

First International Conference on  
**Green Energy, Environmental Engineering and Sustainable Technologies**  
**(ICGEST 2023)**

05 - 06, October 2023 | Belagavi, Karnataka, India | <http://icgest.com/>

**Program Schedule**

<b>Date</b>	<b>Time</b>	<b>Event</b>
05.10.2023	10.00 am to 10.30 am	Inaugural Function
	10.30 am to 11.00 am	<b>Keynote Address #1(Physical mode)</b> <b>Dr. G. R. Dodagoudar</b> Professor - Indian Institute of Technology Madras, Chennai, Tamil Nadu, INDIA
	11.10 am to 04.00 pm	<b>Session 01: ICGEST - OFFLINE</b>
		Session 02: RSET01 - ONLINE
		Session 03: STC01 - ONLINE
06.10.2023	10.00 am to 10.30 am	<b>Keynote Address #2(ONLINE mode)</b> <b>Assoc. Prof. Dr. Mohamad Nur Khairul Hafizi Rohani</b> Universiti Malaysia Perlis (UniMAP), Malaysia
	10.30 am to 03.40 pm	Session 04: RSET02 - ONLINE
		Session 05: STC02 - ONLINE
		Session 06: EEAC01 - ONLINE

**RSET** - Renewable & Sustainable Energy Technology

**STC** - Sustainable Technology in construction

**EEAC** - Environmental Engineering & Agro Chemistry

## Session 01: ICGEST - OFFLINE

Date: 05.10.2023

Time: 11.10 am to 01.00 pm

**Venue:** Silver Jubilee Auditorium

**Session Chair(s):** Dr. G. R. Dodagoudar and Dr. Vaibhav R Chate

**Session Coordinator(s):** Prof. Nitin Deshpande

Time	Paper ID	Paper title	Author Name(s)
11.10 am	GES 1014	A Numerical Investigation of a Plane Solar Air Heater	Ankita Nath, Maryom Dabi, and Nabam Teyi
11.30 am	GES 1075	Monitoring and evaluation of groundwater quality and its mapping using GIS over Belagavi city, Karnataka, India	N Varadarajan, Shashank Bangi, Sanket Hanji, Vishwanath Shirol, Babaji Patil, and Pradnya Naganur
11.50 am	GES 1088	Estimation of spatial surface energy fluxes and actual evapotranspiration over Ghataprabha river basin using remote sensing data	Shashank C. Bangi and Veena S. Soraganvi
12.10 pm	GES 1092	Utilization of Fly Ash and Rice Husk Ash in Cold Mix Asphalt as Filler	Pinki Deb and Kh.Lakshman Singh
12.30 pm	GES 2031	Essential Oil Extraction from Orange and Lemon Peel	Hemlata Karne, Vedvati Kelkar, Apoorva Mundhe, Mitesh Ikar, Shantanu Betawar, Nikita Chaudhari
12.50 pm	GES 2040	Piezo-resistive Properties of Polymer based cement nano composites	Roopa AK, A.M Hunashyal, Fardeen A Gudagi, Mohammed Furquan Mulla

## Session 02: RSET01 - ONLINE

Date: 05.10.2023

Time: 11.10 am to 04.00 pm

**Session Chair(s):** Dr. Vivek Kulkarni

**Session Coordinator(s):** Prof. Pavan Gudi

**Session Link:** [meet.google.com/bpx-kryt-obc](https://meet.google.com/bpx-kryt-obc)

Time	Paper ID	Paper title	Author Name(s)
11.10 am	GES 1030	Enhanced Behavior of Solar Stills with Modified Absorber Surfaces: Comparative Analysis of Floating Wick Designs	K Kannakumar, P Manikandan, G Ravivarman, A Sivalingam, A Anandha Moorthy, M Karthik, and R Girimurugan
11.30 am	GES 1031	Enhancing Efficiency and Cost-Effectiveness of Solar Stills through Natural Fiber Integration	G Ravivarman, V M Madhavan, A Kalaiyaran, S Hemasilviavinothini, T Nithyanandhan, S P Kesavan, and R Girimurugan
11.50 am	GES 1033	Evaluating the Influence of Coir Fibres on Solar Still Efficiency and Economic Viability	N Rajiv Kumar , S Seenivasan , P Hemalatha , Kode Jaya Prakash , P Pitchandi , R D Sathiya and R Girimurugan
12.10 pm	GES 1036	Optimizing Solar Energy Utilization and Energy Efficiency through Thermal Energy Storage with Phase Change Materials in a Solar Water Heating System	V M Madhavan, S Rahul, P Vijayakumar, P K Dhal, R Girimurugan, G Ravivarman, and J Joseph
12.30 pm	GES 1043	Experimental Findings and Analysis of a Split Unit Evaporative Cooler for Efficient and Eco-Friendly Cooling Applications	Md. Abdul Raheem Junaidi, Syed Amer, Mohammed Fhaizaan Fazil, Mohammed Rayyan Ahmed
02.00 pm	GES 1097	Study on Mixer Grinder's User Behaviour – A Survey-based Analysis	Ravi Kumar L, Dr.B Vijaya Ramnath, Dhananchezhian S, Viknesswar A B
02.20 pm	GES 1099	Experimental Study of Minimum - Temperature Hydrated Salt Latent Heat Thermal Energy Storage with Sodium Acetate Trihydrate as Phase Change Materials	R Manikandan, K Gopalakrishnan, P Ashokkumar, Pon.Maheskumar, R Girimurugan, G Ravivarman and R Anand
02.40 pm	GES 2004	Study on the Effect of Void Geometry and Location on Electric Field Distribution and Partial Discharges in HVDC Cables	Sundaramahalingam Subramaniam, Janani Thiruvelmurugan, and Shanmathi Anbuselvan

03.00 pm	GES 2013	Catalyzing Green Mobility: Consumer Preferences for Green Energy Vehicles	Umasankar Murugesan, Padmavathy Subramanian, Karthick Chitrarasu
03.20 pm	GES 2014	Design of Thermal Energy Storage System	Mohamed Nawfal Z, Tanuj Nagentra R, Vishnu G, and Karthik Silaipillayarputhur
03.40 pm	GES 2015	Economize Air Conditioning System by Pre-Cooling Fresh Intake Air	Arshad Ahmed, Hariharan B, Prithiverajan G J, and Karthik Silaipillayarputhur

### Session 03: STC01 - ONLINE

Date: 05.10.2023

Time: 11.10 am to 04.00 pm

**Session Chair(s):** Dr. Nitendra Palankar

**Session Coordinator(s):** Prof. Uma Hullur

**Session Link:** [meet.google.com/udk-ytee-tjr](https://meet.google.com/udk-ytee-tjr)

Time	Paper ID	Paper title	Author Name(s)
11.10 am	GES 1011	Optimizing the Performance of Construction Companies using Goal Programming Model	Weng Siew Lam, Pei Fun Lee, Weng Hoe Lam, and Mohd Abidin Bin Bakar
11.30 am	GES 1015	Efficient adsorption of Crystal Violet Dye using Coir Pith-Derived Biochar: CCD-RSM modelling and Characterization	Jeevan Mathew Tharayil, Prakash Chinnayan, Nandyala Venkat Nivas, Suresh Babu V, Krishna Murthy C
11.50 am	GES 1018	Research on Multi-objective Optimisation Algorithm for Light and Heat Environment in Underground Atrium Buildings	Lufeng Nie, Xiang Ji, and Heng Liu
12.10 pm	GES 1023	Optimized Biomethanization of Grinded Organic Waste Using Catalyst	G. Shyamala, S.Arulmozhi, S.Ramesh and P.Mageshkumar
12.30 pm	GES 1026	Experimental Investigation on Properties of Scrap Rubber Tyre as Fine Aggregate in Concrete	S. Arjun Dharsan, S. Arunsahayaraj, S. Manikandan and P. SatheeshKumar
02.00 pm	GES 1042	Mechanical, Durability and Embodied Energy Analysis of Geopolymer Concrete with Fly Ash, Ggbfs and Glass Fiber	Nishanth L, Dr. Nayana. N. Patil and Ganesh N A
02.20 pm	GES 1060	Performance Evaluation of RBF Wells with Special Reference to Water Quality Parameters in Hard Rock Region of Tungabhadra Catchment	VijayaKumar H, Nagaraj S. Patil & Purandara B. K
02.40 pm	GES 1096	Predicting the Strength Characteristics of Alkali Activated Concrete with Environment Friendly Precursors using Statistical Methods	Mounika Ganta, Ramesh Baskar, and Sri Kalyana Rama Jyosyula
03.00 pm	GES 2012	Studies on Utilization of Controlled Low Strength Materials in Pavement Layers	S. Geethanjali, L. Durga Prashanth, M. Ashwin, T. Raghavendra

03.20 pm	GES 2039	Sodium Silicate Bonded Waste Foundry Sand - A Substitute for Fine Aggregates in Concrete and a Potential Material for Cement Phase Synthesis	Nayana P. Hoolikantimath, Ravikiran B. R., K. G. Guptha, Raghuraj K. Rao, Praveen A. Ghorpade
03.40 pm	GES 2043	GIS Based 4D Model For G+2 Residential Building Project	Hemavathi Ramasamy, Chandra Devi Raman, Ezhil Kumar Marimuthu Rajendran, Mohammed Kaif Nayaz Baig, Sivasenthil Kandhasamy and Sowndhar Rajmane
04.00 pm	GES 2045	Development of Eco-Friendly Bricks with Industrial By-Product	Goutham Priya M, Jeya Arthi A J, Kiruthica E , Anbarasan E, Arivunithi M

## Session 04: RSET02 - ONLINE

Date: 06.10.2023

Time: 10.30 am to 03.00 pm

**Session Chair(s):** Dr. R. M. Kulkarni

**Session Coordinator(s):** Prof. K. P. Thejaswi

**Session Link:** [meet.google.com/bpx-kryt-abc](https://meet.google.com/bpx-kryt-abc)

Time	Paper ID	Paper title	Author Name(s)
10.30 am	GES 2018	Reforming Electricity Access and End-Use Efficiency Policies in India – A Social Welfare Perspective	Thangjam Aditya, Sanjita Jaipuria, Pradeep Kumar Dadabada, Varun D. Raj
10.50 am	GES 2034	On the use of Copper Tool developed by Atomic Diffusion Additive Manufacturing (ADAM) Process for Electrical Discharge Machining	Mohd Yunus Khan, P. S. Rao, and B. S. Pabla
11.10 am	GES 2037	Analyzing the Roadblocks of Green Hydrogen Energy Deployment: DEMATEL-Based Approach	Vibha Trivedi, and Moaz Gharib
11.30 am	GES 2046	Choosing the Right Photovoltaic Panel for Electric Vehicles: An Integrated Decision Support Model	Ashish Trivedi, Vibha Trivedi, and Moaz Gharib
11.50 am	GES 2047	Advanced Smokeless Stove towards Green Environment and for Sustainable Development of Rural Women	Huzaifa Fidvi, Pratik C. Ghutke, Shubhangi M Gondane, Mahesh Vasantao Kulkarni, Ramesh Chandra Nayak and Debashree Padhi
12.10 pm	GES 2049	Municipal Solid Waste Management: A Review of Machine Learning Applications	Kiran S Pillai, Sneha M L, Aiswarya S, Arya B Anand, Geena Prasad
12.30 pm	GES 2064	The Financial and Sustainability Impact of Fintech on Indian Deposit Money Institutions: A Study of the Last Decade	Jaspreet Kaur, Nitin Pathak
02.00 pm	GES 2069	Green Hydrogen for Karnataka: Regional Solutions for a Clean Energy Future	Arun C Dixit, Ashok B C, Mohan Krishna S A and Harshavardhan B
02.20 pm	GES 2072	Comparative Study of Wind and Ice Loads on Telecommunication Towers in Hilly Terrain	Gokul Gayatri, B. Tirumala Reddy, B. Narender
02.40 pm	GES 2075	Powering Progress: A Hospital's Journey towards Renewable Energy	Pallavi Desai, Sangam Patil, Shreyas Kulkarni, Nikhil Patil, Ananya Desai

## Session 05: STC02 - ONLINE

Date: 06.10.2023

Time: 10.30 am to 03.40 pm

**Session Chair(s):** Dr. Shweta Patil

**Session Coordinator(s):** Prof. Vikhyat Katti

**Session Link:** [meet.google.com/udk-ytee-tjr](https://meet.google.com/udk-ytee-tjr)

Time	Paper ID	Paper title	Author Name(s)
10.30 am	GES 2052	Sustainable Approach for Conversion of Building to 'Zero Energy Building'	Shruti S Wadalkar, Vanishri A Patil, Deepa A Joshi, Radhika Menon and Pratiksha Sonawane
10.50 am	GES 2058	Experimental investigation on Partial Replacement of Cement by Prosopis Juliflora Ash with addition of Sugarcane Bagasse Fibre	Jeya Arthi A J, Goutham Priya M, Eniya
11.10 am	GES 2063	Implementation of Cement-based Nano composite Energy Absorption Damper to improve the damping properties of concrete and monitoring applications	Sandhya R Jalgar, A.M Hunashyal, A.K. Roopa, M.A. Umarfarooq, S.N. Mathad, Madhumati.S Dhaduti
11.30 am	GES 2067	Analyzing Barriers to Metaverse Application in Smart Cities: A DEMATEL-Based Approach	Ashish Trivedi, Vibha Trivedi, and Moaz Gharib
11.50 am	GES 2068	Bi-Stage Optimization Model for Transportation of Construction Steel: An Indian Case Study	Gaurav Kumar Sharma, Soumyadeep Chatterjee, Ashish Trivedi, Vibha Trivedi, and Moaz Gharib
12.10 pm	GES 2074	Seismic fragility assessment of elevated water tanks	Manasa Amandu, Narender Bodige
12.30 pm	GES 2076	Seismic Fragility Assessment of Precast structure	Jakkula Anjali, Bodige Narender
02.00 pm	GES 2080	Performance Assessment of Outrigger System for High Rise Slender Structures	Manas Rathore, Mohammad Irshad Ansari, Rahul Baghel, PiyushDas, Meghal Dewangan, Alope Verma
02.20 pm	GES 2088	Wastewater Treatment in Constructed Wetlands by Phytoremediation Technique	Hemadri Prasad Raju, Mamilla Vijaya Kumar, and Pachaivannan Partheeban



02.40 pm	GES 2095	Synthesis and Characterization of Hybrid Polymer Composite: An Experimental Approach	Vikas Gulia, Savita V Jatti, Vinay S Jatti and Shruti Maheshwari, Nitin S Solke
03.00 pm	GES 3000	Blending Recycled Course Aggregates from Construction and Demolition Waste in Construction of Roads: A Plausible Solution for Effective CDW Management in India	K. N. Narasimha, A. M Yadwad, N. Lakshminarasimaiah, Dharanish J, Bheemraj R, Preethi K H
03.20 pm	GES 3001	Influence of Pulverized Cow Bone as Partial Replacement of Cement and Demolished Concrete as Full Fine Aggregates on Properties of Foam Concrete	Michelle A. Daarol, Christian Jan D. Ariola, Lear A. Gerbania and Krizer Wrey Yella C. Napitan

## Session 06: EEAC - ONLINE

Date: 06.10.2023

Time: 10.30 am to 03.40 pm

**Session Chair(s):** Dr. B. K. Purandara

**Session Coordinator(s):** Dr. Shivamanth Angadi

**Session Link:** [meet.google.com/ytk-mvuc-kpg](https://meet.google.com/ytk-mvuc-kpg)

Time	Paper ID	Paper title	Author Name(s)
10.30 am	GES 1017	From Drain to the Garden: Household Material Utilization in Hair Dye Wastewater Filtration Scheme	Xiaoguo Geng
10.50 am	GES 1047	The Anti-Degradation Consequences of Water Repellent-Based Inhibitors for Controlling Mild Steel Corrosion in Concrete Composite	Akash Roka, Madhab Gautam , Ajaya Giri , Nootan Prasad Bhattarai , and Jagadeesh Bhattarai
11.10 am	GES 2006	Mathematical Modelling of Banana Slices in Natural Convection Indirect Solar Dryer	A Asha Monicka, Dinesh Kumar, A. Brusly Solomon, Suguna Devekumari M
11.30 am	GES 2036	A Multi-Objective Network Design for Recycling Healthcare Waste from Large-Scale Immunization	Vibha Trivedi, and Moaz Gharib
11.50 am	GES 2059	Assessment of Cement Market Conditions and Forecast of Cement Industry Development in Kazakhstan in the Context of Sustainable Development	Kairat Koshkarbaev, Zeinegul Yessymkhanova, Talgat Birmagambetov, Daniil Khazin, Raushan Azbergenova
12.10 pm	GES 2062	Innovating an Effective Installation Method for Precast Reinforced Concrete Elements	Agadeer A. Abass, Ahmed A. Al-Habeeb
12.30 pm	GES 2070	Optimizing India's Medical Oxygen Supply Chain for Pandemics	Firoj Khan, Ravi Kumar Kushwaha, Ashish Trivedi, Vibha Trivedi, and Moaz Gharib
02.00 pm	GES 2073	Studies on Self-Healing Properties of Glass Fibre Reinforced Bituminous Concrete Mixes	V Deeksha, L Durga Prashanth, and Nitendra Palankar
02.20 pm	GES 2079	Modelling the Critical Success Factors of Net-zero Energy Buildings in India	Ashish Trivedi, Vibha Trivedi, and Sushil Chaurasia

02.40 pm	GES 2092	Limitations of linear GHG Protocol carbon reporting in achieving circular progress	Astrid Wynne, Rich Kenny
03.00 pm	GES 2094	Current Scenario and Challenges of Septage Treatment - A Societal Perspective	G.Shyamala, R.Gobinath, K.Rajesh Kumar
03.20 pm	GES 2096	CFD analysis of the generic isolated indoor stadium: Impact of wind direction and roof configuration for wind drift in badminton	Vignesh S M, Nallavan G and Ramakrishnan R