

# ENGINEERS CONCLAVE- 2023

Oct 5-7, 2023

RRCAT, Indore

**Theme I: Laser Technologies for Emerging Engineering Challenges**  
**Theme II: Engineering and Technology for Clean and Green India @ 2047**

## TECHNICAL PROGRAMME

### **DAY-1: Thursday, Oct 5, 2023**

**1300-1400 hrs. - Registration/ Working Lunch**

**1400 – 1530 hrs. - Inaugural Session**

- Welcome of dignitaries on dais and lighting of lamp (5min)
- Welcome Address by Prof AJ Pal, Director, UGC-DAE CSR, Indore, and Co-Chair EC-2023 (10min)
- Presidential Address by Prof Indranil Manna, President, INAE highlighting the aim of Engineers Conclave (10min)
- Address by Distinguished Guest Dr KN Vyas, Former Chairman, Atomic Energy Commission and Secretary, Department of Atomic Energy; Former Director, Bhabha Atomic Research Centre, Trombay, Mumbai (10 min)
- Address by Distinguished Guest Dr Anil Kakodkar, Chancellor, Homi Bhabha National Institute, Member, AEC and Chairman, Rajiv Gandhi Science & Technology Commission, Govt. of Maharashtra, Bhabha Atomic Research Centre (BARC) (10min)
- Address by the Chief Guest Prof. Mamidala Jagadesh Kumar, Chairman, UGC (20min)
- Vote of Thanks by Dr SV Nakhe, Director, RRCAT, Indore, and overall Coordinator, EC- 2023 (5 min)

**Streaming Link :** [https://youtube.com/live/e\\_ql2zWbXDU?feature=share](https://youtube.com/live/e_ql2zWbXDU?feature=share)

**1530 – 1610 hrs. First Plenary Talk on ‘Energy Transition’ by Dr Ajay Mathur, Director General, International Solar Alliance (ISA)**  
**Plenary Session Chair:** Dr Anil Kakodkar, Chancellor, Homi Bhabha National Institute, Member, AEC and Chairman, Rajiv Gandhi Science & Technology Commission, Govt. of Maharashtra, India

**Streaming Link:** [https://youtube.com/live/e\\_ql2zWbXDU?feature=share](https://youtube.com/live/e_ql2zWbXDU?feature=share)

- 1610 – 1700 hrs.**      **Inauguration of Technology Exhibition by Distinguished guests (10 min)**  
**NETWORKING TEA**
- 1700 – 1900 hrs.**      **Parallel Technical Session** on the two Themes identified  
**Theme-I Coordinator:** Shri R. Arya, Outstanding Scientist & Head, Laser Electronics Division, RRCAT  
**Theme-II Coordinator:** Mr Pradeep Chaturvedi, INAE/Prof Sivaji Chakravorti, Vice-President, INAE

**Technical Session -I (A): Laser Material Processing Techniques**

**Session Chair:** Prof. Kamachi Mudali, VC, HBNI (10min)

**4 Talks @ 25min** (20min talk followed by 5min interaction)

1. Dr. Nagahanumaih, Director, -CMTI, Bengaluru
2. Prof. Jyotsna Datta Majumdar, IIT Kharagpur
3. Dr. B. N. Upadhyaya, RRCAT
4. Mr Arvind Patel, Chairman & MD, Sahajanand Laser Technology Ltd., Gandhinagar

**Technical Session -I(B): Renewable Energy Engineering**

**Session Chair:** Dr Ashish Lele, Director, NCL, Pune (10min)

**4 Talks @ 25min** (20min talk followed by 5min interaction)

1. Shri MS Unnikrishnan, IITB-Monash Research Academy, IIT Bombay
2. Dr. Umish Srivastva, Executive Director (AE&IOTDD), R&D Centre, Indian Oil Corporation Limited, Faridabad
3. Dr. RV Jasra, Senior Vice-President (R&D), R&D Centre, Reliance Industries Ltd
4. Dr Yves Bamberger, Vice-President of the National Academy of Technologies of France (online speaker)

**Streaming Link:**

[https://youtube.com/live/e\\_ql2zWbXDU?feature=share](https://youtube.com/live/e_ql2zWbXDU?feature=share)

**Streaming Link:**

<https://youtube.com/live/DcV8KgdkGrA?feature=share>

- 1900-1930 hrs.**      Pre-dinner special talk by **Shri M Sankaran**, Director, UR Rao SatelliteCentre (URSC)

**Streaming Link:** [https://youtube.com/live/e\\_ql2zWbXDU?feature=share](https://youtube.com/live/e_ql2zWbXDU?feature=share)

**2000hrs onwards**

**Dinner**

**DAY-2: Friday, Oct 6, 2023**

- 930-1010 hrs.**      **Second Plenary Talk** by Mr Pushyamitra Bhargav, Mayor Indore  
**Plenary Session Chair:** Prof. Renu Jain, VC, DAVV, Indore

**Streaming Link:** <https://youtube.com/live/L4q2WojcIds?feature=share>

- 1010 – 1100 hrs.**      - TEA

- 1100 – 1300 hrs.**      - **Parallel Technical Session** on the two Themes identified

### Technical Session -II (A): Role of Lasers in Defence Technologies

**Session Chair:** Dr Pradip, Former Vice-President, INAE & Former Vice-President, TCS, Tata Research Development and Design Centre (TRDDC), (A Division of Tata Consultancy Services Ltd.), Pune

1. Dr Dasharath Ram Yadav, Former DS & Director, DRDL
2. Mr Antony Paul, L&T Defense
3. Prof Hari Babu Srivastava, Indian Institute of Technology Delhi
4. Dr Lalit Kumar, Laser Science Services Limited, Mumbai

#### Streaming Link:

<https://youtube.com/live/L4q2WojcIds?feature=share>

**1300 – 1400 hrs. LUNCH**

**1400- 1600 hrs. - Parallel Technical Session** on the two Themes identified

### Technical Session -III (A): Laser Additive manufacturing

**Session Chair:** Dr Shashank Chaturvedi, Director, Institute of Plasma Research, Gandhinagar

**4 Talks @ 30min** (20min talk followed by 10min interaction)

1. Dr CVS Kiran, Skyroot Aerospace, Hyderabad
2. Shri Yathiraj A., Wipro-3D
3. Dr. Christ Paul, RRCAT
4. Prof Shobha Shukla, IIT Bombay

#### Streaming Link:

<https://youtube.com/live/L4q2WojcIds?feature=share>

**1600 – 1630 hrs. TEA**

**1630-1710hrs. Third Plenary Talk** by Dr. SV Nakhe “Lasers for Engineering Applications: Journey so far and Avenues Ahead”

**Plenary Session Chair:** Dr Sanak Mishra, Past-President, INAE

**Streaming Link :** <https://youtube.com/live/L4q2WojcIds?feature=share>

**1715-1845 hrs. Parallel Technical Session** on the two Themes identified

### Technical Session -II (B): Green Technologies for Material production/Manufacturing

**Session Chair:** Prof Suhas S. Joshi, FNAE & Director, IIT Indore

**4 Talks @ 30min** (20min talk followed by 10min interaction)

1. Mr MV Chary, President, Jindal Urban Waste to Energy, Head – AP Projects and Operations
2. Dr. Debashish Bhattacharjee, Vice President Technology and R&D, Tata Steel, Kolkata
3. Dr. Shashank Chaturvedi, Director, Institute for Plasma Research, Gandhinagar
4. Mr. SC Chetal, Former Formerly Distinguished Scientist and Director, Indira Gandhi Centre for Atomic Research, Kalpakam

#### Streaming Link:

<https://youtube.com/live/nRG3fNp-RAK?feature=share>

### Technical Session -III (B): Technologies for Clean & Green Transport

**Session Chair:** Prof. PK Sikdar, Formerly Director, CSIR-Central Road Research Institute (CRRI)

**4 Talks @ 30min** (20min talk followed by 10min interaction)

1. Prof Avinash Kumar Agarwal, IIT Kanpur
2. Shri Sudhanshu Mani, Former GM, Integral Coach Factory (ICF), Chennai
3. Prof Mahesh Chandra Tandon, Managing Director, Tandon Consultants Pvt. Ltd., New Delhi
4. Mr Shri Prakash, Mentor and Director, Public Policy, and Sustainable Development; Former Chair on Sustainable Mobility, Indian Railways

#### Streaming Link:

<https://youtube.com/live/nRG3fNp-RAK?feature=share>

#### **Technical Session -IV (A): Lasers Applications in High-end Technology**

**Session Chair:** Dr Tessy Thomas, Former Project Director, AGNI, Advanced Systems Laboratory, Hyderabad; Former Distinguished Scientist & Director-General, Aeronautical System, DRDO, Bangalore

3 Talks @ 30min (20min talk followed by 10min interaction)

1. Shri Anil Parab, Executive Vice President & Head - Heavy Engineering IC, Larsen & Toubro Limited
2. Dr. Sendhil Raja, RRCAT
3. Dr G Ravindrakumar, Tata Institute of Fundamental Research (TIFR), Mumbai

#### **Technical Session -IV (B): Engineering for Green Energy – use in buildings and consumer goods**

**Session Chair:** Prof Prem Krishna, Formerly Professor & Head of Civil Engg. Department, IIT Roorkee

3 Talks @ 30min (20min talk followed by 10min interaction)

1. Prof RR Sonde. IIT Delhi and Formerly Executive Vice-President, Thermax Ltd.
2. Dr. Bibek Bandyopadhyay, Senior Advisor, Transaction Advisory Services, Ernst & Young LLP
3. Shri AK Jain, Former Commission (Planning), Delhi Development Authority (DDA), New Delhi

#### **Streaming Link:**

<https://youtube.com/live/L4q2WojcIds?feature=share>

1845hrs onwards      Cultural programme/dinner

#### **Streaming Link :**

<https://youtube.com/live/nRG3fNp-RAk?feature=share>

#### **DAY-3: Saturday, Oct 7, 2023**

**915-1000 hrs**      **Fourth Plenary Talk** by Dr RB Grover, Emeritus Professor, and Member Atomic Energy Commission Homi Bhabha National Institute (HBNI), Mumbai (invited)  
**Plenary Session Chair:** Dr Tessy Thomas, Former Project Director, AGNI, Advanced Systems Laboratory, Hyderabad; Former Distinguished Scientist & Director-General, Aeronautical System, DRDO, Bangalore

**1000-1100 hrs**      **Panel Discussion** on the Theme-I  
**Session Chair:** Dr. KN Vyas, Former Chairman, Atomic Energy Commission and Secretary, Department of Atomic Energy; Former Director, Bhabha Atomic Research Centre, Trombay, Mumbai

**1100–1130 hrs.**      **TEA**

**1130-1230 hrs.**      **Panel Discussion** on the Theme-II (contd...)  
**Session Chair:** Dr PS Goel, Past-President, INAE

**1230-1330 hrs.**      **Valedictory Session** to bring out the Recommendations for respective Themes  
**Session chair:** Dr BN Suresh, Past President, INAE  
**Guest of Honor:** Shri Anil V Parab, Executive Vice President & Head - Heavy Engineering IC, Larsen & Toubro Limited

- Introductory Remarks by President, INAE
- Presentation by Theme Coordinators summing up the deliberations
- Address by the Guest of Honor
- Address by the Session Chair

**Streaming Link :** <https://youtube.com/live/Z8U64Un93TI?feature=share>

**1330 hrs onwards**      **Lunch and dispersal**