Tentative Programme for

**Indo-French Workshop on Clean and Sustainable Energy Technologies**

**(INFINITE)**

**22-24 November 2022**

Venue: CSIR- National Aerospace Laboratories, Bengaluru (India)

Jointly organized by

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| CSIR-Central Institute of Mining and Fuel Research, Dhanbad | Centre National de la Recherche Scientifique – CNRS, France |

**Tuesday 22 November 2022**

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| 8:00-9:00 | **Registration** |
| 9:00-9:45 | **Inaugural Session** |
| Lightning of the lamp |
| Welcome address and introduction about the workshop by Director, CSIR-CIMFR, Dhanbad, India |
| Address by Dr. Abdelilah Slaoui, Centre National de la Recherche Scientifique – CNRS, France. |
| Address by Prof. Nitin Seth, Director, CEFIPRA |
| Address by DG, CSIR, (or representative from CSIR HQ) |
| Address by Dr. Kaveeri Srini, Director, CNRS office in India |
| Inaugural address (Speaker tbd, Principal Scientific Advisor, India ?) |
| Vote of thanks (tbd) |
| 9:45-10:00 | Networking coffee/tea break |

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| 10:00-11:30 | **Session-I (Solar Energy)** |
| Session Chair: Dr Abdelilah Slaoui, CNRS, Strasbourg/Paris |
| *Keynote address (10:00 – 10:30)* |
| Recent Advances in Photovoltaics  | Dr Abdelilah Slaoui, CNRS, Strasbourg/Paris |
| *Invited speakers (10 :30-11 :30)* |
| tbd | ISA |
| Ambient light harvesting devices for self- powered applications | Dr Suraj Soman, CSIR NIIST, Trivandrum;  |
| tbd | Prof. Praveen C Rammoorhy, IISc, Bengaluru  |
| Development of Heterostructured Photocatalyst for an Efficient Solar to Chemical Fuel Conversion  | Dr. Yatendra S. Chaudhary, CSIR-IMMT |

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| 11:30-13:00 | **Session-II (Hydrogen Energy)** |
| Session Chair: Pr Olivier Joubert, Univ. Nantes, IMN, Nantes |
| *Keynote address (11:30 – 12:00)* |
| Brief overview of research activities on hydrogen in France | Pr Olivier Joubert, Univ. Nantes, IMN, Nantes |
| *Invited speakers (12:00-13 :00)* |
| Hydrogen and fuel cells for mobility | Dr Laurent Antoni, CEA-LETI, Grenoble |
| Heterostructure in Photocatalytic hydrogen generation | Dr. Ujjwal Gautam ,IISER Mohali |
| Advanced composite materials for high pressure hydrogen storage | Dr. M. S. Santosh, CSIR-CIMFR, Dhanbad  |
| tbd | Technip |
| 13:00-14:00 | Networking lunch and interaction |

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| 14:00-15:30 | **Session-III (Carbon Capture Utilization & Storage)** |
| Session Chair: Dr. Sebastin Peter, JNRCS |
| *Keynote address (14:00 – 14:30)* |
| tbd | Dr. Sebastin Peter, JNRCS |
| *Invited speakers (14:30-15 :30)* |
|  Industrial & economic Options for mid-term energy mix decarbonation: Europe-India perspectives | Dr Joël Ruet, CEPN-CNRS, Paris |
| tbd | Dr. Vivek Polshettiwar, TIFR, Mumbai |
| tbd | Dr. Y. Soujanya, CSIR-IICT, Hyderabad |
| tbd | Dr (Mrs). V Anguselvi, CSIR-CIMFR Dhanbad |
| tbd | tbd |
| 15:30 – 17:00 | Tea and poster interaction (all work group papers to be displayed as posters) |
| 17:00 – 18:00 | Formation of Work Groups  |
| 19:00 – 20:00 | Cultural Programme |
| 20:00 – 21:30 | Dinner |

**Wednesday 23 November 2022**

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| 8:00-9:00 | Networking breakfast and interaction |
| 9:15 – 10:45 | **Session-IV (Electrochemical storage)** |
| Session Chair: Dr Philippe Azais |
| *Keynote address (9:15 – 9:45)* |
| Batteries for mobility | Dr Philippe Azais, CEA-LETI, Grenoble |
| *Invited speakers (9:45-11:00)* |
| Electrochemical storage: from materials to batteries  | Dr Laurence CROGUENNEC, CNRS, IMS, Bordeaux  |
| tbd | Dr. Prakash, CSIR-CECRI |
| Lithium organic redox flow battery  | Dr. R. Kothandaraman, IIT Madras, Chennai |
| tbd | Dr. Mustafa, IISER Pune |
|  | Dr. Ramakrishna Matte, CeNS, Bangalore  |
| 11:00 – 11:15 | Networking coffee/tea break |

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| 11:15-13:00 | **Session V (Clean Fuels)**  |
| Session Chair: Pr Antony Dufour, Univ. Lorraine, LRGP, Nancy |
| *Keynote address (11:00 –11:30)* |
| Research activities on biomass & wastes to energy in France | Pr Antony Dufour, Univ. Lorraine, LRGP, Nancy |
| *Invited speakers (11:30-13:;00)* |  |
| Technologies in renewables and clean fuels | Dr GINOTRA Varun, Axens Solutions, IFPEN, FR |
| Tbd | Prof Sreedevi Upadhyayula, IIT Delhi |
| TBD | Dr V V D N Prasad/ Dr. T. Baskar, CSIR- IIP Dehradun |
| 13:00-14:00 | Networking lunch and interaction |

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| 16:00-18:00 | **Parallel sessions of Work Group Meeting to discuss possible projects and propose actions** |
| **WG-1** **Renewable and Solar Energy** | **WG-2** **Clean Fuels and CCUS** | **WG-3** **Hydrogen and Energy Storage** |

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| 14:00-18:00 | **WG - I : Renewable and Solar Energy**  |
| Flash Talks (5min) |  |
| Flexible organic photovoltaics  | Prof. Sundar Kumar Iyer, IIT Kanpur;  |
| Light soaking effect in perovskite solar cells  | Prof. Manoj A. G. Namboothiry, IISER Trivandrum ; |
| DSC module fabrication: Strengthening the Bangalore supply chain in India  | Sri. Raghuvanshi, Elixir Technologies,  |
| Development lead- free perovskite solar absorber for solar cell applications  | Dr. Ritu Srivastava, CSIR-NPL, New Delhi |
| Materials and Devices for Smart Window Applications | Dr Biswapriya Deb, CSIR NIIST, Trivandrum  |
| Ambient light harvesting devices for self- powered applications | Dr Suraj Soman, CSIR NIIST, Trivandrum;  |
| + FR attendees | Dr Abdelilah Slaoui, Pr Jean-Jacques Bezian, Pr Christophe Menezo, Pr Pascal Maussion, Dr Goeffrey Abecassis  |
| all IN attendees interested by the topic |

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| 14:00-18:00  | **WG - II : Clean Fuels and CCUS** |
| Flash Talks (5min) |  |
| Underground Coal Gasification and its relevance in Indian Context  | Dr. Debadutta Mohanty, CSIR-CIMFR, Dhanbad  |
| Development of bioprocessing techniques for microalgae strain improvement for the direct production of hydrocarbons as jet fuels  | Dr. Natarajan Velmurugan, CSIR-NEIST, Jorhat  |
| Control of Combustion Related Emissions from Rural cooking and Informal Sectors of India  | Dr. Nitin Labhsetwa, CSIR-NEERI, Nagpur |
| Development of Heterostructured Photocatalyst for an Efficient Solar to Chemical Fuel Conversion  | Dr. Yatendra S. Chaudhary, CSIR-IMMT |
| Agriculture waste biomass to biocoal by torrefaction as fuel for energy generation  | Dr. S.R. Dhakate, CSIR-NPL, New Delhi  |
| Li based ceramics for high temperature CO2 capture | Dr Hareesh, CSIR NIIST, Trivandrum;  |
| + FR attendees  | Dr GINOTRA Varun, Pr Antony Dufour, Dr Xavier Montagne |
| + all IN attendees interested by the topic |

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| 14:00-18:00  | **WG - III : Hydrogen and Energy Storage**  |
| Flash Talks (5min) |  |
| Recovery of Battery Materials (Li) from Secondary Sources | Prof. Suddhasatwa Basu, CSIR-IMMT;  |
| Coal-derived low-cost carbon materials for energy device application  | Dr Binoy K Saikia, CSIR-NEIST, Jorhat  |
| Lithium organic redox flow battery  | Dr. R. Kothandaraman, IIT Madras, Chennai |
| Ionic group docked anion-exchange membrane for redox flow battery  | Dr Rajaram Krishna Nagarale, CSIR-CSMCRI, Bhavnagar |
| Carbonaceous nanostructures for solar hydrogen production  | Dr. Pooja, CSIR-CSIO, Chandigarh  |
| Addressing challenges to mass EV adoption in India ; | Dr. Amit Mukherjee, Taqanal Energy Pvt Ltd |
| Energy storage device and IT  | Mr. Tanmoy Goswamee, Sumato Global Tech., Guwahati |
| + France’ Delegates | Dr Laurence CROGUENNEC, Dr Philippe Azais, Pr Olivier Joubert, Dr Laurent Antoni, Dr Marie-Cécile Alvarez, Dr Joël Ruet |
| + all IN attendees interested by the topic |

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| 18:00-19:00 | **Presentations of the outcomes of the 3 work groups**  |
| 19:00-21:00 | Entertainment and Dinner |

**Friday 24 November 2020**

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| 8:00-9:00 | Networking breakfast and interaction |
| 9:00-17:00 | **Field Visits** |
|  | Research facilities at CSIR-NAL, Bengaluru.Central Power Research Institute, Bengaluru.Schneider Electric, BengaluruIndian Institute of Science, Bengaluru.ENZEN Global Pvt. Ltd., Bengaluru.IEPT Pvt. Ltd., Bengaluru |