

## Organizing Committee

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Head, Department of Physics & Material Science

MMM University of Technology, Gorakhpur, India

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Director, FDC, AICTE New Delhi

## AICTE-MMMUT MoU

### Program Coordinators

**Dr. Jay Prakash**

Registrar

MMM University of Technology, Gorakhpur, India

**Dr. Shekhar Yadav**

Assistant Professor

Department of Electrical Engineering

MMM University of Technology, Gorakhpur, India

## Faculty Development Programme on Recent Advances in Experimental Tools and Theoretical Techniques

**(RAETTT-2022)**

**November 10 - 16, 2022**

### Programme Convener

**Dr. S. P. Singh**

Department of Physics & Material Science,

MMM University of Technology, Gorakhpur, India

Jointly Organized by



**All India Council for Technical Education  
(AICTE), New Delhi  
&**



**Department of Physics & Material Science  
MMM University of Technology  
Gorakhpur-273010, (U.P) INDIA  
(NAAC "A" Grade)**

## CONTENTS OF THE PROGRAMME

The programme will provide in-depth knowledge and information about recent advances on following major areas:

Synthesis of Functional Materials  
Functional Properties and Applications of Novel Materials  
Measurement of Electrical, Magnetic & Opto-electronic Properties  
Microscopy at Nanoscales  
Classical Simulation Methods (MC and MD Simulation)  
Density Functional Theory (DFT)  
ab-initio Method

## PROGRAMME DURATION

One Week, November 10– 16, 2022  
(Offline Mode)

## Eligibility Criteria

The program targets faculty members and research scholars engaged in material science research working at **AICTE/UGC approved Institutions**. The seats are limited to 50-80 participants on first come first served basis.

**For any further query, you may contact:**

**Dr. Jay Prakash:** [registrar@mmmut.ac.in](mailto:registrar@mmmut.ac.in)

**Dr. Shekhar Yadav:** [syee@mmmut.ac.in](mailto:syee@mmmut.ac.in)

**Dr. Satya Pal Singh:** [spsps@mmmut.ac.in](mailto:spsps@mmmut.ac.in)

**Contact:**

9235500552, 9411222122, 9450422506

## ABOUT FACULTY DEVELOPMENT PROGRAMME

The objective of the programme is to up-grade the knowledge and skill of teachers employed in various disciplines of science with a special focus on material science, as it is the core of all engineering and science subjects. The FDP will cover common areas of interest to cater the need of faculty members across various disciplines. The academia, researchers and experts from industries will address topics related to the use of SEM, TEM., XRD, XPS, FTIR, UV-vis-nir, Raman, Optical Microscopes and DSC etc. and explore their findings on novel functional properties of materials. Deliberations on computational methods as molecular simulations, density functional theory and other emerging techniques will help faculty members to solve real problems in their respective fields. The FDP will focus on experimental, theoretical and simulation methods currently being widely used by leading scientists of the world. Many fold advancement in new experimental tools and technique is leading to exponential growth in various field of science. Computational techniques offer newer way of investigating a research problem and are capable of accurate and precise explanation for physical phenomena. These methods and technique give molecular scale insights, and can help one to predict new microscopic events. The amalgam of academia, scientists and researchers from central universities, NIITs & IITs and research organizations/ industries will give an opportunity to interact with them.



## TENTATIVE LIST OF SPEAKERS CONFIRMED SO FAR

1. Dr. Shri Singh, Distinguished Professor, Department of Physics, Institute of Science, Banaras Hindu University, Varanasi, Uttar Pradesh, India
2. Dr. Neelesh Prakash Gurao, Assistant Professor, Department of Material Science Engineering, IIT Kanpur, Uttar Pradesh, India
3. Dr. Yogendra Prajapati, Professor, Department of Electronics and Communication Engineering, MNNIT, Allahabad, Uttar Pradesh, India
4. Dr. Chandan Upadhyay, Associate Professor, School of Materials Science & Technology, IIT (BHU), Varansi, Uttar Pradesh, India
5. Dr. R. Nagarajan, Senior Professor, Department of Chemistry, University of Delhi, Delhi, India
6. Dr. Prabhakar Singh, Professor, Department of Physics, IIT (BHU), Varanasi, Uttar Pradesh, India
7. Dr. Sasanka Deka, Associate Professor, Department of Chemistry, University of Delhi, Delhi, India
8. Dr. K Awasthi, Associate Professor, Director MRC, Department of Physics, MNIT, Jaipur, India
9. Dr. Kedar Singh, Professor, Dean, School of Physical Sciences, JNU, New Delhi, India
10. Dr. Manoj Gupta, Scientist, CSIR AMPRI Laboratory, Bhopal, Madhya Pradesh, India
11. Dr. Manash R. Das, Principal Scientist & Associate Professor (AcSIR), Materials Sciences and Technology Division, CSIR-NEIST, Jorhat, Assam, India
12. Dr. Prabhat Kumar Dwivedi, Senior Scientific Officer, Nanoscience Center, IIT Kanpur, Uttar Pradesh, India



**One Week**  
**Faculty Development Programme (FDP)**  
**On**  
**RECENT ADVANCES IN EXPERIMENTAL TOOLS & THEORETICAL TECHNIQUES**  
**RAETTT-2022**

**10 NOV. –16 NOV. 2022**

**Organized Under**  
**MoU Signed between: ALL INDIA COUNCIL FOR TECHNICAL EDUCATION (AICTE-INDIA) & MADAN MOHAN MALAVIYA UNIVERSITY OF TECHNOLOGY, GORAKHPUR, UP< INDIA**

**Organized**  
**by**  
**DEPARTMENT OF PHYSICS**  
**&**  
**MATERIAL SCIENCE**  
**Madan Mohan Malaviya University of Technology, Gorakhpur, Uttar Pradesh-273010**  
**(NAAC A-Grade State University)**

**Contact:**

**Dr. Satya Pal Singh (Convener)**  
**Prof. D. K. Dwivedi (Head& Chairman)**

**Email: [raettt.2022@gmail.com](mailto:raettt.2022@gmail.com)**

**\* Duly filled and signed forms may also be sent on above email id. All correspondences regarding FDF programme should be sent on the FDF mail id given above.**

**APPLICATION FORM  
ONE WEEK  
FACULTY DEVELOPMENT PRO-  
GRAMME  
RECENT ADVANCES IN EXPERI-  
MENTAL TOOLS & THEORETICAL  
TECHNIQUES  
(RAETTT-2022)**

**(Sponsored by AICTE-MMMUT MoU Activities)**

- 1.Name(Block Letter):.....
- 2.Designation & Pay-scale:.....
- 3.Organization:.....
- 4 .Address for communication:.....  
.....
- Pin code: ..... Ph. No. ....
5. Whatsapp No: .....
6. E-mail:.....
7. Highest Academic Qualification:.....
- 8..Specialization:.....
9. Experience( in years:
- (a) Teaching:.....
- (b) Industrial:.....
- Accommodation Required (Yes/No):.....
- Place:
- Date: Applicant's Signature

**Seal and Signature of Head of Institution**

## ABOUT UNIVERSITY

Madan Mohan Malaviya University of Technology, Gorakhpur has been established in year 2013 by the Government of Uttar Pradesh in the form of a non-affiliating, teaching and research University after reconstituting the Madan Mohan Malaviya Engineering College, Gorakhpur. MMM Engineering college was established in the year 1962. Fifty-Four batches of students have entered its portals to emerge after four years of rigorous education under the tutelage of some of the most venerable teachers, engineers ready to face the world and create new worlds. The University is located in the Gorakhpur -Deoria road about 9 Km away from Gorakhpur Railway Station. In addition to UG in Civil Engineering, Chemical Engineering, Computer Science & Engineering, Mechanical Engineering, Electrical Engineering and Electronics & Communication Engineering, Information Technology, University also offers MCA, BBA, MBA, M. Tech, M.Sc. and Ph.D. courses in various specializations.

## ABOUT DEPARTMENT

The Department of Physics and Material Science was established on 22<sup>nd</sup> June, 2019. Which has been inaugurated by Shri Yogi Adityan Ji Maharaj, Hon'ble Chief Minister of Uttar Pradesh. Previously, it has been the constituent part of Department of Applied Sciences. The erstwhile Madan Mohan Malaviya Engineering College, Gorakhpur, which was started in 1962, by the then Government of Uttar Pradesh to foster technical education, has been upgraded as Madan Mohan Malaviya University of Technology, Gorakhpur on 1<sup>st</sup> Dec. 2013 by the UP-Government Act (22). The department of Physics and Material Science has been founded for imparting high quality education through the programs; B. Tech in Chemical Engineering, Civil Engineering, Computer Science & Engineering, Electrical Engineering, Electronics & Communication Engineering, Information Technology, Mechanical Engineering and M.Sc. in Physics with specialization in electronics.

The main objective of the department is to disseminate knowledge in the area of Physics and Material Science, in order to promote the implementation of practical aspects related to it and to build a solid foundation of physics for science and engineering graduates. The department offers Ph. D. degree in Physics, with an objective to produce trained and skilled human resources; who can take the challenges to cater the need of the society. The research is focused to thrust areas as: Condensed Matter Physics, Solar Energy Physics, Thin Films, Opto-electronic Materials and Devices, Fiber Optic Sensors, Solar Cell, Energy Storage, Applications of Nanomaterial, Micro & Nanofluids, Molecular Simulation etc.

## Submission of Registration Form

Interested participants must submit their duly filled and signed form on given format to the following address:

Dr. Satya Pal Singh (Convener)  
RAETTT-2022  
AS-205, Department of Physics & Material Science  
MMM University of Technology  
Gorakhpur  
Uttar Pradesh  
India-273010  
**Email: raettt.2022@gmail.com**

\* A duly filled and signed scanned copy of the application can also be sent via FDP email given as above.

## Important Dates & Registration Fees

Submission of Registration form :

**05 November, 2022**

Notification of Detailed Schedule : **Nov. 08 , 2022**

**NOTE: Outside faculties from AICTE/UGC approved institutions will be entitled for reimbursement of 2nd class (Non-AC) train fare via shortest route up-to 300 Kms. Participants will be provided free lodging in university hostel, if so required. Expenses for accommodation in nearby hotels or university guest house will be borne by the participants.**