

INTERNATIONAL SYMPOSIUM

Emerging Materials: Technologies and Applications #EMTA2025

26-27 November, 2025

Venue: Vivekananda Hall, Mahindra University, Hyderabad



Organized by: Department of Chemistry

OVERVIEW

International Symposium on "Emerging Materials: Technologies and Applications" (EMTA 2025), organized by the Department of Chemistry, Mahindra University, Hyderabad, brings together leading experts from academia and industry to discuss recent advancements in functional and advanced materials. The symposium will host an interdisciplinary community of scientists from India & UK, focusing on innovative materials for applications in energy, semiconductors, and environmental technologies. It will spotlight state-of-the-art materials, novel techniques, and their applications in addressing real-world challenges. EMTA 2025 serves as a dynamic platform for knowledge and collaboration, offering participants valuable insights into cutting-edge research shaping the future of materials science. Join us to explore emerging trends and contribute to shaping the future of advanced materials and their transformative technologies.

THEMES

- · Low Dimensional Materials
- Wearable and Flexible Electronics
- Memristor & Neuromorphic Computing
- Micro-Nano Devices
- Electrochemical Energy Storage Devices
- Electrocatalytic Nanomaterials
- Advanced Sensor Technologies
- Organometallics and Polymers

HIGHLIGHTS

- Exciting Talks
- Panel Discussion
- Knowledge Sharing
- Poster Session
- · Lab Adventure: Where Breakthrough Begins
- Nano Microphotography: The Art of Morphology
- ChemPitch: Where Chemistry Meets Innovation!
- Poster Excellence Awards

Session 1

8:30 – 9:00	Registration

9:00 - 9:10 Lamp Lighting

Inaugural Address by 9:10 - 9:15

Vice Chancellor - Dr. Yajulu Medury

Opening Remarks by 9:15 - 9:25

Dean of Academics - Prof. Bishnu Pal

Welcome Address by 9:25 - 9:40

HoD - Dr. Chitra Gurnani

Plenary 1: Prof. Gill Reid

(University of Southampton, UK)

Group Photo / Coffee Break

Session 2

Plenary 2: Prof. G. U. Kulkarni 10:55 - 11:45 (JNCASR, Bengaluru, India)

Speaker 1: Dr. Narendra Kurra 11:45 - 12:10 (IIT Hyderabad, India)

Speaker 2: Dr. Ramkrishna Matte 12:10 - 12:35 (CENS, Bengaluru, India)

Speaker 3: Prof. Kalyan Raidongia 12:35 - 13:00 (IIT Guwahati, India)

13:00 - 14:20 **Lunch Break**

14:20 - 15:50 **Poster Session**

26-27 NOV, 2025

scan for web page

15:50 - 16:15

16:15 - 16:40 16:40 - 17:00

9:40 - 10:30

10:30 - 10:55

17:00 - 18:00

Session 3

Speaker 4: Dr. Aparna Ganguly (Royal Society of Chemistry, India)

Nano Micrography: The Art of Morphology

High Tea

Lab Adventure: Where **Breakthrough Begins**

19:00 - 21:00 Gala Dinner 9:00 - 9:50

9:50 - 10:15

10:15 - 10:35

10:35 - 11:00

11:00 - 11:25

11:25 - 12:10

12:10 - 12:35

12:35 - 13:00

13:00 - 14:00

14:00 - 14:25

14:25 - 14:50

14:50 - 15:15

15:15 - 15:40

15:40 - 16:20

Session 4

Plenary 3: Prof. Kees De Groot (University of Southampton, UK)

Speaker 1: Prof. Sanket Goel (BITS Pilani, Hyderabad, India)

Coffee Break

Speaker 2: Dr. Tukaram Dongale (Shivaji University, Kolhapur, India)

Speaker 3: Dr. Sai Manohar Gollakota (Honeywell, Bengaluru, India)

ChemPitch: Where Chemistry Meets Innovation!

Speaker 4: Prof. SVS. Nageshwara Rao (University of Hyderabad, India)

Speaker 5: Dr. Tirthankar Jana (Berger paints, Kolkata, India)

Lunch Break

Session 5

Speaker 6: Dr. Ruomeng Huang (University of Southampton, UK)

Speaker 7: Dr. Pooja Devi (CSIR-CSIO, Chandigarh, India)

Speaker 8: Dr. Chitra Gurnani (Mahindra University, Hyderabad, India)

Speaker 9: Dr. Vinayak Ogale (Saint Gobain, Chennai, India)

High Tea / Poster Session

26-27 NOV, 2025

scan for web page



16:20 - 17:05

17:05 - 17:15

17:15 - 17:30

Session 6

Panel Discussion: Innovation Technologies – Going forward Prof. Gill Reid, Prof. Sanket Goel, Dr. Pooja Devi

Closing Remarks by Dean R&D - Prof. Arya Kumar Bhattacharya

Prize Distribution & Vote of Thanks

PLENARY SPEAKERS



Prof. Gill Reid
University of Southampton, UK

Title: Electrodeposition of 2D Transition Metal Dichalcogenide Semiconductors Using Single Source Precursors



Prof. G. U. Kulkarni JNCASR Bengaluru, India

Title: Twisted Graphene Stacks



Prof. Kees De Groot

University of Southampton, UK

Title: Sustainable Electronic Technologies

INVITED TALKS



Dr. Narendra Kurra

IIT Hyderabad, India

Title: 2D MXenes and their Hybrids for Advanced Energy Storage Devices.



Dr. Ramakrishna Matte

CENS Bengaluru, India

Title: Solution Processing of Low-dimensional Materials and Applications



Prof. Kalyan Raidongia

IIT Guwahati, India

Title: Harvesting Nanofluidic Energy through Reconstructed Layered Materials



Dr. Aparna Ganguly

Royal Society of Chemistry, India

Title: Connecting Chemical Science Communities in India



Dr. Pooja Devi

CSIR-CSIO Chandigarh, India

Title: MXene Engineering for Catalysing Hydrogen Evolution Reactions.



Dr. Tukaram Dongale

Shivaji University, Kolhapur, India

Title: Self-Assembled Collagen–MXene Nanofibers for Biocompatible and Transient Synaptic Electronics.



Dr. Sai Manohar Gollakota

Honeywell, Bengaluru, India

Title: Next-Gen Aerospace Materials: Opportunities and Graphene Insights.



Prof. SVS. Nageshwara Rao

University of Hyderabad, India

Title: Fabrication and Radiation Response of Resistive Switching Devices.



Dr. Tirthankar Jana

Berger paints, Kolkata, India

Title: Polymer Nanocomposite Materials for Advanced Coating Applications.



Dr. Vinayak Ogale

Saint Gobain, Chennai, India

Title: Advanced Material Science: Connecting Science to Business Impact.



Dr. Ruomeng Huang

University of Southampton, UK

Title: Novel Materials and Memristors for Neuromorphic Computing.



Prof. Sanket Goel

BITS Pilani, Hyderabad, India

Title: Liquid Intelligence: Designing Hybrid Inks for Adaptive Electronics.

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