

VIRTUAL CONFERENCE ON DISASTER RISK REDUCTION

Civil Engineering for a Disaster Resilient Society

15-20 March 2021

Organized By



Technical Session-1

16-03-2021 (IST 2:00-4:00PM)

Session chair: **Dr. Anil Kumar Sharma, NIT, Patna**

Session Co-ordinator: Pankaj Bariker, NIT, Karnataka

Meeting link: <https://meet.google.com/jth-uucw-bqv>

Paper No.	Paper Title	Presented by.	Affiliation
536	Microseismic Monitoring to Analyze Rock Mass Micro-Cracking in Underground Powerhouse to Mitigate Potential Disaster	Vikalp Kumar	National Institute of Rock Mechanics
423	Studies on strip footings resting on lateritic slopes	Anjali A	Marian Engineering College, Thiruvananthapuram, Kerala
456	Numerical Investigation of Soil-Structure Interaction Behaviour of Landslide Prevention Piles	Sreelakshmi G	CMR Institute of Technology
287	Probabilistic Stability Analysis of Helical Soil Nailed Wall Using the Monte-Carlo Simulation	Ekansh Agarwal	AcSIR-Central Building Research Institute, Roorkee
070	Open Source Satellite Data and Software in Forest Fire Studies: A Case Study	Sanjay N C	National Institute of Technology Karnataka
052	Effects of complex valley topography on de-amplification scenario for SH- waves	Neeraj Kumar	Central University of Hararyana
481	Stress and Deformation Analysis of Ground Subjected to Deep Excavation In Sandy Soil - A Man-Made Disaster	Abhirami B	College of Engineering, Guindy, Anna University
182	Dynamic Analysis of Soil Reinforced with Polypropylene Geotextile Using PLAXIS	Bhagya Baburajan	Amrita Vishwa Vidyapeetham, Coimbatore.
109	Ground Responses Due to The Effect of Tunnelling in Sandy Soil – A Man-Made Disaster'	Vishalatchi Ramasamy	Anna University
64	Performance of instrumented Continuous Flight Auger (CFA) pile in weak rocks	Anil Cherian	Strainstall Middle East
342	Analysis of Cushion Effects in Unconnected Piled Raft Foundation	Amalu P A	National Institute of Technology Karnataka
354	Numerical Modelling of Mechanically Stabilized Earth Wall for Slope Protection	Reshma P R	National Institute of Technology Karnataka, Surathkal
386	Assessment of Land Use and Land Cover Changes on Soil Erosion in Sirajganj: A GIS And Remote Sensing Based Approach	Ahmed Ashhab	Rajshahi University of Engineering & Technology

Technical Session-2

16-03-2021 (IST 2:00-4:00PM)

Session chair: **Dr. R Ramkrishnan, Amrita Vishwa Vidyapeetham, Coimbatore**

Session Co-ordinator: Varun Menon O, NIT, Karnataka

Meeting link: <https://meet.google.com/pti-bedm-xix>

Paper No.	Paper Title	Presented by.	Affiliation
142	Mitigation of progressive collapse of multi-storey steel building by providing chevron bracing	Patel Parthav Paresh	School of Engineering, Institute of Technology, Nirma University
316	Parametric study of performance-based seismic design of plan irregular RC frames- Indian scenario	Rajat Abhay Sirsikar	Shri Guru Gobind Singhji Institute of Engineering & Technology, Nanded
091	Effect of supporting structure's torsion on floor acceleration demands in buildings on slopes	Ankur Jain	Indian Institute of Technology, Ropar
337	Fuzzy-AHP based design and performance indexing model for tall buildings	Shubham Pandey	Gautam Buddha University
040	Variation of seismic behaviour of R.C shaft supported elevated water towers with change in proportion of shaft staging	Pronoy RoyChowdhury	PHE WB
208	Numerical analysis of geotextile-strengthened shear critical RC beam	Subhrasmita Majumder	NIT Durgapur
035	Integration of building information modeling (BIM) and artificial intelligence (ai) to detect combined defects of infrastructure in the railway system	Jessada Sresakoolchai	University of Birmingham
291	Behavior of steel structure subjected to blast and suggesting measures to reduce the effect on structure'	Mr Mule	Govt. Engineering College, Karad, M.S., India
365	Simplified macro modeling approach for estimation of nonlinear response of infilled RC frames	Panna Lal Kurmi	IIT Ropar
497	Effect of silica fume and steel fiber on mechanical characteristics of high strength concrete	Sumathi A	SASTRA Deemed to be University
262	Seismic evaluation, strengthening and retrofitting of schools in Shimla, Himachal Pradesh	Hemant Kumar Vinayak	National Institute of Technical Teachers Training and Research Chandigarh
042	Effect of dog-legged staircase on the seismic response of hill buildings	Ahmed Bilal	Aligarh Muslim University
299	An explorative study on material feasibility for relief shelter for refugees	Ziya Sameer	Manipal Academy of Higher Education

Technical Session-3

17-03-2021 (IST 2:00-4:00PM)

Session chair: **Dr Anupama Surenjan, NIT, Karnataka**

Session Co-ordinator: Pankaj Bariker, NIT, Karnataka

Meeting link: <https://meet.google.com/jth-uucw-bqy>

Paper No.	Paper Title	Presented by.	Affiliation
372	Making Indian cities water-sensitive: a critical review of frameworks	Sameer Kumar	CEPT University
346	GIS based assessment of groundwater quality for drinking in Perambalur district of Tamil Nadu	Vinothkanna. S	Madurai Kamaraj University
190	Flood risk assessment at the Douro river estuary	Willian Weber De Melo	University of Minho
321	Drinking-water quality assessment of public tube-wells and their spatial distribution in the Rangpur city of Bangladesh	Ashik Iqbal	Bangladesh University of Engineering and Technology
331	Spatiotemporal analysis of drought persistence of peninsular India	Sreedevi V	TKM College of Engineering, Kollam, Kerala
137	A state-of-the-art review on the unique characteristics, key driving causes and mitigation measures of the world catastrophic flood disasters	Lim Kah Yee	River Engineering and Urban Drainage Research Centre (REDAC), Universiti Sains Malaysia (USM)
491	Location specific rainfall threshold for a select micro-watersheds in Coonoor taluk, Tamil Nadu, India	Kannan G	SASTRA Deemed to be University
073	Catastrophic events at the river basins due to permafrost thawing: review and examples	Elena Dolgoplova	Water Problems Institute, Russian Academy of Sciences
237	Physics informed Artificial Neural Network (ANN) for spatial-temporal flood forecasting	Ragini Bal Mahesh	Technical University of Munich
378	An empirical analysis to assess climate change and its effects on water scarcity through Participatory Rural Appraisal (PRA) approach in Chirirbandar Upazila, Dinajpur	Shabab Ahsan	Rajshahi University of Engineering and Technology (RUET)
231	Evaluation of the effectiveness of flexible debris flow barriers for control of Huaycos using satellite images and GIS, in the basin of Rimac river, Peru	Silva Davila, Marisa Rosana	Universidad Peruana de Ciencias Aplicadas (UPC)
355	Prevention of saltwater intrusion: a laboratory-scale study on electrokinetic remediation	Abhishek Sutar	Institute of Infrastructure Technology Research And Management, Ahmedabad
543	Removal of fluoride from aqueous solutions using curry leaves (<i>Murraya koenigii</i> .L) bio mass as absorbent	Sathish M	Chaitanya Bharathi Institute of Technology, Hyderabad.
402	The Role of Water Governance in Ensuring Water Security: A case of Indian Cities	Siddh Doshi	CEPT University

Technical Session-4

17-03-2021 (IST 2:00-4:00PM)

Session chair: **Dr Y K Guruprasad, Ramaiah Institute of Technology, Bangalore**

Session Co-ordinator: Varun Menon O, NIT, Karnataka

Meeting link: <https://meet.google.com/pti-bedm-xix>

Paper No.	Paper Title	Presented by.	Affiliation
148	Thermal buckling behaviour of degraded railway tracks	Chayut Ngamkhanong	University of Birmingham
313	Evaluating the seismic performance of domestic and historical masonry structures in Himachal Pradesh region of India	Ashwani Kumar Sharma	IIT Mandi, Kamand, Himachal Pradesh
082	Behavior of ordinary load-bearing structure under distant large explosion, Beirut scenario	Qurat Ul Ain	Jamia Millia Islamia
106	Seismic behaviour of tunnel structure under varying surrounding soil, water table and overburden condition	Chiranjib Sarkar	AECOM
391	Stability assessment of a fire damaged retrofitted RC structure having vertical irregularity	Mohammed Mazharuddin	Ramaiah Institute of Technology
323	Investigation of wind loads on setback building using computational fluid dynamics	Vigneshwaran Rajendran	Mepco Schlenk Engineering College
128	Seismic control of structures with mass irregularities through optimally placed active tendons using multi-objective genetic algorithm	Faisal Ahmad Rather	Jamia Millia Islamia
441	Out-of-plane response of clay brick unreinforced and strengthened masonry walls under explosive-induced air-blast loading	S M Anas	Jamia Millia Islamia
315	Influence of mass irregularity on the response RC frame with stiffness irregularity by nonlinear time history analysis'	Athar Tauheed	jamia millia islamia
147	Comparative study on static and dynamic analysis of RC buildings of different heights in different seismic zones	Debashis Bhuyan	Tezpur University
452	investigation of flow structures along the embankment generated nearby finite riparian vegetation	Romitha Wickramasinghe	Graduate School of Sci. and Eng., Saitama University, Japan
107	Seismic response study on Kaswati dam	Barnali Ghosh	East Point college of Engineering and Technology
271	Post earthquake safe shelter for Shimla city	Abhinandan	Tech Pecific

Technical Session-5

18-03-2021 (IST 2:00-4:00PM)

Session chair: **Dr. Anil Cherian, Strainstall, Middle East**

Session Co-ordinator: Pankaj Bariker, NIT, Karnataka

Meeting link: <https://meet.google.com/jth-uucw-bqy>

Paper No.	Paper Title	Presented by.	Affiliation
309	Impact of human activities inducing and triggering of natural disasters	K.Sukumaran	R.G.M.C.E.T
276	On the features of pyroclastic deposits and related natural hazards	Mariagiovanna Moscariello	University of Salerno
169	Social vulnerability assessment to natural hazards in western Nepal	Suman Chapagain	Himalayan Risk Research Insitute
068	Khartoum geo-hazard: an assessment, and a future warning	Mohammed T. M. Ahmed	Building & Road Research Institute, University of Khartoum
093	Measuring disaster resilience at community level and exploring the prospects of revitalizing communities coalescing disaster risk'	Bindu C A	Government Engineering College Thrissur, Kerala
126	Application of computational methods for risk assessment of soil liquefaction	Sufyan Ghani	National Institute of Technology Patna
434	Landslide prevention at Agumbe Ghat section- nh-169a using slope protection methods	Vishikha Keshava	St. Joseph Engineering College
509	Carbon neutral communities: model for integrating climate action into development planning	Sharon Maria Sajan	Thanal (Environmental NGO)
479	Seismic data visualization of south India from 1820-2020 using geographic information system	Mrudula Madhukumar	Vellore Institute of Technology Chennai
199	Lessons from a century-tradition on NbS to mitigate natural hazards in mountain environment: the case of the Arañones (Canfranc, Pyrenees)	Juan Antonio Ballesteros Canovas	Unige
044	IoT in renewable energy and oil and gas resources optimization'	Ashok G. Matani	Government College of Engineering Amravati
522	'impacts of temple waste on the environment and its mitigation'	Shrikant Jahagirdar	N K Orchid College of Engineering and Technology
336	Recent trends in IoT enabled composter for organic wastes	Balaganesh P	Bannari Amman Institute of Technology, Sathyamangalam
510	Use of Fuzzy Logic in damage assessment for houses subjected to multi-hazards	Rajshree Charan	The Maharaja Sayajirao, University of Baroda, Vadodara
039	Prediction of Strong Ground Motion at MSU Baroda	Shivamant Angadi	St. Martin's Engineering College, Hyderabad

Technical Session-6

18-03-2021 (IST 2:00-4:00PM)

Session chair: **Dr J Vijaya Vengadesh Kumar, NIT, Karnataka**

Session Co-ordinator: Varun Menon O, NIT, Karnataka

Meeting link: <https://meet.google.com/pti-bedm-xix>

Paper No.	Paper Title	Presented by.	Affiliation
019	Development of VC++ wrapper for structural modelling in OPENSEES	Polimeru Vijay Kumar	IIT Bombay
314	Seismic safety of buildings on Indian hill slopes - A Review	Prateek Roshan	Delhi Technological University
43	Predicting landslide dam outburst flood peak discharge,	David Froehlich	Egis Eau
282	An experimental investigation on applications of fibre reinforced composites for rehabilitation of concrete beams'	Onkar Chothe	National Institute of Construction Management and Research, Goa.
504	Last planner system for sustainable development of infrastructure projects – A review of the experiences from implementation	Prasad K V	VIT Chennai / National Institute of Construction Management And Research (NICMAR), Hyderabad
407	Disaster resilience of infrastructures – a comprehensive concept with case studies	Atasi Das / Subhash Nigam	GR INFRAPROJECTS / IDC
283	Highways upgradation in the hilly areas and its impact- an example of Uttarakhand	P S Prasad	CSIR - Central Road Research Institute
018	Optimal design of true negative stiffness damper as supplemental damping device for base-isolated structure	Naqeeb Ul Islam	IIT Bombay
166	Assessment of seismic displacement of quay walls from GeoStudio	Pushpa K	SJCE,Mysuru
116	Parametric study on the variation of time period of RC MRF buildings	Sasanka Sarma	Tezpur University
393	Thickness optimization of RC jacket applied as a seismic retrofit measure on RC structural members to effectively resist earthquake loads	Anup Shukle	Ramaiah Institute of Technology, Bangalore
395	Evaluation of failure criteria in RC structural elements due to additional internal stresses developed in the structural elements as a result of fire exposure	Y K Guruprasad	Ramaiah Institute of Technology, Bangalore
525	Seismic response elimination of structure by using passive devices: an overview	Rushikesh Prakash Jadhav	Walchand College of Engineering, Sangli
483	Seismic performance analysis of regular and irregular RCC framed building with dampers	Laxmi M Ramdas	Vellore institute of technology, chennai

Technical Session-7

19-03-2021 (IST 2:00-4:00PM)

Session chair: **Dr Sridhar G, NIT, Karnataka**

Session Co-ordinator: Pankaj Bariker, NIT, Karnataka

Meeting link: <https://meet.google.com/jth-uucw-bqy>

Paper No.	Paper Title	Presented by.	Affiliation
132	Wave loads assessment on coastal structures at inundation risk using CFD modelling	Ana Gomes	University of Minho
241	Studying the Time-Dependent Reliability Index of the Riverbank Instability – The Case Study of VamNao River with a Sinkhole	Tham Hong Duong	Ho Chi Minh City Open University
095	Feasibility study on Municipal Solid Waste (MSW) as sustainable engineering material using suction characteristics'	Abhijit Brahmhatt	L.d. College Of Engineering
066	Effective utilization of Waste Plastic Bottle as a geocell in road pavement: A Numerical study	Gopal Patil	Terna Engineering College, Nerul, Navi Mumbai
157	Sustainable urban drainage system to avoid flooding of rain origin by improving green areas, Lima, Peru	Marisa Rosana Silva Davila	UNIVERSIDAD PERUANA DE CIENCIAS APLICADAS (UPC)
049	Use of stream power as a tool for the detection of critical reaches in channeled streams	Juan Daniel Rios-Arboleda	Cooperative University of Colombia
27	Efficacy of pervious concrete columns vis-a-vis stone columns in sandy strata in mitigating liquefaction	Rashma R S V	National Institute of Technology Karnataka
194	Achieving Sustainability Goals through infrastructure modifications: Lessons learnt from COVID 19 pandemic	A Bharani	Tamil Nadu Agricultural University
420	Pavement Design Considering Changing Climate Temperature	Atasi Das	G R Infraprojects Limited
533	Resilient sustainable land use planning for climate change adaptation for an urban area	Meghna Anilkumar	National Institute of Technology Calicut
356	Implementation of Build Back Better Concept for Post-Disaster Reconstruction in Sri Lanka	Senuri Disara	University of Moratuwa
017	Risk and resilience of railway infrastructure: An assessment on uncertainties of rail accidents to improve risk and resilience through long-term data analysis	Panrawee Rungskunroch	University of Birmingham
046	MPM-modelling of a large landslide interaction with structures: the Wenjia gully debris flow case	Angela Di Perna	University of Salerno
408	Analyzing the Impact of Lockdown on Rejuvenation of Rivers in Uttar Pradesh, India	Pranjal Pandey	Amity School of Engg. & Tech., Amity University

Technical Session-8

19-03-2021 (IST 2:00-4:00PM)

Session chair: **Dr Pavan GS, NIT, Karnataka**

Session Co-ordinator: Varun Menon O, NIT, Karnataka

Meeting link: <https://meet.google.com/pti-bedm-xix>

Paper No.	Paper Title	Presented by.	Affiliation
164	Experimental optimization of GGBS Fly ash-based geopolymer concrete paver blocks	Debjit Mitra Roy	Indian Institute of Technology (ISM), Dhanbad
362	Parametric study of cold formed lipped channel flexural members under fire hazard	Ravikant Singh	Indian Institute of Technology, Patna
156	Numerical Modelling of an Unreinforced Masonry Wall with Central Window Opening	Ruthviz Kodali	Mahindra University
427	Response of Hill-Slope Buildings Subjected to Near-Fault Ground Motion	Prabhat Kumar	College of Engineering Roorkee
454	Influence of Charge Locations on Close-in Air-blast Response of Pre-tensioned Concrete U-Girder	S M Anas	Jamia Millia Islamia
081	Blast performance of RCC Slab and Influence of Its Design Parameters	Emal Ahmadi	Jamia Millia Islamia
012	Seismic Performance of UHPFRC Strengthened RC Beam Column Joints using Damage Plasticity Model-A Numerical Study	Sri Kalyana Rama J	Vignana Bharathi Institute of Technology
124	Assessment of Meteorological Drought using Standardized Precipitation Evapotranspiration Index - Hyderabad Case Study'	Pallavi Kumari	University visvesvaraya college of engineering, Bangalore University
360	Urban Facilities Management: A Way of Attaining Sustainable Cities in Sri Lanka	S.P.M. Dasandara	University of Moratuwa
149	Analysis of the reinforcement with jacketed of concrete to protect the abutments of the bridges to avoid scour, Rímac river - Peru	Maycol Jhordan Valerio Arrieta	Universidad Peruana de Ciencias Aplicadas
281	Feasibility of Post Cyclone Portable Relief Shelter: Case of Odisha	Ipsitaa Priyadarsini Das	Manipal School of Architecture and Planning
057	Seismic Mainshock (MS-AS) Vulnerability Assessment of Reinforced Concrete Bridge Exposed to Flood induced scour	Jithiya K.K.	NIT, Calicut, Kozhikode, Kerala, India
490	Water Supply and Sanitations Management Level in Urban Slums: A Case Study of Barisal City Corporation Slums.	Most. Farjana	Rajshahi University of Engineering and Technology
197	Numerical Study of GFRP Strengthened Brick Masonry Walette	Hasim Ali khan	National Institute of Technology Durgapur