

# MELBOURNE INDIA POSTGRADUATE ACADEMY

## CONFERENCE (MIPAC-2023)

15-17 November 2023



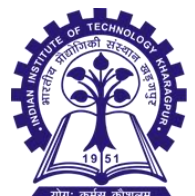
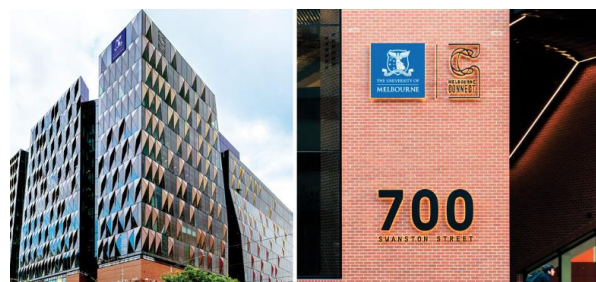
## VENUE

Studio, Melbourne Connect

Ground floor,

700 Swanston Street, Carlton

<https://goo.gl/maps/HiUvmmVHxwjceNdZ8>



## Academic workshop at the University of Melbourne with MIPA partner institutions

**Venue: Manhari Room (Level 7), Melbourne Connect**

**Zoom meeting on Nov 15, 2023 08:45 AM Canberra, Melbourne, Sydney**

(It's a closed event, so please do not share the zoom link with unregistered people).

**Joining Link:**

<https://unimelb.zoom.us/j/84896442520?pwd=cVlhWEI5bytFWDVEEdDNSK2x2TFluZz09>

**meeting ID:** 84896442520

**password:** 938286

### Day 1: Wednesday 15 November

From	To	Min.	Event
09:00	09:10	10	Welcome by Prof Ashokkumar Muthupandian, Assistant Deputy Vice Chancellor International-India
09:10	09:30	20	Introductions
09:30	09:50	20	An overview of MIPA by A/Prof Meenakshi Arora, Director MIPA
09:50	11:20	90	Brief research pitches by all academics
11:20	11:50	30	Coffee break
11:50	12:50	60	Small group discussions (theme-based)
12:50	14:00	80	Lunch
14:00	16:30	150	Visits to various departments for seminars, lab tours

## Program: MIPAC-23 Conference

### Conference Venue:

Studio, Melbourne Connect  
Ground Floor, 700 Swanston Street.



### Remote / Online Presence via Zoom

#### Zoom meeting on 16-17 Nov, 2023 12:15 PM Canberra, Melbourne, Sydney

(It's a closed event, so please do not share the zoom link with unregistered people).

#### Download iCalendar (.ics) files to your calendar system:

[https://unimelb.zoom.us/meeting/tZ0qd-mprzopH9yxFw0bVP9RRPk\\_Dn4Nmg9E/ics?icsToken=98tyKuGhqTsqG9WUsxyPRpx5B4igc-vzmH5egvpEhDnyUyJlUlrEBNJJDDZZxRPbd](https://unimelb.zoom.us/meeting/tZ0qd-mprzopH9yxFw0bVP9RRPk_Dn4Nmg9E/ics?icsToken=98tyKuGhqTsqG9WUsxyPRpx5B4igc-vzmH5egvpEhDnyUyJlUlrEBNJJDDZZxRPbd)

#### Joining link:

<https://unimelb.zoom.us/j/89700111358?pwd=d25TZHFtbXoyV2F2VHZzZEVVSlJ5Zz09>

**Meeting ID** : 89700111358

**Password** : 476726

## Day 2: Thursday 16 November

### 10:30 – 11:30 AEST: Tour to Telstra Creator Space (TCS)

Join the facility tour to explore fabrication lab located in the University of Melbourne's innovation precinct, Melbourne Connect - space where technology and creativity combine to form innovative solutions!

### 11:45 – 12:15: Registration and lunch

#### Plenary session: 12:30 – 13:45 AEST (07:00 – 08:15 IST)

From	To	Min.	Event	Chair
12:35	12:40	5	Welcome : A/Prof Meenakshi Arora, Director, MIPA	A/Prof M Arora and Ms Chesta
12:40	12:48	8	Prof Justin Zobel, Pro Vice-Chancellor, Graduate & International Research, UoM	
12:48	12:56	8	Prof Virendra Kumar Tewari, Director, IIT Kharagpur	
12:56	13:04	8	Prof Mick McCarthy, Dean, Faculty of Science, UoM	
13:04	13:12	8	Prof Abhishek Singh, Dean International Engagement, IISc	
13:15	13:40	25	Dr Salil Goel, Assistant Professor, IIT Kanpur: Keynote address by MIPA alumni	
13:40	13:43	3	MIPA Report Launch	
13:43	13:50	7	Session changeover / short break	

#### Technical presentations – Session 1: 13:50 - 15:15 AEST (08:20 – 09:45 IST)

From	To	Presenter	Research title	Chair
13:50	14:00	Sourav Ghosh	Modelling of interface energy anisotropy of FCC/L12 Coherent interfaces in Ni-based superalloy	Mr Ashwani
14:00	14:10	Shilpa Koyyan	Soil moisture retrieval from multi-polarization L-band synthetic aperture radar over wheat fields	Dr Salil Goel
14:10	14:20	Sri Priyanka	Automation in locating suitable sites for surface rainwater harvesting structures using LiDAR data and machine learning techniques	
14:20	14:30	Anirban Ghosh	Investigation of post-quench information spread in a non-Hermitian quantum model	
14:30	14:40	Asif Ahmed Sardar	Network resource allocation for industry 4.0 with delay and safety constraints	
14:40	14:50	Soumendu Sarkar	Secular thinning of subcontinental lithospheric mantle	
14:50	15:15	Networking break with tea/coffee		

### Technical presentations – Session 2: 15:15 – 16:30 AEST (09:45 – 11:00 IST)

From	To	Presenter	Research title	Chair
15:15	15:25	Subhajit Chakraborty	Optical trapping assisted time resolved microscopy of micro and nanoscale objects	Mr Asif,  Prof Trevor Smith
15:25	15:35	Chesta	Light-rechargeable Zinc-ion batteries for solar energy harvesting and storage	
15:35	15:45	Ayyapan Murugesan	Ballistic studies on SS410-Al2O3-SiC functionally graded armour material fabricated through laser cladding	
15:45	15:55	Nimisha	Bamboo reinforced composite structures	
15:55	16:05	Mehdi Alam	Soft rigid granular mixes	
16:05	16:15	Ashwani Kumar	Detecting zero velocity period for precise indoor pedestrian positioning using ultra wide band sensors	
16:15	16:30	Day 2: Concluding remarks by Dr Debnath Ghosal		

### Conference dinner: 18:00 – 21:30 AEST

From	To	Min.	Event
16:30	18:00	90	Transit to MCG
18:00	18:25	25	Welcome drinks and networking
18:25	18:35	10	Guests are seated
18:35	18:45	10	Welcome by Professor Jamie Evans, Pro Vice-Chancellor (Students and Education), University of Melbourne
18:45	19:15	30	Cultural performances by MIPA students (Entrée served)
19:30	19:40	10	Address by Dr Sushil Kumar, Consulate General of India
19:40	19:45	5	Address by Dr. Yogendra Vashist, IITaV President
19:45	19:50	5	Vote of thanks
19:50	21:00	80	Dinner served
21:00	21:30	10	Dinner closure, Tea/Coffee and departure from MCG

## Day 3: Friday 17 November

### 11:45 – 12:15: Registration and lunch

#### Plenary session: 12:30 – 13:45 AEST (07:00 – 08:15 IST)

From	To	Min.	Event	Chair
12:30	12:35	5	Welcome: Dr. Ghosal	Dr D Ghosal and Ms Sri Priyanka
12:35	12:45	10	Prof Amanda Ellis, Dean, Faculty of Engineering and Information Technology, UoM	
12:45	12:55	10	Prof Santanu Bhattacharya, Director IISER Tirupati	
12:55	13:05	10	Prof Mike McGuckin, Deputy Dean, Faculty of Medicine, Dentistry and Health Sciences, UoM	
13:05	13:15	10	Prof Sujatha Srinivasan, IIT Madras	
13:15	13:25	10	Prof. Dharendra S. Katti, Dean of International Relations, IIT Kanpur	
13:25	13:35	10	Session changeover / short break	

#### Technical presentations – Session 3: 13:35 – 14:50 AEST (08:15 – 09:20 IST)

From	To	Presenter	Research title	Chair
13:35	13:45	Kunwar Abhishek Singh	Mapping of water quality in dynamic river reaches using remote sensing techniques and hydrodynamic modelling	Mr Anirban,
13:45	13:55	Omar Zain Torres Rios	Directional spectra of waves and wave-breaking dissipation by means of explicit measurements and modelling	Dr Annapurna Devi, IISER
13:55	14:05	Aditya	Urban Forest characterisation using MLS point cloud data through deep learning	
14:05	14:15	Ankit Bhadouriya	Influence of ocean mixing on the winter mixed layer beneath sea ice in the weddell sea	
14:15	14:25	Latika Joshi	Unravelling the physiological and molecular mechanisms underpinning response to combined drought and heat stress in rice	
14:25	14:35	Shreshtha Kumar Gupta	Flame-wall interaction in the presence of intense turbulence	
14:35	14:40	Session changeover		



### Technical presentations – Session 4: 14:40 – 16:00 AEST (09:20 – 10:30 IST)

From	To	Presenter	Research title	Chair
14:40	14:50	Joydeep Baral	Structure-function insight into the two-component DNA repair system of Mycobacterium tuberculosis	Mr Aditya, Prof Dongryeol Ryu
14:50	15:00	Jagat Narayan Prajapati	An intra-brainstem circuitry for pain inhibition of itch	
15:00	15:10	Sai Keertana K	Conserved and emergent functional roles of protein regions with charged amino acid bias	
15:10	15:20	Hema Jha	Approaches for kinetic modelling of hydrothermal carbonization of biomass	
15:20	15:30	Pradeep Ramesh	Environmental sustainability and economic viability of shrimp culture practices: Indian and Australian perspectives	
15:30	16:00	30 Minutes: Tea/Coffee Break		

### Panel discussion and closing event: 16:00 – 18:00 AEST (10:30 – 12:30 IST)

From	To	Min.	Event	Chair
16:00	17:00	60	Panel discussion: Careers and development Panellists: <ol style="list-style-type: none"> <li>1. Dr Akash Gupta, Clinical Research Associate, OPIS (MIPA Alumni)</li> <li>2. Dr Nandakishore, Postdoctoral Research Fellow, The University of Melbourne (MIPA Alumni)</li> <li>3. Professor Hema Sharda, Ex Director South Asia relations at the Vice Chancellery, UWA.</li> <li>4. Dr Dipali Wahi, Sr. Systems Engineering Manager, Planet Innovation</li> <li>5. Mr Ravi Singh, Chief Technical Officer, ESCO Pacific, IITAV</li> </ol>	Mr Kunwar Abhishek
17:00	17:15	15	Vote of thanks by Dr Surinder Chauhan	
17:15	17:30	15	Group photo	
17:30	18:00	30	Evening tea and networking	

## MIPAC-23 Conference: Participants' List

### Graduate Researchers

*[R] Indicates remote/online attendance*

Home Institute	Participants
IIT Kharagpur	1. Anirban Ghosh 2. Asif Ahmed Sardar 3. Joydeep Baral 4. Kunwar Abhishek Singh 5. Nimisha Kattumunda [R] 6. Subhrasankha Dey [R] 7. Ayyappan Murugesan, [R] 8. Hema Jha, [R] 9. Pradeep R, [R] 10. Snigdha Mohapatra, [R] 11. Soumendu Sarkar, [R]
IISc Bangalore	12. Chesta Chesta 13. Jagat Narayan Prajapati, [R] 14. Shilpa Koyyan
IIT Kanpur	15. Aditya Aditya 16. Ankit Bhadouriya 17. Ashwani Kumar 18. Sourav Ghosh 19. Sri Priyanka Kommula 20. Subhajit Chakraborty 21. Shreshtha Kumar Gupta 22. Mehdi Alam [R] 23. Rajbala Purnima Priya [R]
IIT Madras	24. Omar Zain Torres Rios [R]
IISER Tirupati	25. Sai Keertana K [R] 26. Ajmal Roshan [R] 27. Latika Joshi [R]
The University of Melbourne	28. Hossein Parineh 29. Farid Fazel



## Participants from Indian Partner organisations

[R] Indicates remote/online attendance

Institute	Participants   Department
IIT Kharagpur	1. Prof Virendra Kumar Tewari   <a href="#">Director IIT Kgp, Agricultural and Food Engineering</a> 2. Prof Rintu Banerjee   <a href="#">Dean Research, Agricultural and Food Engineering</a> 3. Prof Debashish Chakravarty   <a href="#">Dean International, Mining Engineering</a> 4. Prof Amit Kumar Das   <a href="#">Biotechnology</a> 5. Prof Bharath Haridas Aithal   <a href="#">RCGSIDM</a> [R] 6. Prof Brajesh Kumar Dubey   <a href="#">Environmental Eng./Civil Engineering</a> [R] 7. Dr Dibyendu Kamilya   <a href="#">Agricultural and Food Engineering</a> [R] 8. P. Ashis Patra   <a href="#">Chemical Engineering</a> [R] 9. Dr Partha Sarathi Ghosal   <a href="#">School of Water Resources</a> [R] 10. Prof Sonjoy Majumder   <a href="#">Department of Physics</a> [R] 11. Dr Manoj Tiwari   <a href="#">Industrial and Systems Engineering</a>
IISc Bangalore	12. Prof Abhishek Singh   <a href="#">Dean Office of International Relations, Materials Research Centre</a> 13. Prof Ankur Chauhan   <a href="#">Materials Engineering</a> [R] 14. Dr Arnab Barik   <a href="#">Center for Neuroscience</a> [R] 15. Prof Sampath Srinivasan   <a href="#">Inorganic and Physical Chemistry</a> [R]
IIT Kanpur	16. Prof Ashwani Thakur   <a href="#">Biological Sciences and Bioengineering</a> [R] 17. Prof Dibyendu Das   <a href="#">BSBE</a> 18. Dr Partha Narayan Mishra   <a href="#">Department of Civil Engineering</a> 19. Dr Salil Goel   <a href="#">Civil Engineering</a> 20. A/Prof Vaibhav Arghode   <a href="#">Aerospace Engineering</a> 21. Prof Dharendra S. Katti   <a href="#">Dean of International Relations</a> [R] 22. Prof Animangsu Ghatak   <a href="#">Chemical Engineering</a> [R] 23. A/Prof Ashutosh Modi   <a href="#">CSE</a> [R] 24. Dr Gaurav Tiwari   <a href="#">Civil Engineering</a> [R] 25. Dr Amarendra Edpuganti   <a href="#">Sustainable Energy Engineering</a> [R] 26. A/Prof Arghya Das   <a href="#">Civil Engineering</a> [R] 27. Prof Bharat Lohani   <a href="#">Civil Engineering</a> [R]
IIT Madras	28. Prof Sujatha Srinivasan   <a href="#">Mechanical Engineering</a> 29. Dr Lakshminath Kundanati   <a href="#">Department of Applied Mechanics and Biomedical Engineering</a> [R] 30. A/Prof Nagabhushana Rao Vadlamani   <a href="#">Aerospace</a> 31. Prof Sannasiraj Sannasi Annamalaisamy   <a href="#">Ocean Engineering</a> 32. Dr Vimalraj Selvaraj   <a href="#">Applied mechanics and biomedical Engineering</a> 33. Dr Swathi Sudhakar   <a href="#">Applied Mechanics &amp; Biomedical Engineering</a> [R] 34. Dr Ratna Kumar Annabattula   <a href="#">Mechanical Engineering</a> [R]
IISER Tirupati	35. Prof Santanu Bhattacharya   <a href="#">Director IISER T, Chemistry</a> 36. Dr Annapurna Devi Allu   <a href="#">Biology</a> 37. Dr Sreenivas Chavali   <a href="#">Biology</a>

## Participants from The University of Melbourne

Participants	Department
38.	Prof Amanda Ellis   Dean, Faculty of Engineering and Information Technology
39.	Prof Alex Johnson   School of BioSciences
40.	A/Prof Alexander Idnurm   School of BioSciences
41.	Prof Andrew Western   Infrastructure Engineering
42.	Prof Andy Martin   Physics
43.	Dr Anirudh Belwalkar   Infrastructure Engineering
44.	Dr Arockia Jayaraj John Peter   IT
45.	Prof Arvind Sinha   Aerospace
46.	Dr Christian Brandl   Mechanical Engineering
47.	Daniela Reichert   FEIT Partnerships officer
48.	A/Prof David Jones   Chemistry
49.	Dr Debnath Ghosal   Department of Biochemistry & Pharmacology
50.	Prof Dongryeol Ryu   Infrastructure Engineering
51.	Dr Eirini Goudeli   Chemical Engineering
52.	Dr Ellie Hajizadeh   Mechanical Engineering
53.	Emma Michelle   MIPA Student support
54.	Prof Frank Vetere   Computing and information systems
55.	Dr Garron Dodd   Anatomy and Physiology
56.	Hasti Samadi   FEIT-CIS
57.	Prof Ian van Driel   Department of Biochemistry and Pharmacology
58.	A/Prof Jagannath Aryal   Infrastructure Engineering
59.	Prof Jamie Evans   Pro Vice-Chancellor (Students and Education)
60.	Jamie Gough   School of Agriculture
61.	Dr Jegadesan Subbiah   Chemistry/Bio21 Institute
62.	Prof Justin Zobel   Pro Vice-Chancellor, Graduate & International Research
63.	Prof Justine Minter   Biochemistry and Pharmacology
64.	Kate Howell   SAFES
65.	A/Prof Kathryn Mumford   Chemical Engineering
66.	A/Prof Kourosh Khoshelham   Infrastructure Engineering
67.	Lu Aye   Infrastructure Engineering
68.	A/Prof Mahdi Disfani   Infrastructure Engineering
69.	Prof Marcus Pandey   Mechanical Engineering - (Biomechanical Eng.)
70.	Maria Roitman   Associate Director, International Research
71.	Mark Gregory   Senior Advisor, International Research Strategy
72.	A/Prof Meenakshi Arora   Infrastructure Engineering
73.	Prof Mick McCarthy   Dean, Faculty of Science
74.	Prof Mike McGuckin   Deputy Dean, Faculty of Medicine, Dentistry and Health Sciences
75.	Miriam Cahir   International Strategic Relationships
76.	Dr Mukesh Soni   Biomedical Engineering
77.	Naif Alsowaidi   Graduate Research Team (FEIT)
78.	Prof Richard Sandberg   Mechanical Engineering
79.	Rishwanth Darun Annamalaisamy Sannasiraj   Infrastructure Engineering
80.	Prof Shanika Karunasekera   Computing and information systems

Participants   Department
81. Shuai Shao   Melbourne School of Population and Global Health
82. Shubhrajit Maitra   Infrastructure Engineering
83. Soumyajyoti Ghosh   Infrastructure Engineering
84. Dr Surinder Chauhan   School of Agriculture
85. A/Prof Tai Thai   Infrastructure Engineering
86. Prof Tansu Alpcan   Electrical and Electronic Engineering
87. Dr Tesfaye Molla   Mechanical Engineering
88. Dr Thuan Pham   School of Computing and Information Systems
89. Prof Trevor Smith   Chemistry
90. Dr Vijay Rajagopal   Biomedical Engineering
91. Dr William Umboh   CIS
92. Prof David Phillips   SGEAS [R]

## Participants from Other Institutions

*[R] Indicates remote/online attendance*

Institute	Participants   Department
Others	93. Mr Abaran Deep, <a href="#">Co-founder RedCrew</a> , IITAV 94. Dr Akash Gupta   <a href="#">Clinical Research Associate</a> , OPIS (MIPA Alumni) 95. Dr Achyut Mishra (MIPA Alumni) 96. Ananth Sivaramakrishnan Malathi   Aerospace Eng. 97. Dr Dipali Wahi   <a href="#">Sr Systems Engineering Manager</a> , Planet Innovation 98. Dr. Nandakishore   Postdoctoral Research Fellow, UoM (MIPA Alumni) 99. Professor Hema Sharda, Ex Director South Asia relations at the Vice Chancellery, UWA 100. Dr Sushil Kumar   Consulate General of India 101. Mr Ravi Singh   <a href="#">Chief Technical Officer</a> , ESCO Pacific, IITAV 102. Dr Yogendra Vashishtha, <a href="#">Head of Future Networks</a> , IITAV 103. Ranjeet Kumar Tiwary Khirrod Prasad Tiwary   Geology [R] 104. Dr Sasidhar Gumma   <a href="#">Chemical Engineering</a> , IIT Tirupati 105. Dr Shalini Suri, Div of veterinary anatomy [R] 106. Mr Tapas Kumar Gupta   (Chief Technical Advisor, West Bengal Pollution Control Board), Industry Collaborator via IIT Kharagpur [R] 107. Dr Venkataraman Pandurangan   <a href="#">Mechanical Engineering</a>   IIT Tirupati

## Organising Committee

### Advisory:



[A/Prof. Meenakshi Arora](#)



[Dr Surinder Singh Chauhan](#)



[Dr Debnath Ghoshal](#)

### Student Committee:



Aditya



Anirban Ghosh



Asif Ahmed Sardar



Chesta



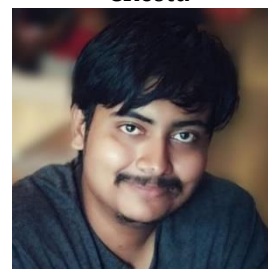
Kunwar Abhishek  
Singh



Mehdi Alam



Sri Priyanka



Subhajit  
Chakraborty

### Supported by:



[Dr Krishna Somaetha](#)



[Dr Mukesh Soni](#)



[Daniela Reichert](#)

[Rebecca Whitsed](#)