

NEW PROJECTS SANCTIONED DURING FY 2018-2019 BY NANO MISSION

Individual Scientist-Centric Nano Science Research Projects =21

Sr. No.	Date of Senction	DST Reference Number and Project Title	Principal Investigator details	Project Duration (Years)
1	21.02.2019	DST/NM/NB/2018/82(G) Development of Nanoconjugates for site specific delivery of Curcumin and siRNA to lung Cancer cells	Dr. Bhanu P. Sahu Assistant Professor, Giriananda Chowdhury Institute of Pharmaceutical Science, Azara, Guwahati	3 (Years)
2	11.02.2019	DST/NM/NS/2018/178 (G) Development of a vesicular stomatitis virus glycoprotein based viruse-like nanoparticles palteform for targeted drug devliver	Dr. Debasis Nayak, IIT Indore, Room No-SBI 214, Khandwada Road, Simorl, Indore, MP- 453552	3 (Years)
3	07.02.2019	DST/NM/NB/2018/227 (G) Adipocyte specific delivery of oral thiazolidinedione nanoparticles functionalized with RGD and P3 peptides to reduce side effects and improve efficacy	Prof. Praveen TK Professor, JSS College of Pharmacy, Ooty- 643001	3 (Years)
4	04.02.2019	DST/NM/NB/2018/227 (G) Nanoscale interfacial magbetic skyrmions and its applications in memory devices	Dr. Shrawan Kumar Mishra, Assistant Professor School of Materials Science and Technology IIT, BHU-221005	3 (Years)
5	29.01.2019	DST/NM/NB/1083/2017 (G) Mitochondrial Central Dogma by Chimeric Nanoparticle in Cancer	Dr. Sudipta Basu, Associate Professor, Discipline of Chemistry, IIT-Gandhinagar	2 (Years)
6	29.01.2019	DST/NM/NB/1083/237 Combination of nanomaterials and small molecules for the detection of amyloid beta peptides aggregation at nanomolar concentration	Dr. Kalyan Kumar Sadhu Assistant Professor, Department of Chemistry, IIT Roorkee, Roorkee- 247667	3 (Years)
7	23.01.2019	DST/NM/NB/2018/152 (G) Design and Development of a low cost, rapid and sensitive sensor for the on site-detection of Endotoxin	Dr. N Sandhyarani, NIT Campus P.O., Calicut,-673601	3 (Years)
8	18.01.2019	DST/NM/NS/2018/141 (G) Aerobic Oxidations of light Alkanes Over Atomically Thin Clay Layers of Controlled Lateral Dimensions	Dr. Kalyan Raidongia, Assistant Professor, Department of Chemistry, IIT Guwahati- 781039	3 (Years)
9	16.01.2019	DST/NM/NS/2018/38 (G) Downshifting compatible nano materials for Improving the spectral response of present and future generation solar cells.	Dr. Sanjay Dhoble, RTM Nagpur University, Nagpur- 440033	3 (Years)

10	15.01.2019	DST/NM/NS/2018/7 (G) Desigh of two-Dimensional Metal Dichalcogenides (2D-TMDs) and their Applications in photoelectrocatalysis	Dr. Ashok Kumar Ganguli, Professor, Department of Chemistry, IIT-Delhi, Hauz Khas, New Delhi- 110016	3 (Years)
11	14.01.2019	DST/NM/NS/2018/103 (G) Electric field controlled spin dynamics in nanomagnets	Prof. Soumik Mukhopadhyay, Assistant Professor D/o Physics, IIT Kanpur- 208016	3 (Years)
12	14.01.2019	DST/NM/NS/2018/49 (G) Near field engineering of the Excitons	Dr. Anshuman Kumar Assistant Professor, Physics Department, Room 201, IIT Bombay, Powai Mumbai 400076	3 (Years)
13	11.01.2019	DST/NM/NB/2018/10 (G) Detecting single base mutations in DNA through magnetic nanotagging A reusable, nucleobase specific flurescent assay	Dr. V. Thiagarajan School of Chemistry, Bharathidasan university, Tiruchirappalli- 620024	3 (Years)
14	11.01.2019	DST/NM/NS/2018/257 (G) Nanostructured cathodes and Interlayers for Na-S and Mg-S batteries	Dr. Aninda J Bhattacharyya, Professor, Soild State and Structural Chemistry Unit, IIS Bangaore, Bengaluru- 560012	3 (Years)
15	11.01.2019	DST/NM/NS/2018/246 (G) Emergent electronic phases by interface and lattice engineering of complex oxides	Dr. Srimanta Middey, Assistant Professor, Department of Physics, IIS, Bangaluru, Karnataka-560012	3 (Years)
16	11.01.2019	DST/NM/NS/2018/19 (G) Surface Interrogation Scanning Eletrochemical Microscopy (SISECM) Screening of Metal Nanoparticle Coupled Semiconductor for Photo-Oxidation/Reduction of Water and CO2	Dr. Mohsin Ahmad Bhat, Assiatant Professor Chemistry, University. Of Kashmir Srinagar-190006	3 (Years)
17	26.12.2018	DST/NM/NS/2018/18 (G) Electronic structural and properties of semiconductor nanoplatelets	Prof. Priya Mahadevan Assistant Professor, Satyendra Nath Bose National Centre, For Basic Sciences, Block-JD, Sector-III, Salt Lake, Kolkata-700106	3 (Years)
18	26.12.2018	DST/NM/NB/2018/40 (G) An investigation of the cross talks between nano-materials and blood micro-vesicles for the development of nano-theranostics for thrombotic disorders	Dr, Sunil Kumar Singh Central University of Punjab, Mansa Road, Bathinda- 151001	3 (Years)
19	16.08.2018	SR/NM/NB-1087/2017 (C) Decipher mechanistic basis of the intracellular trafficking of the optically active Nanoparticle using super resolution microscopy	Dr. Suneel Kateriya Associate Professor Departmet of Biotechnogy, Jawaharlal Nehru University, New Mehrauli Road, Near Munirka, New Delhi, India	3 (Years)

20	14.08.2018	SR/NM/NB-1099/2017 (G) Investigation a combination of anti-vegf and antioxidant drugs formulated as a Nanoparticulate drug delivery system for non-invasive treatment pf diabetic retinopathy	Prof. Dharendra S, Katti Department of Biological Science and Bioengineering IIT Kanpur-208016	3 (Years)
21	08.06.2018	SR/NM/NB-1099/2017 (G) Investigation a combination of anti-vegf and antioxidant drugs formulated as a Nanoparticulate drug delivery system for non-invasive treatment pf diabetic retinopathy	Prof. Dharendra S, Katti Department of Biological Science and Bioengineering IIT Kanpur-208016	3 (Years)

Individual Scientist-Centric Technology Development Research Projects =31

Sr. No.	Date of Senction	DST Reference Number and Project Title	Principal Investigator details	Project Duration (Years)
1	28.03.2019	DST/NM/NT/1062/2016 (G) Development of smart technology based on Nano-Meterial Membrane	Dr. Rudra Sankar Dhar, D/o Electronics & Communication Engineer, NIT Mizoram, Chaltlang, Dwarkawn, Aizawl-796012	2 Years
2	27.03.2019	DST/NM/NT/2018/89 (G) Spintronics in novel 2D materials Apotential pathway for future non-volatile memory devices	Dr. Ram Krishna Ghosh, Special Centre for Nano Science, JNU, Aruna Asaf Ali Road, New Delhi - 110067	3 Years
3	13.03.2019	DST/NM/NT/2018/148 (G) HIT-TB: Host Targeted immunomolatory Therapy for tuberculosis using using Bi-functional pro-drug loaded surface functionalized nanocapsules	Dr. Somdeb Bose Dasgupta, Assistant Professor, D/o Biotechnology, IIT-Kanpur - 721302	3 Years
4	08.03.2019	DST/NM/NT/2018/143 (G) Development of nano particles incorporated thin film nanocomposite polymer membranes for effective mixture gas separation	Dr. Pravin G. Ingole, Scientist, Engineering Science and Technology Division, CSIR-North East Institute of Science Technology, Jorhat- 785006	3 Years
5	08.03.2019	DST/NM/NT/2018/176 (G) Development of nano structured si-void-c yolk/ shell architecturehigh-performance Li-ion Battery anode	Dr. Partha Saha, Assistant Professor, D/o Ceramic Engineering, NIT, Rourkela - 769008	3 Years
6	28.02.2019	DST/NM/NT/2018/137 (G) Investigations of organic nano-materials memory applicatons	Prof. Anhijit Mallik, D/o Electronics Science, University of Calcutta	3 Years
7	25.02.2019	DST/NM/NT/2018/134 (G)	Prof. Debabrata Dash, D/o	3 Years

		Development of nano-generation vascular scaffolds with anti-thrombotic potential	Biochemistry, IMS, BHU, Varanasi-221005	
8	25.02.2019	DST/NM/NT/2018/116 (G) Tailoring the nanoscale properties of graphene and its derivatives via strain engineering for next generation nano electronics devices	Dr. Pradeep Kumar, School of Basic Science, IIT, Mandi, Kamand Campus, Mandi - 175005	3 Years
9	25.02.2019	DST/NM/NT/2018/33 (G) Automated wire explosion process for nano particles production for its use as rocket propellant and for transformer insulant	Prof. Ramanujam Sarathi, D/o Electrical Engineering, IIT-Madras, Chennai	3 Years
10	14.02.2019	DST/NM/NT/1009/2017 (G) Fabrication of silicon photonic nano structure devices for optical communication and interconnects	Dr. Mukesh Kumar, Assistant Professor, Electrical Engineering, IIT, Indore- 453552	3 Years
11	13.02.2019	DST/NM/NT/2018/103 (G) Negative capacitance FET (NC-FET): Fabrication modeling and simulation for a systematic design of digital circuits	Dr. Arnab Datta, D/o Electronics & Communication Engineering, IIT - Roorkee	3 Years
12	11.02.2019	DST/NM/NT/2018/20 (G) Formulation, Optimization and Evaluation of topical delivery system loaded with nanolipid carriers of cyclodextrin complexed anticancer drug in combination with natural triterpenoids for treatment of skin cancer	Dr. Amber Vyas, D/o Pharmaceutical Sciences, UIP, PT Ravishankar Shukla University	3 Years
13	11.02.2019	SR/NM/NT/1073/2016 (G) Ordered nanoporous membranes and functionalized nanomaterials for water and wastewater treatment	Dr. SK Nataraj, CNMS, Jain University, Bengaluru	3 Years
14	08.02.2019	DST/NM/NT/1029/2016 (G) Preparation, characterization and evaluation of the efficacy of nano-biochar based nitrogen and potassium on maize productivity under rainfed agro-ecosystem of North Western Himalayas	Dr. Vikas Abrol, Senior Scientist, Advance Centre for Rainfed Agriculture, RakhDhiansar, Jammu of Sher-e-Kashmir University of Agricultural Sciences & Technology, Jammu- 181133 and Dr. T.N.V.K.V. Prasad, Nanotechnology Laboratory, Acharya N G Ranga Agricultural University, Tirupati- 517501	3 Years

15	08.02.2019	DST/NM/NS-23/2016 (G) Dipolar and Multipolar Interactions Assembled Molecules and Nanostructures: Developing a General Description and its Applications	Dr. K. George Thomas, School of Chemistry, IISE and Research-Thiruvananthapuram, CET Campus, Sreekaryam, Thiruvananthapuram - 695016	
16	08.02.2019	DST/NM/NT/2018/9 (G) Nanomachining and modification of optical fiber tip and body integrated devices linear and nonlinear	Dr. Shailendra K Varshney, Associate Professor, Department of Electronics and Electrical Communicarion Engg. IIT, Kharagpur- 721302	3 Years
17	08.01.2019	DST/NM/NT/2018/150 (G) Development of photonic sendors platfrom using 2D/3D Covalent Organic Framework (COF)	Dr. Tapanendu Kundu, Associate Professor, D/o Physics, IIT-Bombay, Mumbai	3 Years
18	08.01.2019	DST/NM/JIIT-01/2016 (G) Development of technology and processes to produce nanomaterials, nanocomposites, nanocoatings, nanolubricants and nanoceramics	Dr. Ramachandra Rao, D/o Phusics & NFTMC, IIT-Madras, Chennai and Corporate Technology Centre, Tube Investments of India Ltd. Avadi, Chennai	3 Years
19	26.12.2018	SR/NM/NT/1006/2017 (G) Financial approval of the technology project entitled "Development of stirrcast heat sink out of Al-Si-MWCNT alloy composite for thermal management of high-power LEDs".	Dr. Prosenjit Das Centre for Advanced Materials Processing CSIR-CMERI, Durgapur- 713209	3 Years
20	21.12.2018	SR/NM/NT-1025/2017 (G) Development of geopolymers composites for enhanced mechanical properties and to subside air pollution by the addition of nano particles with emphasis on achieving content uniformity	Dr. Radhakrishna, Associate professor, D/o Civil Engineering, RV College of Engineering, Bangaluru	3 Years
21	10.12.2018	DST/NM/NT/2018/146 (G) Large Area, Semi-flexible and indium-free Perovskite Solar Cells	Dr. Dhriti Sundar Ghosh, Department of Physics, IIT, Bhilai-492015	3 Years
22	26.11.2018	SR/NM/NT/1079/2016 (G) Development of graphene/polyaniline modified Li ₂ M _{1-x} SiO ₄ (M=Mn,Co,Ni) (X=Cu, V, Sn,Sm,Ce) nanocomposite cathode materials for high voltage rechargeable lithium-ion batteries	Dr. GK Paruthimal K, D/o Industrial Chemistry, Alagappa University, Karaikudi	2 Years
23	08.11.2018	DST/NM/NT/2018/9 (G) Nanomachining and modification of	Dr. Shailendra K Varshney, Associate Professor, Department	3 Years

		optical fiber tip and body integrated devices linear and nonlinear	of Electronics and Electrical Communicarion Engg. IIT, Kharagpur- 721302	
24	09.10.2018	DST/NM/NT/2018/53 (G) Development of graphene-metal oxide nanocomposite based ammonia sensing device for medical application	Dr. Mrinal Pal, Principal Scientist, Sensor Actuator Division, CSIR-Central Glass and Research Institute (CGCRI) Kolkata	3 Years
25	05.09.2018	DST/NM/NT/2018/2 (G) Development of non-invasive techniques for nanoscale surface metrology	Dr. Gannavarpu Rajshekhar, D/o Electrical Engineering, IIT, Kanpur	3 Years
26	05.09.2018	SR/NM/NT/1106/2016 (G) Sonochemical synthesis of polycrylonitrile based activated carbon grafted layered double hydroxide ecofriendly nano-adsorbents for removal of toxic pollutants from drinking and industrial waste-water	Dr. Anirudha Chatterjee, Assistant professor, D/o Plastics & polymer Engineering MIT, Aurangabad	3 Years
27	05.09.2018	DST/NM/NT/2018/2 (G) Development of non-invasive techniques for nanoscale surface metrology	Dr. Gannavarpu Rajshekhar, D/o Electrical Engineering, IIT, Kanpur	3 Years
28	20.08.2018	SR/NM/NT-1147/2016 (G) Theoretical investigation of methane oxidation catalyzed by metal nanoclusters supported on zeolites	Prof. Ramesh C Deka, D/o Chemical Sciences, Tezpur University, Napaam- 784028	3 Years
29	13.08.2018	DST/NM/NT/2018/105 (G) Development of a combinatorial nano-vehicles assisted therapeutic system for the efficient treatment of glioma	Dr. Mrinal K Ghosh, Principal Scientist, Cancer Biology & Inflammatory Disorder Division, CSIR-IICB, Kolkata- 700032	3 Years
30	06.06.2018	SR/NM/NT-1016/2017 (G) Enhancement of first ply and progressive plies failure loads of composite plates using CNT reinforcement	Dr. R. Vasudevan, Centre for innovative manufacturing Research, VIT University, Vellore, Tamil Nadu-632014	3 Years
31	16.04.2018	SR/NM/NT-1084/2016 (G) Development of nanotechnology based oral delivery system for injects able antitubercular's drug(s) for MDR tuberculosis.	Prof. Indu Pal Kaur, Prof. of Pharmaceutics, University IPS, UGC- Centre of Advanced Study (UGC-CAS), Punjab University Sector14, Chandigarh- 160014	2 Years

Joint Industry-Institute Technology Project

Sr. No.	Date of Senction	DST Reference Number and Project Title	Principal Investigator details	Project Duration (Years)
1		Development of technology and process to produced nanomaterials, nanocomposites, nanocoatings, nanolubricants, nanocer amic	Dr.Ramachandra Rao D/O-Physics&NFTMC,IIT-Madras,	3 Years

National /International conferences supported

S.No.	Date of Senction	DST Reference Number and Project Title	Principal Investigator details	(Duration in Days)
1	05.12.2018	DST/NM/Conference-05/2018 6 th World Congress on Nanomedical Sciences 2019	Dr.Indrajit Roy Associate Professor University of Delhi New Delhi-110007	4 days
2	05.12.2018	DST/NM/Conference-01/2018 10 th Bengaluru INDIA NANO	Dr.H.Honne Gowda Managing Director Karnataka Science & Technology Promotion Society. Bengaluru-560070(Karnataka)	3 days
3	20.03.2019	DST/NM/NanoIndia2019- National Nano Conference-2019 at Mahatma Gandhi University, Kottayam	Dr. Sabu Thomas, Vice Chancellor, Mahatma Gandhi University, Kottayam- 686 560 (Kerala)	2 days
4	04.12.2018	DST/NM/Conference-04/2018 4 th IEEE International Conference on Emerging Electronics 2018.	Professor Navakant Bhat, CeNSE, IISc, Bengaluru.	3 days