

List of Proposals Recommended in 37th Meeting Industrial Research Committee (IRC)

** Below proposals were submitted under deadlines of July 2021, Feb. 2021 and July, 2020 of Industry-Academia Research and Development Programme (IARDP)*

1.Title: Microbial Engineering for Large-scale synthesis of Glycosylated Entities (MELANGE)			
Academic Collaborator (India)	Industry Collaborator (India)	Academic Collaborator (France)	Industry Collaborator (France)
Prof.Balasubramanin Gopal, Molecular Biophysics Unit, Indian Institute of Science, Bangalore	Mr Nishank Reddy GlyZy Technologies Pvt Ltd,Bangalore	Dr (Prof.) Stéphane GUILLOUET Toulouse Biotechnology Institute, Bio & Chemical Engineering (ex.LISBP), Université de Toulouse - CNRS 5504 - INRA 792 – INSA, TBI - INSA Toulouse,	Mr Alex Dajkovic BIOMILLENIA SAS, c/o BIOCITECH, Building Lavoisier Romainville

2.Title: Efficient Smart Contract Framework for Tezos Blockchain Ecosystem (Concurrent Tezos)			
Academic Collaborator (India)	Industry Collaborator (India)	Academic Collaborator (France)	Industry Collaborator (France)
Dr. Sathya Peri CSE Department, IIT-Hyderabad, Hyderabad	Mr. Om Prakash Malviya Tezdev Technologies Pvt. Ltd., Bangalore		Prof.Michel M Mauny, Nomadic Labs

3.Title: Sonar Acquisition Resolutions Improvement (SARI)			
Academic Collaborator (India)	Industry Collaborator (India)	Academic Collaborator (France)	Industry Collaborator (France)
Dr. Sujit Kumar Sahoo Indian Institute of Technology, Goa			Dr Philippe COURMONTAGNE Naval Group Research Centre d'Etude pour la Maitrise de l'Information et des Signatures (CEMIS) Département Acoustique Technopôle de la Mer, Ollioules

4. Title: Underwater Acoustic Composite Metamaterial (RACCOM)			
Academic Collaborator (India)	Industry Collaborator (India)	Academic Collaborator (France)	Industry Collaborator (France)
Dr. Dibya Prakash Jena National Institute of Technology Rourkela	Dr.K. Rajkumar Indian Rubber Manufacturers Research Association (IRMRA), Thane	Dr. A.C. Hladky The Institute of Electronics, Microelectronics and Nanotechnology IEMN-JUNIA UMR 8520, Lille	Dr.Christian D Audoly Naval Group Research Technopole de la Mer Ollioules,
Dr. Debarjoyti Choudhuri National Institute of Technology Rourkela		Mr. Charles Croënne Institute of Electronics Microelectronics and Nanotechnologies - UMR 8520, Lille	Ms. Laetitia Roux Naval Group Research Pierre-Gilles de Gennes, Ollioules,

5. Title: STING Antagonist for Targeting Inflammation in NEuroTrauma (SAFTINET)			
Academic Collaborator (India)	Industry Collaborator (India)	Academic Collaborator (France)	Industry Collaborator (France)
	Dr. Shyamala Mani Curadev Pharma. Pvt. Ltd. Noida	Dr. Pierre Gressens (INSERM U1141, Hopital Robert Debre)	
	Dr. Sourav Basu Dr. Arjun Surya Dr Monali Banerjee Dr. Rajib Ghosh	Dr. Juliette Van Steenwinckel Dr. Tifenn Le Charpentier Dr. Leslie Schwendimann Dr. Pascal Dournaud Dr. Alice Jacquens Dr. Vincent Degos	

6.Title: Development of nano-additive based glass mold release lubricants for enhanced mold life and product quality (NANOLUB)			
Academic Collaborator (India)	Industry Collaborator (India)	Academic Collaborator (France)	Industry Collaborator (France)
Dr. Joydip JOARDAR International Advanced Research Center for Powder Metallurgy and New Materials (ARCI), Hyderabad	Mr. M. Inamdar PGP Glass formerly PIRAMAL Glass Ltd.	Pr. Fabrice DASSENOY Ecole Centrale of Lyon – Laboratoire de Tribologie et Dynamique des Systèmes LTDS laboratory (CNRS)	
Dr. P.H. BORSE Mr. S. Sudhakara SARMA International Advanced Research Center for Powder Metallurgy and New Materials (ARCI), Hyderabad		Dr. Jules GALIPAUD Dr Béatrice VACHER	

7.Title: Laboratory and field investigations on geosynthetic reinforced unpaved and paved roads overlying soft subgrades (GRUROSS)			
Academic Collaborator (India)	Industry Collaborator (India)	Academic Collaborator (France)	Industry Collaborator (France)
Prof.B Umashankar, IIT Hyderabad	Mr. Shahraoukh Bagli Strata Geosystems (India) Pvt. Ltd., Mumbai	Dr. Laurent BRIANÇON (GEOMAS – INSA) de Lyon Bâtiment Charlotte PERRIAND, Villeurbanne	

List of Proposals Recommended in **67th Scientific Council Meeting**

** Below proposals were submitted under July 2021 deadline of Collaborative Scientific Research Programme (CSRP)*

1. Proposal No. 6702-B- Exploring Graph Neural Networks (GNNs) for Data-driven Modeling of Poly-pharmacy Adverse Drug Events from drug-drug interactions	
Prof. Sanghamitra Bandyopadhyay, Indian Statistical Institute, Kolkata Prof. Ujjwal Maulik, Jadavpur University, Kolkata	Prof. Yann Busnel, IMT Atlantique, Bretagne-Pays de la Loire
2. Proposal No. 6702-G SARER: Semantically-aware representations for efficient reasoning	
Dr. Utpal Garain, Indian Statistical Institute, Kolkata Dr. Sujata Ghosh, Indian Statistical Institute, Chennai	Dr. Nicholas M. Asher, IRIT, UMR CNRS 5505, Toulouse
3. Proposal No. 6703-E- Explore and exploit the vulnerability of Triple-Negative Breast Cancer (TNBC) to ferroptosis by modeling longitudinal tumor response, resistance and heterogeneity.	
Dr. Nandini Verma Tata Memorial Centre, Advanced Centre For Treatment, Research and Education In Cancer, Mumbai	Dr. Flavio Maina, Developmental Biology Institute of Marseille (IBDM) Aix Marseille Université, CNRS UMR7288, Marseille
4. Proposal No. 6704-A: Polymers in turbulent flows: from single-molecule dynamics to continuum models	
Dr. Jason Ryan Picardo, Indian Institute of Technology Bombay Prof. Samriddhi Sankar Ray, International Center for Theoretical Sciences, Tata Institute of Fundamental Research (ICTS-TIFR), Bangalore	Dr. Dario Vincenzi, Laboratoire Jean Alexandre Dieudonné, Nice

5. Proposal No. 6704-C Interatomic Coulombic Electron Capture in Quantum Aggregates	
Dr. Sivarama Krishnan, Indian Institute of Technology, Chennai	Dr. Nicolas Sisourat, Sorbonne Université - Faculté Des Sciences, Paris

6. Proposal No. 6704-N Charge Density wave state in correlated quantum matter: frustration and lattice coupling.	
Prof. Amit Amal Ghosal, Indian Institute of Science Education and Research, Kolkata	Dr. Catherine Pepin, Institut de Physique Théorique, L'Orme des Merisiers, CEA-Saclay, CNRS URA 2306, Université Paris-Saclay, Gif-sur-Yvette

7. Proposal No 6705-B Long-lived mechanoluminescent molecules to upconversion hybrid composites: emerging materials for information encryption and photocatalysis	
Dr. Abhijit Patra, Indian Institute of Science Education and Research Bhopal	Dr. Rémi Metivier, ENS Paris-Saclay, UMR 8531, Ppsm Laboratory, Gif Sur Yvette

8. Proposal No. 6705-J Phosphorus-stabilized highly reactive boron species: synthesis, bonding and applications	
Prof. Ashwini K Phukan, Tezpur University, Tezpur, Sonitpur	Dr. Didier Bourissou, Laboratoire Hétérochimie Fondamentale et Appliquée (UMR 5069), Toulouse

9. Proposal No. 6705-K Elucidating polymorphic behaviour of active pharmaceutical ingredients (APIs) during crystallization: A combined approach of experimental and molecular dynamics simulations studies	
Prof. Sameer Vishvanath Dalvi, Indian Institute of Technology, Gandhinagar	Prof. Frederic Affouard, Université de Lille, Lille

10. Proposal No. 6707-B Morphologic assessment of water resources in semi-arid catchments of central India	
Dr. Kumar Gaurav, Indian Institute of Science Education and Research Bhopal Prof. Rajiv Sinha, Indian Institute of Technology Kanpur	Dr. Francois Métivier, Institut de Physique du Globe de Paris, Paris

11. Proposal No. 6707-C Variability of the upper-level ASIAN monsoon anticyclone and mechanisms of its coupling with tropospheric monsoon convection

Dr. Ajil Kottayil, Cochin University of Science & Technology, Kerala	Dr. Aurélien Podglajen, Laboratoire de Météorologie Dynamique, UMR 8539 – Ecole Polytechnique, Palaiseau, Paris
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12. Proposal No. 6708-E Perovskite Single Crystalline Solar Cells

Prof. Predeep Padmanabhan, National Institute of Technology, Kozhikode, Kerala	Dr. Cattin Linda, Université de Nantes, Institut des Matériaux de Nantes (IMN), UMR 6200, Nantes
Dr. S. Angappane, Centre for Nano and Soft Matter Science, Bangalore	

13. Proposal No. 6708-F Micro-Mat: Light- and Bio-Sensitive Soft Micro-Materials

Dr. Supratim Banerjee Indian Institute of Science Education and Research, Kolkata	Prof. André Del Guerso, Institut des Sciences Moléculaires CNRS-UMR 5255, Bordeaux
Prof. Uday Maitra, Indian Institute of Science, Bangalore	Dr. C. Aymonier, Institut de Chimie de la Matière Condensée de Bordeaux (I.C.M.C. B), UPR 9048, Pessac

14. Proposal No. 6708-R Impact of Hydrogen permeation in steel on polymer adhesion

Prof. Vijayshankar Dandapani, Indian Institute of Technology, Bombay	Dr. Stephane Rioual, Université de Bretagne Occidentale (Labsticc), Brest
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15. Proposal No. 6709-C Development of a sustainable eco-friendly concrete material with complete replacement of traditional ingredients with waste materials (WASTECRETE)

Dr. Arkamitra Kar, Birla Institute of Technology and Science (BITS) - Pilani, Hyderabad	Prof. Martin Cyr, Université Paul Sabatier, Toulouse
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16. Proposal No. 6700-B-A Mapping structure function relationships of the sodium transporter HKT1;5 in Oryza species for new determinants of salinity tolerance

Dr. Gayatri Venkataraman, M. S. Swaminathan Research Foundation, Chennai	Dr. Very Anne-Aliénor, Biochimie et Physiologie Moléculaire des Plantes (BPMP), UMR5004, Montpellier
Prof. Ramanathan Sowdhamini TIFR-NCBS, Bangalore	

17. Proposal No. 6701-A Development of Advanced Cryptographic Primitives using Multivariate Public Key Cryptography as an Aid to IoT and Blockchain Technology

Dr. Sumit Kumar Debnath,
National Institute of Technology,
Jamshedpur

Prof. Sihem Mesnager,
Universite de Paris, Paris

PIs of above proposals will be shortly contacted by CEFIPRA for further actions.