



**MANIPAL UNIVERSITY  
JAIPUR**



**MANIPAL UNIVERSITY  
JAIPUR**

**FACULTY OF SCIENCE**

**SCHOOL OF BASIC SCIENCES**

**INTERNATIONAL CONFERENCE**

**on**

**Recent Advances in Material Science and Computational  
Techniques (RAMSACT)**

**Date of Event: - 30 – 31 May 2022**



1. Introduction of the Event
2. Objective of the Event
3. Beneficiaries of the Event
4. Details of the Guests
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8. Schedule of the Event
9. Attendance of the Event
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11. Feedback of the Event
12. Link of MUJ website

## 1. Introduction of the Event

International Conference on Recent Advancements in Materials Science and Computational Techniques (RAMSACT) is a platform with the goal of bringing together prominent academic scientists, researchers, and research scholars to exchange and share their experiences and research findings on all aspects of Multifunctional Materials and Computational Techniques. It also provides a premier interdisciplinary platform for researchers, practitioners, and educators to present and discuss the most recent innovations, trends, and concerns as well as practical challenges encountered, and solutions adopted in the fields aligned with the conference theme. RAMSACT aims to provide an appropriate forum, where high quality and exceptional knowledge exchange can take place among students, academics, and industry researchers.

## 2. Objective of the Event (bullet points or about 50 words)

- To bring together prominent academic scientists, researchers, and research scholars to exchange and share their experiences and research findings
- To provide a premier interdisciplinary platform for researchers, practitioners, and educators to present and discuss the most recent innovations, trends, and concerns related to Advances in Functional and Multifunctional Nanomaterials and Computational Techniques.

## 3. Beneficiaries of the Event (Student/Faculty/Community etc) (25 words)

- Researchers, practitioners, academicians working in the field of Nanomaterials, Mathematical and Statistics Sciences.

## 4. Details of the Guests (Chief Guests, speakers etc Designation, organization, contact details if any please give them in sr no)

**Chief Guests:** - Prof. Amitava Patra, Director, Institute of Nano Science and Technology, Mohali

### **Speakers :** -

1. **Dr Vinod Pallath**, Associate Professor, Medical Education and Research Development Unit, Faculty of Medicine, University Malaya, Kuala Lumpur
2. **Dr. Surekha Kundu**, Molecular and Applied Mycology and Plant Pathology Laboratory, Dept of Botany, University of Calcutta.
3. **Dr. Andrés A. Navarro-Newball**, Full Professor and Researcher, Department of Electronics and Computer Sciences, Pontifical Javeriana University, Cali, Colombia
4. **Prof. Venugopal Rao Soma**, Advanced Centre of Research in High Energy Materials (ACRHEM), University of Hyderabad, Hyderabad, Telangana, India

5. **Dr. Akhilesh Kumar Singh**, Assistant Professor, IIT Bhubaneswar Campus, Arugul,
6. **Prof. Zakia Hammouch**, Division of Applied Mathematics, Thu Dau Mot University, Binh Duong Province, Vietnam
7. **Prof. B J Gireesha**, Department of P.G. Studies and Research in Mathematics, Kuvempu University, Shankaraghatta, Shimoga, Karnataka, India
8. **Dr. Paresh H. Salame**, Assistant Professor, Institute of Chemical Technology (ICT), Mumbai
9. **Dr. Indranil Sarkar**, Institute of Nano Science and Technology, An Autonomous Research Institute of Dept. of Science & Technology, Govt. of India

## 5. Brief Description of the event (about 200 words)

School of Basic Sciences, Faculty of Science successfully organised an International Online Conference on Recent Advancements in Materials Science and Computational Techniques (RAMSACT-2022) from May 30-31, 2022.

The conference began with an inaugural ceremony in which Prof. Lalita Ledwani, Dean, Faculty of Science welcomed all the keynote speakers and participants. Further theme of the conference was shared by convenor of the event followed by address from Prof. Nitu Bhatnagar Registrar, MUJ in which an overview about the University was shared. President, MUJ, Prof. G. K. Prabhu quoted Dr. APJ Abdul Kalam that “space material and those used for heart function are the same”. Hence, materials constitute a significant part of our world. Chief guest of the event, Prof. Amitava Patra, Director, Institute of Nano Science and Technology, INST, Mohali shared that global share of nanotechnology will be doubled in next three years. He further added that the growth of any country depends on science and technology and we should take responsibility to develop resources for the same. This was followed by vote of thanks.

In technical sessions, eminent scientific persons and academicians from premier institutes of India and abroad presented their work covering all the 5 themes by Prof R.R Bhargava, IIT Roorkee, Dr. Surekha Kundu, University of Calcutta, Dr. Paresh H. Salame, Institute of Chemical Technology, Mumbai, Dr. Akhilesh Kumar Singh, IIT Bhubaneswar, Dr. Andres A. Navarro-Newball, Pontifical Javeriana University, Cali, Colombia, Prof. B J Gireesha, Kuvempu University, Karnataka, Prof Venugopal Rao Soma, University of Hyderabad and Prof Vinod Pallath, University Malaya, Kuala Lumpur.

This International event provided a platform to bring together prominent academic scientists, researchers, and research scholars to exchange and share their experiences and research findings on all aspects of Multifunctional Materials and Computational Techniques. This was a unique interdisciplinary conference with 5 different tracks of importance where researchers,

practitioners, and educators presented and discussed the most recent innovations, trends, and concerns as well as practical challenges encountered, and solutions adopted in the fields aligned with the conference themes.

Different tracks of this conference were:

Track 1: Nanomaterials for Multifunctional Application

Track 2: Mathematical and Statistics Sciences

Track 3: Computational Techniques for Intelligent Health Care Services

Track 4: Recent Advancements in the Application of Chemistry in Bio and Nanomaterials

Track 5: Fundamental and upcoming advances in Biosciences and Biotechnology

In this international conference there will be around 100 oral presentations from more than 50 institutes viz., IIT Madras, Central Universities, National Forensic Sciences University, Gujarat, Jamia Hamdard University, New Delhi, Indian Institute of Science Education and Research, Bhopal, University of Rajasthan to name a few covering all the 5 tracks.

The conference hosted nine invited talks by prominent scientists and researchers from India and abroad. 99 research papers from 60 different Institutions, comprising of 18 different States of India were received and presented.

Insightful deliberations and presentations were made on 5 tracks with focus areas including Nanomaterials for Multifunctional Applications, Mathematical and Statistics Sciences, Intelligent Health Care Services, Fundamental and upcoming advances in Biosciences and Biotechnology, Recent Advancements in the Application of Chemistry in Bio and Nanomaterials.

The conference ended with an overview of the event shared by organizing secretaries of the conference and vote of thanks by co-convenor in which she acknowledged the support provided by MUJ leadership in organizing the event.

At the end of the conference, participants provided positive feedbacks about the conference and appreciated the talks given by the speakers. They also requested the organisers that since this conference serves the need of the hour, similar conferences should be re-organised in days to come.

## **6. Photographs of the event / screenshots of the event (if online) with captions**





Figure 1: Group Photograph (offline)





Figure 2: Group Photo (offline)

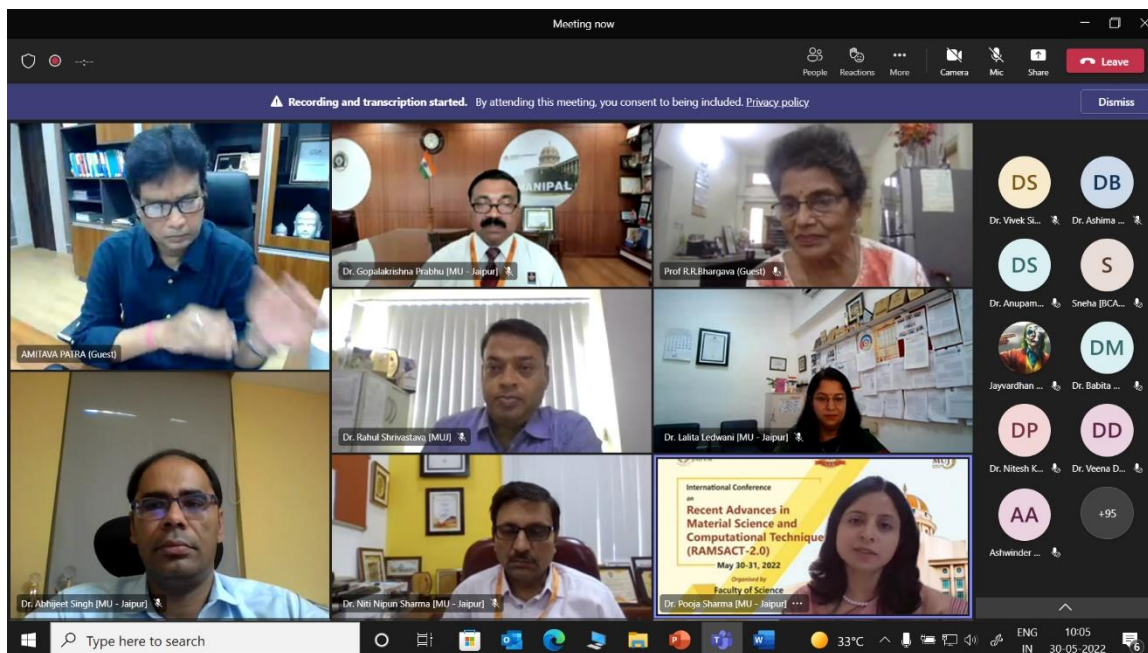


Figure 3: Inauguration Ceremony

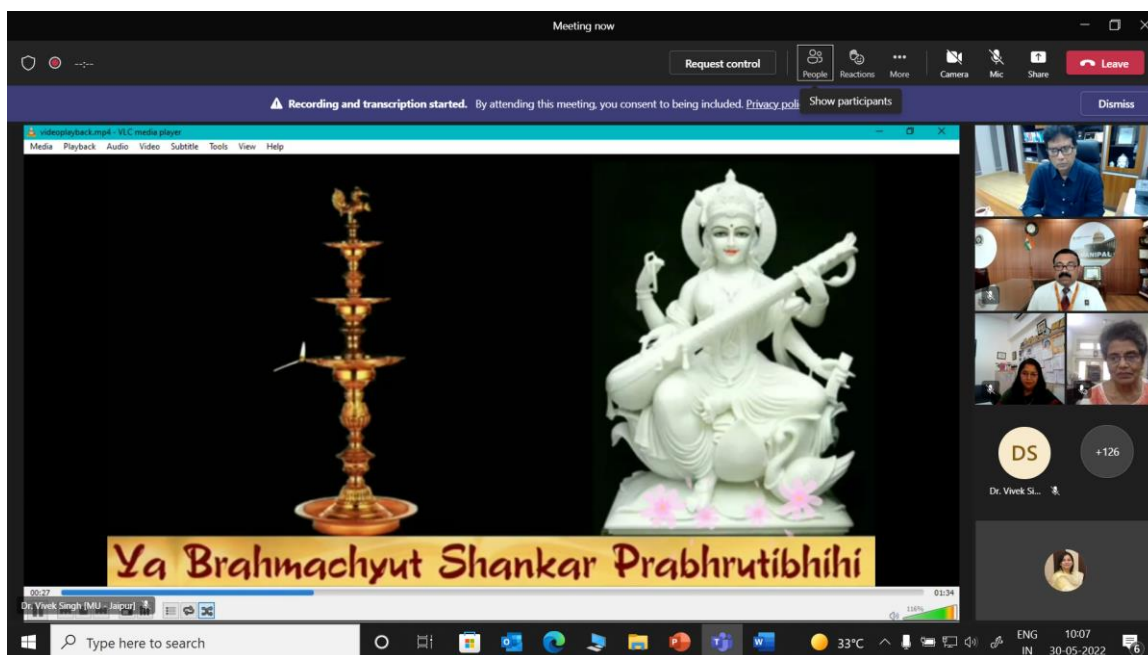


Figure 4: Inauguration Ceremony

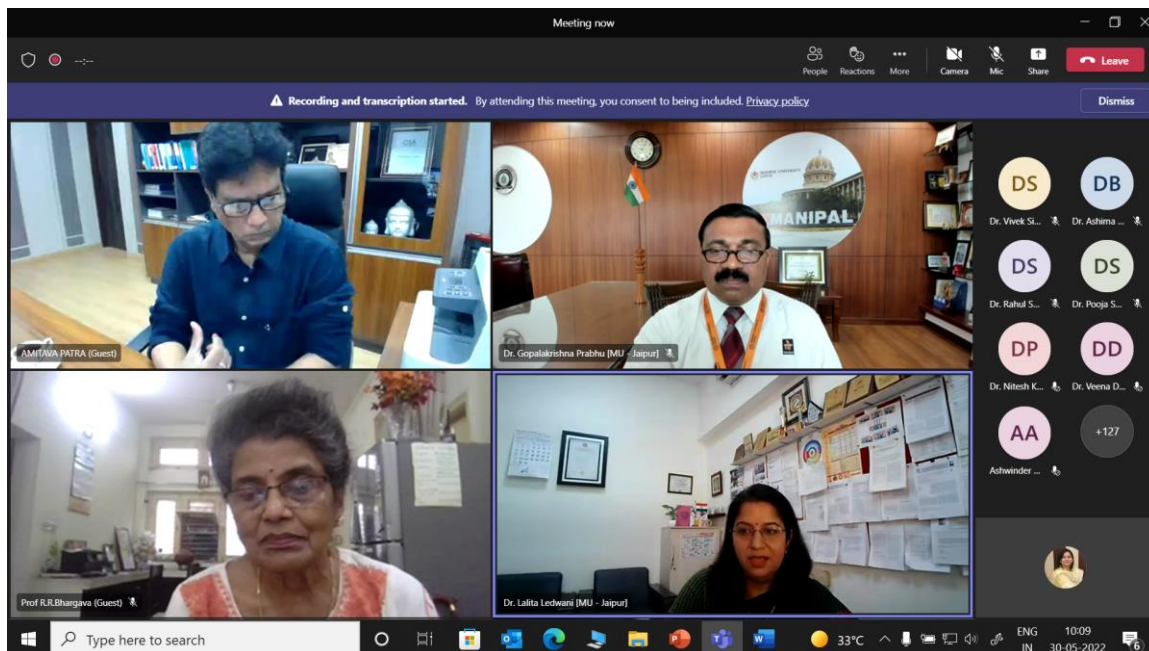


Figure 5: Address by Dean, FoS

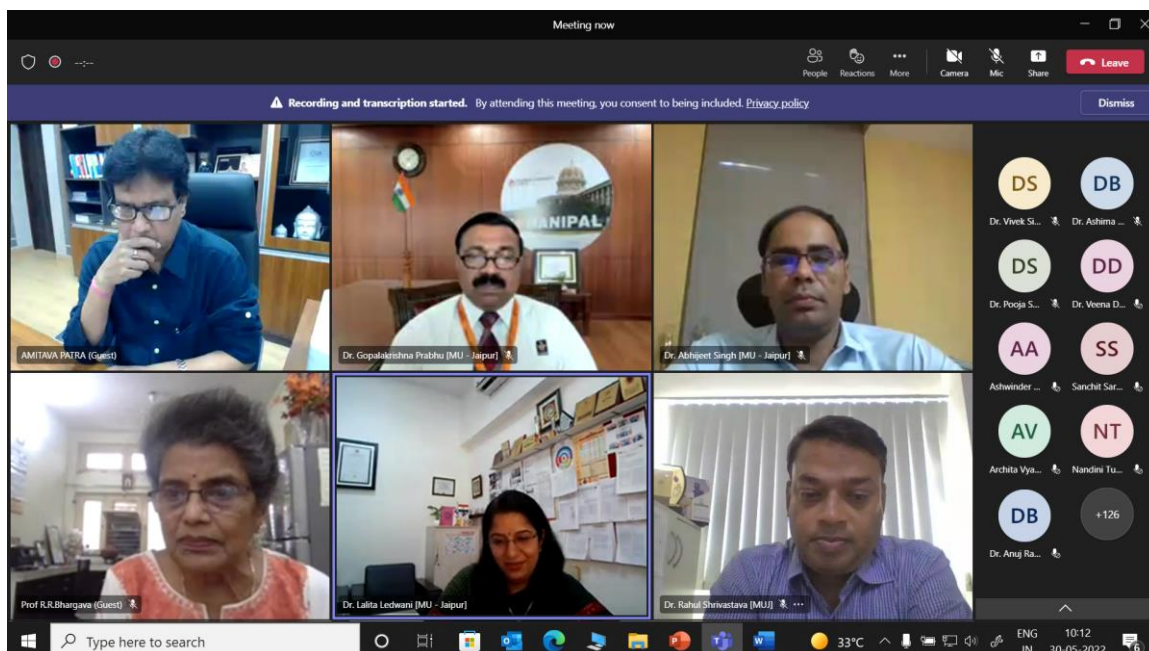


Figure 6: Address by Dean, FoS



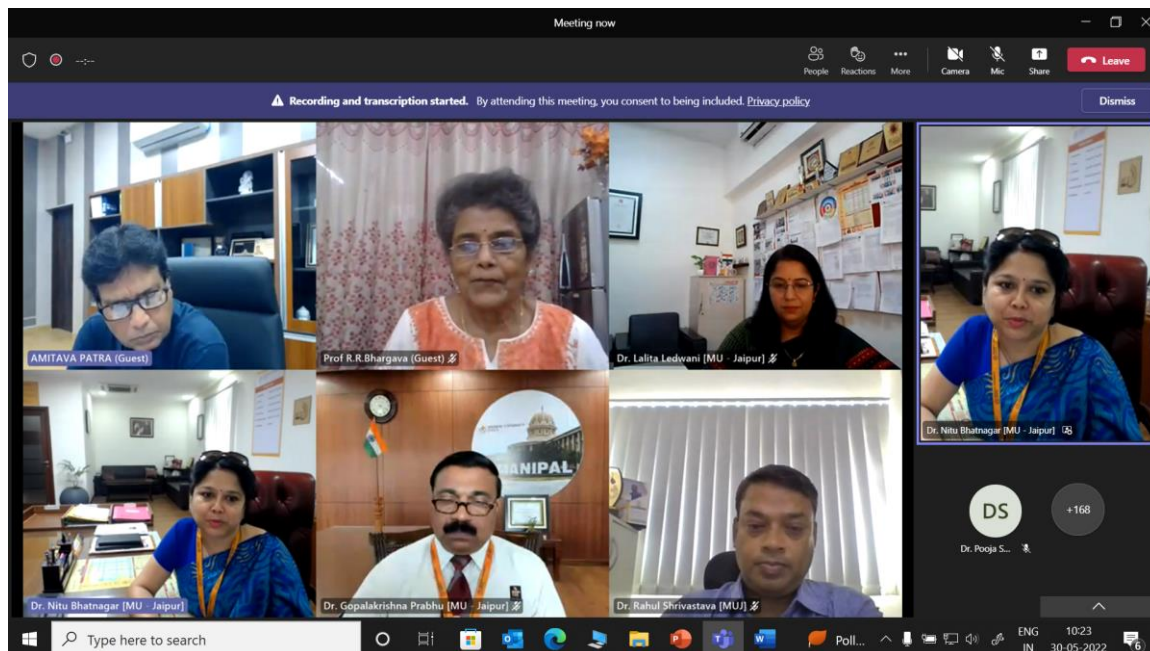


Figure 7: Address by Registrar, MUJ

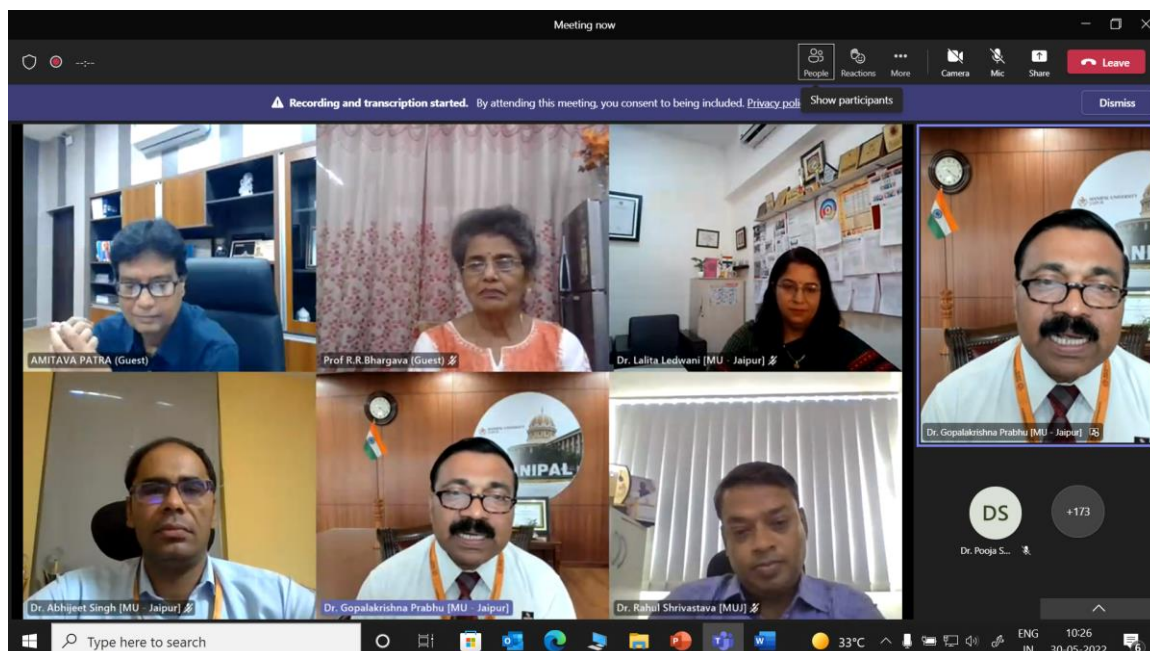


Figure 8: Address by President, MUJ

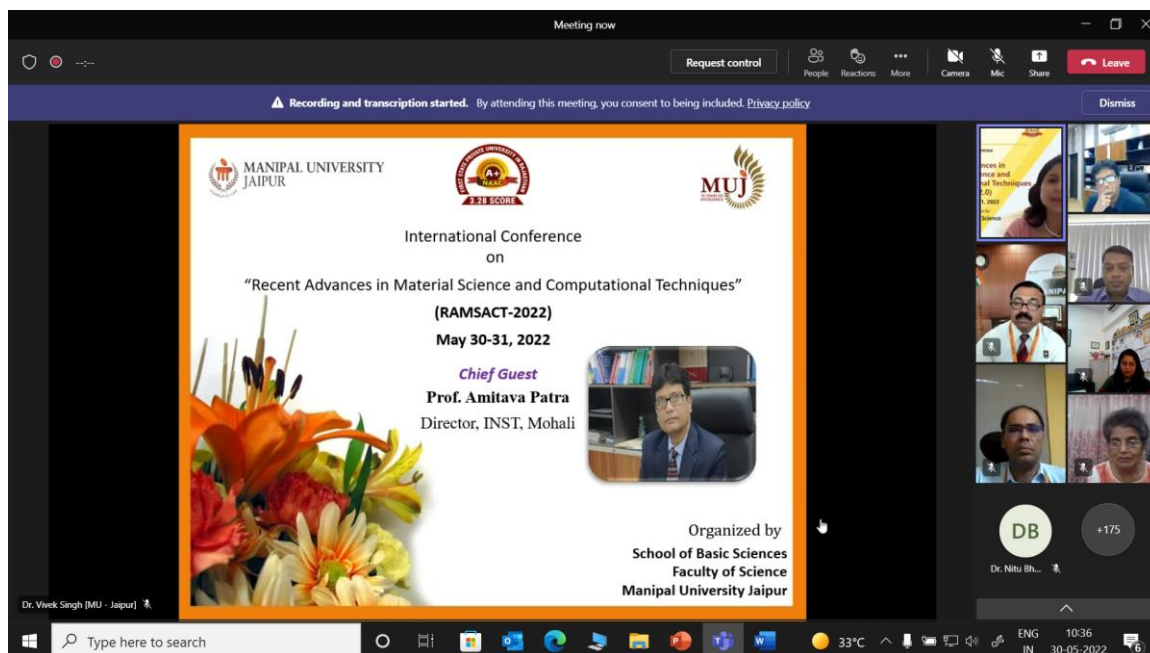


Figure 9: Keynote Address by the Chief Guest, Dr. Amitava Patra

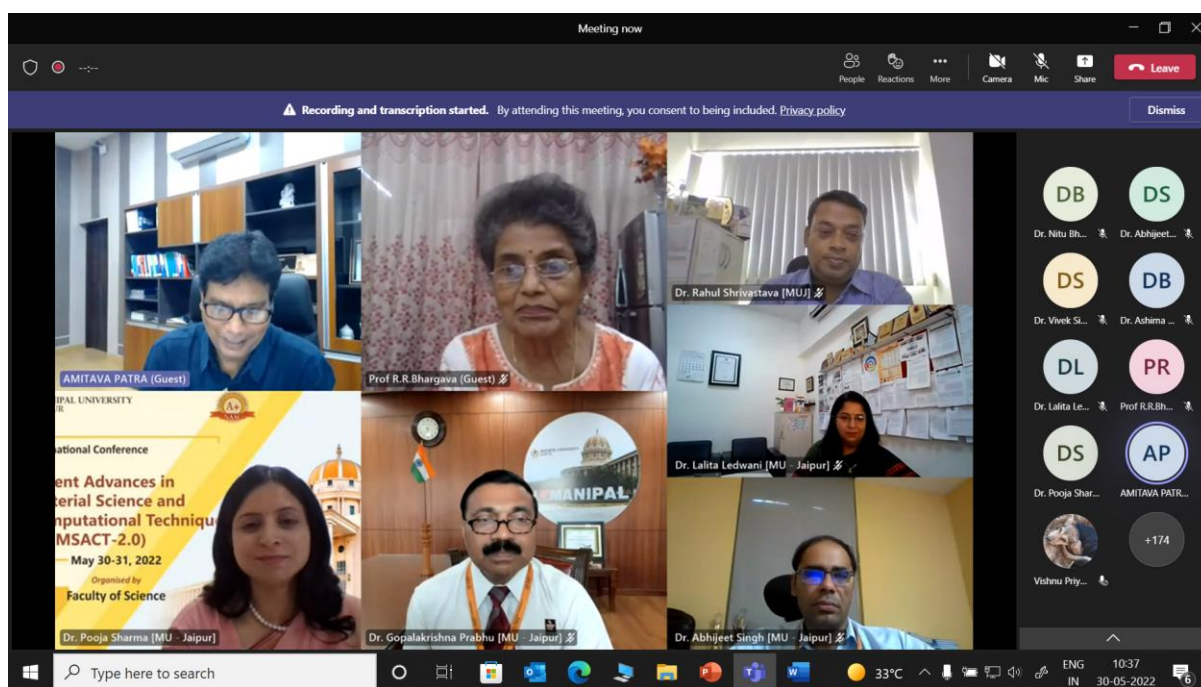


Figure 10: Keynote Address by the Chief Guest, Dr. Amitava Patra



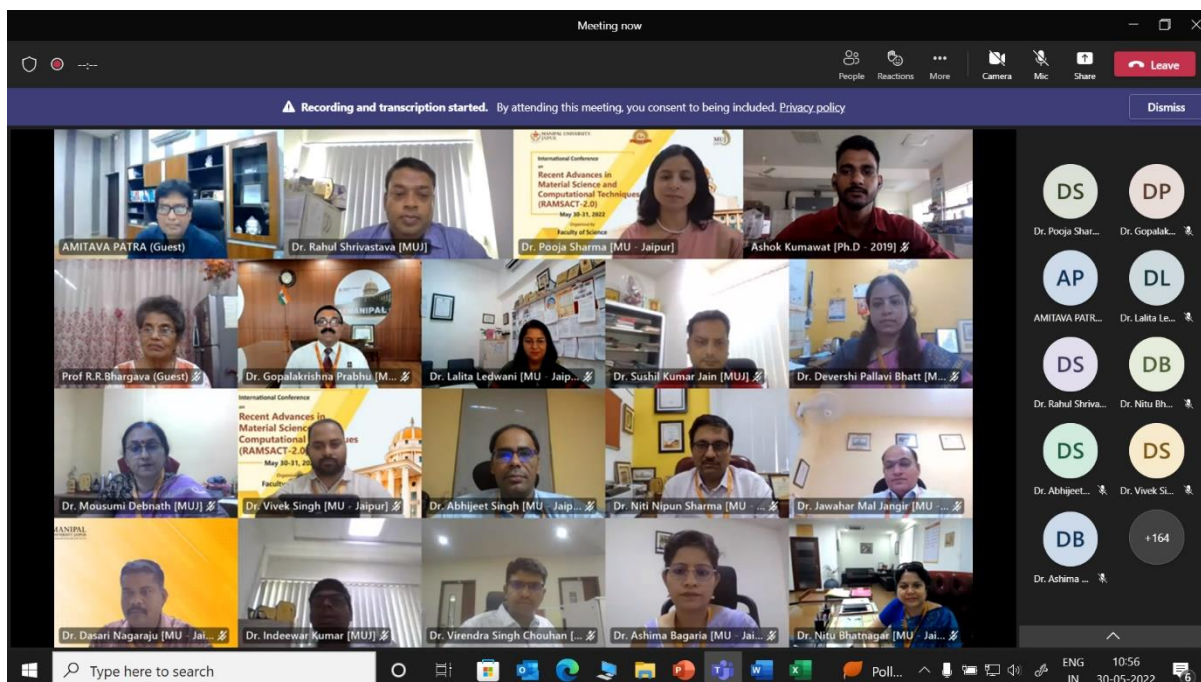


Figure 11: Group Photograph

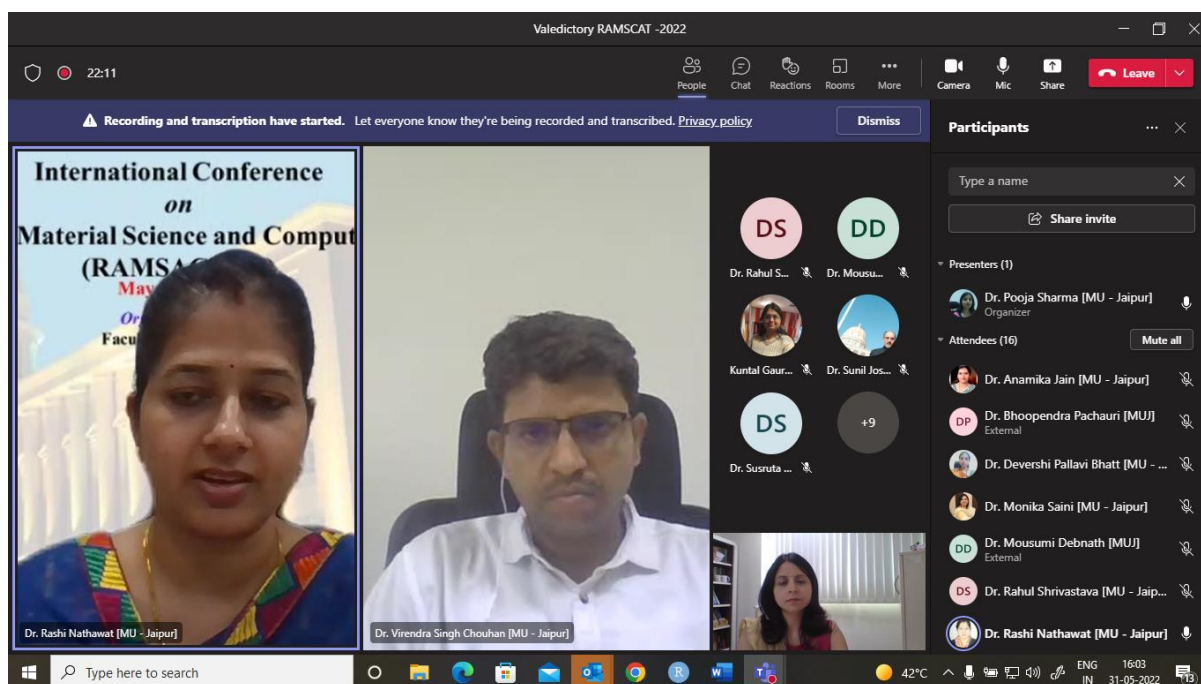


Figure 12: Valedictory Ceremony



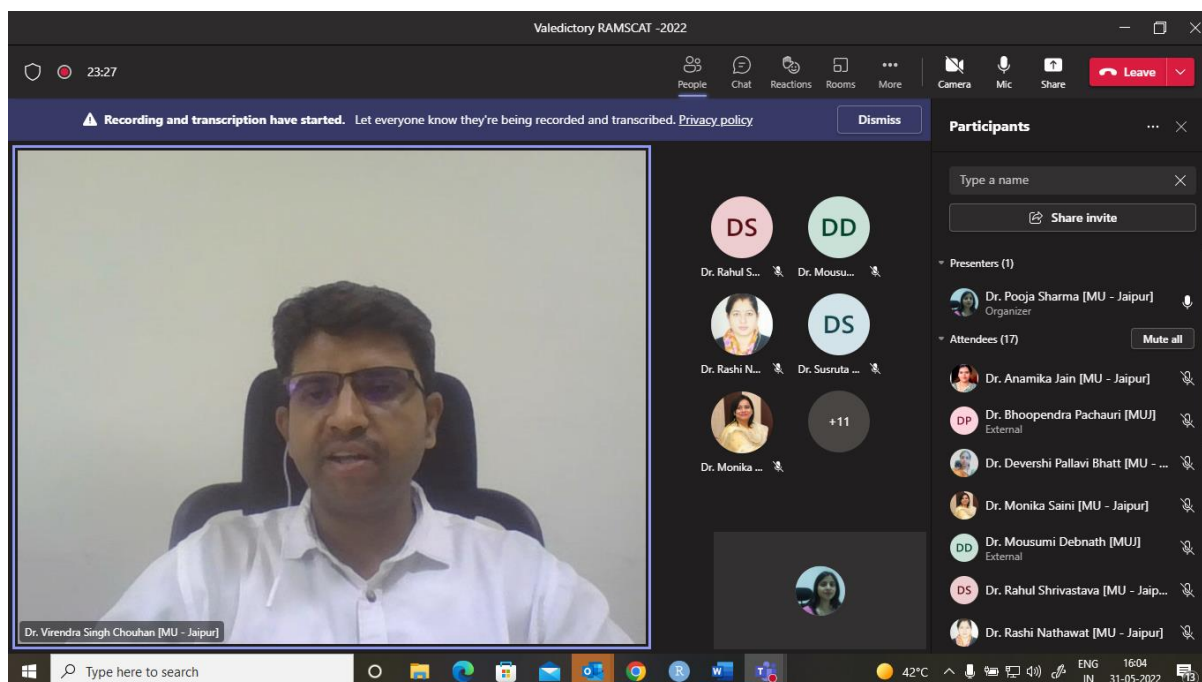


Figure 13: Valedictory Ceremony : Report by Organising Secretary



Figure 14: Valedictory Ceremony : Report by Organising Secretary

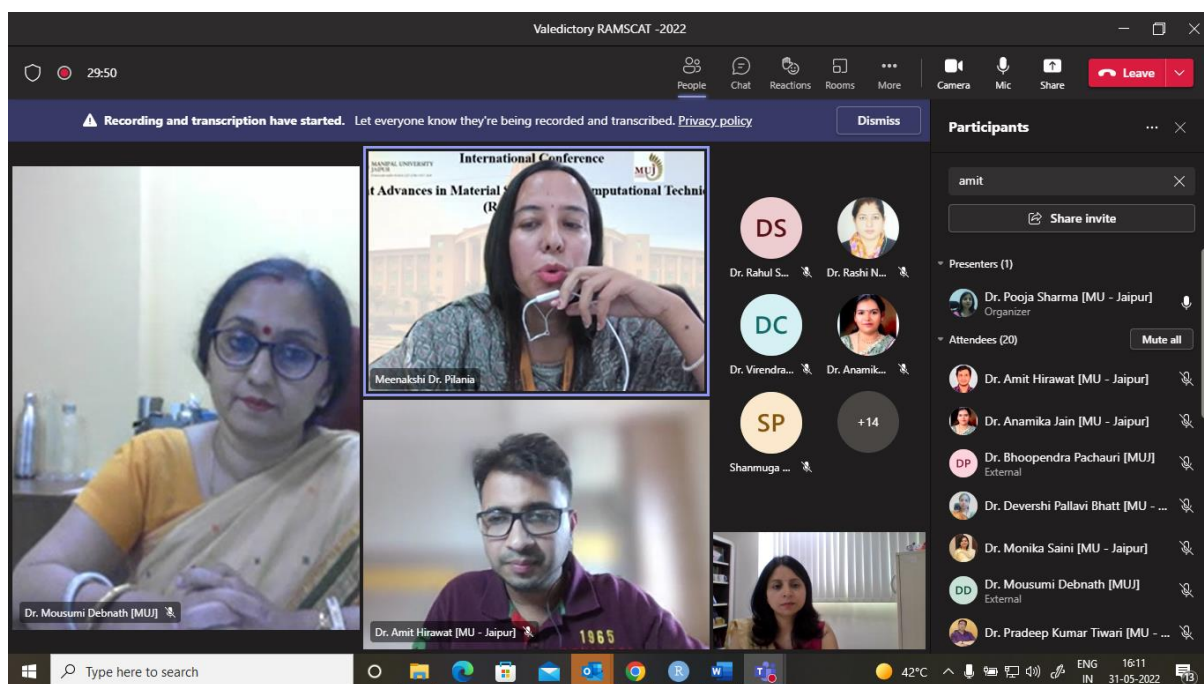


Figure 15: Valedictory Ceremony : Report by Organising Secretary

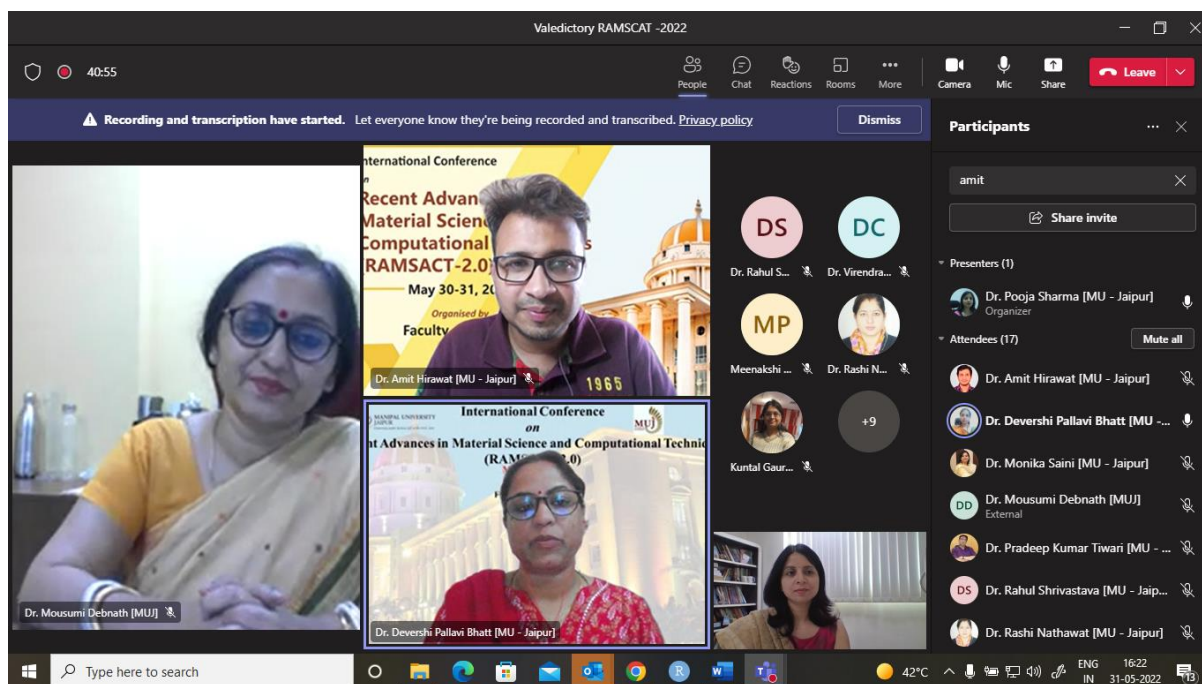


Figure 16: Valedictory Ceremony : Report by Organising Secretary

## 7. Brochure or creative of the event (insert in the document only )



RAMSACT 2022  
Brochure.pdf



RAMSACT 2022  
Schedule.pdf



## 8. Schedule of the event (insert in the report)

| Day 1: May 30, 2021 |              |                              |
|---------------------|--------------|------------------------------|
| Time                | Activity     | Joining Link                 |
| 10:00 am – 11:00 am | Inauguration | <a href="#">Joining Link</a> |



|  |   |                                     |
|--|---|-------------------------------------|
| 11:00 am - 11:30 am  | <b>Break</b>  |                                     |
| 11:30 am – 12:00 pm  | <b>Invited Lecture: Prof R.R Bhargava, IIT Roorkee</b><br><i>Title: Advancement in smart materials through Mathematics</i><br>Chair: Dr Reema Jain<br>Technical coordinator: Dr Virendra Singh Chouhan and Dr Susruta Samantha  | <a href="#"><u>Joining Link</u></a> |
| <b>Theme: Nanomaterials for Multifunctional Applications</b> |   |                                     |
| 12:00 pm – 1:30 pm   | <b>Oral Presentation Session-1 (Paper T1_1- T1_6)</b><br>Technical coordinator: Dr Uvais Valiyaneerilakkal and Dr Garima Agarwal  | <a href="#"><u>Joining Link</u></a> |
| 12:00 pm – 1:30 pm   | <b>Oral Presentation Session-2 (Paper T1_7- T1_13)</b><br>Technical coordinator: Dr Linesh Raja and Dr Sarika Singh   | <a href="#"><u>Joining Link</u></a> |
| 12:00 pm – 1:30 pm   | <b>Oral Presentation Session-3 (Paper T1_14- T1_20)</b><br>Technical coordinator: Dr Vaibhav Bhatnagar and Dr Laxmi Poonia  | <a href="#"><u>Joining Link</u></a> |
| 1:30 pm – 2:30 pm  | <b>Lunch Break</b>  |                                     |
| 2:30 pm – 3:00 pm  | <b>Invited Lecture: Dr. Surekha Kundu, University of Calcutta</b><br><i>Title: Mycosynthesized noble metal nanoparticles for gene delivery into bacterial, plant and cancer cells</i><br>Chair: Prof MM Sharma<br>Technical coordinator: Dr Mousumi Debnath and Dr Pradeep Tiwari | <a href="#"><u>Joining Link</u></a> |
| 3:00 pm - 3:15 pm  | <b>Break</b>  |                                     |

|  |  |                                     |
|--|--|-------------------------------------|
| <b>Theme: Nanomaterials for Multifunctional Applications</b> |  |                                     |
| 3:15 pm – 4:15 pm  | <b>Oral Presentation Session 4 (Paper T1_21- T1_26)</b><br>Technical coordinator: Dr Vivek and Dr Amrita Biswas  | <a href="#"><u>Joining Link</u></a> |
| <b>Theme: Mathematical and Statistics Sciences</b>           |  |                                     |
| 3:15 pm – 4:15 pm  | <b>Oral Presentation Session 5 (Paper T2_1- T2_6)</b><br>Technical coordinator: Dr Mohd Rizwan and Dr Surjan Day   | <a href="#"><u>Joining Link</u></a> |
| 3:15 pm – 4:15 pm  | <b>Oral Presentation Session 6 (Paper T2_7- T2_12)</b><br>Technical coordinator: Dr Anamika Jain and Dr Praveen Surolia  | <a href="#"><u>Joining Link</u></a> |
| 4:15 pm – 4:45 pm  | <b>Invited Lecture: Dr. Paresh H. Salame</b><br><b>Institute of Chemical Technology, Mumbai</b><br><i>Title: Cathode materials for Sodium-ion batteries</i><br>Chair: Dr Ashima Bagaria<br>Technical coordinator: Dr Rashi Nathawat and Dr Anuj Baitha | <a href="#"><u>Joining Link</u></a> |
| 4:45 pm – 5:15 pm  | <b>Invited Lecture: Dr. Akhilesh Kumar Singh, IIT Bhubaneswar</b><br><i>Title: <math>[n \times n]</math> Magnetic Grids: Smart Magnetic Materials</i><br>Chair: Dr Babita Malik  | <a href="#"><u>Joining Link</u></a> |

|  |   |                              |
|--|---|------------------------------|
|  | Technical coordinator: Dr Meenakshi Pilani and Dr Sriparna  |                              |
| 5:15 pm – 6:00 pm  | <b>Invited Lecture: Dr. Andres A. Navarro-Newball</b><br><b>Pontifical Javeriana University, Cali, Colombia</b><br><i>Title: Applications of Intelligent Therapy using XR</i><br>Chair: Dr Shilpa Sharma<br>Technical coordinator: Dr Linesh Raja and Dr Poonam Singh | <a href="#">Joining Link</a> |
| <b>Day 2: May 31, 2022</b>   |   |                              |
| 9:45 am – 10:15 am   | <b>Invited Lecture: Prof. B J Gireesha</b><br><b>Kuvempu University, Karnataka</b><br><i>Title: Importance of Dimensional analysis and Non-dimensionalization</i><br>Chair: Dr Pooja Sharma<br>Technical coordinator: Dr Virendra Singh Chouhan and Dr Alok Bhargava  | <a href="#">Joining Link</a> |
| <b>Theme: Computational Techniques for Intelligent Health Care Services</b>                |   |                              |
| 10:15 am – 11:15 am  | <b>Oral Presentation Session 7 (Paper T3_1- T3_7)</b><br>Technical coordinator: Dr Susruta Samantha and Dr Giriraj Methi  | <a href="#">Joining Link</a> |
| 10:15 am – 11:15 am  | <b>Oral Presentation Session 8 (Paper T3_8- T3_14)</b><br>Technical coordinator: Dr Saikat and Dr Bhoopendra  | <a href="#">Joining Link</a> |
| 10:15 am – 11:15 am  | <b>Oral Presentation Session 9 (Paper T3_15- T3_23)</b><br>Technical coordinator: Dr Sandeep Srivastava and Dr Mahesh Kumar Dubey   | <a href="#">Joining Link</a> |
| 11:15 am – 11:45 am  | <b>Invited Lecture: Prof. Zakia Hammouch,</b><br><b>Thu Dau Mot University, Binh Duong Province, Vietnam</b><br><i>Title: Fractional Calculus</i><br>Chair: Dr Sunil Joshi<br>Technical coordinator: Dr Laxmi Poonia and Dr Anamika Jain                              | <a href="#">Joining Link</a> |
| <b>Theme: Recent Advancements in the Application of Chemistry in Bio and Nanomaterials</b> |   |                              |
| 11:45 am-1:00 pm   | <b>Oral Presentation Session 10 (Paper T4_1- T4_6)</b><br>Technical coordinator: Dr Pradeep Tiwari and Dr Ashok Pal   | <a href="#">Joining Link</a> |
| 11:45 am-1:00 pm   | <b>Oral Presentation Session 11 (Paper T4_7 T4_11)</b><br>Technical coordinator: Dr Anupam Sharma and Dr Saurabh Srivastava   | <a href="#">Joining Link</a> |
| <b>Theme: Fundamental and upcoming advances in Biosciences and Biotechnology</b>           |   |                              |
| 11:45 am-1:00 pm   | <b>Oral Presentation Session 12 (Paper T5_1-T5_7)</b><br>Technical coordinator: Dr Monika Sogani and Dr Naveen Kumar  | <a href="#">Joining Link</a> |
| 1:00 pm – 2:00 pm  | <b>Lunch Break</b>  |                              |
| 2:00 pm – 2:30 pm  | <b>Invited Lecture: Prof Venugopal Rao Soma, University of Hyderabad</b><br><i>Title: Ultrafast Laser Ablation and Applications</i><br>Chair: Dr Lalita Ledwani<br>Technical coordinator: Dr Meenakshi Pilania and Dr Susruta   | <a href="#">Joining Link</a> |

| Theme: Fundamental and upcoming advances in Biosciences and Biotechnology |   |                              |
|---|---|------------------------------|
| 2:30 pm –<br>4:00 pm  | <b>Oral Presentation Session 13 (Paper T5_8-T5_14)</b><br>Technical coordinator: Dr Rakesh Sharma and Dr Himanshu Rathore | <a href="#">Joining Link</a> |
| 2:30 pm –<br>4:00 pm  | <b>Oral Presentation Session 14- Extra</b><br>Technical coordinator: Dr Monika Saini and Dr Mainak Ganguly                | <a href="#">Joining Link</a> |

|                      |   |                              |
|----------------------|---|------------------------------|
| 2:30 pm –<br>4:00 pm | <b>Oral Presentation Session 15 – Extra</b><br>Technical coordinator: Dr Ashish Kumar and Dr Nitesh Poddar  | <a href="#">Joining Link</a> |
| 3:00 pm -<br>3:30 pm | <b>Invited Lecture: Prof Vinod Pallath, University Malaya, Kuala Lumpur</b><br><i>Title: Significance of Genetic Profile of uropathogens and their potential impact on decrease of antimicrobial resistance</i><br>Chair: Dr Mousumi Debnath<br>Technical coordinator: Dr Monika Sogani and Dr Rohit Jain | <a href="#">Joining Link</a> |
| 4:00 pm –<br>5:00 pm | <b>Valedictory Session</b>  | <a href="#">Joining Link</a> |

## 9. Attendance of the Event (insert in the document only)

Total attendee- approx. 280

| Conveners: Dr. Kalpna Sharma, Dr Abhijit Singh, Dr. Rahul Srivastava<br>Co-Conveners: Dr Ashima Bagaria, Dr. Devershi Pallavi Bhat |                        |  |
|--|------------------------|--|
| List of Committees   |                        |  |
| S. No.   | Committee              | Faculty Members  |
| 1  | Organizing Secretaries | Dr Mousumi Debnath, Dept. of Biosciences                                 |
|  |                        | Dr Virendra Singh Chouhan, Dept. of Mathematics and Statistics           |
|  |                        | Dr Meenakshi Pilania, Dept. of Chemistry                                 |
|  |                        | Dr Rashi Nathawat, Dept. of Physics                                      |
|  |                        | Dr Amit Hirawat, Dept. of Computer Applications                          |
|  | Inaugural Committee    | Dr Pooja Sharma<br>Dr Veena Dhayal<br>Dr Laxmi Poonia<br>Dr Monika Saini |



|   |  |  |  |
|---|--|--|--|
| 2 | Finance  | Dr. Alok Bhargava  |  |
|   |  | Dr. Rohit Jain   |  |
| 3 | Catering Committee                                     | Dr. Sushil Jain  |  |
|   |  | Dr. Nitesh Poddar  |  |
| 4 | Certificate  | Dr. Linesh Raja  |  |
|   |  | Dr Harshita  |  |
|   |  | Dr Sriparna  |  |
|   |  | Dr Saiket  |  |
|   |  | Dr. Monika Sogani  |  |
| 5 | Media, Press, Website                                  | Dr. K P Misra  |  |
|   |  | Dr. Amit Hirawat   |  |
|   |  | Dr. Sunil Joshi  |  |
|   |  | Dr. Mahesh Jangid  |  |
| 6 | Technical Committee & IT support (Paper presentations) | May 30, 2022<br>Dr. Rakesh Sharma<br>Dr. Uvais VN<br>Dr. Ashish Kumar<br>Dr. Praveen Surolia<br>Dr. Linesh Raja<br>Dr Vaibhav Bhatnagar<br>Dr Vivek Singh<br>Dr. Mohd Rizwanullah<br>Dr Sarika Singh<br>Dr Surjan Dey<br>Dr Amrita Biswas<br>Dr Garima Agarwal<br>Dr Laxmi Poonia<br>Dr Anamika Jain | May 31, 2022<br>Dr. Anupam Sharma<br>Dr. Monika Saini<br>Dr Saikat Chattopadhyay<br>Dr. Susruta Samanta<br>Dr. Pradeep Tiwari<br>Dr. Ashok Kumar Pal<br>Dr. Giriraj Methi<br>Dr Bhoopendra<br>Dr Saurabh Srivastava<br>Dr Sandeep Srivastava<br>Dr Minak Ganguli<br>Dr Naveen Kumar<br>Dr Himanshu Rathore<br>Dr Mahesh Kr Dubey |
|   | Memento and Flex                                       | Dr Indeewar Kumar<br>Dr Ruchika Mehta  |  |

**10. News Publication- News printed in newspaper or online links if any for news – insert images)**

**11. Link of MUJ website stating the event is uploaded on website**

<https://ramsact.in/>