

# CONSEC24 – Programme Schedule

*Venue:* Block-D (7<sup>th</sup> floor) & Block-E (Ground floor), IIT Madras Research Park, Chennai, India

**11 Plenary (P), 18 Session Keynote (K), 100+ Contributory Oral (O) and 120+ Contributory Poster (P) presentations**

Time	Day 1	Time	Day 2	Time	Day 3
	Sep 25, 2024 (Wednesday)		Sep 26, 2024 (Thursday)		Sep 27, 2024 (Friday)
8:00 – 8:30	CONSEC Registration (D7)	8:00 – 8:30	CONSEC Registration (D7)	8:00 – 9:00	CONSEC Registration (D7)
8:30 – 9:15	Session 1 - Inaugural Function (D7)	8:30 – 10:00	Session 5 - Plenary (D7) (3 Ps)	9:00 – 11:00	Session 9 - Plenary (D7) (4 Ps)
9:15 – 10:30	Tea/coffee break (D7)	10:00 -10:30	Tea/coffee break (D7)	11:00 –11:30	Tea/coffee break (D7)
10:30 –12:00	Session 2 - Plenary (D7) (2 Ps & Platinum Sponsors)	10:30 –12:00	Session 6 - Plenary (D7) (2 Ps & Platinum Sponsors)	11:30-13:00	Sessions 10A/B/C/D (EG) (1 K & 4 Os each)
12:00 –13:00	Lunch (D6)	12:00 –13:00	Lunch (D6)	13:00-14:15	Lunch (D6)
13:00 – 14:30	Sessions 3A/B/C/D (EG) (1 K & 4 Os each)	13:00 – 14:30	Sessions 7A/B/C/D (EG) (1 K & 4 Os each)	14:15 – 15:30	Sessions 11A/B/C/D (EG) (5 Os each)
14:30 – 15:00	Tea/coffee/snacks (EG-08)	14:30 – 15:00	Tea/coffee/snacks (EG-08)	15:30 – 16:00	Closing & Awards
15:00 – 16:30	Sessions 4A/B/C/D (EG) (1 K & 4 Os each)	15:00 – 16:30	Sessions 8A/B/C/D (EG) (1 K & 4 Os each)		
16:30 – 17:30	Session 4E: Poster session & Sponsors' Exhibitions and Recognitions at EG 06 & 08 with Tea/Coffee	16:30 – 17:30	Session 8E: Poster session & Sponsors' Exhibitions and Recognitions at EG 06 & 08 with Tea/Coffee		
18:00 – 19:00	Welcome Reception and Indian Folk Performance by Infinite Art to Heart (at D7 Auditorium)	18:00 – 19:00	Bharatanatyam recital by The Dhananjayans & Team (at D7 Auditorium)		
19:00 – 21:00	Welcome Dinner (D6)	19:00 – 21:00	Gala Dinner (at D6)		

D6: Block-D, Sixth Floor  
 D7: Block-D, Seventh Floor  
 EG: Block-E, Ground Floor  
 A: Lilavati Auditorium in EG  
 B: Boudhayana Hall in EG  
 C: Raman Hall in EG  
 D: Aryabhatta Hall in EG  
 P: Plenary lecture  
 K: Keynote lecture  
 O: Contributory Oral presentation  
 P: Contributory Poster presentation

Time	Wednesday, September 25, 2024			
8:00-8:30	Registration at D7 (Block D, Seventh Floor)			
Session 1 8:30-9:10	Inaugural Function (D7 Auditorium)			
8:30-8:35	Benny Raphael, Head (Civil Dept.), IIT Madras	Welcome Address		
8:35-8:40	Nemy Banthia, Chair, CONSEC Steering Board	On behalf of the CONSEC Steering Board		
8:40-8:55	Koji Sakai, Founder, CONSEC Conference Series	What impacts did the CONSEC concept give on concrete technologies until today?		
8:55-9:05	V. Kamakoti, Director, IIT Madras	Inaugural Speech		
9:05-9:10	Radhakrishna G Pillai, Chair, CONSEC24	On behalf of the CONSEC24 Organisers		
9:10-10:30	Tea/coffee break and Networking (D7)			
Session 2 10:30-13:00	Plenary 1 & 2 (D7 Auditorium); Chair: Ravindra Gettu, IIT Madras, India			
10:30-11:00	Plenary 1: Resilience of reinforced concrete structures in corrosive conditions Robert Melchers, The Univ. of Newcastle, Australia			
11:00-11:30	Plenary 2: Material & process design in 3D concrete printing via AI driven experiments and modelling Liberato Ferrara, Politecnico di Milano, Italy			
11:30-12:00	Presentations by Platinum Sponsors: Jindal Steel and Power (JSPL) and Jindal Stainless Limited (JSL)			
12:00-13:00	Lunch (D6)			
Session 3 13:00 - 14:30	3A: Damage and Deterioration Chair: Deepak Kamde	3B: Alternative Aggregates Chair: Ramesh Nayaka	3C: Additive Manufacturing Chair: Kolluru Subramaniam	3D: SCMs & Alternative Binders – 1 Chair: Aslam Kunhi Mohamed
	Lilavati Auditorium (EG-03)	Baudhayana Hall (EG-07)	Raman Hall (EG-10)	Aryabhatta Hall (EG-04)
13:00-13:30	Keynote 1: Stress corrosion cracking in prestressed concrete bridge - A case study / Gino Ebell*, Thoralf Müller, Andreas Burkert	Keynote 2: Strategies to Induce Sustainability in Rigid Pavements through Recycling of Concrete Waste — IITM Experience / Surender Singh* and Ravindra Gettu	(13:00-13:15) Anisotropic transport characteristics in 3D printed concrete: What can we learn from print parameter design? Sahil Surehali*, Avinaya Tripathi, Narayanan Neithalath  (13:15-13:30) Plastic Shrinkage Cracking behaviour of Alkali Activated 3D Printable Mixtures / Abhay Dhasmana*, Prakash Nanthagopalan	Keynote 3: Enhancing the performance and durability of cementitious materials through nanotechnology / Lok Pratap Singh
13:30-13:45	Development of a new test method for assessing the susceptibility of prestressing steels to hydrogen-induced stress corrosion cracking / Lando Seifert*, Thoralf Müller, Gino Ebell	Chloride resistance of concrete with recycled aggregates and clay brick waste powder as supplementary cementitious material / Sissel A. Kahr*, Wolfgang Kunther, Lisbeth M. Ottosen	Early age linear and nonlinear creep of 3D printable OPC mortar / Divya M*, Shariff M. N., Aakash Shreenivas Dwivedi	Durability of alkali-activated materials under severe conditions /Emmanuel Roziere*, Faten Souayfan, Anass Cherki El Idrissi, Dimitri Deneele, Michael Paris, Christophe Justino, Ahmed Loukili

## Wednesday, September 25, 2024

13:45-14:00	Static Loading Test of RC Slabs with Internal Horizontal Cracks due to Frost Damage / <i>Hiroshi Hayashida</i> *	Probable issues with using sulfur characteristic X-ray peak position to quantify iron sulfides in aggregates: Peak shifts due to beam exposure time and beam current / <i>Dip Banik, Alexander S. Brand</i> *	Inline mixing of accelerator for concrete 3D printing application: Numerical simulation using computational fluid dynamics / <i>Vishwanath Ravindran</i> *, A. V. Rahul, <i>Thiyagarajan Ranganathan</i>	Chloride profile of calcined bauxite incorporated alkali-activated concrete using micro X-ray fluorescence / <i>Zuobang Yao, Ram Pal, Haemin Song, Ali Kashiani, and Taehwan Kim</i> *
14:00-14:15	Identification of fatigue damage mechanisms in plain concrete through cluster analysis of AE data / <i>Radhika V</i> *, <i>Chandra Kishen J M</i>	Accelerated carbonation of municipal solid waste incineration bottom ash for alternative aggregate production/ <i>Imad Eddine Kanjo</i> *, <i>Julien Hubert, Jérôme T Tchuindjang, Séverine Marquis, Philippe Descamps, Laurent Dupont, Luc Courard</i>	Acid resistance of 3D printable earth-based materials stabilized by alkali-activated binders: effect of excavated soil and sucrose / <i>Pitabash Sahoo</i> *, <i>Souradeep Gupta</i>	NaOH-pretreated recovered solid fuel and biomass ash for alkali-activated materials: effect of fly ash and bottom ash on mechanical performance and heavy-metal leaching / <i>Suman Kumar Adhikary</i> *, <i>Tero Luukkonen, Priyadharshini Perumal</i>
14:15-14:30	Proactive Assessment of RC Structures with Half-Cell Potential Mapping and Gradient Analysis for Predicting Corrosion / <i>Zameel D.V.</i> *, <i>Dhruvesh Shah</i>	A Multiscale Approach for Adhered Mortar Quantification Using Chemical Treatment of RCA / <i>Pranav Saraswat</i> *, <i>Mohit Singh Parihar, Koduru Sandeep, Bhupendra Singh</i>	Advances in Numerical Modelling for 3D Concrete Printing / <i>Rohan Kumar</i> * and <i>Prakash Nanthagopalan</i>	Effect of different activation methods on the microstructure of alkali-activated silica fume / <i>Luis Edgar Menchaca Ballinas</i> *, <i>Piyush Chaunsali, Manu Santhanam</i>
14:30-15:00	Tea/coffee/snacks (EG-08)			
<b>Session 4</b> <b>15:00 - 16:30</b>	<b>4A: Concrete in Severe Environment – 1</b> Chair: Keerthana Kirupakaran	<b>4B: Long Term Performance – 1</b> Chair: Manu Santhanam	<b>4C: Corrosion and its Protection – 1</b> Chair: Deepak Kamde	<b>4D: Special Concretes</b> Chair: Prakash Nanthagopalan
15:00-15:30	<b>Keynote 4: Accidents of concrete structures under fire (or high temperatures)</b> / <i>Bernardo Tutikian</i>	<b>Keynote 5: Concrete durability in vulnerable coastal communities. The role of the participatory action research (PAR) for social appropriation.</b> / <i>J.A. Briceño-Mena, J.A. Puc-Vázquez, Pedro Castro-Borges</i> *, <i>M.T. Castillo-Burguete</i>	<b>Keynote 6: Application of service life modeling of reinforced concrete structures</b> / <i>Ali Akbar Sohanghpurwala</i> *	<b>Keynote 7: Shrinkage and bond Response of Ultra-High Performance Concrete (UHPC) as a Thin Overlay for Roadway Applications</b> / <i>Adam Robert Biehl, Kyle F Maeger, Prasad R Rangaraju</i> *
15:30-15:45	Evaluation of Confined Concrete Stress-Strain Behavior during cooling subsequent to fire / <i>Mahesh Gaikwad</i> *, <i>Suvir Singh, Ajay Chourasia, N Gopalakrishnan</i>	Insights from Durability Inspection of Half a Century old RC Building in Composite Climatic Zone / <i>Lupesh Dudi</i> *, <i>Shashank Bishnoi</i>	Performance of galvanic anodes in corrosion protection of RC slabs exposed to chloride environment: Experimental and Numerical Simulation / <i>Roopa Vijayaraghavan</i> *, <i>Haji Sheik Mohammed M S, Radhakrishna G Pillai</i>	Simplified Analytical Approach for Predicting the Moment-Curvature Behavior of UHPC Girders under Flexure/ <i>Pradumn Balaji Suryakar</i> *, <i>Chandrashekhar Lakavath, S Suriya Prakash</i>
15:45-16:00	Thaumasite formation in metakaolin and limestone cement formulations in cold climates: A thermodynamic investigation / <i>Katarina K. Schlage</i> *, <i>Lisbeth M. Ottosen, Wolfgang Kunther</i>	Experimental Investigation of Impact of Alkali Silica Reaction and Sulphate Attack in Durability of Hydraulic Structures / <i>Adarsh Srivastav</i> *, <i>Ritesh Yadav, Mahendra Kumar Pal</i>	Cathodic protection of marine prestressed concrete bridges –review of case studies / <i>Suraksha Sharma</i> *, <i>Karla Hornbostel, Mette Rica Geiker</i>	Performance of Portland limestone cements under sulphate environment / <i>Puneet Kaura</i> *, <i>Brijesh Singh, PN Ojha, Dr L P Singh</i>

## Wednesday, September 25, 2024

16:00-16:15	Seismic Damage Characterization of Aged Concrete Gravity Dams / <i>K Pranava Gayathri*</i> , <i>Piyali Sengupta</i>	Linking short-term conductivity to long-term chloride diffusion for service life prediction / <i>Saarthak Surana*</i> , <i>Hans Beushausen</i> , <i>Mark Alexander</i>	Investigation of corrosion-induced deteriorations in existing Reinforced Concrete Structures / <i>Ekapala Pathirannehelage Thushari Pathirana*</i> , <i>Savitha Rathnayake</i>	Determination of the Optimum Aggregate-to-Binder Ratio for UHPC through Modelling and Experiments / <i>Nitish Kumar*</i> , <i>Rami Eid</i> , <i>Lev Vaikhanski</i> , <i>Konstantin Kovler</i>
16:15-16:30	A preliminary investigation for accidental load design of a submerged floating tube bridges / <i>Matteo Colombo*</i> , <i>Assis Arano</i> , <i>Marco di Prisco</i> , <i>Max A.N. Hendrix</i> , <i>Terje Kanstad</i> , <i>Paolo Martinelli</i> , <i>Arianna Minoretti</i> , <i>Jan A. Øverli</i>	Interactions Between Biofouling and Cementitious Materials in Seawater in the Context of Floating Offshore Wind Turbine / <i>Deeksha Margapuram*</i> , <i>Marie Salgues</i> , <i>Raphaël Lami</i> , <i>Benjamin Erable</i> , <i>Michel Groc</i> , <i>Renaud Vuillemin</i> , <i>Bruno Hesse</i> , <i>Jean-Claude Souche</i> , <i>Florian Stratta</i> , <i>Marine Bayle</i> , <i>Jean-Bernard Memet</i> , <i>Fabrice Deby</i> , <i>Laurent Zudaire</i> , <i>Alexandra Bertron</i>	Corrosion Behaviour of Fly-Ash Blended Concrete under Cyclic Chloride and Carbonation Exposure / <i>Ashish Kumar Tiwari</i> , <i>Purnima</i> , and <i>Shweta Goyal*</i>	Unveiling Dominant Compaction Factors for Enhanced Roller Compacted Concrete Pavement Performance / <i>M.Selvam*</i> , <i>Surender Singh</i>

<b>Session 4E 16:30 -17:30</b>	<b>Poster session &amp; Sponsors' Exhibitions and Recognitions;</b> Coordinator: Keerthana Kirupakaran (EG 06 & 08) with tea/coffee			
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Poster ID	Title / Authors
P1	Drying Shrinkage of low-calcium fly ash Geopolymer: The roles of External conditions and Binder Composition / <i>Mude Hanumananaik*</i> , <i>Kolluru V L Subramaniam</i>
P2	Numerical modelling of steel fiber reinforced tunnel segment subjected to flexure / <i>Manas Bhadury*</i> , <i>Keerthana Kirupakaran</i> , <i>Ravindra Gettu</i>
P3	Synergistic Use of Rice Husk and Sugarcane Bagasse: An Approach for Sustainable Agro-waste Ashes Blended Cements / <i>G Jyothsna*</i> , <i>A Bahurudeen</i> , <i>K Sahu Prasanta</i>
P4	Preliminary Investigation on use of Raw Marl as partial replacement of Cement / <i>Amitkumar Radheyshyam Chauhan*</i> , <i>Manu Santhanam</i>
P5	Seismic Performance Assessment of Corroded Reinforced Concrete Arch Bridges through Experimental Investigations / <i>Souvik Biswas*</i> , <i>Piyali Sengupta</i>
P6	Numerical study on strengthening of RC beams with Side Near Surface Mounted technique using CFRP bars / <i>Sruthi Kottayan*</i>
P7	Valorization of Low-grade Limestone for Producing Calcium Sulfoaluminate-Belite Cement / <i>Bipina Thaivalappil*</i> , <i>Piyush Chaunsali</i>
P8	Investigation of cathodic protection of reinforced concrete covered with biofilms for the application of Floating Offshore Wind Turbine (FOWTs) / <i>Deeksha Margapuram*</i> <i>et al.</i>
P9	Exploring the Viability of Limestone Calcined Clay for 3D Printable Alkali-Activated Mortar / <i>Mangalampalli Anil Kumar*</i> , <i>Sri Kalyana Rama Jyosyula</i> , <i>Visalakshi Talakokula</i>
P10	Analyzing the behaviour of graphene oxide on the durability characteristics of rubberized concrete / <i>Ipshita Pandey*</i> , <i>Gyanendra K Chaturvedy</i> , <i>Umesh K Pandey</i> , <i>Shweta Goyal</i>
P11	Mapping the surface breaking defects in concrete using ultrasonic imaging / <i>Sai Teja Kuchipudi*</i> , <i>Debdutta Ghosh</i>
P12	Investigation on fresh properties, compressive strength, and microstructure of self-compacting geopolymer concrete / <i>Akhil Charak*</i> , <i>Bulu Pradhan</i>
P13	Evaluation of Protective Coating on Steel Rebar : Performance Under Diverse Environmental Conditions / <i>Goldi Gupta*</i> , <i>Naveet Kaur</i> , <i>Shweta Goel</i>
P14	Effect of alkaline solution and age on compressive strength, ionic concentration and microstructure of geopolymer concrete / <i>Leela Sai Rangarao Maradani*</i> , <i>Bulu Pradhan</i>
P15	Enhancing Self-Compacting Concrete Longevity and Performance through Quaternary Blended Binders with SCMs / <i>Shreekanth Birgonda*</i> , <i>Senthilkumar R</i> , <i>Ramesh S.T</i>
P16	The utilization of recycled concrete powder as a partial substitute for filler in the manufacturing of foam concrete mixtures / <i>Amit Kumar Sahu*</i>
P17	Influence of Copper Slag on The Rheology of 3D Printable Concrete / <i>Darssni Ravichandran*</i> , <i>Prabhat Ranjan Prem</i> , <i>Vijay Bhaskara</i> , <i>Babitha Benjamin</i>
P18	Behavior of Reinforced Concrete Deep Beams under Simultaneous Corrosion and Fatigue Loading / <i>Aamna Sarfaraz*</i> , <i>Kizhakkumodom Venkatanarayanan Harish</i>
P19	Enhancing Durability and Corrosion Resistance of Cementitious Composites with CA/Al-LDH Coated Biochar / <i>Chandrasekhar Bhojaraju*</i>
P20	Second Order Reliability Assessment of Reinforced Concrete under Corrosive Environment / <i>Amar Kumar*</i> , <i>Amit Kumar Rathi</i>

## Wednesday, September 25, 2024

P21	Effect of silica fume on compressive strength and pore structure of foam concrete for non-structural applications / <i>Arvind Vishavkarma*</i> , <i>K V Harish</i>
P22	Prediction of the properties of self-consolidating concrete using machine learning models / <i>Sunil Kumar Vishwakarma*</i> , <i>Manoj Kumar</i> , <i>Kizhakkumodom Venkatanarayanan Harish</i>
P23	Enhancing Corrosion Resistance of Epoxy Coated Rebars in Concrete: Integration of Nano-Clays and Self-Healing Microcapsules for Sustainable Construction / <i>Nikhil Sharma*</i>
P24	Effect of Corrosion on the Seismic Vulnerability of Distressed RCC Over Head Reservoirs in Multiple Hazard Region / <i>Devjit Acharjee*</i> , <i>Debasish Bandyopadhyay</i>
P25	Potential of rice husk ash waste in production of cold-bonded lightweight aggregate / <i>Venkata Naresh Kopuru*</i> , <i>Raghava Kumar Vanama</i>
P26	Effect of Notch Length on the Fracture Behaviour of Geopolymer Concrete Beams / <i>Sumit Singh Thakur*</i> , <i>Dharmjeet Kumar</i> , <i>Sagar Kumar</i> , <i>Pervaiz Fathima K.M.</i>
P27	Fracture Behaviour of High-strength Concrete with Progressive Recycled Aggregate Replacement / <i>Sourav Chakraborty*</i> , <i>Kolluru V.L. Subramaniam</i>
P28	Hierarchy Star Rating on Durability (HSRD) using Ferrochrome slag Concrete - Methodology Framing and Justifications using Microstructure / <i>Manigandan N*</i> , <i>Ponmalar V</i>
P29	Examination of Acid Resistance Properties in Lightweight Conventional and Geopolymer Concrete Utilizing 100% SFA as Coarse Aggregate / <i>Rohit Rawat*</i> , <i>Dinakar Pasla</i>
P30	Design strategies for optimising UHPC bridge girders / <i>Kondapalli Leela Aparna Devi*</i> , <i>Radhika V</i> , <i>Bijily Balakrishnan</i>
P31	Assessment of Synthetic Foaming Agents and Additives for Performance of Structural Lightweight Aggregate Foam Concrete / <i>Chetharajupalli Veerendar*</i>
P32	Full Span Box Girder for MAHSR Project: Revolution in fast pace construction / <i>Pradeep Ahirkar*</i>
P33	An Effective Blast Retrofit Strategy for Reinforced Concrete Highway Bridge Decks / <i>Souvik Biswas*</i> , <i>Piyali Sengupta</i>
P34	Performance of concrete with ground glass pozzolan as partial cement replacement / <i>Srishti Banerji*</i> , <i>Sushant Poudel</i> , <i>Robert J. Thomas</i>
P35	Optimizing encapsulating mortar for long-term performance of galvanic anodes / <i>Arya E K</i> , <i>B. S. Dhanya*</i>
P36	An exposure-based methodology to estimate the effective chloride diffusion coefficient in cement paste and mortar samples / <i>Vandana C Padmanabhan*</i> , <i>Bishwajit Bhattacharjee</i>
P37	Field mock-up studies on heavy density concrete structures for nuclear fuel cycle facilities / <i>Mano R</i> , <i>Vaithiyathan H*</i> , <i>Padmanabhan G</i> , <i>Rahman K.S</i>
P38	Partial Replacement of OPC 53-S Cement in Concrete with Fly Ash and its Behaviour in Aggressive Environments / <i>Kishore Kumar Marri*</i> , <i>PS Rao</i> , <i>BLP Swami</i>
P39	Mechanical Behavior and Strengthening of Reinforced Concrete with 3D Geosynthetic Cementitious Composite Mats / <i>SAKTHIVEL T*</i> , <i>VISHNU ROOBAN M</i>
P40	Effect of Pre-shear on Yield Stress and Viscosity of Cement Paste / <i>Shubham Raj*</i> , <i>Kizhakkumodom Venkatanarayanan Harish</i>
P41	Effect of different cooling regimes on the reactivity of industrial sludge derived supplementary cementitious material / <i>Revathy Sunil*</i> , <i>A.V. Rahul</i> , <i>Shihabudheen M. Maliyekkal</i>
P42	Development of Binary Blended High-Performance Green Concrete with enhanced properties for marine applications / <i>Jerus Anna Kurian*</i> , <i>M V Varkey</i> , <i>Manu Harilal</i>
P43	Tensile Behaviour of Leno Weave Carbon Textile-Reinforced Mortar / <i>Premkumar N*</i> , <i>Anil Agarwal</i>
P44	Lignocellulosic material-based mortar as plaster on masonry / <i>Lekshmi M S*</i> , <i>Subha Vishnudas</i> , <i>Anil K R</i>
P45	Evaluation of Chemical Admixture Effects on Laterised Geopolymer Mortar / <i>David Clement*</i> , <i>Rajasekaran C</i>
P46	Influence of mixing techniques on the dispersion of chopped carbon fibres in concrete / <i>Nihal Goud Nagula*</i> , <i>Nikesh Thammishetti</i> , <i>Suriya Prakash S</i>
P47	Conservation of Heritage Stones: Assessing Salt Weathering and Acid Resistance with Consolidative Treatments / <i>Shipin Prakash*</i> , <i>Anavadya Anilkumar</i> , <i>Swathy Manohar</i>
P48	High temperature impact on sustainable Fly-ash based geopolymer mortar / <i>Manali Rathee*</i>
P49	Comprehensive Investigation of Properties and Performance in Geopolymer Mortar Utilizing Fly Ash, GGBS, and Metakaolin / <i>Gopalakrishna Banoth*</i> , <i>Dinakar Pasla</i>
P50	Process Monitoring of Concrete 3D Printing in Fresh State Using with Acoustic Emission Technique / <i>Vaibhav Vinod Ingle</i> , <i>Prabhat Ranjan Prem</i> , <i>Vijay Bhaskara*</i>



## Wednesday, September 25, 2024

P51	Reinforced concrete beams strengthened with FRP bars and sheets under impact load- A numerical study / <i>Rahima Shabeen S*, Devnath R</i>
P52	Comparison between CO2 emissions from Vernacular and Modern Structures / <i>Kritvi Gera*, Tushar Verma, Swathy Manohar, Eesha Vinod</i>
P53	Comparison of fracture behavior of geopolymer and hydraulic cement (OPC) based concrete / <i>Brijesh Singh*, P N Ojha, Amit Trivedi</i>
P54	Experimental Study on Creep Coefficient of Normal, High and Ultra-High Strength Concrete / <i>P N Ojha, Brijesh Singh*</i>
P55	Performance enhancement in concrete using sustainable materials / <i>Abhinav Bharat*, Sanjay Kumar</i>
P56	Thermal Behaviour of Cylindrical Bond Slip Specimens / <i>Shujaat Hussain, Arsalan Farooq*</i>
P57	Quantification of Seismic Fragility of the Base Isolated Structure Subjected to Near Fault Earthquakes Considering Isolation Characteristics of Lead Rubber Bearing / <i>T. S.Krishna*</i>
P58	Evaluation on Properties of Self Curing Concrete by Using Polyvinyl Alcohol / <i>Nirupama Ghantasala*</i>
P59	Efficacy of Recycled Refractory Brick on Flexural Behaviour of Reinforced Sustainable Concrete Beam / <i>Brijesh Chauhan*, Sudipta Ghosh, Amiya Kumar Samanta</i>
P60	Review on Structural Health Monitoring of Old/ Historical Structures / <i>Nitisha Mazumdar*, Monalisha Gautom, Devilata Pegu, Uddipan Das</i>
P61	Exploring the efficiency of Sodium Lauryl Ether Sulphate in foam concrete manufacturing / <i>Abhinay Rakam*, Sritam Swapnadarshi Sahu</i>
P62	Development of Ultra-high-performance Concrete Using GGBS and Alccofine / <i>Abhishek Bhushan*, Sanjay Kumar</i>
P63	Influence of rice husk ash content on the strength of alkali-activated slag concrete developed with recycled coarse aggregates / <i>Tejas S*, Dinakar Pasla</i>
P64	Uncertainty in estimated concrete strength from core test using Indian Standards / <i>Saha Dauji, Rekha Sharma*, Prakhar Agrahari, Swathy Manohar</i>
P65	Compatibility Assessment of Binary and Ternary Blends Incorporating Agro-Industrial Byproducts in Cementitious Systems / <i>Gayathiri Kulandaivel*, Praveenkumar Shanmugam</i>
P66	Unlocking strength potential: Investigating mixing protocols and oxalic acid dosage in carbon sink binders / <i>Niveditha M*, Palanisamy T</i>
P67	Mechanical Properties of Concrete Made Using Recycled Aggregate from C&D Waste / <i>V.Bhashya*, S. Bhaskar</i>
18:00-19:00	<div><div><div>Welcome Reception &amp; Indian Folk Performance by “<b>Infinite Art to Heart</b>”, which is a 22-year old theatre and traditional folk performing academy and research organisation. They have performed to more than 10,000 spectators by now...  (D7 Auditorium)</div></div><div></div></div>
19:00-21:00	Welcome Dinner (D6)

Time	Thursday, September 26, 2024			
8:00-8:30	Registration at D7 (Block D, Seventh Floor)			
<b>Sessions 5/6 8:30-12:00</b>	<b>Plenary 3 to 7</b> (D7 Auditorium); <b>Chair: Carmen Andrade</b> , CIMNE/Universitat Politècnica de Catalunya, Spain			
8:30 – 9:00	<i>Plenary 3: An overview of regional risk (and resilience) analysis</i> <b>Paolo Gardoni</b> , University of Illinois Urbana-Champaign, United States			
9:00 – 9:30	<i>Plenary 4: Holistic advances for corrosion durability in reinforced concrete systems</i> <b>David Trejo</b> , Oregon State University, United States			
9:30 – 10:00	<i>Plenary 5: Digital technologies for accelerating and improving quality in construction</i> <b>Koshy Varghese</b> , IIT Madras, India			
10:00-10:30	Tea/coffee break (D7)			
10:30-11:00	<i>Plenary 6: Performance evaluation of concrete under specific conditions for nuclear reactor buildings</i> <b>Ippei Maruyama</b> , The University of Tokyo, Japan			
11:00-11:30	<i>Plenary 7: Sulphate attack of concrete – After 20 years of ‘whither’ing</i> <b>Manu Santhanam</b> , IIT Madras, India			
11:30-12:00	Presentations by Platinum Sponsors: L&T Construction Heavy Civil Infrastructure; Vector Corrosion Technologies Canada			
12:00-13:00	Lunch (D6)			
<b>Session 7 13:00-14:30</b>	<b>7A: Climate Conscious Design</b> Chair: Sivakumar Palaniappan	<b>7B: Carbonation of Concrete – 1</b> Chair: Yuvaraj Dhandapani	<b>7C: Corrosion and its Protection – 2</b> Chair: Shweta Goyal	<b>7D: SCMs &amp; Alternative Binders - 2</b> Chair: Bahurudeen A.
	Lilavati Auditorium (EG-03)	Baudhayana Hall (EG-07)	Raman Hall (EG-10)	Aryabhatta Hall (EG-04)
13:00-13:30	<i>Keynote 8: Effect of Climate Change on Building Materials: Predictions from Accelerated Testing and Machine Learning / Sze Dai Pang*, Felipe Basquiroto de Souza, Anthoni Giam, Yijie Chen, Sida Wu and Daniel Blackwood</i>	<i>Keynote 9: Carbonation of concretes with SCMs / Anya Vollpracht*, Gregor J. G. Gluth, Bart Rogiers, Ikenna D. Uwanuakwa, Quoc T. Phung, Yuri Villagran Zaccardi, Charlotte Thiel, Hanne Vanoutrive, Juan M. Etcheverry, Elke Gruyaert, Siham Kamali-Bernard, Antonios Kanellopoulos, Zengfeng Zhao, Isabel M. Martins, Sundar Rathnarajan, Nele De Belie</i>	<i>Keynote 10: Dual Purpose Titanium Alloy Anodes for Near-surface Mounded Retrofit and Impressed Current Cathodic Protection /Amanda Slawinski, Christopher Higgins, Burkan Isgor*</i>	<i>Keynote 11: Does carbon footprint reduction impair technical performance of concrete? / Marijana Serdar*, K. Ram, M. Flegar, A-D. Basic</i>
13:30-13:45	Towards carbon neutrality: A progressive path for sustainable development in the construction industry of a developing nation / Abhiram Shukla*, Harish Kizhakkumodom Venkatanarayanan	Coupled action of loading and carbonation on transport properties of Portland cement-slag-limestone concrete / Moro Sabtiwu, Yuvaraj Dhandapani, Michal Drewniok*, Samuel Adu-Amankwah, Susan A. Bernal	Interpretation of electrochemical responses to understand the corrosion initiation of prestressing steel in slag-based binders / Sreelakshmi Srinivasan*, Radhakrishna Pillai, Carmen Andrade	Properties of high-volume biomass ash-based binder / Nilakanmani Manimaran*, Piyush Chaunsali, Manu Santhanam
13:45-14:00	Transition Design for Carbon Reduction in Concrete Technologies / Takeju Matsuka*, Koji Sakai, Shinichi Wakasugi	Carbonation and corrosion rate of concrete made with composite cement / PN Ojha*, Puneet Kaura	Evaluation of input parameters for the electrochemical modelling of cathodic protection systems in reinforced concrete / Keerthi Vadakke Thalakkal* and Radhakrishna G.Pillai	Influence of sodium concentration on the chloride ingress of low calcium fly ash geopolymer concrete / Mude Hanumananaik*, Kolluru V L Subramaniam

## Thursday, September 26, 2024

14:00-14:15	Experimental Study of PCM-Infused Roof Panels for Thermal Characteristics and Simulation of Energy Efficiency and Carbon Footprint using a BIM Model/ <i>Ramesh Nayaka*</i> , <i>Meghana Madishetty</i>	Tracking and quantifying the carbonation-front via multi-modal imaging / <i>Sudharsan Rathnakumar*</i> , <i>Nishant Garg</i>	Gravimetric and electrochemical interpretation of plant extract as corrosion inhibitor for embedded-steel in concrete / <i>Madhab Gautam*</i> , <i>Nootan Prasad Bhattarai</i> , <i>Jagadeesh Bhattarai</i>	The Durability of Belitic Calcium Sulfoaluminate Cement Concrete / <i>Eric P. Bescher*</i>
14:15-14:30	Concrete pavement under extreme weather conditions due to climate change / <i>Emad Alshammari</i> , <i>Mang Tia*</i> , <i>Jian Zou</i> , <i>Othman Alanquri</i>	A pull-out test to evaluate the adhesive bonding of concrete strengthening with CFRP under accelerated carbonation / <i>Dania Kabalan*</i> , <i>Amandine Céline</i> , <i>Frédéric Grondin</i> , and <i>Emmanuel Rozière</i>	Investigation of the efficiency of Concrete Conductive Anode Paint (CAP) as an ICCP Anode for Reinforced Concrete Structures / <i>Arpit Goyal*</i> , <i>Homayoon sadeghi Pouya</i> , <i>Eshmaiel Ganjian</i>	Effects of mixture ingredients on the workability and compressive strength of magnesium-silicate-hydrate (MgO-SiO <sub>2</sub> ) binders / <i>Dhanendra Kumar</i> , <i>Nu N. Lwin</i> , <i>Krishnan U. A. Sanalkumar*</i> , <i>En-Hua Yang</i>
14:30-15:00	Tea/coffee/snacks (EG-08)			
<b>Session 8 15:00-16:30</b>	<b>8A: Structural Performance – 1</b> Chair: Ravindra Gettu	<b>8B: Durability Enhancement and Assessment – 1</b> Chair: Swathy Manohar	<b>8C: Fibre Reinforced Polymer Systems</b> Chair: Bijily Balakrishnan	<b>8D: Long Term Performance – 2</b> Chair: Mark Alexander
15:00-15:30	<b>Keynote 12: Post-tensioned Concrete Members under Severe/Heavy Loading Conditions</b> / <i>Asit Baxi</i>	<b>Keynote 13: Phosphate treatments to enhance the durability of cementitious materials</b> / <i>Enrico Sassoni</i>	<b>Keynote 14: Long-term Performance of GFRP rebars in Civil Infrastructure</b> / <i>Suriya Prakash S.*</i> , <i>Mohan Paleti</i> , <i>Debapriyo Ghosh</i>	<b>Keynote 15: Calcium focused design for longevity of concrete structures in silage environment</b> / <i>Z. Gong</i> , <i>D. Thompson and Sreejith Nanukuttan*</i>
15:30-15:45	Structural Behavior of Precast Wet Beam-Column Connection with Hybrid Rebar Coupler Subjected to Reversed Cyclic Loading / <i>Vijay Tarun Kumar Moka*</i> , <i>Siva Chidambaram R</i>	Correlating chloride diffusivity and resistivity of the concrete and nomograms for designing the service life of the RCC structures / <i>Chandru Pichaimuthu*</i> , <i>Eswita Yakkala</i> , <i>Radhakrishna G Pillai</i> , <i>Manu Santhanam</i>	Influence of GFRP Minibars on the mechanical properties of self- compacting concrete in flexure and shear / <i>Moussa Coulibaly*</i> , <i>Olivier Helson</i> , <i>Javad Eslami</i> , <i>Anne-Lise Beaucour</i> , <i>Xavier Bourbon</i> , <i>Albert Noumowe</i>	Developing and characterizing self-crack-healing Roman concrete for bridge decks applications / <i>Mehrnoosh Nazari</i> , <i>Srishti Banerji*</i> , <i>Robert J. Thomas</i>
15:45-16:00	Experimental Investigation of Seismic Behavior of Hybrid Precast Panel Shear Walls with Undercut Mechanical Anchors / <i>Mohammad Rafiq Joo*</i> , <i>Saurabh Shiradhonkar</i>	Sustainable Nano-modified Seawater Concrete with Enhanced Service Life (NanoSeaCon) / <i>Sundar Rathnarajan*</i> , <i>Pawel Sikora</i> , <i>Wojciech Stawowy</i>	Assessment of Creep Behavior and Tensile Strength Retention in GFRP Rebars Exposed to Alkaline Condition / <i>Debapriyo Ghosh*</i> , <i>Gurubasav .S. Hiremath</i> , <i>Siddarth Rai</i> , <i>S. Suriya Prakash</i>	Condition of concrete with calcium nitrate and nitrite after 20 years exposure to marine environment / <i>Harald Justnes*</i> , <i>Mehrdad Torabzadegan</i>
16:00-16:15	Structural Reliability Assessment of Prestressed Concrete High Speed Railway Bridges / <i>Amar Kumar*</i> , <i>Prajwal Prashant Dhapte</i> , <i>Piyali Sengupta</i>	Optimizing Performance-Engineered Concrete Mixtures made with Modern Cementitious Materials Using Thermodynamic Modelling / <i>Keshav Bharadwaj*</i> , <i>Jason Weiss</i> , <i>Burkan Isgor</i>	Behaviour of Slender Reinforced Concrete Columns with GFRP Bars and Discrete Fibres – An Analytical Study/ <i>Taraka Malleswara Rao Balla*</i> , <i>Sanket Saharkar</i> , <i>Suriya Prakash Shanmugam</i>	Porosity & microstructure of multi-decade aged cement samples / <i>Samuel William Alan Latimer*</i> , <i>Ed J Butcher</i> , <i>John L Provis</i>
16:15-16:30	Seismic performance of beam-column joints with beam headed longitudinal steel bars anchored in steel fiber concrete panel zone / <i>Kake Satoshi</i>	Fracture related studies on strain hardened cementitious composite at different length scales using digital image correlation technique / <i>B.S.Sindu*</i> and <i>Saptarshi Sasmal</i>	Enhancing Shear Friction Capacity in Concrete Structures with CFRP Composite Strips: A Numerical Investigation / <i>Tanveer Habib*</i> , <i>Shakeel Ahmad Waseem</i> , <i>Fayaz Ahmad Sofi</i>	Influence of seawater on mechanical and durability performance of concrete for marine environment / <i>Mavoori Hitesh Kumar*</i> , <i>Prabha Mohandoss</i>



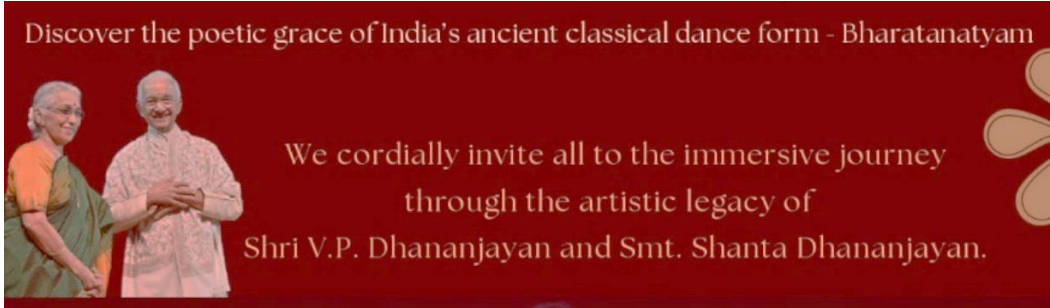
## Thursday, September 26, 2024

<b>Session 8E 16:30-18:00</b>	<b>Poster Presentation &amp; Sponsor Exhibitions and Recognitions; Chair: Surender Singh (EG-08 &amp; 06) with Tea/Coffee</b>
Poster ID	Title / Authors
P68	Carbonated Geopolymer Aggregates for Sustainable Construction / <i>Mohd Hanifa*</i> , <i>Supriya Tamta</i> , <i>Srinivasa Rao Naik B</i> , <i>P.C. Thapliyal</i> , <i>L P Singh</i>
P69	Enhancing Geopolymer Concrete Performance Using Copper Slag as a Sustainable Fine Aggregate / <i>Aman Deep*</i> , <i>Pradip Sarkar</i>
P70	Comparison of rheological parameters of cement slurry composed of Portland Pozzolana Cement and Portland Slag Cement / <i>Ahmad Waqar Khan</i> , <i>Prishu Ranjan*</i> , <i>Sanjay Kumar</i>
P71	Effect of CO2 mineralization on the performance and sustainability of concrete / <i>Lakshmi Vara Prasad Meesaraganda</i> , <i>Md Athar Kazmi*</i>
P72	Flexural response of Carbon Textile-Reinforced Concrete (CTRC) Panels: A Numerical Study / <i>Sophia Immanuel*</i> , <i>Adesh Pratap Singh</i> , <i>Baskar Kaliyamoorthy</i>
P73	Monte Carlo Simulation of the hydraulic diffusivity function for water absorption in fieldcrete / <i>Mahesh Kumar*</i> , <i>Kaustav Sarkar</i>
P74	Performance enhancement of sustainable lime-based concrete / <i>Shashi Bhushan Kumar*</i> , <i>Vishwajit Anand</i>
P75	Influence of Industrial by products on Structural lightweight self-compacting concrete comprising Sintered fly ash aggregates / <i>Pawan Kumar*</i> , <i>Pasla Dinakar</i> , <i>T. Jothi Saravanan</i>
P76	Sulfate Resistance of Mortar Incorporated with Rice Straw Ash / <i>Gopinandan Dey*</i> , <i>Nani Gopal Paul</i> , <i>Surajit Munshi</i>
P77	Evaluating the effects of activated carbon and Feldspar additives to cement in concrete / <i>Lohith K S*</i> , <i>S Kavitha Dr</i> , <i>S Vijaya Dr</i>
P78	Performance of Low-carbon Concrete Prepared with Reactive Magnesium Oxide and Fly Ash in OPC Binder System / <i>Lalit Singh*</i> , <i>Anurag Misra</i>
P79	Synergistic Application of Optimized Quality Recycled Concrete Aggregate with Marble dust: An Alternative Concrete for Severe Conditions / <i>Amit Kumar*</i> , <i>Babu L Chauhan</i> , <i>Gyani Jail Singh</i>
P80	Application of Artificial Intelligence in Determining Degradation in Cement-Based Materials Due to Acid Attack / <i>Chinnu Mariam Ninan*</i> , <i>Anandhakrishnan M</i> , <i>Ramaswamy K P</i> , <i>Sajeeb R</i>
P81	Mass concreting: Lessons learnt from the construction of nuclear facility site at Kalpakkam / <i>Mano R*</i> , <i>Vaithyanathan H</i> , <i>Padmanabhan G</i> , <i>Rahman K.S</i>
P82	An Investigation Into The Microfine SCM's Microstructural Hydration Studies To Achieve Sustainable And Durable Concrete / <i>mohammed nadeem*</i>
P83	Investigating Bio-Based Self-Healing Utilizing Hemp Fiber Reinforcement: Structural Restoration in Cementitious Mortar / <i>Preeti Chaudhary*</i> , <i>T Palanisamy</i>
P84	Microstructural Performance of Lightweight Volcanic Aggregates as an Internal Curing Material for High-Performance Concrete / <i>Dana Dashti</i> , <i>Antony Joseph</i> , <i>Jayasree Chakkamalayath*</i> , <i>Zainab Awadh</i>
P85	Self-Healing Nano Additives for Enhancing the Durability and Sustainability of Cementitious Systems / <i>Mainak Ghosal*</i>
P86	Utilization of Fly ash and GGBFS as road base construction material in flexible pavement through geopolymerisation / <i>Aryan Attri*</i> , <i>Abhishek Mittal</i> , <i>Deepak Rathwa</i>
P87	Health assessment, strengthening and rehabilitation of a fire-damaged structure in a refinery complex A case study / <i>Ankit Verma*</i>
P88	Heat of Hydration of Mass Concrete in Controlling by Construction Stages / <i>Vinayga Moorthy*</i> , <i>Banoj Mohapatra</i> , <i>Gurinder bawa</i>
P89	Development of Ambient-cured Glass Fibre-based High Strength High Ductility Concrete / <i>Subhrajit Sinha</i> , <i>Piyali Sengupta*</i>
P90	Seismic Performance Assessment of Heritage Structures through Field Testing and Numerical Simulations / <i>Ayush Chaturvedi*</i> , <i>Piyali Sengupta</i>
P91	Shear behaviour of reinforced concrete beams strengthened with hybrid combination using fibre reinforced polymers and ultra high performance concrete / <i>Rahul Reddy Morthala*</i> , <i>Balla Taraka Malleswara</i> , <i>Suriya Prakash Shanmugam</i>
P92	Mechanical and durability performance of mortar incorporating Malawi clay in limestone calcined clay cement / <i>Uma Shankar Biswal*</i> , <i>Manu Santhanam</i>
P93	Lime as the repair material for heritage structures: Knowing the material and reaction products for better application / <i>Athira V S*</i> , <i>Areeha Mahmood</i> , <i>Swathy Manohar</i>
P94	Post fire performance of concrete-filled steel tubular stub column under axial compression / <i>Preeti .*</i> , <i>Prasanta Kar</i>
P95	Experimental Investigation on Mechanical Properties of Concrete Using Tri-hybrid fiber mix / <i>Sandeep Bansilal Javheri*</i> , <i>Sunilkumar Shankarrao Patil</i> , <i>Sunil Keshavrao Kulkarni</i>

## Thursday, September 26, 2024

P96	Investigating the clear cover requirement for required fire resistance rating in LC3 concrete columns / <i>Parth Dwivedi*</i> , <i>Sanchit Gupta</i> , <i>Sandeep Chaudhary</i>
P97	Factors influencing the design of pumpable High Young's modulus concrete / <i>Ragupathy A</i> , <i>Kiran K*</i>
P98	Resistance of concrete made with the effective replacement of Fly ash against carbonation / <i>Md Marghoobul Haque*</i> , <i>Supratic Gupta</i>
P99	Evaluating the strength and durability of concrete using industrial wastes as potential supplementary cementing materials / <i>Samidha P*</i> , <i>Hemant A</i>
P100	Effect of corrosion inhibiting admixtures on corrosion characteristics of steel in carbonating nanoparticles based fly ash concrete / <i>Umesh Hule*</i> , <i>Chandru Pichaimuthu</i> , <i>Radhakrishna G. Pillai</i>
P101	AI-Based Prediction of Damage Severity in Blended Concrete Under Extreme Environmental Exposure Conditions / <i>Ramesh Gomasa*</i> , <i>Visalakshi Talakokula</i> , <i>Sri Kalyana Rama Jyosyula</i> , <i>Tushar Bansal</i> , <i>Nidhi Goyal</i>
P102	In-plane behavior of brick masonry wallets strengthened with High-Strain materials: An experimental study / <i>Deekshitha. M K*</i> , <i>Mohan Lal</i> , <i>Siva Chidambaram. R.</i>
P103	Development of Lime and GGBFS Based Mortar: A Sustainable Approach to Construction Technology / <i>Gopalakrishna Banoth*</i> , <i>Revanth Kumar Kandagaddala</i> , <i>Prakash Nanthagopalan</i>
P104	Surface Modification of Recycled Concrete Aggregate with Magnesium Based Cement / <i>Yuvraj Rajesh Patil*</i> , <i>Vaidehi Dakwale</i> , <i>Rahul Ralegaonkar</i>
P105	The influence of CO2 curing period and pressure on the uptake of CO <sub>2</sub> and compressive strength of concrete / <i>Divya Rachel Rooby*</i> , <i>Jayachandran K</i>
P106	Durability of Geogrid-based Textile Reinforced concrete / <i>Mohan Lal*</i> , <i>Siva Chidambaram R</i>
P107	Corrosion Performance Enhancement of Galvanised Rebar Reinforced Concrete / <i>Reshma P*</i> , <i>Dr. Jayachandran K</i>
P108	Transport properties of the ultra-high-performance concrete made with locally available materials / <i>Dilrabin Kootumpurath*</i> , <i>Jayachandran Karuppanasamy</i>
P109	Effect Of Mixed Recycled Aggregates on Quaternary Blended High Strength Self-Compacting Concrete / <i>Merin Mathew*</i> , <i>Girija K</i>
P110	AI Driven Information Extraction From Construction Materials Literature / <i>Mohd Zaki*</i> , <i>Keshav Bharadwaj</i> , <i>Jayadeva Jayadeva</i> , <i>N. M. Anoop Krishnan</i>
P111	Machine Learning for Cement Science: Predictive Modelling of Clinker Phase Composition / <i>Sheikh Junaid Fayaz* et al.</i>
P112	Expanded Clay Aggregate as an Internal Curing Agent to Produce Stiff Mortar Mixtures for Paving Application – A Laboratory Study / <i>Anusha toshikhani et al.</i>
P113	Critical Appraisal on the Interfacial Bonding Mechanism of RAP-PCC Mixes and Ways to Improve it / <i>Ritika Ritika*</i> , <i>Anusha Toshikhani</i> , <i>Solomon Debbarma</i>
P114	An Experimental Study of Ultra High Performance Fiber Reinforced Concrete and Analysis & Design of Multi-storey Building using Applications of UHPFRC / <i>S. S. Kshirsagar et al.</i>
P115	Concrete mixed with non-potable water: Probability of compliance to codes of a few countries / <i>Prakhar Agrahari</i>
P116	Retrofitting Measures of Distressed Structural Members of a RCC Building-A case study on the SOPC Building at Kolkata / <i>Aritra Bagchi</i>
P117	Evaluating Manufactured Sand as a Sustainable Alternative to River Sand in Concrete: A Comparative Study of Strength, Durability, and Corrosion Resistance / <i>Smrithy Subash*</i> , <i>Sumedha Moharana</i>
P118	Comparative Study on Properties of Normal & Recycled Aggregate Concrete: Experimental and Numerical Analysis / <i>Manjunath M Patil*</i> , <i>Pranjal V Chechani</i> , <i>Ananth Ramaswamy</i>
P119	Structural Assessment and Rehabilitation of an Institutional Building / <i>Rhythm Garg*</i> , <i>Dr Shweta Goyal</i> , <i>Er Aman Deep</i>
P120	Geopolymer Bricks: A Promising Solution for Sustainable and Climate Resistant Building / <i>MD Zia UL Haq*</i> , <i>Vishal Sharma</i> , <i>Saurav Dixit</i>
P121	Numerical modelling of double skin composite columns / <i>Hindhumadhi R*</i> , <i>Revathi P</i>
P122	Influence of type of sand and fiber content on compressive strength of Ultra High-Performance Concrete (UHPC) / <i>Anju Paul*</i> , <i>Elson John</i>
P123	Axial buckling resistance of concrete-filled cold-formed steel columns– a new strengthening approach / <i>Chanchal Sonkar et al.</i>
P124	Study on Self Compacting Concrete Using Recycled Aggregate and Metakaolin / <i>Rasheed Abdul</i> , <i>Janardhan Yadav Maganti*</i>
P125	Inspection, Repair and Strengthening of Concrete Structures / <i>Viraj Gupta*</i>

## Thursday, September 26, 2024

P126	Influence of Potential Additives on the Carbon Dioxide Mineralization of Red Mud / <i>Saranyadevi Duraisamy*</i> , <i>Piyush Chaunsali</i>
P127	Investigations on the effectiveness of zeolite and Coconut Shell Powder as SCMs on the mechanical characteristics of Concrete / <i>Bharath N*</i> , <i>Kavitha S</i> , <i>Vijaya S</i>
P128	Review on the light weight angular aggregate concrete for structural applications / <i>Mohanapriyan Muralidharan*</i> , <i>Mashudha Sulthana U</i>
P129	Comparative Evaluation of Traditional and Scrap Tyre Pad Base Isolators: Characteristics, Costs, and Utilization in Earthquake Resilience / <i>Sreeranjini S Nair*</i> , <i>Ancy Mathew</i>
P130	Heat of Hydration of Mass Concrete in Controlling by Construction Stages / <i>Vinayaga Moorthy*</i> , <i>Banoj Mohapatra</i> , <i>Gurinder Bawa</i>
P131	Factors Influencing the Applicability of Mixed Recycled Aggregates for Granular Aggregate Layers / <i>Suranjit Saha*</i> , <i>Surender Singh</i>
P132	Impact of Aggregate Type and Concrete Grade on Hydrated Cement Mortar Content in Recycled Concrete Aggregates / <i>Abhinav Kumar Thakur*</i> , <i>Surender Singh</i>
P133	Response Of RC Columns Under Blast Loading - A State-of-the Art Report / <i>Md Imran Mohnavi*</i> , <i>G Appa Rao</i>
P134	Spalling Mitigation in High Strength Concrete Exposed to Elevated Temperatures / <i>Vikash Kumar Singh*</i> , <i>Gaurav Srivastava</i>
P135	Sorptivity Prediction in Seconds / <i>Hossein Kabir</i> , <i>Nishant Garg*</i>
18:00-19:00	<p><b>Bharatanatyam recital by <i>The Dhananjayans and team</i> (D7)</b></p> <p>Shri V P Dhananjayan and his wife Smt. Shanta Dhananjayan are known as the Dancing Couple of India. They are amongst the most accomplished dancers and teachers of Bharatanatyam. For more details on The Dhananjayans, please visit <a href="https://bharatakalanjali.in/founders/">https://bharatakalanjali.in/founders/</a></p> 
19:00-21:00	<b>Gala Dinner (D6)</b>



Time	Friday, September 27, 2024			
8:00-9:00	Registration at D7 (Block D, Seventh Floor)			
<b>Session 9 9:00-11:00</b>	<b>Plenary 8 to 11</b> (D7 Auditorium); <i>Chair: Mark Alexander, Univ. of Cape Town, South Africa &amp; IIT Madras, India</i>			
9:00 – 9:30	<b>Plenary 8: Next generation of integrated low-damage precast building systems to enhance community resilience and sustainability</b> <i>Stefano Pampanin, Sapienza University of Rome, Italy</i>			
9:30 – 10:00	<b>Plenary 9 Design considerations, experimental testing and field applications of HPFRC reinforcement in bridge piers</b> <i>Giovanni A. Plizzari, University of Brescia, Italy</i>			
10:00 – 10:30	<b>Plenary 10: Alkali activated binders based on precursors of limestone and recycled pulverized concrete</b> <i>J I. Escalante-Garcia, CINVESTAV Saltillo, Mexico</i>			
10:30 – 11:00	<b>Plenary 11: Strategy for carbon conscious concrete</b> <i>Surendra P Shah, University of Texas at Arlington, United States &amp; IIT Madras, India</i>			
11:00-11:30	Tea/coffee break (D7)			
<b>Session 10 11:30 – 13:00</b>	<b>10A: Structural Performance – 2</b> Chair: Prasad Rangaraju	<b>10B: Durability Modeling, Fatigue and Fracture</b> Chair: Keerthana Kirupakaran	<b>10C: Carbonation of Concrete – 2</b> Chair: Alexander Brand	<b>10D: SCMs &amp; Alternative Binders – 3</b> Chair: Taehwan Kim
	Lilavati Auditorium (EG-03)	Baudhayana Hall (EG-07)	Raman Hall (EG-10)	Aryabhatta Hall (EG-04)
11:30-12:00	(11:15-11:30) Comparative Corrosion Behaviour of Plastically-Deformed Mild, TMT and Stainless Steel Bars in Chloride-contaminated Simulated Concrete Pore Solution / <i>Bhanu Prakash Malladi*, Prasanna K Behera</i>  (11:30-11:45) Bowing Effect: Mechanism and Laboratory Simulation in the Marble Stone / <i>Anupama Ghimire, Maharshi Divekar*, Swathy Manohar</i>	<b>Keynote 16: Modeling the durability of structures under multiphysical loads /</b> <i>Laurie Lacarriere*, Layla Ibrahim, Alain Sellier, Thierry Vidal</i>	<b>Keynote 17: Carbonation of low clinker concretes: when it is a concern and when it is not /</b> <i>Shashank Bishnoi</i>	<b>Keynote 18: Viability of Utilizing Supplementary Cementitious Materials for Subsurface Infrastructure /</b> <i>Lyn Zemberekci and Sriramy Duddukuri Nair*</i>
12:00-12:15	Effects of temperature on the delayed behavior of biaxially prestressed concrete / <i>Alexandre Nehme*, Rita Tabchoury, Thierry Vidal, Stéphane Multon, Georges Nahas</i>	Distribution of Corrosion Attack in Chloride Exposed Concrete, Summary of Field Observations / <i>Kedar Baral*, Mette Rica Geiker, Jan Arve Øverli</i>	Beyond changes in alkalinity measurements: Characterisation of the long-term natural carbonation front of blended cementitious systems / <i>Yuvaraj Dhandapani*, Leon Black, Susan A. Bernal</i>	Temperature-dependent chloride binding ability of fly ash and silica fume modified ordinary Portland cement / <i>Chandra Sekhar Das*, Xiao-Ling Zhao, Jian-Guo Dai</i>
12:15-12:30	A Comparative study of Unloaded Stress States for Structural Reuse using Digital Image Correlation / <i>Sushree Sunayana*, Subha Ghosh, Lisbeth M. Ottosen</i>	Phase-field coupled cohesive zone model predictions for fracture in fibre-matrix interface of geopolymer concrete / <i>Reshmi Maria Jose*, Sudakshina Dutta</i>	Carbon Curing as a Chloride Binding Strategy in Blended Concrete / <i>Madhu Sudhan Bolla*, Anjaneya Dixit</i>	Investigation on mechanical and durability parameters of cement mortar using treated and untreated recycled fine aggregates / <i>Abirami Manoharan, Hemalatha T*, Bhaskar Sangoju</i>



## Friday, September 27, 2024

12:30-12:45	Non-linear finite element simulation of RC beams under simultaneous rebar corrosion and sustained service loads / <i>Pankaj Mishra*</i> , <i>Prasanna Kumar Behera</i> , <i>Sudhir Mishra</i>	Efficacy of crumb tyre rubber pre-treatment on reducing the shrinkage and creep behaviour of structural concrete / <i>Kudzai Mushunje*</i> , <i>Mike Otieno</i>	Influence of drying rate on carbonation of concrete with supplementary cementitious materials / <i>Rakesh Gopinath*</i> , <i>Mark Alexander</i>	Enhanced CO <sub>2</sub> sequestration using dry ice / <i>Deepak Kumar Kamde*</i> , <i>Surendra Manjrekar</i> , <i>P.A. Muhammed Basheer</i>
12:45-13:00	Fatigue Life Prediction of Corroded Reinforced Concrete Beams Using EIFS and Fracture Toughness Degradation / <i>Muneem Ahmad Dar*</i> , <i>Pervaiz Fathima K. M.</i>	Performance of Inhibitor Admixed Self-Flowing Concrete for use in RC Jacketing Technique / <i>Haji Sheik Mohammed*</i> ; <i>Anuman Surya</i> ; <i>Md, Muheeb Ahmed</i> ; <i>Mohd, Umar</i>	Investigation of the impact of accelerated carbonation in lime-based mortar mixes / <i>Anupama V.A. *</i> , <i>Divyasri K.S.</i> , <i>Manu Santhanam</i>	Production of Sustainable and Durable Ternary Cement Concrete Using Co-Firing of Coal and Sugarcane Bagasse / <i>G Jyothsna*</i> , <i>A Bahurudeen</i>
13:00-14:15	<b>Lunch (D6)</b>			
<b>Session 11 14:15-15:30</b>	<b>11A: Condition Assessment and Case Studies</b> Chair: Prasanna Behera	<b>11B: Concrete in Severe Environments – 2</b> Chair: Prasad Rangaraju	<b>11C: Durability Enhancement and Assessment – 2</b> Chair: Surender Singh	<b>11D: SCMs &amp; Alternative Binders - 4</b> Chair: Keshav Bharadwaj
	Lilavati Auditorium (EG-03)	Baudhayana Hall (EG-07)	Raman Hall (EG-10)	Aryabhatta Hall (EG-04)
14:15-14:30	Transforming a conventional tunnel into a self-cleaning and air-purifying infrastructure: A case study / <i>Anibal Maury-Ramirez*</i> , <i>Mario Rinke</i>	The influence of various curing regimes on carbonation of LC3 concrete / <i>Thato Mile</i> , <i>Rakesh Gopinath</i> , <i>Mark Alexander*</i>	Impermeability Restoration Method for Cut Residual Asphalt Layer on Bridge Deck Concrete / <i>Masayuki Hashimoto*</i> , <i>Osamu Takahashi</i> , <i>Shuichi Ono</i>	Application of Electrical Impedance Spectroscopy to Assess the Condition of the Blended System Exposed to Different Curing Conditions / <i>Mahim Shrivastava*</i> , <i>Harish Kizhakkumodom Venkatanarayanan</i>
14:30-14:45	From research to guidelines – results from field testing of mortars for cathodic protection / <i>Karla Hornbostel*</i> , <i>Eva Rodum</i> , <i>Roy Eivind Antonsen</i> , <i>Stig Henning Helgestad</i>	Performance of Calcium Sulfoaluminate Based Binders in Sewer Environment / <i>Tom Damion</i> , <i>Piyush Chaunsali*</i>	Concrete development for 3D printed constructions of footbridge / <i>D.Citek*</i> , <i>S.Rehacek</i> , <i>K.Hurtig</i> , <i>J.Kolisko</i> and <i>O.Melter</i>	Impact of Graphene Oxide on the formation of Calcium Silicate Hydrate in cementitious materials / <i>Nithurshan Mylvaganam*</i> , <i>Yogarajah Elakneswaran</i> , <i>Yoda Yuya</i> , <i>Kitagaki Ryoma</i>
14:45-15:00	A Summary of Knowledge on Factors Affecting the Degradation of Glass Reinforcement in Cementitious Matrices and Long-Term Performance / <i>KVC Saisri</i> , <i>Ravindra Gettu</i> and <i>Piyush Chaunsali</i>	Acid Resistance of Slag-based Concrete Activated with Industrial-Grade Soda Ash and Hydrated Lime / <i>Jayashree Sengupta*</i> , <i>Nirjhar Dhang</i> , <i>Arghya Deb</i>	Imaging and Characterization of stone joints using Radar and Ultrasonic waves / <i>Avinash Kumar Yadav*</i> , <i>Sai Teja Kuchipudi</i> , <i>Hina Gupta</i> , <i>Debdutta Ghosh</i>	Investigation on Effect of Basalt Waste Fines as Replacement of River Sand in One-part Geopolymer Mortar / <i>Dipanshu Jain*</i> , <i>Satadru Das Adhikary</i>
15:00 -15:15	Strategic Approaches to Mitigate Execution Challenges in Condition Assessment and Restoration of Old RCC Structures: A Case Study of an Industrial Building / <i>Rushabh S Karnavat*</i> , <i>Pallavi Prashant Nehete</i>	Investigating Sewer Environmental Conditions and Their Link to Biogenic Acid Corrosion in Sewer Concretes / <i>Alice Titus Bakera</i> , <i>Mark G Alexander*</i>	In-situ determination of pore solution resistivity using a metakaolin-based geopolymer sensor / <i>Kamasani Chiranjeevi Reddy*</i> , <i>Amir Alarab</i> , <i>K Vasylevskyi</i> , <i>Farshad Rajabipour</i>	Hydration and Microstructure Development in Ternary Blends of Low-grade Limestone with Fly ash/Calcined Clay / <i>Asha Bahulayan*</i> and <i>Manu Santhanam</i>
15:15-15:30	Framework for Utilization of Discarded Coir Fibres for Pavement Applications / <i>Muhammed Shoeb Amer Ali Khan*</i> , <i>Surender Singh</i> , <i>Someen Khute</i>	Effect of wetting on tensile response of textile reinforced concrete / <i>Ramakrishna Samanthula*</i> , <i>Komathi Murugan</i> and <i>Ravindra Gettu</i>	Finite mixture models for improving resolution of rebar spacing estimation in reinforced concrete using pulsed eddy current / <i>Vishnu R</i> , <i>Ankur Agarwal*</i> , <i>Siddharth Tallur</i>	The Effect of grinding on the properties of pelletized aggregates made of AOD slag / <i>Manoj Kumar*</i> , <i>Harish Kizhakkumodom Venkatanarayanan</i>
<b>15:30-16:00</b>	<b>Closing &amp; Awards (Block E, Ground Floor, Lilavati Auditorium) &amp; tea/coffee</b>			