



Indian Academy of Sciences
Bengaluru - 560 080

**88th ANNUAL
MEETING**

04-06 November, 2022

SRM University - AP, Amaravati

PROGRAMME

4 NOVEMBER 2022 (FRIDAY)



0900-0930	Registration
0930-1100	Inauguration and Presidential Address Umesh V Waghmare , JNCASR, Bengaluru <i>Instabilities of crystals and their functional properties</i>
1100-1200	Tea break and Group Photograph
1200-1240	Special Lecture Chairperson: Swagata Dasgupta , IIT, Kharagpur AS Raghavendra , 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: K Bhanu Sankara Rao , University of Hyderabad, Hyderabad
1400-1420	DB Ramachary , University of Hyderabad, Hyderabad <i>Discovery of sustainable organocatalytic reactions: Expansion of substrate / catalysts scope</i>
1425-1445	Aditya Bandyopadhyay , 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 – Ranjit Thapa , SRM-University, Amaravati
1535-1600	Ashok K Ganguli , IIT, New Delhi <i>Photoelectrochemical water splitting for green energy</i>
1605-1630	S Venkata Mohan , ICT, Hyderabad <i>Low-carbon biohydrogen: Enabling through biorefinery</i>
1635-1700	S Sampath , IISc, Bengaluru <i>Electrochemical energy systems: Hydrogen generation and its use in fuel cells</i>
1705-1730	Ramendra Sundar Dey , 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: Umesh V Waghmare , JNCASR, Bengaluru PSainath , 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 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 **PSreenivas**, 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