

ATAL Online 6 Day Faculty Development Program Proposal for 2024-25 Schedule from Dr. Vinayak R. Malik and Dr. Ganesh Chate

FDP Thrust Area: Advanced Materials, Rare-earth & Critical Minerals

FDP Title: Microwave Processing and 3D printing of Functional Materials - From Fundamentals to Future Technologies

Start Date: 03/02/2025 (Monday)

End Date: 08/02/2025 (Saturday)

| Day 1 | Day 2 | Day 3 | Day 4 | Day 5 | Day 6 |
|---|---|--|---|---|--|
| <p>6:00PM to 6:30PM Inaugural Session</p> | <p>6:00PM to 7:30PM Session 3 Topic: 3D Printing of Functionally Graded Polymer Matrix Composites Raghavendra S Founder and CEO Aakruthi3D Pvt. Ltd., Karnataka, India</p> | <p>6:00PM to 7:30PM Session 5 Topic: Enhancement of functionalities by surface texturing of Additively Manufactured Components Dr. Mamilla Ravi Sankar Professor & Head, Department of Mechanical Engineering IIT, Tirupati</p> | <p>6:00PM to 7:30PM Session 7 Topic: Sensors for Healthcare and Environmental Monitoring and Graphene-based Devices Dr. Ruma Ghosh Assistant Professor, Department of Electrical, Electronics and Communication, IIT Dharwad</p> | <p>6:00PM to 7:30PM Session 9 Topic: Energy Storage and Conversion Materials (Energy storage [batteries, supercapacitors, fuel cells], Ways for enhancements in energy conversion efficiency) Hari Mohan Upadhyaya Professor at London South Bank University, London, UK</p> | <p>2:00PM to 3:30PM Session 11 Topic: Nanostructured Functional Material (Graphene, MXene) and Self-healing materials Sagitha Paroly, Research and Development Scientist Hexlattice Materials Pvt. Ltd., Karnataka, India</p> |
| <p>6:30PM to 8:00PM Session 1 Topic: Fundamentals of Microwave Materials Processing Prakash Mugali, Founder and Executive Chairman, Enerzi Microwave Systems Pvt. Ltd., Karnataka, India</p> | <p>7:30PM to 9:00PM Session 4 Topic: 3D Printing of Functionally Graded Metal Matrix Composites Samyak N CTO/Technical Director Aakaar Precitech Pvt. Ltd., Karnataka, India</p> | <p>7:30PM to 9:00PM Session 6 Topic: Micromachining for Microwave and RF Applications Dr. Mamilla Ravi Sankar Professor & Head, Department of Mechanical Engineering IIT, Tirupati</p> | <p>7:30PM to 9:00PM Session 8 Topic: Characterization of Functional Materials - I Dr. Anbukkarasi Rajendran Assistant Professor, Mechanical, Materials and Aerospace Engineering, IIT Dharwad</p> | <p>7:30PM to 9:00PM Session 10 Topic: Characterization of Functional Materials - II Dr. Ajay Kumar Assistant Professor, Department of Mechanical Engineering IIT, Tirupati</p> | <p>3:30PM to 5:00PM Session 12 Topic: Sustainability interventions for Microwave Processing of Functional Materials Prof. Kapil Gupta Professor, University of Johannesburg (South Africa) Visiting Professor, Cracow University of Technology (Poland)</p> |
| <p>8:00PM to 9:30PM Session 2 Topic: Mechanisms in Microwave Processing for Functional Materials Dr. Chandrasekhar Ex-Director, Laird Technologies India Pvt. Ltd. Technical Advisor - Enerzi Group of Companies, Karnataka, India</p> | | | | | <p>5:00PM to 7:30PM Session 13 Topic: Emerging Trends and Commercialization of Microwave Processing (Industrial applications and case studies, Scaling microwave processing for commercial use, Future prospects in the field) Prakash Mugali, Founder and Executive Chairman, Enerzi Microwave Systems Pvt. Ltd., Karnataka, India</p> |
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| | | | | | <p>7:30PM to 8:00PM Valedictory Session</p> |