



**Indian Academy of Sciences**  
Bengaluru - 560 080

**88<sup>th</sup> ANNUAL  
MEETING**

**04-06 November, 2022**

SRM University - AP, Amaravati

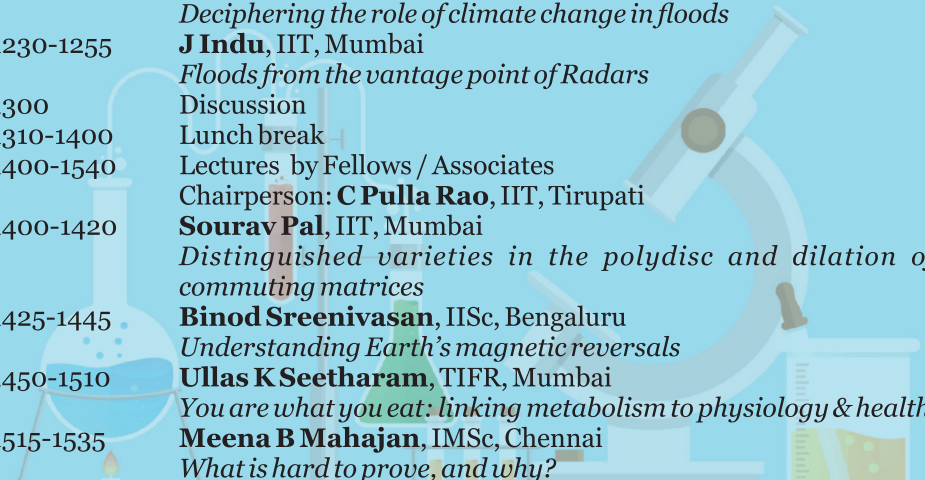
**PROGRAMME**

## 4 NOVEMBER 2022 (FRIDAY)



0900-0930	Registration
0930-1100	Inauguration and Presidential Address <b>Umesh V Waghmare</b> , JNCASR, Bengaluru <i>Instabilities of crystals and their functional properties</i>
1100-1200	Tea break and Group Photograph
1200-1240	Special Lecture Chairperson: <b>Swagata Dasgupta</b> , IIT, Kharagpur <b>AS Raghavendra</b> , University of Hyderabad, Hyderabad <i>Uniqueness of plant mitochondria: Relevance to crop improvement and climate change</i>
1250-1400	Lunch break
1400-1450	Lectures by Fellows / Associates Chairperson: <b>K Bhanu Sankara Rao</b> , University of Hyderabad, Hyderabad
1400-1420	<b>DB Ramachary</b> , University of Hyderabad, Hyderabad <i>Discovery of sustainable organocatalytic reactions: Expansion of substrate / catalysts scope</i>
1425-1445	<b>Aditya Bandyopadhyay</b> , IIT, Kharagpur <i>Electrified fluid interfaces - Waves and pattern formation</i>
1450-1530	Tea break
1530-1730	Symposium on “Green Energy”
1530-1535	Introduction by Convener – <b>Ranjit Thapa</b> , SRM-University, Amaravati
1535-1600	<b>Ashok K Ganguli</b> , IIT, New Delhi <i>Photoelectrochemical water splitting for green energy</i>
1605-1630	<b>S Venkata Mohan</b> , ICT, Hyderabad <i>Low-carbon biohydrogen: Enabling through biorefinery</i>
1635-1700	<b>S Sampath</b> , IISc, Bengaluru <i>Electrochemical energy systems: Hydrogen generation and its use in fuel cells</i>
1705-1730	<b>Ramendra Sundar Dey</b> , Institute of Nano Science & Technology, Mohali <i>Electrochemical nitrogen reduction reaction for the synthesis of ammonia: A pathway to a green future</i>
1730	Discussion
1730-1800	Tea break
1800-1900	Public lecture Chairperson: <b>Umesh V Waghmare</b> , JNCASR, Bengaluru <b>PSainath</b> , Mumbai <i>Telling the stories of rural Indians in the digital age. The People's Archive of Rural India</i>
1930	Dinner

## 5 NOVEMBER 2022 (SATURDAY)

- 0900-1030 Lectures by Fellows / Associates  
Chairperson: **G V Anand**, Dayanand Sagar University, Bengaluru
- 0900-0920 **P Vijay Kumar**, IISc, Bengaluru  
*The Novel (IZ4) spreading code design for NavIC's L1 SPS signal*
- 0925-0945 **Anil K Tripathi**, BHU, Varanasi  
*Regulatory cascades of alternative sigma factors are involved in controlling rhizocompetence in a plant growth promoting rhizobacterium, Azospirillum brasilense*
- 0950-1010 **G R Chandak**, CCMB, Hyderabad  
*Early life exposure and future risk of non-communicable diseases: Relevance in Indian context*
- 1015-1035 **Atul Goel**, CDRI, Lucknow  
*Development of donor-acceptor based fluorescent dyes for diagnostics and biomedical applications*
- 1040-1100 Tea break
- 1100-1300 Symposium on "Floods in the Anthropocene"
- 1100-1105 Introduction by the Convener – **Pradeep P Mujumdar**, IISc Bengaluru  
*Floods in the Anthropocene – An overview of the Symposium*
- 1105-1130 **Rajiv Sinha**, IIT, Kanpur  
*Hydrogeomorphology and sediment dynamics of floods*
- 1135-1200 **Subimal Ghosh**, IIT, Mumbai  
*Extreme precipitation under human-induced climate change*
- 1200-1225 **Arpita Mondal**, IIT, Mumbai  
*Deciphering the role of climate change in floods*
- 1230-1255 **J Indu**, IIT, Mumbai  
*Floods from the vantage point of Radars*
- 1300 Discussion
- 1310-1400 Lunch break
- 1400-1540 Lectures by Fellows / Associates  
Chairperson: **C Pulla Rao**, IIT, Tirupati
- 1400-1420 **Sourav Pal**, IIT, Mumbai  
*Distinguished varieties in the polydisc and dilation of commuting matrices*
- 1425-1445 **Binod Sreenivasan**, IISc, Bengaluru  
*Understanding Earth's magnetic reversals*
- 1450-1510 **Ullas K Seetharam**, TIFR, Mumbai  
*You are what you eat: linking metabolism to physiology & health*
- 1515-1535 **Meena B Mahajan**, IMSc, Chennai  
*What is hard to prove, and why?*
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1540-1600 Tea break  
1600-1730 **Business Meeting of Fellows**  
1730-1830 Tea break  
1800-1900 Public Lecture  
Chairperson: **Umesh V Waghmare**, JNCASR, Bengaluru  
**Ananya Vajpeyi**, Centre for the Study of Developing Societies,  
New Delhi  
*The Modern Life of an Ancient Language*  
1900-2000 Cultural Programme  
2000 Dinner

## 6 NOVEMBER 2022 (SUNDAY)

0900-1015 Lectures by Fellows/Associates  
Chairperson: **Swapan K Ghosh**, University of Mumbai,  
Mumbai  
0900-0920 **Prabhat Mandal**, SN Bose National Centre for Basic Sciences,  
Kolkata  
*A new paradigm for understanding solids*  
0925-0945 **Jitendra K Bera**, IIT, Kanpur  
*Water as a reactant in organometallic catalysis*  
0950-1010 **P Sreenivas**, University of Hyderabad, Hyderabad  
*An advanced Ensemble Kalman Filter based Ocean-Atmospheric  
coupled Data Assimilation system and its impact in enhancing  
the Indian monsoon predictions*  
1015-1045 Tea break  
1045-1200 Lectures by Fellows/Associates  
Chairperson: **A Jayaraman**, Bangalore University, Bengaluru  
1045-1105 **Suchana Taral**, Pondicherry University, Puducherry  
*Source-to-sink pathway of the Himalayan sediments: new  
evidence from the eastern Himalayan foreland*  
1110-1130 **Gobardhan Das**, JNU, New Delhi  
*Mycobacterium tuberculosis programs mesenchymal stem cells  
to establish dormancy and persistence*  
1135-1155 **Sneha Sagarkar**, SP Pune University, Pune  
*Reward memory recall: Role of glutamatergic  
neurotransmission in the dentate gyrus*  
1200-1240 Special Lecture  
Chairperson: **V A Raghunathan**, RRI, Bengaluru  
**Sadiqali Rangwala**, RRI, Bengaluru  
*Nobel Prize for Physics 2022  
From Foundational Questions in Quantum Physics to Cutting  
Edge Technology of Today*  
1240 Lunch