

UL INTERNATIONAL CONCLAVE ON SUSTAINABLE CONSTRUCTION

INNOVATIVE TECHNOLOGIES & PRACTICES

5 - 7 December 2024

Venue:

**Indian Institute of
Infrastructure & Construction**
Kollam, Kerala



**Indian Institute of
Infrastructure & Construction**

UL INTERNATIONAL CONCLAVE ON SUSTAINABLE CONSTRUCTION INNOVATIVE TECHNOLOGIES & PRACTICES

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INDIAN INSTITUTE OF INFRASTRUCTURE & CONSTRUCTION
Kollam, Kerala

INAUGURAL PROGRAM

5th December 2024 | Time: 10:00 am

Traditional Dance Welcome -	Team IIIC
Welcome Address -	Shri. Remeshan Palery Chairman, ULCCS Ltd.
Overview of the Conclave -	Prof. B. Sunil Kumar Director, IIIC
Presidential Address -	Shri. P. A. Mohammed Riyas Hon'ble Minister for PWD and Tourism, Govt. of Kerala & Chairman, Organizing Committee
Inauguration -	Shri. Pinarayi Vijayan Hon'ble Chief Minister, Govt. of Kerala
Guest of Honour -	Shri. K. N. Balagopal Hon'ble Minister for Finance, Govt. of Kerala Shri. V. N. Vasavan Hon'ble Minister for Co-Operation, Ports & Devaswom, Govt. of Kerala Shri. V. Sivan Kutty Hon'ble Minister for General Education and Labour, Govt. of Kerala Smt. J. Chinchu Rani Hon'ble Minister for Animal Husbandry & Dairy Development, Govt. of Kerala Shri. K. B. Ganesh Kumar Hon'ble Minister for Transport, Govt. of Kerala Sri. V. D. Satheesan Hon'ble Opposition Leader of Kerala Legislative Assembly

Felicitations

- **Dr. Sujith Vijayan Pillai, MLA**
Dr. T. M. Thomas Isaac
Former Minister for Finance, Govt. of Kerala
- Shri. Shibu Baby John**
Former Minister for Labour, Govt. of Kerala
- Dr. K. M. Abraham, IAS (Retd)**
Principal Chief Secretary to CM & CEO, KIIFB
- Shri. K. Biju IAS**
Secretary to Govt., PWD and Tourism
Department, Govt. of Kerala
- Dr. N. Veena N Madhavan IAS**
Special Secretary to Govt, Co-operation
Department, Govt. of Kerala
- Dr. P. K. Gopan**
President, District Panchayat, Kollam
- Dr. D. Sajith Babu IAS**
Registrar of Co-operative Societies, Kerala
- Shri. Devidas N IAS**
District Collector, Kollam
- Dr. Manoranjan Parida**
Director, CSIR-CRRI, Govt. of India
- Dr. L. P. Singh**
Director General, NCCBM, Govt. of India
- Prof. Narayanan Naithilath**
Arizona State University, USA
- Prof. Koshy Varghese**
IIT, Madras
- Adv. C. P. Sudheesh Kumar**
Member, District Panchayath, Kollam
- Shri. Santhosh Thuppasseri**
President, Block Panchayath, Chavara
- Shri. K. Rajeevan**
President, Neendakara Grama Panchayath
- Shri. P. R. Rejith**
Member, Neendakara Grama Panchayath

Vote of Thanks

- **Shri. Shaju S.**
Managing Director, ULCCS Ltd.

National Anthem

UL INTERNATIONAL CONCLAVE ON SUSTAINABLE CONSTRUCTION INNOVATIVE TECHNOLOGIES & PRACTICES

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DAY - 1

5th December 2024 - Thursday
PARALLEL SESSION - I

Themes:

**Inauguration, Flagship Panel Discussion,
Novel, high performance structural materials and systems
Climate resilient and sustainable construction**

09:00 - 10:00	- Registration & Tea
10:00 - 11:30	- Inauguration
11:30 - 11:45	- Tea
11:45 - 13:15	- PANEL DISCUSSION - I
Topic	- Bridging Today with Tomorrow: Strategic Insights on Sustainable Infrastructure as the Pillar for a Developed and Resilient India and Kerala.
Moderator	- Mr. Sreekanth APV Global Operations Director - Arcadis, Singapore
Speakers	- Mr. S J Vijayadas Chief Project Examiner- Kerala Infrastructure Investment Fund Board (KIIFB), Director (Projects & Engineering)-KIIFCON Dr. Jayakumar Principal Advisor ULCCS & former MD and CEO, Vizhinjam International Seaport Ltd Mr. Joseph Martin Chazhoor Francis Sr Director/Markets Leader, ESG - Platform, PwC India Prof. Abhilash S. Nair Professor, Indian Institute of Management Kozhikode (IIMK)
13:15 - 14:00	- Lunch

14:00 - 15:50

Session Chair

- **TECHNICAL SESSION - I**

- **Prof. K. V. L. Subramaniam**

Professor - Department of Civil Engineering, Indian Institute of Technology Hyderabad

14:00 - 14:40

Topic

- **Sustainable cement and concrete - Where are we and What are the pathways?**

- **Prof. Narayanan Neithalath**

Professor of School of Sustainable Engineering and the Built Environment, Arizona State University, USA

14:40 - 15:20

Topic

- **Decarbonization of the Concrete Industry; Alternative cementitious materials and aggregates.**

- **Prof. Manu Santhanam**

Professor of Department of Civil Engineering & Dean-Industrial Consultancy and Sponsored Research (ICSR), Indian Institute of Technology Madras.

15:20 - 15:50

Topic

- **Trials of Cement Alternatives for Sustainable Concrete: Australian Experience"**

- **Prof. Pat Rajeev**

Professor & Dept. Chair, Department of Civil and Construction Engineering, Swinburne University of Technology, Australia

Speaker

15:50 - 16:00

- **Tea**

16:00 - 17:20

Session Chair

- **TECHNICAL SESSION - II**

- **Mr. Amit Barde**

Head of Precast Initiative - Larsen & Toubro Ltd., Chennai

16:00 - 16:40

Topic

- **Sustainability and Circular Economy in Indian Cement Industry**

- **Dr. L.P. Singh**

Director General, National Council for Cement and Building Materials (NCCBM)

Speaker

16:40 - 17:20

Topic

- **Ultra-high Performance Fiber Reinforced Long Span Bridge Construction Technology - Indian Scenario**

- **Mr. Satish Navanale**

COO, Longspan Structures Pvt. Ltd., Pune

Speaker

17:30 - 18:30

Topic

- **PANEL DISCUSSION - II**

- **Innovations in Low-Carbon Materials & Design: Challenges and Opportunities**

- **Prof. Narayanan Neithalath**

Professor of School of Sustainable Engineering and the Built Environment, Arizona State University, USA

Moderator

Speakers

- **Dr. L.P. Singh**
Director General, National Council for Cement and Building Materials (NCCBM)
- **Prof. Pat Rajeev**
Professor & Dept. Chair, Department of Civil and Construction Engineering, Swinburne University of Technology, Australia
- **Dr. Sivakumar Kandasami**
Head – Concrete Technology, Buildings & Factories IC, L&T Construction
- **Dr. R.Manikandan**
Deputy. Executive Director & National technical services Head Dalmia Cements
- **Prof. Manoranjan Parida**
Director, CSIR-Central Road Research Institute
- **Mr. Sree Premnath**
Chief Project Officer, Sobha Al Siniya FZC

DAY - 1

5th December 2024 - Thursday

PARALLEL SESSION - II

Themes:

Bridging the skill gap for Industry 4.0
Global Competitiveness: Aligning the industry skills with international standards

- | | |
|---------------|--|
| 14:00 - 15:40 | - PARALLEL SESSION (SKILL-1) |
| Session Chair | - Mr. Tilak Raj Seth
Advisor NSDC |
| Chair Address | - Mr. Tilak Raj Seth
Advisor NSDC |
| 14:10 - 14:30 | - Shaping the Future Workforce in the Infrastructure Equipment Industry |
| Topic | - Mr. Dimitrov Krishnan
Chairman IESC & MD Volvo |
| Speaker | - Skilling on industry 4.0 technologies under construction sector |
| 14:30 - 14:50 | - Ms. Jancy Mathew
Officiating CEO & Chief Operating Officer CSDCI |
| Topic | - Smart Project Controllers: Ensuring Zero Delays and Cost Overruns |
| Speaker | - Mr. Varghese Daniel
Founder & CEO, WRENCH Solutions |

15:10 - 15:30
Topic

- **Importance of building a strong ecosystem to democratize Industry 4.0 skills for construction sector**

Speaker

- **Shri. Vinod T V**
COO, Kerala Academy for Skills Excellence (KASE)

15:30 - 15:40

- **Q & A SESSION**

15:40 - 15:50

- **Tea**

15:50 - 17:30

Session Chair

- **PARALLEL SESSION (SKILL-2)**

- **Mr. Ashwani Awasthi**
MD RICS

Chair Address

- **Mr. Ashwani Awasthi**
MD RICS

16:00 - 16:20

Topic

Speaker

- **Current issues in the realm of sustainability**

- **Prof. Rajiv Nehru**
Dean, L&T Institute of Project Management

16:20 - 16:40

Topic

Speaker

- **Shaping Leadership: Embracing technology for a Smarter Future**

- **Mr. Chirag Dedhia**
Founding Director, Studio4

16:40 - 17:00

Topic

Speaker

- **Enabling Global Skilling standards and building a Skilling Ecosystem through Industry Connections & Competitions**

- **Mr. Thambyrajah T**
Principal, World Skill Center, Bhubaneswar

17:00 - 17:20

Topic

Speaker

- **Global Skills, Mitigating Occupational Hazards and the Bright Future: The Path to Competitiveness**

- **Mr. P Balakrishnan Nair FIE**
Chairman, The Institution of Engineers (Kerala Centre)

17:20 - 17:30

- **Q & A SESSION**

DAY - 2

6th December 2024 - Friday

Themes:

Automation, prefabrication, and modular technologies
Digital Technology for construction / Construction 4.0
Low carbon and Lean Construction technologies

09:15 - 11:15

Session Chair

- **TECHNICAL SECTION - III**

- **Prof. Narayanan Neithalath**
Professor of School of Sustainable Engineering and the Built Environment, Arizona State University, USA

09:15 - 09:55

Topic

- **Modern Rapid Building Technologies for Industrialized Construction**

Speaker

- **Mr. Amit Barde**

Head of Precast Initiative - Larsen & Toubro Ltd., Chennai

09:55 - 10:35

Topic

- **3D Monolithic Modular Precast Construction Technology**

Speaker

- **Mr. Vijay S. J.**

Founder and Chairman - Salmon Leap Ventures, Bengaluru

10:35 - 11:15

Topic

- **Automation and Sustainability in the Construction Industry with 3D Printing**

Speaker

- **Mr. Adithya V.S**

Co-Founder & CEO, Tvasta, Chennai

11:15 - 11:35

- **Tea**

11:35 - 13:35

Session Chair

- **TECHNICAL SESSION - IV**

- **Prof. Koshy Varghese**

Professor of Civil Engineering, Indian Institute of Technology Madras

11:35 - 12:15

Topic

- **IOT and Smart Buildings**

Speaker

- **Mr. Ravi Kant Rai**

CTO and Founder-Tynatech Ingenious Pvt Ltd

12:15 - 12:55

Topic

- **Low Carbon and Lean Construction Technologies**

Speaker

- **Mr. Devarajan Chinnusamy**

Chairman & Managing Director, URC Group of Companies, Tamil Nadu

12:55 - 13:35

Topic

- **Advances and Challenges in Sensing and Monitoring of Infrastructure**

Speaker

- **Prof. K. V. L. Subramaniam**

Professor - Department of Civil Engineering, Indian Institute of Technology Hyderabad

13:35 - 14:30

- **Lunch**

14:30 - 16:30

Session Chair

- **TECHNICAL SESSION - V**

- **Dr. Amarnath C. B.**

President, India BIM Association, Founder, Digital Transformation Consortium

14:30 - 15:10

Topic

- **Technologies for Integrating GIS, and BIM in AEC Industry**

Speaker

- **Mr. Marc Goldman**

Director - Industry Solutions (AEC), Esri Denver, USA

15:10 - 15:50
Topic

Speaker

15:50 - 16:30
Topic

Speaker

16:30 - 16:40

16:40 - 17:30
Topic

Moderator

Speakers

17:30

DAY - 3

7th December 2024 - Saturday

Themes:

**Advanced Rail and Road Construction Technologies.
Social & Environmental Impact and Management of
Infrastructure Projects**

09:00 - 11:00

Session Chair

- **Systemic Thinking for the Realisation of Value of Digitisation in Construction**
- **Mr. Kalyan Vaidyanathan**
Director of Business Development - Bentley Systems (India)

- **Integration of Digital Tools in Construction Process to Enhance Collaboration and Productivity (Tentative)**
- **Dr. Ranjith Soman**
Assistant Professor of Digital construction, Faculty of Civil Engineering and Geosciences, TU Delft, Netherlands

- **Tea**

- **PANEL DISCUSSION - III**
- **Embracing Digitisation, Prefabrication, and Modular Construction: Shaping the Future of Building and Infrastructure Construction**
- **Prof. Koshy Varghese**
Professor of Civil Engineering, Indian Institute of Technology Madras

- **Mr. Amit Barde**
Head of Precast Initiative - Larsen & Toubro Ltd.
- **Mr. Kalyan Vaidyanathan**
Director of Business Development - Bentley Systems
- **Dr. Ranjith Soman**
Assistant Professor of Digital construction, Faculty of Civil Engineering and Geosciences, TU Delft, Netherlands
- **Mr. Adithya**
Co-Founder & CEO, Tvasta, Chennai
- **Mr. Sree Premnath**
Chief Project Officer, Sobha AI Siniya FZC

- **Cultural Night followed by Dinner**

- **TECHNICAL SESSION - VI**

- **Dr. Harikrishnan Nair**
Associate Director - Virginia Transportation Research Council, Glen Allen, VA, USA

09:00 - 09:40

Topic

- **Technical and Economic feasibility of Pumped Hydropower Projects**

Speaker

- **Prof. Arun Kumar**
Professor of HRED, IIT Roorkee

09:40 - 10:20

Topic

- **Condition Assessment and Durable Repair of Concrete Bridges**

Speaker

- **Prof. Radhakrishna Pillai**
Professor - Department of Civil Engineering, Indian Institute of Technology Madras

10:20 - 11:00

Topic

- **Tunnelling: Technologies, Case studies and Implementation Challenges**

Speaker

- **Dr. Manoj Verman**
Tunnelling and Rock Engineering Expert, President - ISRM Commission on Hard Rock Excavation

11:00 - 11:15

- **Tea**

11:15 - 13:15

Session Chair

- **TECHNICAL SESSION - VII**

- **Dr. A. Veeraragavan,**
Former Professor - Department of Civil Engineering, Indian Institute of Technology Madras.

11:15 - 11:50

Topic

- **Construction Technology Adopted for High-Speed Rail Project – A Case Study on MAHSR C4**

Speaker

- **Mr. Sunil Kalliath**
Joint General Manager - Larsen & Toubro Ltd., Head of Engineering & Construction Methods - Mumbai Ahmedabad, High Speed Rail Project (MAHSR)

11:50 - 12:30

Topic

- **Innovative Technologies and Systems for High Way Maintenance.: International Perspective**

Speaker

- **Dr. Harikrishnan Nair**
Associate Director - Virginia Transportation Research Council, Glen Allen, VA, USA

12:30 - 13:10

Topic

- **Sustainable and Resilient Built Environment - Towards Net Zero Challenges and New Directions**

Speaker

- **Mr. V. Suresh,**
Chairman, IGBC Policy & Advocacy, & Government Relations, Former CMD, HUDCO

13:10 - 14:00

- **Lunch**

14:00 - 16:40

14:00 - 14:30

Topic

Speaker

- **TECHNICAL SESSION - VIII**

- **Life in this Modern World**

- **Dr. K Vasuki IAS**

Secretary to Government, Labour Commissionerate,
Government of Kerala. (Online)

14:30 - 15:00

Topic

Speaker

- **Damage minimisation of light weight structures in expansive soil in Australia**

- **Biju Balakrishnan**

Principal Structural Engineer, Intrax Consulting Engineers,
Melbourne

15:00 - 16:00

Topic

Moderator

Speakers

- **PANEL DISCUSSION - IV**

- **Sustainable Infrastructure and Construction: Integrating People, Policies and Processes**

- **Prof. Satyanarayana Kalindi**

Director, Indian Institute of Technology Tirupati

- **Mr. Biju K. IAS**

Secretary, Public Works Department And Tourism
Department , Government of Kerala

Mr. Vijay S. J.

Founder and Chairman - Salmon Leap Ventures, Bengaluru

Mr. S.N. Raghuchandran Nair

Convener General, CREDAI Kerala and Executive Committee
Member, CREDAI National. Managing Director, SI Property
(Kerala) (P) Ltd.

Dr. Sreenivasan Sreenath

CEO - Intelliengineering Consultants, Singapore

Mr. V. Suresh

Chairman, IGBC Policy & Advocacy, & Government Relations,
Former CMD, HUDCO

Mr. Arun Baboo

COO, ULCCS Ltd

16:00 - 17:00

- **Valedictory**

17:00 - 17:15

- **Tea**

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Kollam, Kerala

CLOSING CEREMONY

7th December 2024 | Time: 03:30 pm

Welcome Speech

- **Shri. Remeshan Palery**
Chairman, ULCCS Ltd.

Presidential Speech

- **Dr. Sujith Vijayan Pillai, MLA**

Inauguration

- **Shri. N. K. Premachandran, MP**

Chief Guest

- **Prof. K. N. Sathyanarayana**
Director, IIT Tirupati

Conference Summary

- **Dr. A.V Thomas**
Principal Consulting Advisor- Skill Education and Training, ULCCS, Former Director, Adani Institute of Infrastructure

Conference Remarks

- **Shri. Sreekanth A. P. V.**
Global Operations Director- Arcadis, Singapore
- **Prof. Narayanan Neithalath**
Professor School of Sustainable Engineering and the Built Environment, Arizona State University, USA

Dr. Jayakumar

Principal Advisor ULCCS & former MD and CEO, Vizhinjam International Seaport Ltd.

Shri. Arun Baboo

COO, ULCCS Ltd

Vote of Thanks

- **Prof. B. Sunil Kumar**
Director, IIIC

Associated Partners

ASU Arizona State University



Knowledge Partners

