

## 3<sup>rd</sup> ICG-CGCRI Tutorial

**Venue:** A.P.C. Roy Seminar Hall, CSIR-CGCRI, Kolkata, India  
**January 17-19, 2025**

### Program

Day1 : Friday (January 17)			
Time (h)	Event	Speakers	Lectures
08:45	Registration at A.P.C. Roy Seminar Hall (1 <sup>st</sup> Floor)		
09:30-10:10	<b>Inauguration</b>		
09:30-09:35	Invocation and Lighting of the lamp		
09:35-09:45	Welcome Address by Dr. Sitendu Mandal, President, ICG-2025 & Chief Scientist, CSIR-CGCRI		
09:45-09:55	Introductory remarks by Prof. Reinhard Conradt, Immediate Past President, International Commission on Glass		
09:55-10:05	Speech by Prof. Ana Rodrigues, Chair, ICG Technical Committee, TC23: <i>Education, Training in Glass Science &amp; Eng.</i>		
10:05-10:10	Vote of Thanks by Dr. K. Annapurna, Chair, 3 <sup>rd</sup> ICG-CGCRI Tutorial		
10:10-10:55	Lecture 1	<b>Prof. J. M. Parker</b> University of Sheffield, UK	<i>Transport properties of Glass</i>
10:55-11:15	<b>Tea/Coffee</b>		
11:15-12:00	Lecture 2	<b>Prof. Reinhard Conradt</b> RWTH Aachen University, Germany	<i>Thermodynamics and Chemical Structure of Oxide Glasses</i>
12:00-12:45	Lecture 3	<b>Prof. J. M. Parker</b>	<i>Colour and redox processes</i>
12:45-13:30	<b>Lunch (Packed Lunch/Sandwiches)</b>		
13:30-15:00	Introduction of Students (one slide per student for 2 min)		
15:00-15:45	Lecture 4	<b>Prof. Reinhard Conradt</b>	<i>The Batch-to-Melt Conversion in Industrial Glass Making</i>
15:45-16:30	Lecture 5	<b>Prof. Anoop Krishnan</b> Indian Institute of Technology, Delhi, India	<i>Machine Learning for Glass Science-I</i>
16:30-16:45	<b>Tea/Coffee</b>		
16:45-17:30	Lecture 6	<b>Prof. Anoop Krishnan</b>	<i>Machine Learning for Glass Science-II</i>
17:30-18:15	Lecture 7	<b>Prof. Aswini Ghosh</b> Indian Association for the Cultivation of Science, Jadavpur, Kolkata, India	<i>Transport and Relaxation of Charge Carriers in conducting glass</i>
18:15-19:00	Lecture 8	<b>Dr. C. Venkateswaran</b> Vikram Sarabhai Space Centre (VSSC), Thiruvananthapuram, Kerala, India	<i>The Transformative Power of a Magical Material: Glass</i>

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Day2 : Saturday (January 18)			
Time	Event	Speakers	Lectures
09:30-10:15	Lecture 9	<b>Mr. Stuart Hakes</b> F.I.C. (UK) Limited, Cornwall, United Kingdom.	<i>Electric Boosting- How to operate and maintain-I</i>
10:15-11:00	Lecture 10	<b>Prof. Leena Hupa</b> Åbo Akademi University Turku/Åbo, Finland	<i>Manufacturing products of melt-derived bioactive glass vs. melt crystallization-I</i>
11:00-11:30	<b>Tea/Coffee</b>		
11:30-12:15	Lecture 11	<b>Mr. Stuart Hakes</b>	<i>Electric Boosting- How to operate and maintain-II</i>
12:15-13:00	Lecture 12	<b>Prof. Leena Hupa</b>	<i>Manufacturing products of melt-derived bioactive glass vs. melt crystallization-II</i>
13:00-13:30	<b>Lunch (Packed Lunch/Sandwiches)</b>		
13:30-14:30	<b>Interaction of students</b>		
14:30-15:15	Lecture 13	<b>Prof. Edgar Zanotto</b> Federal University of São Carlos, Brazil	<i>Nucleation and crystallization of supercooled liquids and glasses -I</i>
15:15-16:00	Lecture 14	<b>Prof. Ana Rodrigues</b> Federal University of São Carlos São Carlos, Brazil	<i>Electrical properties: fundamentals</i>
16:00-16:15	<b>Tea/Coffee</b>		
16:15-17:00	Lecture 15	<b>Prof. Edgar Zanotto</b>	<i>Nucleation and crystallization of supercooled liquids and glasses -II</i>
17:00-17:45	Lecture 16	<b>Prof. Ana Rodrigues</b>	<i>Electrical properties: characterization and application</i>
17:45-18:30	Lecture 17	<b>Dr. K. Annapurna</b> CSIR-CGCRI, Kolkata, India	<i>Optical and spectral Properties of Glasses</i>

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Day3 : Sunday (January 19)			
Time	Event	Speakers	Lectures
09:30-10:15	Lecture 18	<b>Prof. Arun Varshneya</b> President, Society of Glass Technology and Saxon Glass Technologies, NY, USA	<i>Strength and Strengthening of Glass-I</i>
10:15-11:00	<i>Interactive Session among participants and tutorial speakers</i>		
11:00-11:15	Tea/Coffee		
11:15-12:00	Lecture 19	<b>Prof. Arun Varshneya</b>	<i>Strength and Strengthening of Glass-II</i>
12:00-13:00	Valedictory Function-Distribution of Certificates		
13:00-14:00	Lunch (K D Sharma Multipurpose Hall)		
14:00-15:30	Youth Outreach Program of ICG (Meet the mentors)		
15:30-17:30	Visit to unique facilities of CSIR-CGCRI 1. Atma Ram Memorial Museum and Archives 2. Specialty Glass Division 3. Fiber Optics and Photonics Division 4. Biomaterials and Medical Devices 5. Energy Materials and Devices Division		