

**Recent Advancements and Applications of High Temperature Materials:  
Processing, Manufacturing & Diagnostics (RAATEM 2024)**

**15<sup>th</sup>–16<sup>th</sup> JULY, 2024**

at

**International Advanced Research Centre  
for Powder Metallurgy and New Materials (ARCI), Hyderabad**

**Program Schedule**

**Day 1: 15<sup>th</sup> JULY 2024 (Monday)**

TIME	EVENT
09.00-09.30	Registration
09.30-10.00	Inauguration
	Welcome Address by Shri D. Srinivasa Rao, Associate Director, ARCI
	Opening Remarks by Dr. R. Vijay, Director, ARCI
	Address by Dr. G. Raghunath Reddy, DST
	Address by Dr. B. P. Rao, Chief Guest
10.00-10.45	<b>Plenary Talk: Overview of AUSC program in India: Materials, Fabrication Technologies and Challenges, Shri S.C. Chetal</b>
10.45-11.15	High Tea & Group Photo
<b>SESSION 1: Surface Engineering Solutions for High Temperature Applications</b>	
11.15-11.40	<b>Advances in Thermal Sprayed Coatings: Opportunities for Quality and Efficiency Improvements across Sectors, Dr. K. Anand</b>
11.40-11.55	<b>Overview of Surface Engineering Technologies @ ARCI for Diverse Industrial Applications, Dr. L. Rama Krishna, ARCI</b>
11.55-12.15	<b>Thermal Spray Coatings for Power Plant and Other Strategic Applications, Dr. G. Sivakumar, ARCI</b>
12.15-12.30	<b>Laser-clad Coatings for Tribo-corrosion Performance Improvement, Dr. S. M. Shariff, ARCI</b>
12.30-12.45	<b>Advanced Coatings Solutions to Improve the Overall Reliability of Power Plant Components, Dr. Kshitij Shrivastav, BHEL, Bhopal</b>
12.45-13.00	<b>Coatings Opportunities in Defence Sector, Dr. Zafir Alam, DMRL</b>
13.00-13.15	<b>Special Process and Coatings for Gas Turbine Components Applications, Shri. S Esakki Muthu, AERDC, HAL</b>
13.30-14.30	Networking Lunch
14.30-15.30	<b>Visit &amp; Demonstration of Technologies – Centre for Engineered Coatings</b>
15.30-15.45	High Tea
<b>SESSION 2: Advanced Manufacturing and Joining Technologies</b>	
15.45-16.10	<b>Welding Challenges in Power Plants, Shri M. K. Asthana, NTPC</b>
16.10-16.25	<b>Overview of Laser Processing Technologies, Dr. Ravi N. Bathe, ARCI</b>
16.25-16.45	<b>Laser Hybrid Welding Technology Solutions for Power Plant Components, Shri. K. V. Phani Prabhakar, ARCI</b>
16.45-17.05	<b>Laser Assisted Machining Solutions for Difficult-to-machine Materials, Shri Manish Tak, ARCI</b>
17.05-17.25	<b>PVD Coatings for Efficient Machining and Wear Resistant Applications, Dr. Krishna Valleti, ARCI</b>
17.25-17.45	<b>Laser Assisted Machining for Defence Applications, Dr. John Rozario Jegaraj, DRDL</b>

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**Program Schedule**

**Day 2: 16<sup>th</sup> JULY 2024 (Tuesday)**

TIME	EVENT
09.30-10.00	<b>Keynote Talk 1: Challenges in Development of 740H Grade Boiler Tubes for AUSC,</b> <i>Dr. Komal Kapoor, NFC</i>
10.00-10.30	<b>Keynote Talk 2: Materials and Manufacturing Technologies for AUSC,</b> <i>Dr. Anish Kumar, IGCAR</i>
10.30-10.45	High Tea
<b>SESSION 3: High Temperature Materials</b>	
10.45-11.05	<b>Development of High Temperature ODS alloys for Elevated Temperature Applications,</b> <i>Dr. R. Vijay, ARCI</i>
11.05-11.25	<b>Role of Characterization in Materials Development,</b> <i>Dr. Arup Das Gupta, IGCAR</i>
11.25-11.45	<b>Role of High Temperature Properties in Materials Design,</b> <i>Prof. N. Narasaiah, NIT</i>
11.45-12.05	<b>Degradation Mechanisms of Materials Under High Temperature Oxidation and Corrosion,</b> <i>Dr. Sharma Paswan, NML</i>
12.05-12.25	<b>High Temperature Materials for Space Applications: Opportunities,</b> <i>Dr. S.V.S. Narayana Murthy, ISRO</i>
12.25-13.30	<b>Visit &amp; Demonstration of Technologies</b> – Centre for Laser Processing of Materials and Centre for Nanomaterials
13.30-14.30	Networking Lunch
<b>SESSION 4: Non-destructive Evaluation of Power Plant Components</b>	
14.30-14.50	<b>Stress Corrosion Cracking in Austenitic Stainless Steel Super 304H &amp; 347H Grade Tubes,</b> <i>Shri. R. K. Jain, NTPC</i>
14.50-15.10	<b>High Temperature Sensors for Failure Prediction in High Temperature Environment,</b> <i>Dr. Sarmishtha Palit Sagar, NML</i>
15.10-15.30	<b>Coal Flow Monitoring and Balancing for Efficiency and Emission Control,</b> <i>Shri Archit Lohia, BMW Steels</i>
15.30-15.45	High Tea
15.45-16.45	<b>Panel Discussion: Challenges Towards Implementation of High Temperature Coatings and Materials in Power Plants and Similar Industrial Applications</b> <b>Moderator: Dr. T. Jayakumar</b> <b>Members: Dr. R. Vijay, Shri D. Srinivasa Rao, Dr. Anish Kumar, Dr. S.V.S. Narayana Murthy, Dr. K. Anand, Dr. A. K. Maiti</b>
<b>Closing Remarks</b>	

