

Major International Sponsored Research Projects Undertaken During the Financial Year 2020-21

Project Title	Sponsoring Agency / Collaborating Institute	Sanctioned Funds (Rs. Lacs)	Principal Investigator / Department
International Centre of Excellence for Computational and Biomedical Sciences (ICECBS)	Open Health systems Laboratory, USA	1000.00	Sunil Kumar Khare, Dean R&D Dept. of Chemistry
COVID 19 Vaccine Roll out: Institutional Management Partner	Bill & Melinda Gates Foundation United States	370.00	Sushil Dept. of Management Studies
Establishment and application of an AQM model for the Indo-Gangetic Okain (IGP-AQMmod)	The World Bank	100.88	Sagnik Dey Centre for Atmospheric Sciences
Modeling and Simulation of Local Liquid Distribution in Trickle Bed Reactors	IFP Energies nouvelles (IFPEN) France	61.55	Vivek Vitthal Buwa Dept. of Chemical Engineering
Development of functional admixtures for application to sustainable cements	Chryso SAS (IU), France	60.00	Shashank Bishnoi Dept. of Civil Engineering
Topology and Magnetism in Novel Quantum Materials	International Multilateral Regional Cooperation Division, Department of Science and Technology, India <u>Collaborating Institute</u> : Chalmers University of Technology, Sweden	55.98	Ratanamala Chatterjee Dept. of Physics

Large Area Microbolometer Uncooled Focal Plane Arrays for Thermal Imaging	International Bilateral Cooperation Division, Department of Science & Technology, India & IC-IMPACTS, Canada <u>Collaborating Institute</u> : University of Ottawa, Canada	54.80	Madhusudan Singh Dept. of Electrical Engineering
Fast-curable immune-informed bioinks for tissue-mimetic 3D bioprinting	International Multilateral Regional Cooperation Division, Department of Science and Technology, India <u>Collaborating Institutes</u> : Pusan National University, South Korea	49.21	Sourabh Ghosh Dept. of Textile & Fibre Engineering
Surveillance and Mitigation to combat AMR related to discharges from the antimicrobial manufactory	The Royal Embassy of Denmark	48.00	Shaikh Ziauddin Ahammad Dept. of Biochemical Engineering & Biotechnology
Maintenance and Repair Strategy for Wind Energy Development	Ministry of Foreign Affairs of Denmark <u>Collaborating Institute</u> : Technical University of Denmark	45.39	Puneet Mahajan Dept. of Applied Mechanics
Wide Bandgap Semiconductor (Al)GaO/Nitrides Heterostructures for High Power Electronic and Optoelectronic Devices (under BRICS)	Department of Science and Technology (DST- International Multilateral Regional Cooperation Division), India & Ministry of Science and Technology (MOST), China <u>Collaborating Institutes</u> : Ioffe Institute, Russia University of Science & Technology, China	45.26	Rajendra Singh Dept. of Physics
Ultra Compact Traction Inverter for EV application	AT & S Austria Technologie & Systemtechnik AG, Austria	45.17	Soumya Shubhra Nag Dept. of Electrical Engineering

Hydrogenotrophic Anaerobic Biotechnological System for Enrichment of Biogas (HABSEB) Technology for Power and Vehicular Fuel Applications (Indo-Hungarian Joint Project) Collaborating Institute : University of Szeged, Hungary	Through International Bilateral Cooperation Division, Department of Science & Technology, India <u>Collaborating Institute</u> : University of Szeged, Hungary	42.42	Ram Chandra Centre for Rural Development Technology (CRDT)
Green Printing Technology for novel optical Metadevices	Department of Science and Technology (DST- International Multilateral Regional Cooperation Division), India & RFBR(Russia), MOST(China) <u>Collaborating Institute</u> : IMTO University, Russia Chinese academy of Sciences, China	41.51	Ashok Kumar Ganguli Dept. of Chemistry
Intricate functional scaffolds produced via solvent free, single step process	Department of Science and Technology (DST), India & Swedish Research Council, Sweden <u>Collaborating Institute</u> : KTH Sweden	40.46	Rajiv K Srivastava Dept. of Textile & Fibre Engineering
High Efficiency Micro-electromagnetic Energy Harvesting System for Self-powered Smart Environment - EMPOWER (Indo-Norway Joint project)	Through International Bilateral Cooperation Division, Department of Science & Technology, India & Research Council of Norway <u>Collaborating Institutes</u> : Norwegian University of Science and Technology, Norway	39.07	Dhiman Mallick Dept. of Electrical Engineering
Development of Improved Furnaces for Handtool Clusters in Jalandhar and Nagaur	United Nations Industrial Development Organization Austria	35.40	M R Ravi Dept. of Mechanical Engineering

Metawall: metamaterial based lightweight panel wall for enhanced building acoustics and seismic resistance (Indo-Canadian Project)	International Bilateral Cooperation Division, Department of Science & Technology, India & IC-IMPACTS, Canada <u>Collaborating Institutes</u> : University of Windsor, Canada	34.42	Arnab Banerjee Dept. of Civil Engineering
Development of photoelectrochemical catalysts for efficient CO2 reduction based on novel combinations of 2D materials and 3D nanoscaffold hierarchical structures	International Bilateral Cooperation Division, Department of Science & Technology, India & MSIT/NRF, KOREA <u>Collaborating Institute</u> : Pohang University of Science & Technology, Korea	33.70	Jitendra Pratap Singh Dept. of Physics
CHOMP - Cache Hierarchy Management in Heterogeneous MPSoCs	Semiconductor Research Corporation United States	27.00	Preeti Ranjan Panda Dept. of Computer Science & Engg.
Contextual Rendering of Equations for Visually Impaired Persons	Google Inc. United States <u>Collaborating Institute</u> : University of Birmingham, UK	18.38	M Balakrishnan Dept. of Computer Science & Engg.
Divine Ganges, Profane Development: Sacred Geographies and the Governing of Pollution	Swedish Research Council Sweden <u>Collaborating Institute</u> : Lund University, Sweden	18.30	Yashpal Ashokrao Jogdand Dept. of Humanities & Social Sciences
A Pilot Study to Develop and Test ICT Tools to Improve Timeliness of Vaccination in Bihar	London School of Economics and Political Science (LSE) United Kingdom	17.77	Sisir Debnath Dept. of Humanities & Social Sciences
SiC surface treatment and passivation using organic monolayers for high power device applications	SiCamore Semi United States	14.40	Rajendra Singh Dept. of Physics

Micron UV Robot Design Challenge (This fund is given for CSR activity related to COVID-19)	Micron Technology Foundation Inc. Austria	14.07	Sunil Jha Dept. of Mechanical Engineering
Protecting Public Health with Novel Microbial Indicators to Monitor the Performance of Water Reuse Systems in India	University of Nebraska United States <u>Collaborating Institute</u> : Drexel University, USA University of Arizona, USA	13.80	Vivekanandan Perumal School of Biological Sciences
Feasibility study for improving performance of WRF urban canopy model and preparing inputs for human health impact assessment	University of Tokyo Japan	12.50	Manju Mohan Centre for Atmospheric Sciences
Co-innovation in Electric Vehicle (EV) sector in India: Cross-sectoral and collaborative research between India and Japan for low-carbon transition (Under ICSSR (India)-JSPS (Japan) Bilateral Programme)	Through Indian Council of Social Science Research, India <u>Collaborating Institute</u> : Institute for Global Environmental Strategies (IGES), Japan	12.29	Gourav Dwivedi Dept. of Management Studies
Domesticating soil microbiome for mitigation of drought stress tolerance in tomato via rhizosphere engineering.	Through International Bilateral Cooperation Division, Department of Science & Technology, India <u>Collaborating Institutes</u> : Cairo University, Egypt	11.10	Shilpi Sharma Dept. of Biochemical Engineering & Biotechnology

Major International Consultancy Jobs Undertaken During the Financial year 2020-21

Title	Sponsoring Agency	Sanctioned Funds (Rs. Lacs)	Consultant Incharge/ Department
Development of an Air Quality Emission Inventory Framework for India	Centre for Research on Energy and Clean Air Finland	23.46	Sri Harsha Kota Dept. of Civil Engineering
Technical consultant in IPR proceedings for Galderma Laboratories L.P	Galderma Laboratories L.P., Washington United States	9.69	Biswarup Mukherjee Centre for Biomedical Engineering