

K D K College of Engineering, Nagpur.

Department of Civil Engineering

International Conference

on

Critical Infrastructure and Sustainable Development

IC-CISD-2024

22nd – 23rd March 2024

Report: Curtain Raiser to Valedictory



Conference Crew:

Patrons:

- Shri Rajendra Mulak, Ex-Minister, Govt. of Maharashtra & Secretary, BCYRC, Nagpur
- Shri Yashraj Mulak, Treasurer, BCYRC, Nagpur.

Conference Chair:

- Dr Avinash M Badar, Professor & Vice Principal, KDKCDE

Conference Co-Chair:

- Er. Ravindra Ringshia, American Society of Civil Engineers, ASCE, India Section
- Dr Ranjith Dissanayake, Department of Civil Engineering, University of Peradeniya, Sri Lanka
- Dr H D Chandewar, Chairman, ICI, Nagpur Center
- Er. Satish Raipure, Chairman, IE(I), Nagpur Local Chapter
- Dr O N Mukharjee, Chairman, IWWA, Nagpur Chapter
- Dr Sarang Paranjpe, Chairman, Association of Consultant Civil Engineers, Nagpur Center
- Er Rudra Sathpathy, CEO, IFERP, Chennai

Conference Convener:

- Dr Valsson Varghese, Principal, KDKCE, Nagpur

Conference Co-Convener:

- Prof. Mahendra Umare Assistant Professor, KDKCE, Nagpur

Organizing Secretary:

- Dr Swapneel Satone, Assistant Professor, KDKCE, Nagpur.
- Dr Pallavi U Bisen, Assistant Professor, KDKCE, Nagpur.
- Dr Ashay D Shende, Assistant Professor, KDKCE, Nagpur.

Joint Organizing Secretary:

- Dr Balbirsingh Ruprai, Assistant Professor, KDKCE, Nagpur.
- Dr V D Vaidya, Assistant Professor, KDKCE, Nagpur.

The Department of Civil Engineering, KDK College of Engineering Nagpur, in association with American Society of Civil Engineers – Indian Section, Department of Civil Engineering, University of Peradeniya, Sri Lanka, The Institution of Engineers (India) Nagpur Local Centre, Indian Concrete Institute, Nagpur Chapter, Indian Water Works Association , Nagpur Centre, Association of Consulting Civil Engineers, Nagpur Center, and IFERP, Chennai has organized Two-Days International Conference on ***“Critical Infrastructure and Sustainable Development”*** (IC-CISD-2024) on 22nd – 23rd March 2024 at KDKCE Campus in *hybrid mode*.

The Curtain-Raiser

The conference was inaugurated at the hands of Dr Bhimaraya Metri, Director, IIM-Nagpur in his gracious physical presence as the chief guest along with Dr K N Gunalan, Press 2020 ASCE in his virtual presence as the chief guest. The inauguration of the conference marked the gracious physical presence of Dr K V L Subramaniam, Professor, IIT-Hyderabad, Dr Bharathi Ganesh, Professor, NMIT, Bangaluru; and the virtual presence of Dr Ranjith Dissanayake, Sr. Professor, Department of Civil Engineering, University of Peradeniya, and the President, Institution of Engineers, Sri Lanka, Mr. Simon, Klint Bergh, Co-founder, COBOD, Asia-Pacific, Denmark, Dr. Eldho T I, Professor, IIT Bombay, Dr Rajiv Gupta, Professor, BITS, Pilani, with the office bearers of all our associates of the conference- Er Ravindra Ringshia, President, ASCE-ISWR, Dr H D Chandewar, Chairman, ICI-NC, Er. Satish Raipur, Chairman, IE(I)-NLC, Dr O N Mukharjee, Chairman, IWWA, Dr Sarang Paranjpe, Chairman, ACCE-NC, and Er Rudra Satpathy, CEO, IFERP, Chennai. Not to forget, large number of delegates (Offline and Online), Invited guests, head of Institute/Department and participants.



(On the dais from L to R: Dr O N Mukharjee, Dr Sarang Paranjpe, Dr H D Chandewar, Dr Valsson Varghese, Dr Bhimaraya Metri, Dr K V L Subramaniam, Dr A M Badar, Er. Satish Raipur, Prof. M. Umare)



(Dr Bhimaraya Metri lighting the lamp and being felicitated by Dr A M Badar)



(Dr K V L Subramaniam being felicitated by Dr Valsson Varghese)



Dr. Metri relates the economic growth of India and the requirement of infrastructure development to cater to the needs and hence, the theme of the conference is aptly framed. He narrated how the youth population contributes to the overall growth of the nation and summarised the fall and rise of economy based on infrastructure facilities in the those countries. His oration threw enthusiasm onto the participants.

Dr K N Gunalan, the chief guest on virtual mode, Talked on *“Future of Engineering”*. In context to the Conference theme, he emphasized the need of robust Infrastructure to achieve the intended goals. He highlighted how the engineering will take the shape in future.



The conference proceeding was unveiled by all the dignitaries.



Prior to that, **Dr. Valsson Varghese**, the principal of KDKCE welcomed all the guest, associates and the participants. Dr. Valsson Varghese, also as a convener of the conference, briefed the entire gathering about the conference.

Dr. A M Badar, the conference chair, in his address advocated that the conference will serve gaining and sharing the knowledge on physical as well as digital platform.





Dr. H D Chandewar, Chairman, ICI, Nagpur Center, welcomed all the dignitaries, participants and foresees the conference as a fist of learning and applying knowledge to the society. All the dignitaries present on the dais were welcomed with a sapling and a memento followed Saraswati Vandana and curtain raiser of the conference.

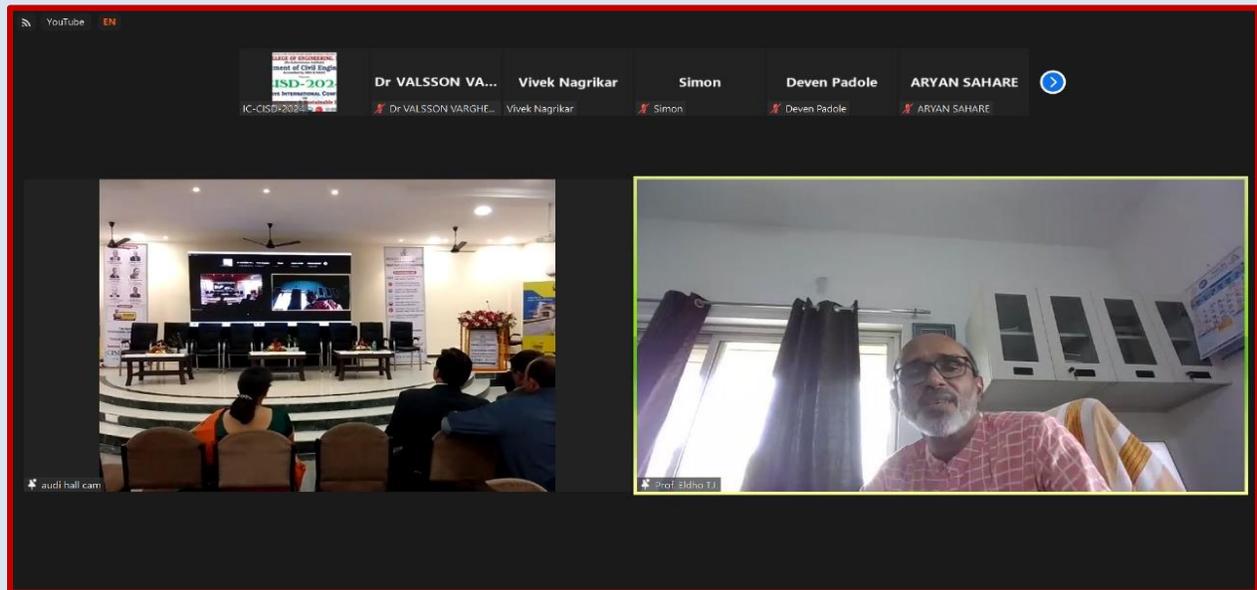
There were total Six Keynote addresses delivered during th two-days conference.

First Keynote was delivered by **Dr K V L Subramaniam**, Professor, IIT-Hyderabad on “*Making Concrete Sustainable and Moving towards Net Zero*” Dr Subramaniam stressed on to reducing the carbon footprints through better approach in the manufacturing of cement, using raw materials, adopting alternative energy in the manufacturing of cement, etc.



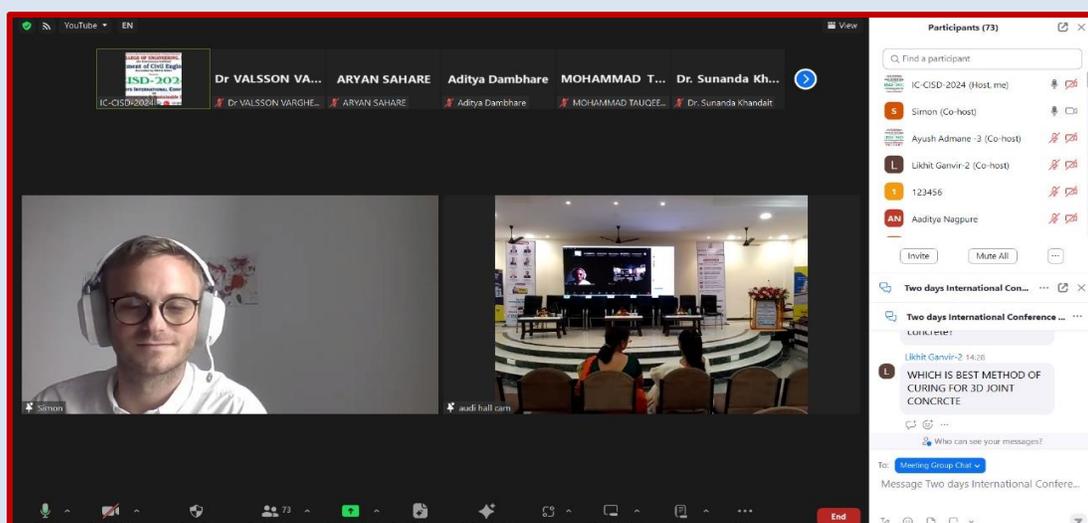
(Dr K V L Subramaniam delivering Kynote)

Dr. T I Eldho, Professor, IIT Bombay enriched the participants with his keynote on *“Sustainable Development in Changing Climate Scenario and Flood Management”* . He emphasized on to meticulous and scientific management of flood/flashflood, which are an extreme weather event occurring due to climate change.



(Dr Eldho T I delivering Keynote on virtual platform)

Mr. Simon Klint Bergh delivered his keynote on *“3D Concrete Printing”* wherein he had explained the use of 3D Concrete Printer for faster and precision work. He had quoted many examples of successful implementation of technology.



(Mr. Simon Klint Bergh delivering Keynote on virtual platform)

After the keynote addresses, parallel sessions were began.

The conference received more than 150 research papers across the globe. To deliver all the papers, eight parallel sessions were arranged; four on each day. Eminent academicians were invited to be the Chair of the sessions to evaluate the presentations. As much as 45 papers were to be presented in offline mode; and rest were in online mode and 83 papers to be presented on virtual platform.

First day, four parallel sessions were arranged out of which two were offline and two were online.

Following eminent academicians were present as the chair of the sessions.

- ✚ Dr. Bharathi Ganesh, Prof. (Civil) NMIT, Bangaluru (Offline)
- ✚ Dr H V Hajare, Principal, GNIEM, Nagpur (Offline)
- ✚ Dr Leeladhar Pammar, Associate Prof. KLS, GIT, Belgavi, Karnataka
- ✚ Dr A K Sharma, Professor, RCOEM,
- ✚ Dr Isha Khedikar, Associate Professor, GHRCE

In-house faculties as the chair 2 and moderator of the session were:

Session Chairs:

- ✚ Dr A M Badar, Vice Principal, KDKCE
- ✚ Dr V D Vaidya, Assistant Professor, KDKCE
- ✚ Prof. Mahendra Umare, Assistant Professor, KDKCE

Moderators:

- ✚ Dr B S Ruprai, Assistant Professor, KDKCE
- ✚ Prof. D S Padole, Assistant Professor, KDKCE
- ✚ Dr S R Satone, Assistant Professor, KDKCE
- ✚ Dr A D Shende, Assistant Professor, KDKCE



(Parallel Sessions running)

Visit to Center of Excellence

Earlier to the start of the conference proceedings, all the guests visited the “*Center of Excellence (CoE)*” at the Department of Civil Engineering, KDKCE, managed by Ultratech Cement Limited. Everyone of them appreciated the center.

The Center of Excellence has been established by the Ultratech Cement Limited under the Corporate Social Responsibility. This CoE will cater to the academic exchange, collaborative projects, knowledge exchange, display & information on different concrete productions, etc.



(Er. Arvind Mahajan, Zonal Head, Ultratech, narrating the purpose of CoE to Dr Metri, Dr KVL Subramniam, other Dignitaries, special invitees, Head(s) of Department, delegates and staff)

Second day i.e. 23rd March 2024 marked with four parallel session out of which one was conducted in offline mode and three were conducted in online mode.

The luminaries acted as session chairs were:

- ✚ Dr R M Dhoble, Professor & Dean (R & D), PCoE, Nagpur
- ✚ Dr Sheetal A Sahare, Associate Professor, VIIT, Pune
- ✚ Dr P P Saklecha, Professor & Dean (HR), NiHETM, Thane, Mumbai
- ✚ Dr P S Lanjewar, Principal, RPCoE, Nagpur
- ✚ Dr K G Asutkar, Associate Prof. Govt. College of Engineering, Nagpur.

In-house faculties as the chair 2 and moderator of the session were:

Session Chairs:

- ✚ Dr B S Ruprai, Assistant Professor, KDKCE
- ✚ Dr S R Satone, Assistant Professor, KDKCE
- ✚ Dr A D Shende, Assistant Professor, KDKCE

Moderators:

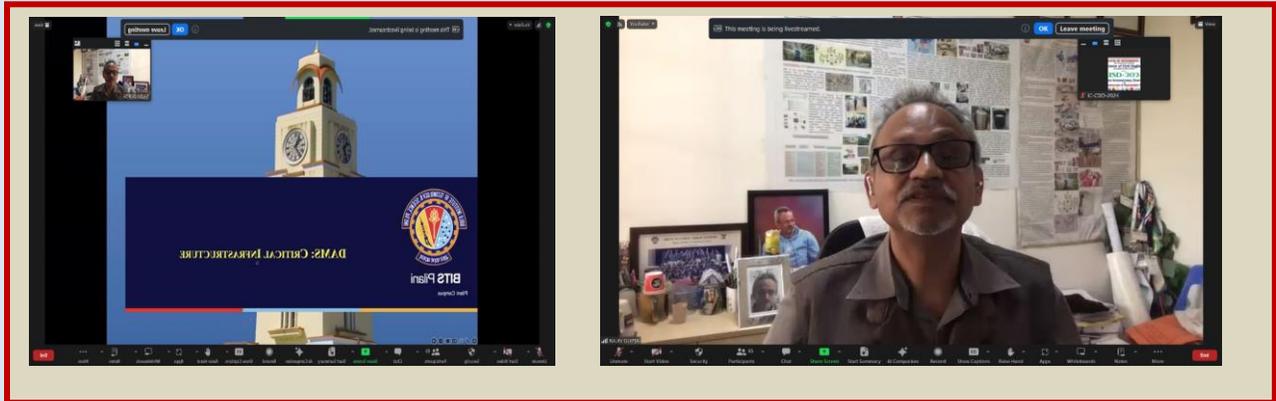
- ✚ Dr V D Vaidya, Assistant Professor, KDKCE
- ✚ Prof. Mahendra Umare, Assistant Professor, KDKCE
- ✚ Prof. A R Nikhade, Assistant Professor, KDKCE
- ✚ Dr N R Dhamge, Professor, KDKCE



(Parallel Session running)

More than 128 research articles were presented collectively in all the parallel session.

Thereafter, keynote on *“Dams: A Critical Infrastructure”* was delivered by **Dr Rajiv Gupta**, Sr. Professor, BITS Pilani. He narrated how the Dams are categorized as the Critical Structure and how it can designed, constructed and maintained for its safety and sustainability.



(Dr Rajiv Gupta delivering Keynote on virtual mode)

Second keynote on *“Innovations for Sustainable Cities & Societies”* was delivered by **Dr Ranjith Dissanayake**, Sr. Professor, Civil Engineering, University of Peradeniya, Sri Lanka and the President, Institutions of Engineers, Sri Lanka through virtual platform. He elaborated how innovations in myriad sector like, waste management, water management, etc can play immensely important role in making cities and societies sustainable.



(Dr Ranjith Dissanayake delivering Keynote on virtual mode)

The Valedictory

The valedictory function held on dated 23rd March 2024 and was chaired by the chief guest Dr Ranjith Dissanayake, Sr. Prof., University of Peradeniya, Sri Lanka through virtual platform and Dr Bharathi Ganesh, Prof., NMIT, Bangaluru as the Guest of Honor and in the gracious presence of Dr D P Singh, former Principal, KDKCE along with other dignitaries such as Dr A M Badar, Conference Chair, Dr Valsson Varghese, Principal & Convener, Prof. Mahendra Umare, Co-convener were preent. Dr Bharathi Ganesh announced the best paper of the conference.

First Position

- ✚ Vabhav Dhawale, Prof. Ram Meghe College of Engineering, Amravati, Maharashtra
Title of Paper: Study On Biogas Generation Using Diphasic Digestion Process

Second Position

- ✚ Gowthami Kumar, Dayanand Sagar College of Architecture, Banglore, Karnataka
Title of Paper: Mud-based Geopolymer Concrete as an Sustainable Material
- ✚ Arti Petkar-College of Engineering, Pune, Maharashtra
Title of Paper: Assessing Accessibility of Parks: A Case of Nashik City

Third Position

- ✚ Ritika Paunikar, KDKCE, Nagpur
Title of Paper: Assessment Of Carbon Sequestration Capacity : A Case Study

She appraised the conference for getting 150+ papers in the conference and excellent organization and handling the entire proceeding in hybrid mode. She also proposed to have collaborative activities with her institution at Bangaluru.



(On the dais L to R: Prof. Mahendra Umare, Dr Bharathi Ganesh, Dr Valsson Varghese, Dr D P Singh, Dr A M Badar)

From curtain raiser to valedictory, myriad events that depicts successful organization, conduction. Climbing on success requires preseverence, dedication, motivation, and most important a disciplined way. While we look through two days journey of this conference, we feel elated. Entire proceedings of the conference was carried out by Dr Pallavi U Bisen, Assistant Professor, Civil Enigneering, KDKCE. Vote of thanks was proposed by Prof. Mahendra Umare.

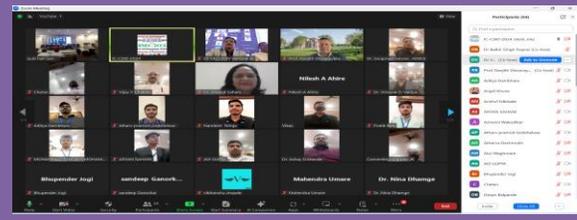
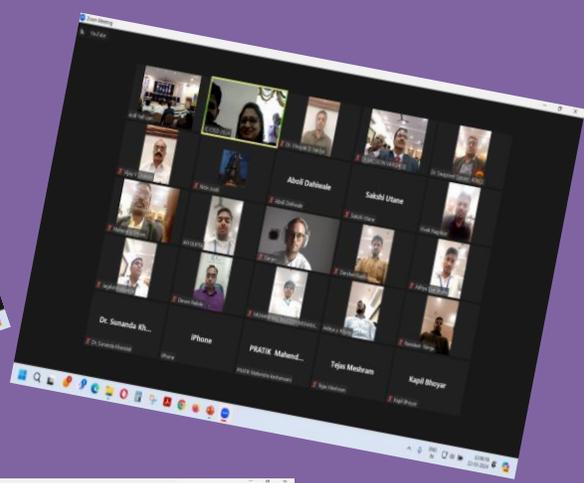
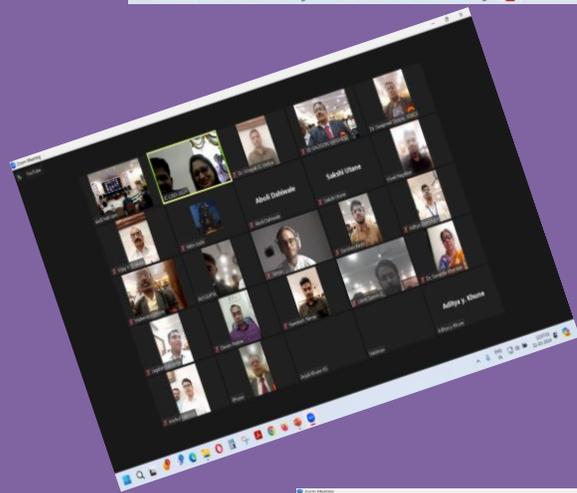
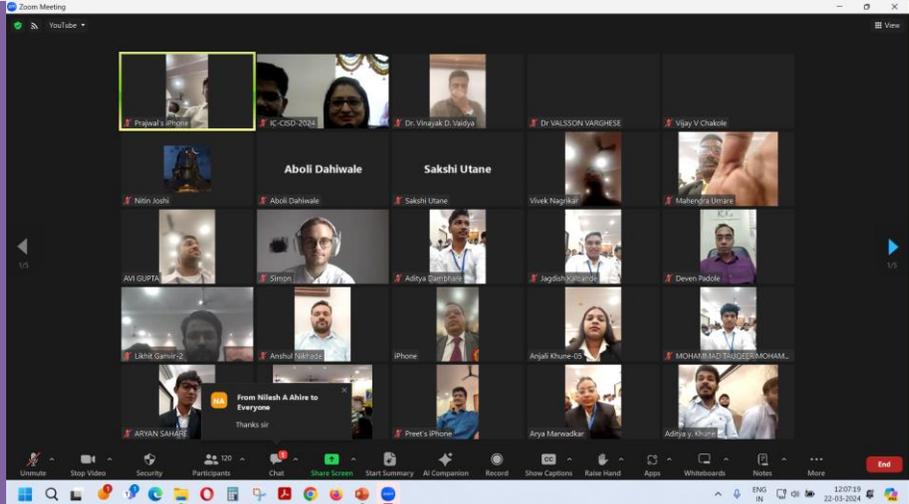
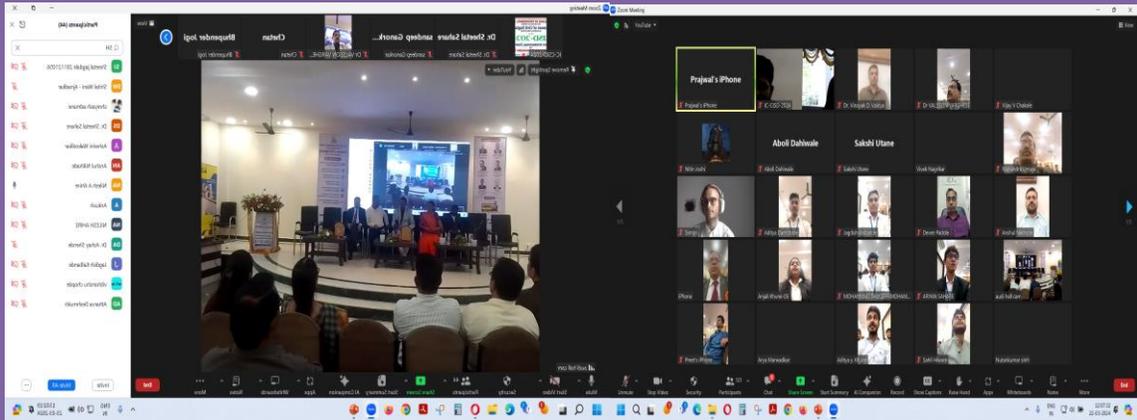
Outcome of the Conference:

The conference CISD-2024, in many ways was fruitful and knowledge sharing. The technological advancements happening around the globe and future of engineering. The conference abridged the gap between knowledge gaining and sharing in the field of ciritcal infrastructure development with sustainability in the mind. In sum-up, it was a fist for civil engineering minds to take the reseach to further level.

Enrichment through the Conference:

The participants, delegates, organizing team, sessiona chair(s), etc, were enriched with information and knowledge on various aspects of critical infrastructure, cities, societies, etc. development thorough a sustainable approach.

Glimpses of the Conference













Prepared by,
Mahendra Umare,
Conference Co-Convener




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