



**12<sup>th</sup> IOE Graduate Conference :: Thapathali Campus, IOE, Kathmandu, Nepal  
Program Schedule**



**Day 1: Oct 19, 2022 (Kartik 02, 2079)**

**11:30 ~ 13:00**

**Technical Session: A**

<p><b>08:00 ~ 09:00</b> Registration ***</p>
<p><b>09:00 ~ 10:00</b> Inauguration ***</p>
<p><b>10:00 ~ 11:00</b> Keynote 1: "Energy, Economics and Environment" by Prof. Yasumasa Fujii, The University of Tokyo</p>

<b>A1: Performance of Buildings under Earthquake Excitation ***</b>		
<b>Chair: Prof. Dr. Prem Nath Maskey</b>		
<b>ID</b>	<b>Paper Title</b>	<b>Presenter</b>
12010	Seismic Response Modification Factor Estimation of Vertically Mixed Structure (Reinforced Cement Concrete and Steel)	Subodh Panthi
12011	Effect of Earthquake Components on Seismic Response of RC Moment Resisting Frames	Rupesh Uprety
12058	Effectiveness of GI Wire Mesh on Performance of Stone Masonry Buildings with Mud Mortar	Pradip Pokharel
12094	Seismic Performance of Unreinforced Masonry Buildings Considering Plan Irregularities	Alisha Siwakoti
12180	Seismic Vulnerability Assessment of Heritage Masonry Building Bal Mandir	Pushp Raj Poudel
12220	Seismic Vulnerability Analysis of Nuwakot Durbar	Suman Neupane
12225	Seismic Vulnerability Analysis of Pagoda Temple	Girijesh Prasad Sah

<b>A2: Energy Efficient Buildings</b>		
<b>Chair: Dr. Sanjaya Uprety</b>		
<b>ID</b>	<b>Paper Title</b>	<b>Presenter</b>
12027	Daylighting in Energy Efficiency: A Case of office Building in Kathmandu	Bimala Basnet
12154	Evaluation of Energy Performance of Residential Building in A Hot and Humid Region: A Case of Siddharthanagar, Nepal	Skanda Rimal
12211	Comparison of Traditional Building Practices Wattle and Daub and Alternative Technology-CSEB	Sunita Kutu
12271	Impact of Natural Ventilation and Window Wall Ratio for Energy Efficient Building: A Case of Residential Building at Janakpur	Nishma Shrestha
12278	Solar Radiation Control Techniques in Public Building: A Case Study of Ward Office Buildings in Kathmandu	Bishal Adhikari
12287	Performance of Vernacular Buildings in Hot and Humid Climate of Janakpur	Abhishek Karn

<b>A3: Quality in Construction</b>		
<b>Chair: Prof. Vishwa Nath Khanal</b>		
<b>ID</b>	<b>Paper Title</b>	<b>Presenter</b>
12103	Analysis and Evaluation of Construction Worker Competencies of Kathmandu Valley	Bibek Regmi
12218	Site Suitability Analysis for New Residential Construction Site Using Gis Based Multi- Criteria Evaluation Technique: A Case Study of Mahalaxmi Municipality, Lalitpur	Bikalpa Guragain
12249	A Study on the Qualification Criteria for Selection of Contractor in Nepal	Ranjit Sah
12332	Factors Influencing the Project Performance of Housing Construction in Kathmandu Valley	Binita Bhattarai
12345	Factors Affecting Turnover Intention of Construction Professionals in Nepali Construction Industry	Manish Mahat
12368	Comparison of Engineers Job Satisfactions Working in Local Level Government at Karnali Province with Federal Engineers	Lokendra Budha

*All sessions will be conducted online via Zoom except few sessions marked with \*\*\*. Physical Sessions will also be made available online.*

ID	Paper Title	Presenter
12017	Thermal Comfort Performance in A Residential Building of Subtropical Climate of Nepal - A Case Study of Hetauda	Sujata Nepal
12020	Quality Assessment of Temporal and Spatial Input Data for Water Resources Modelling	Koshish Raj Maharjan
12024	Evaluation of Seismic Resilient Characteristics of Traditional Stone Masonry in Mud Mortar Houses	Sital Parajuli
12031	Quantitative Exploration on Ecologically Responsive Architecture Guideline (ERAG) of SONA	Samiksha Adhikari
12033	Achieving Thermal Comfort Through Passive Design Strategies in Energy-Efficient Rammed Earth Building	Ankita Yonzan
12036	Problems in Residential Space Facing Occupancy Change and Developing a Template for Qualitative Risk Assessment: A Case Study of Butwal City	Suraksha Bhandari
12038	Potential of Energy Retrofit Implementation in Non-Residential Existing Building	Shoheena Maharjan
12048	Ensemble Learning Approach for Diabetes Mellitus Prediction	Sujeet Kumar Jha
12068	The Project Manger's Strategic Leadership Attributes for Effective Construction Project Performance in Nepalese Context	Sundar Lakhe
12088	An Analysis of Nepali News Text Classification Using GRU, Bi-GRU and BERT	Prabin Pathak
12097	Energy Performance Analysis: A Case Study on Domestic Departure Hall Tribhuvan International Airport of Nepal	Ritu Shrestha
12101	Framing The Challenges of Urban Flooding on Accessibility	Apsana Shrestha

ID	Paper Title	Presenter
12104	Physics Informed Neural Network for Flow Modeling Around Atherosclerotic Plaque in Human Carotid Artery	Ashish Chudali
12106	Nature Based Solution to Counter Urban Heat Island Effect: A Case of Kathmandu Valley	Bipin Bhusal
12110	Architecture for Healing and Rehabilitation	Sayesta Pokharel
12115	Geometry in Modern Architecture and Postmodern Architecture in Nepal	Aditi Jaiswal
12118	Silent Speech Recognition in Nepali	Rhimesh Lwagun
12124	Passive Daylighting Design as a Tool for Energy Conservation	Tapasya Chamling Rai
12131	Evaluating The Social Impacts of Safa Tempo in Kathmandu Valley	Bijju Maharjan
12158	Analysis of Solar Radiation for Pedestrian Comfort in The Streets of Hot and Humid Climate, A Case of Lumbini, Nepal	Apekshya Ghimire
12169	Fault Detection in Printed Circuit Boards Using Faster RCNN and YOLOv3	Bipin Thapa Magar
12177	Prioritization of Factors Affecting Safety Work Behavior of Workers in Building Construction Projects : A Case Study of Kathmandu Metropolitan City	Sachin Shrestha
12183	Seismic Performance of Different Types of Braced Steel Frame Buildings	Abhishek Maharjan
12188	Generating Progressed Face Ageing Image Using Generative Adversarial Network	Niraj Kumar Gupta

ID	Paper Title	Presenter
12189	Assessment of Road Elements in Relation to Road Safety by Multi-Criteria Decision Making Approach	Neeraj Sharma
12191	Structural Health Assessment of The Bagmati Bridge	Mingma Lama
12195	Scalability Analysis of Manet in 5G Environment	Pravat Aryal
12233	Assessment of Pedestrian Thermal Comfort on Sidewalks	Arpana Shakya
12234	Energy Consumption Pattern of Post Disaster Reconstructed Residential Building: A Case of Dolakha Town	Rajina Shrestha
12242	Flood Hazard Mapping and Vulnerability Assessment of Building Typology in West Rapti River, Nepal	Gayatri Joshi
12245	Optimization of Energy Consumption in Hotels - Case Study of Hotels of Nagarkot	Sushant Bahadur Malla
12247	Soil Deformation Behavior and SSI Study by Varying Poisson's Ratio of Granular Soil	Archana Pandit
12252	Blockchain Based E-Voting System with Zero-Knowledge Proof Using Smart Contracts	Juned Alam
12257	Thermal Comfort Assessment of Classrooms in Engineering Colleges of Kathmandu Valley	Bilove Moktan
12259	Evaluation of Thermal Comfort and Ventilation in General Patient Room of Godawari Midcity Hospital	Uddhav KC
12280	Issues and Challenges in Urban Planning and Practices Regarding Urban Public Health and Well-Being	Jagdish Chandra Joshi

ID	Paper Title	Presenter
12291	Study on The Possible Sustainable Solutions to Make a Stable Road Network in Rural Roads in Monsoon Seasons	Prajwal Sunar
12294	Optimization of Sediment Management Measures for Andhikhola Storage Project Using Rescon-2 Model	Bal Mukunda Joshi
12299	Energy Consumption Pattern in Earthbag House	Asmita Adhikari
12302	Risk Stratification in Healthcare Data Using Clustering Algorithms	Saurav Prajapati
12316	Flood Prediction Using Time Series Decomposition and Temporal Convolution Network	Suhel Shrestha
12320	Development of A Low-Cost Gnss Data Logger and Deployment in Dynamic Mode for Gnss Data Logging and Analysis	Ajay Kumar Thapa
12327	Variational Auto-Encoder Based Multiple Image Captioning Using A Caption Attention Map	Dinesh Rijal
12352	Architectural Design Aspect of Value Engineering in Heritage Building: A Case Study of "Panchadeval Bridhashram"	Ranju Kamal
12354	American Sign Language Recognition Using CNN	Sushant Bhattarai
12355	Load Frequency Control of Integrated Nepal Power System	Nimmi Regmi
12375	Preparation of Waste Betel Nut Based Activated Carbon (AA) to Test its Storage Performance	Ram Bahadur Ale
12376	Engineering Carbon and Nitrogen Intermingled Three-Dimensional Porous Cobalt Oxide Polyhedrons/ Nanowires for Energy Storage	Bishal GC

B1: Slope Stability		
Chair: Dr. Indra Prasad Acharya		
ID	Paper Title	Presenter
12005	Machine Learning Based Unified Framework for Slope Stability Prediction	Milan Aryal
12125	Runout Analysis of Landslide Using Ramms(Rapid Mass Movement Simulation) Debris Flow Module - A Case Study of Jure Landslide	Roshan Shrestha
12276	Slope Stability Assessment of Plane Failure Along the Road at Sundaridanda, Begnas, Kaski District, Western Nepal	Amisha Deo
12293	Stability Analysis and Mitigation Optimization: A Case Study of Landslide in Godawari, Lalitpur, Nepal	Lok Bahadur Rokaya
12341	Behaviour of Highly Weathered Slope Under Various Support Conditions	Ashish Thapa

B2: Energy Efficient Design		
Chair: Prof. Dr. Sushil Bahadur Bajracharya		
ID	Paper Title	Presenter
12181	Energy Retrofitting Consideration When Renovating Residential Buildings for Thermal Comfort	Monila Pradhan
12201	Analysis of Wind Flow in Lumbini Sanskritik Municipality Through Ansys Fluent	Biplav Pokhrel
12202	Integrating Solar PV with Pumped Hydro Storage in Nepal: A Case Study of Sisneri-Kulekhani Pump Storage Project	Abijit Jirel
12238	Integrating Energy-Saving Strategies with Biophilic Design Concepts to Increase Thermal Comfort	Rakshya
12277	Biomimicry Inspired Concept of Multi-Layer Skin and Jaali Extracted from Vernacular Buildings for Energy Efficient Building Envelope	Nashibha Tamrakar

B3: Environment		
Chair: Prof. Dr. Ram Kumar Sharma		
ID	Paper Title	Presenter
12049	Utilization of Plastic Wastes to Improve the Properties of Bitumen in Road Construction in Nepal	Nabin Poudyal
12052	Effectiveness of Environmental Impact Assessment (Eia) Implementation in Major Airports of Nepal	Niranjan Patel
12267	Effect of Mixing Ratio on Co Digestion of Septage with Sewage Sludge	Abhishek Sharma
12367	Impact of Recycling Filter Backwash Water on Turbidity Removal in Water Treatment Process	Kamal Hari Dulal

B4: Material Studies		
Chair: Prof. Dr. Hem Raj Pant		
ID	Paper Title	Presenter
12265	Preparation and Characterization of Activated Carbon from Amla (Phyllanthus Emblica) Seed Stone by Chemical Activation with Phosphoric Acid for Energy Storage Devices	Sujan Bhandari
12347	Analysis of Ag <sub>3</sub> Po <sub>4</sub> Immobilized Electrospun Pan Composite Nano-Fibers for its Morphological Properties	Sugandha Shrestha
12351	Photocatalytic Degradation of Dye in Aqueous Solution Using Metal Oxide/ Activated Carbon Nanocomposite	Anshu Kumari
12356	Adsorptive Removable of Methylene Blue Using Low-Cost Adsorbent Prepared from Azolla Pinnata	Manoj Gyawali
12364	Morphological and Mechanical Characterization of Ag Nanospecies Decorated Electrospun Membrane for Water Purification	Kshitij Thapa
12371	Preparation and Characterization of Activated Carbon from Harro (Terminalia Chebula) Seed Stone By Chemical Activation with Phosphoric Acid for Energy Storage Devices	Kirti Bir Rajguru

C1: Data Science and Analytics		
Chair: Dr. Arun Kumar Timalisina		
ID	Paper Title	Presenter
12009	Assisting Soccer Game Summarization via Audio Intensity Analysis of Game Highlights	Sushant Gautam
12157	Task System Generation for Hard-Real Time Scheduling on Unrelated Multiprocessor Platforms	Ashish Paudel
12248	An Xgboost Based Ensemble Model for Customer Churn Prediction in Telecommunications Industry	Sagar Man Shrestha
12254	Earthquake Affected Buildings Damage Classification Using Machine Learning	Sobit Regmi
12361	Fantasy Premier League-Performance Prediction	Pratik Pokharel

C2: Distributed Generation		
Chair: Dr. Netra P. Gyawali		
ID	Paper Title	Presenter
12167	Study on Voltage Based Relay on Power Distribution System with DG	Pawan Paudel
12240	Grid Impact Analysis of Distribution System Before and After Injection of Distributed Energy Resources (DERs) : A Case Study of Standard IEEE 10 Bus System	Dayasagar Niraula
12281	Study on Impacts of Photovoltaic Integration in Radial Distribution System	Hari Bhusal
12330	Optimal Allocation of Dg Along with Network Reconfiguration Considering Protection Constraints	Binita Mandal

C3: Foundation Analysis		
Chair: Prof. Dr. Gokarna Bahadur Motra		
ID	Paper Title	Presenter
12122	Parametric Analysis of Cantilever and Anchored Sheet Pile Walls	Sahishnu Pokhrel
12175	Deterministic Analysis and Numerical Modeling of Liquefaction in Bridge Pile Abutment	Shailendra Poudyal
12253	Analysis of Deep Excavation on Soft Soil for Basement Construction: A Case Study in Kathmandu Valley Building Construction	Rajan Tiwari
12290	Numerical Study on the Performance of Shallow Foundation on Liquefiable Soil During an Earthquake	Abinash Aryal
12309	Numerical Analysis of Pile Wall for Excavation Support in Soft Ground	Madan Puri
12343	Routine Pile Load Test: A Case Study of Bagdwar Khola Bridge	Shiva Saran Timalisina

C4: Seismic Performance of Lowrise Masonry Buildings		
Chair: Dr. Hari Ram Parajuli		
ID	Paper Title	Presenter
12039	Fragility Function Generation for Masonry Residential Building for A Pilot Site in Hetauda	Lalit Bhatt
12040	Numerical Study on Seismic Performance of Stone Masonry Building in Cement Mortar	Sabin Ban
12073	Seismic Response of Soft Storey RC Building	Raju Kumar Yadav
12089	Seismic Performance of Typical Low Storey RC Frame Building with Consideration of Masonry Infill	Anup Poudel
12198	Effect of Masonry Infill on Seismic Performance, Ductility Factor and Overstrength Factor for Regular Steel Framed Structures	Sushagya Dhonju
12369	Comparison of Seismic Capacity of Buildings Existing in Jumla District	Dewakar Acharya

09:00 ~ 10:00

**Keynote 2: "Feature selection methods for the identification of putative causal variants in genome-wide association studies" by Asst. Prof. Zihuai He, Stanford University**

10:30 ~ 12:00

**Technical Session: D**

<b>D1: Performance of Infrastructures under Earthquake Excitation ***</b>		
<b>Chair: Dr. Rajan Suwal</b>		
ID	Paper Title	Presenter
12007	Seismic Fragility of RC Bridge Considering Multiple Aftershocks	Pradej Badal
12059	Non-Linear Soil Amplification Factor Zonation of Kathmandu Valley	Mousam Mainali
12071	Effect of Carbonation Induced Corrosion on Seismic Vulnerability of Rc Buildings	Rojina Adhikari
12126	Effect of RC Jacketing on Seismic Performance of Bridge Pier Considering Different Longitudinal Reinforcement Ratio	Binaya Jamarkattel
12165	Parametric Study of Pre-Stressed Box Girder Bridge with Different Inclination Angle of Web	Bickey Lakha
12200	Stability Analysis of Nalsing Gad Dam and Optimization	Kiran Simkhada

<b>D2: Urban Mobility</b>		
<b>Chair: Dr. Ashim Ratna Bajracharya</b>		
ID	Paper Title	Presenter
12107	Stakeholder Participation in Managing Municipal Solid Waste at The Point of Generation: A Case of Kirtipur	Padma Aryal
12136	Shifting Private Vehicle Owners into Public Transport User: Impact of Sajha Yatayat in Achiving It	Roshan Thapa
12145	Assessing Bikeability of An Urban Road: A Case of Kupodole-Jawalakhel-Lagankhel Road Stretch	Gaurav Paudel
12322	Adaptive Reuse and Energy Performance: Case of Newa Chhen	Sajina Shrestha
12350	Conversion of Petrol Driven Vehicle into Electric: Detail Case Assessment of Nepal	Sunil Dev Dhakal

<b>D3: Image Analysis</b>		
<b>Chair: Prof. Dr. Subarna Shakya</b>		
ID	Paper Title	Presenter
12087	A 3D CNN Approach for Hyperspectral Image Classification	Ravi Giri
12186	Auto-Colorization of Gray Images Using GAN	Prabin Nepali
12288	Image Feature Fusion Based on Pca for Content Based Image Retrieval	Ritu Thapa

<b>D4: Mechanical Engineering</b>		
<b>Chair: Prof. Dr. Mahesh Chandra Luitel</b>		
ID	Paper Title	Presenter
12047	Numerical and Experimental Investigation of Exhaust Flow from Convergent-Divergent Nozzle	Santosh Ranabhat
12214	Local Stress Analysis of Tailing Lugs in a Vertical Pressure Vessel	Sushil Chapai
12262	Neural Network Model for The Prediction of Ultimate Tensile Strength of Multi-Principal Elements Alloys	Prabash Khatiwada
12308	Towards Accelerated Design of Multi-Principal Element Alloys with Optimized Hardness and Elongation Features By an Ensemble of Neural Network	Sachin Poudel
12318	Coupled Lateral and Torsional Vibration of A Rigid Disk Attached to A Flexible Shaft	Sushant Poudel
12334	Design, Fabrication and Performance Analysis of Hydraulic Ram Pump	Prashidda Kharel

E1: Disaster Studies		
Chair: Prof. Dr. Hari Darshan Shrestha		
ID	Paper Title	Presenter
12034	Optimization of Firefighting Capacity Using Network Analysis: Case Study of Kathmandu Valley	Siddartha Amatya
12081	Analysis of MRT Compliant Buildings as Per NBC 105:2020	Nisha Sthapit
12116	A Study of Random Forest and Support Vector Machine Algorithms for Landslide Susceptibility Mapping at Bhotekoshi Rural Municipality	Dipesh Pokharel
12123	Application of Lid Techniques As Mitigation Measures for Urban Flood Using Swmm	Nikita Manandhar
12156	Fire Susceptibility Mapping of Bhaktapur District, Nepal Incorporating Gis-Based Ahp Model	Kundan Jung Thapa

E2: Architecture and Heritage Conservation - I		
Chair: Prof. Dr. Sudha Shrestha		
ID	Paper Title	Presenter
12029	Aesthetics and Building Appearance on Urban Commercial Street - A Case of Ngo Road in Narayangarh	Rachana Dahal
12041	Socio-Cultural Dimension of House Form of Magar Community: A Case of Thabang Village, Rolpa	Manisha Yogi
12056	Accessibility in Public Buildings for People with Disability: A Case of Patan, Nepal	Sebi Nakarmi
12090	Transformation Over Time in Kochila/Saptariya Tharu Architecture: A Case of Baswalpur, Saptari, Nepal	Niru Chaudhary
12093	Changing Pattern in Santhal Architecture : Case of Satar Village Morang	Kanchan Bhattarai
12114	Architecture Regionalism, Examination of Orientation in Taragaon	Prakash Maharjan

E3: Cost Estimation		
Chair: Prof. Khem Nath Dallakoti		
ID	Paper Title	Presenter
12079	Effective Strategies to Reduce the Impacts of Inflation in the Construction Industry of Nepal	Suman Rai
12105	Assessment on The Fixation of District Rate of Kathmandu District	Suresh Shrestha
12206	An Artificial Neural Network Approach for Cost Estimation of Consultancy Services of Building Projects in Kathmandu Valley	Prajwal Moktan
12266	Analysis of Labor Productivity for Rebar Placement Operation of Building Construction in Kathmandu Valley	Bir Bahadur GT
12326	Artificial Neural Networks for Cost Estimation of Road Projects in Nepal	Bibhor Acharya
12346	Cost Overrun in Building Construction Due to Material Wastage A Case Study of Kathmandu Valley	Taraman Bhandari

E4: Seismic Performance of Highrise Buildings		
Chair: Piyush Pradhan		
ID	Paper Title	Presenter
12072	Seismic Fragility Assessment of Rc Framed Structure Under Varying Ground Motion Duration	Seema Kc
12099	Effect of Soil Structure Interaction on Seismic Pounding in Adjacent Rc Buildings	Prabesh Dhakal
12100	Seismic Performance of Rc Buildings with Different Positions of Lift Core Wall and Added Shear Walls	Bikash Baral
12170	Seismic Response of Irregular High-Rise Building in Kathmandu with Shear Wall	Avinash Bhandari
12179	Effect of Tuned Liquid Damper on Highrise Building	Niraj Maharjan
12217	Seismic Performance of Steel Building with Vertical Irregularities	Ina Shrestha

F1: Natural Language Processing Chair: Dr. Subodh Nepal		
ID	Paper Title	Presenter
12117	Efficient Word Embedding for Nepali	Bishal Debb Pande
12313	Aspect Based Sentiment Analysis of Nepali Text Using Bi LSTM	Piyush Pant
12319	Generation and Splitting of The Compound Words in Nepali Text	Prabin Acharya

F2: Architecture and Heritage Conservation - II Chair: Dr. Inu Pradhan Salikhe		
ID	Paper Title	Presenter
12046	The Notion of Ageing in Place and Age-Friendly Housing in Core Urban Area of Lalitpur	Shreejana Maharjan
12091	Conservation of Heritage: A Study of Reconstruction of Mahalaxmi Temple at Balambu	Rasana Shrestha
12098	Emerging Architectural Identity and Gentrification A Case of Patan Core Town	Anita Shrestha
12139	Spatial Analysis for Residential Development : A Case of Tulsipur SMC	Sugam Gautam
12232	Assessment of Visual Comfort of an office Building in the Kathmandu Valley	Nunaang Tumrok Limbu

F3: Planning and Risk in Construction Chair: Prof. Dr. Rabindra Nath Shrestha		
ID	Paper Title	Presenter
12092	Risk Management in Building Construction Projects (A Case Study of Chitawan)	Manil Khanal
12120	Minimization of Non-Value Adding Activities in Irrigation Sector of Nepal	Samjhana Maharjan
12237	Energy Efficiency Potentials of Vernacular Buildings in Improving The Residential Design and Construction - A Case Study of Dang Deukhuri Valley	Dilip Rana
12314	Estimation of Contract Duration for Construction on Urban Road Projects Within Pokhara Metropolitan City	Nabin Gautam
12333	Construction Planning for Hemja-Patichaur Tunnel	Nikita Gurung

F4: Tunneling Chair: Dr. Gyanendra Lal Shrestha		
ID	Paper Title	Presenter
12013	Parametric Study of Twin Tunnel Interaction in Soft Ground	Sushmita KC
12023	Prediction of Squeezing Condition of Tunnel: A Case Study of Tamakoshi V Hydroelectric Project, Nepal	Abhishek Pokhrel
12142	Empirical and Numerical Study for Support Estimation for Stability of Underground Opening: Case Study of Two Tunnels in Lesser Himalaya Region of Nepal	Sulabh Majgainya
12173	Numerical Modeling of Shallow Tunnel in Soft Ground: Surface Settlement Analysis	Aashish Poudel
12317	Study on Effectiveness of Barrier Grouting at Transitional Area of Pressurized Tunnel: A Case Study in Upper Tamakoshi Hydro Electric Project-456Mw	Prathiva Bhattarai

<b>G1: Infrastructure</b> Chair: Dinesh Gupta		
ID	Paper Title	Presenter
12060	Identifying and Evaluating the Criteria in Planning the Excavation Support System in Basement Construction Using Analytical Hierarchy Process	Manish Thapa
12111	Kap of Retrofitting of Typical Stone in Mud Mortar Residential Structures of Siddhalekh Rural Municipality, Dhading	Aarjan Adhikari
12159	Mapping Earthquake Induced Landslides Using Machine Learning: A Case of Dolakha District in Post Gorkha Earthquake Context	Ajaya Pyakurel
12215	Effects of Roadside Friction on Traffic Flow Parameters and Level of Service of Urban Arterials: A Case Study of Pokhara Metropolitan City	Amod Bhattarai
12297	Development of Bridge Management System for Existing Bridge in Nepal Using Analytical Hierarchy Process	Manoj Sharma Wagle

<b>G2: Energy Technology</b> Chair: Dr. Nawaraj Bhattarai		
ID	Paper Title	Presenter
12066	Evaluation and Comparison of Performance of Solar Pv Panel with and Without External Plane Mirror as Well as with External Plane Mirror Subjected to Air as a Cooling Medium	Subash Wagle
12144	Techno-Financial Analysis of Floating Solar Photovoltaic System in Nepal	Shweta Sah
12304	Flow Analysis in Asymmetric and Symmetric Bifurcation with Varied Layout: A Case Study of Daram Khola Hep	Prashant Neupane
12307	Study on Effective Technical Audit of Grid Connected Solar PV Project in Nepal	Niroj Bahadur Bhujel

<b>G3: Electrical Power</b> Chair: Jeetendra Chaudhary		
ID	Paper Title	Presenter
12008	Techno-Economic Analysis of Grid Connected Rooftop Solar PV System at Head office of Nepal Bank Limited	Siddhant Dutta
12187	Weather-Based Dynamic Thermal Rating Forecasting Application for Long Transmission Line of Nepalese Grid: A Case Study in Chameliya-Syaule-Attariya 132 Kv Transmission Line	Bishnu Prasad Neupane
12296	Performance Analysis of Radial Distribution System using Optimal Capacitor Bank Placement	Saubhagya Acharya

<b>G4: Networking and Security</b> Chair: Prof. Dr. Ram Krishna Maharjan		
ID	Paper Title	Presenter
12155	Small World Network for Simulation of Blockchain Networks	Prabin Kayastha
12193	Long Short Term Memory Based Web Application Firewall to Detect Different Types of Web Attacks	Bibek Adhikari
12338	Automated Log Parsing Through Named Entity Recognition	Saloni Shikha



09:00 ~ 10:00

Keynote 3: Prof. Dr. Jagdish Chandra Pokharel, Former Vice Chairperson National Planning Commission \*\*\*

10:30 ~ 12:00

Technical Session: H

H1: Medical Imaging Chair: Prof. Dr. Shashidhar Ram Joshi		
ID	Paper Title	Presenter
12067	Explanation-Driven Deep Learning Model for Diagnosis and Prediction of Lung Diseases Using Chest X-Ray Images	Sabita Dahal
12219	Human Thermo-Regulation at High Humidity-A Mathematical Study	Shiva Hari Subedi
12260	Detection of Pneumonia Disease Based on Digital Chest X-Ray Image Using Vgg16 Transfer Learning	Chandan Shah
12315	Detection of The Diabetic Retinopathy By Classical - Quantum Transfer Learning	Pumal Dahal
12321	Quantum Computer Based Feature Extraction Deep Learning Model for Medical Image Classification	Anish Baral
12331	Hybrid Classical Quantum Deep Learning Model for the Classification of Interstitial Lung Diseases	Mukesh Kumar Pokhrel

H2: Urban Governance and Regional Planning Chair: Dr. Ajay Chandra Lal		
ID	Paper Title	Presenter
12102	Emerging Urban Centers in Federal Setting: A Case Study of Province One in Nepal	Ronaj Bhandari
12113	Models of Metropolitan Region Governance: A Case of Kathmandu Valley	Prakriti Kc
12163	Assessment on Building Byelaws Implementation with Respect to Height and Setback, A Case of Lokanthali Madhyapur Thimi	Tulsi Kumar Kaway
12172	Role of Small Towns for Integrated Development of Sub-Region: A Case of Siraha District	Sujit Kumar Chaudhary
12263	Citizen Perception on Use of ICT in Citizen Engagement: A Case of Tokha Municipality in Kathmandu Valley	Anil Nepal

H3: Transportation Planning Chair: Dr. Rojee Pradhananga		
ID	Paper Title	Presenter
12014	Modeling Generalized Cost of Travel for Rural Bus Users: A Case Study of Phidim - Birtamode Road Section	Samiksha Adhikari
12028	Development of Road Upgradation Plan to Support Agricultural Production in Dhanusha	Shalini Jha
12054	Study on Dwell Time of Public Buses in Kathmandu: A Case Study of Kalanki to Tinkune Route Via Thapathali	Roshan Pathak
12141	Multi-Objective Optimization of National Highways in Nepal: A Case Study in Gandaki Province	Narayan Poudyal
12190	Development of Activity Based Pattern Choice Model - A Case Study of Biratnagar Metropolitan City	Rakesh Kumar Yadav
12279	Multi-Criteria Decision Making for Rural Road Project Selection	Satish Subedi
12360	Assessment of Service Quality of Public Bus Based on Comfort Features	Rakesh Sigdel

H4: Design, Modelling and Simulation Chair: Prof. Dr. Tri Ratna Bajracharya		
ID	Paper Title	Presenter
12012	Modeling, Simulation and Performance Analysis of Large Scale Solar Power Plant in Nepal Under Single and Double Axis Tracking Systems	Gaurab Shreesh
12132	Experimental Investigation of Parameters Affecting Productivity of Single Slope Basin Type Passive Solar Still	Shah Nawaz Ansari
12146	Modeling, Simulation and Thermal Analysis of Electric Resistance Furnace Used in The Heat Treatment of Clay Based Ceramics	Binod Adhikari
12151	Design, Fabrication and Performance Evaluation of Portable Incubator	Bal Mukunda Kunwar
12185	Numerical Modelling of Deflection of The Flow at The Bucket Splitter of Pelton Turbine	Rupa Pandey
12216	Numerical Study of Dispersion and Ventilation of Lpg Gas in Urban Household Kitchen	Dayanand Rauniyar

I1: Climate Change and Hydrological Modelling Chair: Dr. Pawan Kumar Bhattarai		
ID	Paper Title	Presenter
12077	Climate Change Impact Due to Hydrological Alteration in Kaligandaki River Basin in Nepal	Maheshwor Dahal
12178	Impact of Climate Change on Future Flow Response in Marshyangdi River Basin, Nepal	Suman Sangroula
12212	Flood Wave Propagation	Bharat Raj Pandey
12289	Climate Change, Impacts and Adaptation in Chisankhugadhi Rural Municipality, Okhaldhunga - An Application of Perception-Based Approach and Climate Data Analysis	Pralad Phuyal
12340	A Proxy Basin Approach for Hydrological Modelling in Ungauged Snow-Fed Basin of Nepal	Nischal Karki
12359	Climatic Variability Change Analysis in Tamor River Basin Projected By CMIP6 Model	Ayush Poudel

I2: Urban Infrastructure Chair: Prof. Dr. Sangeeta Singh		
ID	Paper Title	Presenter
12062	Analyzing Willingness to Shift to Proposed Metro Rail System for Work Trips: A Case of New Baneshwor and Radhe Radhe	Subina Shakya
12108	Use and Management of Public Open Spaces in Kathmandu Valley	Rojina Shrestha
12128	Public Participation for Urban Infrastructural Development	Prajwol Sedhai
12137	Managing E-Waste in The Kathmandu Metropolitan City: A Case of Ward No. 22	Shraddha Dotel
12203	Assessing The Suitability of Cycle Infrastructure in Kathmandu	Nisha Tamang Ghising
12306	Stormwater Analysis and Drainage Management in Pokhara Metropolitan City, Nepal	Santosh Paudel

I3: Ground Improvement Chair: Dr. Basanta Raj Adhikari		
ID	Paper Title	Presenter
12174	Finite Element Modeling and Study of Soil Nailed Slope- A Case Study of Silty Sandy Slope at Khadkadil, Bhaktapur	Sabin Pudasaini
12205	Comparative Analysis of The Driven and Grouted Soil Nail Using Numerical Simulation	Bishwa Bastakoti
12274	Effects of Alkaline Activated Egg Shell Powder in Soil Stabilization	Sangam Acharya
12300	Improvement on CBR Strength of Soil Modified with Brick Dust Using Geogrid Reinforcement	Ramchandra Lamichhane
12337	Parametric Study on Slope Reinforced with Pile	Ramesh Kumar Devkota

I4: Deep Learning Chair: Dr. Dibakar Raj Pant		
ID	Paper Title	Presenter
12001	Generative Adversarial Network for Audio Compression	Bishal Chaulagain
12143	Digital Music Generation Using a Character Level LSTM	Anil Pudasaini
12166	Word Level Nepali Sign Language Recognition Using Transformer	Shristi Heuju
12336	Human Emotion Recognition from Gait Analysis Using Graph Convolution Network	Umesh Kanta Ghimire
12349	Nepali Sign Language Gesture Recognition Using Deep Learning	Sanyukta Ligal

J1: Energy Planning and Analysis Chair: Prof. Dr. Laxman Poudel		
ID	Paper Title	Presenter
12182	Formulation of Electromechanical Cost Estimation Nomogram for Small Hydropower Project in Nepal	Kapil Pudasaini
12197	Techno-Economic Analysis of Impact on The Distribution Feeder with Capacitor Placement as Per NEA's Regulations and Optimum Scenario	Santosh Prasad Pant
12298	Impact in Distribution Feeder Transformer Due to Injection of Non-Linear Load	Sujit Tiwari
12325	Impact Study of Inertia-Less Generation in The System Stability: A Case Study with Nuwakot PV	Pravin Chaudhary

J2: Sustainable Urban Development Chair: Prof. Dr. Jib Raj Pokharel		
ID	Paper Title	Presenter
12109	Implications of Change in Urban Landscape on The Quality of Life in The Traditional Town Harisiddhi	Shikha Shrestha
12127	Analysis on Placemaking Around High Rise Apartments: A Case on Westar Residency and Sun-City Apartment	Aakriti Mishra
12160	Post-Disaster: Social Cultural Impact in The Resettlements: in Case of Giraunchaur, Sindhupalchowk	Rabin Kambang
12236	Assessing The Sustainability of The Settlement in Pyangaun, Lalitpur	Isha Deshar
12283	The Urban Park for Sustainable Development Through Community Participation	Sunita Manandhar
12335	Gender Inclusiveness in The Planning of Urban Spaces	Astha Acharya

J3: Seismic Performance of Bridges Chair: Dr. Kshitij C. Shrestha		
ID	Paper Title	Presenter
12057	Effect of Orientation of Arches and Hangers in Tied Arch Bridge System	Nawaraj Neupane
12075	Bridge Deck Quality Indexing Based on Non-Destructive Tests	Umesh Pant
12083	Structural Response of Panel Bridges for Different Configurations: A Comparative Analysis	Ranjan Sujakhu
12086	Dynamic Behavior of Skewed Bridge Compared to Normal Bridge	Ajay Thapa
12310	Parametric Study on Post-Tensioned Concrete Box Girder Bridge in Earthquake	Laxman Khati

J4: Rock Engineering Chair: Dr. Santosh K. Yadav		
ID	Paper Title	Presenter
12152	Finite Element Analysis of Empirically Designed Support: A Case Study of Khimti-Ii Headrace Tunnel	Ashok Baral
12207	Rock Engineering Assessment Along the Headrace Tunnel of Khimti-2 Hydroelectric Project	Santosh Subedi
12246	Probabilistic Fem Analysis of Tunnel Lining Stability - Comparison with Traditional Deterministic Approach	Sagar Paudel
12250	Stability Evaluation and Review of Applied Support for Headrace Tunnel of Middle Mewa Hydropower Project, Taplejung	Bikash Thapa
12284	A Study on The Influence of Discontinuities Orientations on Seismic Response of Shallow Rock Tunnel, Using Phase2	Mahesh Upadhyaya
12344	Effectiveness of Grouting at Hydropower Tunnel: A Case Study of Superdordi Hydropower Project	Bhagawan Kunwar

<b>K1: Hydropower, Transmission and Climate Change</b>		
Chair: Dr. Khem Gyanwali		
ID	Paper Title	Presenter
12006	Problems in Residential Space Facing Occupancy Change and Developing a Template for Qualitative Risk Assessment: A Case Study of Butwal City	Aashish Adhikari
12138	Performance Analysis and Improvement of Existing Electric Resistance Furnace for Ceramic Sector in Thimi, Bhaktapur	Nitish Shakya
12235	Financial Analysis of Electric Vehicles with Grid Integrated Solar Pv System: A Case Study of Sajha Yatayat	Arjun Subedi
12305	Impact Analysis of Penetration of Induction Heater on Distribution System: A Case Study of Nitapur Feeder	Sapana Bohara

<b>K2: Climate Change and Resilience</b>		
Chair: Prof. Dr. Binod K. Bhattarai		
ID	Paper Title	Presenter
12135	Flood Hazard Mapping and Vulnerability Analysis of Hanumante Riverside Corridor Section	Manish Karmacharya
12150	Climate Responsive Residential Architecture in Dhading	Jyoti Dhamala
12269	Environmental Monitoring and Modeling (EMM) of Kathmandu Valley with Remote Sensing to Understand the Drivers of Climate Change	Suyog Rai

<b>K3: Geotechnical Application</b>		
Chair: Dr. Bhim K. Dahal		
ID	Paper Title	Presenter
12044	Effect of Brick Dust on Soil and Strength Improvement with the Use of Plastic Waste	Susan Paudel
12199	Numerical Study on Geogrid-Reinforced Flexible Pavement Sections	Arjun Poudel
12213	Compaction and Strength Properties (After 28 Days of Curing) of Soil Stabilized By Stone Dust and Cement	Ujjwal Niraula
12285	Investigation of Base Stability for An Underground Kathmandu Metro Station	Pareekshit Poudel

<b>K4: Geomatics</b>		
Chair: Dr. Subash Ghimire		
ID	Paper Title	Presenter
12043	A General Review on Application of GNSS for Structural Deformation Monitoring	Digvijaya Paudel
12084	Comparative Study of Landslide Susceptibility Mapping Along Mountainous Road Using Statistical and Machine Learning Approach	Sagar Karki
12171	GNSS TEC Computation and Comparison Using Multi-GNSS Constellations	Saurav Gautam
12363	Analysis of Precipitable Water Vapor Variation Using Global Navigation Satellite System (GNSS) Data	Roshan Paudel

L1: Extreme Events and Sediment Engineering		
Chair: Prof. Dr. Vishnu P. Pandey		
ID	Paper Title	Presenter
12264	Groundwater Potential Mapping Using GIS Based Machine Learning Technique in Eastern Terai Region of Nepal	Dhruba Raj Regmi
12275	Assessing Impact of Climate Change and Land-Use Cover in Soil Erosion Using Rusle and Swat Model in Kaligandaki Watershed	Srijana Shrestha
12328	Generation of Digital Elevation Models from Sentinel-1 Datasets and Suitability Assessment: A Case Study of Melamchi Watershed	Sushil Pokhrel
12342	Drought Risk Assessment in Sunkoshi River Basin: An Application of Hydrological Model	Prabhat Banjara
12362	Analyzing The Future Flooding and Risk Assessment Under Cmp6 Climate Projection Using Hec-Hms and Hec-Ras 2D Modelling of Babai River Basin	Anup Dahal

L2: Tunneling Techniques		
Chair: Dr. Jagat Kumar Shrestha		
ID	Paper Title	Presenter
12065	Rock Excavation and Support for an Underground Powerhouse Cavern at Super Dordi Kha Hydropower Project, Nepal	Shuvam Adhikari
12162	Comparison of Deformation in Tunnel Along Thrust Zone Using Different Approaches: Case Study of Bbdmp	Ashok Bohara
12208	Analysis of Plastic Deformation around an Underground Opening: A Case Study of Tanahun Hydropower Project	Sukarma Subedi
12221	Possible Squeezing Effect and Design of Support System at The Headrace Tunnel of Dudhkoshi Storage Hydroelectric Project	Bipin Gharti Magar
12258	Parametric Study of Cavern Stability: A Case of Underground Powerhouse Cavern of Middle Mewa Hydropower Project, Nepal	Rajiv Upreti
12295	Placement and Stress Analysis of Underground Powerhouse Cavern	Bibek DC

L3: Performance of Shells in Seismic Active Regions		
Chair: Dr. Bharat Mandal		
ID	Paper Title	Presenter
12074	Use of Scutoid Inspired Geometry in Curved Surface of Revolution	Prashanta Dhimal
12095	Application of Deep Learning to Account for Geometric and Material Non-Linearity in Thin Circular Cylindrical Shell Structures	Ashvin Oli
12147	Response Reduction Factor of Reinforced Concrete Buildings on Sloping Ground	Arun Malla Thakuri
12196	Prediction of Cost Fluctuations in Residential RC Buildings Due to Seismic Non-Compliance	Sujan Adhikari
12222	Seismic Vulnerability Assessment of Airport Terminal Building	Abhinesh Khatri
12353	Axisymmetric Analysis of Cylindrical Shells Considering Geometry and Lattice Variation	Nabin Tandan

L4: Pedestrian Studies		
Chair: Dr. Pradeep Kumar Shrestha		
ID	Paper Title	Presenter
12061	A Study on The Factors Influencing Red Light Violation Behavior of Pedestrians in Kathmandu Valley	Deepak Raj Shah
12070	Modelling of Pedestrian Walking Behavior at Foot over Bridges	Merina Giri
12076	An Assessment of Pedestrian Compliance on Using Foot Over Bridge: A Case Study of Kathmandu Valley	Rajja Shilpakar
12082	Impact of Social and Technological Distraction on Pedestrian Crossing Behavior at Signalized Crosswalks: A Case Study of Baneshwor Intersection	Sudip Luitel
12239	Simulation Based Study of The Effect on Pedestrian Flow Due to Parked Vehicles: A Case Study on Mangal Bazar to Mahapal Road Section	Naswa Ranjit
12112	Analysis of Premature Cracks in Asphalt Pavement: A Case Study of Kathmandu Ringroad	Sajeet Sharma

M: Energy Systems Analysis ***		
Chair: Prof. Dr. Amrit Man Nakarmi		
ID	Paper Title	Presenter
12019	Impact of Decarbonising Power Grid of Bimstec Region on Carbon Tax and Electricity Price	Bikash Dhungana
12231	Impacts of Climate Extremes in Hydropower Generation in Nepal to Identify Optimal Capacity and Generation Mix	Padam Adhikari
12312	Impact Assessment of Cross-Border Gas Infrastructure TAPI and IPI on The Energy Security of South Asia Region by Developing a Multi-Region Model	Sutishna Pokharel
12329	Techno-Economic Assessment of Green Urea Production in Nepal Using Local Resources	Saroj Karki
12348	Cross-Border Transmission Line Cost Burden Sharing Among Bbin Countries Using Cooperative Game Theory	Ayushma Gautam