
648	Analysing Challenges and Behavioral Intentions: A Dual-Perspective Study of Building By-Law Implementation in Kathmandu Metropolitan City	Nishee Shrestha
657	An Integrated Geospatial Framework for Delineating Groundwater Potential and Building Construction Suitability: A Case Study of Rautahat District, Nepal	Ashok Sapkota
663	Evaluation of Designers' Experience with the Use of Electronic Building Permit System (EBPS): A Case Study of Chandragiri Municipality, Kathmandu.	Riwas Shrestha
697	Identification and Categorization of Key Factors Contributing to Construction Waste in Building Projects of Kathmandu Valley	Neha Mishra
710	Risk Assessment of Design and Build Bridge Projects Implemented by Department of Roads in Nepal	Aditya Pandey
713	Performance Analysis of Straight-Line Natural Draft Brick Kiln: A Case Study of Bishal Brick Factory, Maharajgunj, Kapilvastu	Keshav Pun

Session E3: Quantum Computing & Emerging AI Applications

ID	Paper Title	Presenter
619	Implementation Of Style Mixing Techniques In Generative Adversarial Networks For Anime-Realism Fusion	Chandra Bhushan Prasad Sah
639	Performance Analysis of Quantum Image Representation Schemes Under Various Noise Condition	Sudip Shrestha
647	Analysis of Quantum Memories For Long Distance Quantum Repeater Using Netsquid	Samir Thapa
654	Deep Temporal Models for AQI Forecasting Using Multivariate Time-Series Data: A Unified Evaluation of Attention, Recurrence and Convolution Methods	Prabhat K.C.
678	Vision transformer-based semantic land cover mapping of remote sensing imagery	Binod Dhakal
685	Low-Shot, Low-Spec: Benchmarking NeRF and 3D Gaussian Splatting for the Average User	Birat Poudel
686	Impact of Heuristic Evaluation on Monte Carlo Tree Search-based Baaghchaal Game	Dipen Pandit
698	Precise Fertilizer Recommendation for Nepal's Diverse Topography Using Machine Learning	Kriti Nyupane

Day 2 (Jan 3, 2026)

13:30 – 14:30

Session F1: Computational Modeling for Environment and Infrastructure *

ID	Paper Title	Presenter
575	Spatial Estimation of Annual Soil Erosion in Tamor Storage Dam Catchment using RUSLE Model and GIS.	Suman Ghimire
585	Landslide Susceptibility Assessment of Aanbu Khaireni Rural Municipality, Nepal: A Hazard Index Approach for Local-Level Disaster Risk Reduction	Poshan Adhikari
675	The Calibration of VISSIM for Heterogeneous Traffic Condition and Assessment of Travel Time	Ranjan Niraula
716	Spectral Indices Fusion for River Health Assessment from Sentinel-2 and Landsat Imagery	Suman Thapa

Session F2: Architecture, Heritage, and Place Identity

ID	Paper Title	Presenter
595	Place Identity Exploring the role of architectural identity in tourist destination	Sarita Maharjan
633	The Living Museum Approach: A Sustainable Design Framework for Revitalization of Khinga Village in Muktinath Valley of Nepal	Dikshya Aryal
679	Establishing the Socio-Cultural Identity of Tamagi Village Through Vernacular Architecture and Community Development	Bandana Dhakal
701	An Evaluation of Narayanghat as a Socio-economic Catalyst in Urban Design	Bandana Dhakal

Session F3: Innovations in Renewable Energy and Storage

ID	Paper Title	Presenter
574	Green Synthesis of metal organic framework ZIF-67 on Sugarcane bagasse(SCB) substrate for energy storage applications	Sachin Ghimire
611	DFT-Based Insights into the Structural Stability, Electronic Behavior, and Defect Chemistry of Li ₂ S Cathode Materials	Pratap Bhandari
708	Advancement in Sustainable Green Hydrogen; A Systematic Review of Technical Progress, Perspectives and Challenges in Nepal	Poshan Adhikari