

NEW PROJECTS SANCTIONED DURING FY 2016-17 BY NANO MISSION

Individual Scientist-Centric Research Projects=48

Sr. No.	Date of Sanction	DST Reference Number and Project Title	Principal Investigator details	Project duration (months)
1.	03.05.2016	SR/NM/NS-1252//2013 Regulatory pathways and role of zinc oxide(ZnO) nanoparticles in angiogenesis	Dr. Chittaranjan Patra Department of Biomaterials Indian Institute of Chemical Technology Hyderabad-500 007 (Telangana)	36
2.	23.05.2016	SR/NM/NS-1027/2015 Nitrogen doped partially exfoliated multi walled carbon nanotubes-PIRu nanoparticles hybrids as high performance anode for direct methanol fuel cells	Dr. S. Ramaprabhu Department of Physics IIT-Madras Chennai-600 036(Tamil Nadu)	36
3.	23.05.2016	SR/NM/NS-18/2014 Solution phase conversion of nanoscale metals into intermetallics: Efficient catalysts for chemoselective organic transformations	Dr. Subhra Jana DST Inspire Faculty S. N. Bose National Centre for Basic Sciences Sector-III, Salt Lake, Kolkata-700 098	36
4.	23.05.2016	SR/NM/NS-1376/2014 Carbon Nanotubes Based Electrochemical Immunosensor for small Cell Lung Cancer Diagnosis	Dr. Tharamani Chikka Nagaiah Indian Institute of Technology Ropar-140 001(Punjab)	36
5.	30.05.2016	SR/NM/NS-01/2015 Fabrication and characterization of hybrid nano sponge dressing for healing of infections burn wound	Dr. R. Mala Department of Biotechnology Mepco Schleck Engineering College Sivaski- 626 005(Tamil Nadu)	36
6.	30.05.2016	SR/NM/NS-1339/2014 Metal oxide and sulfide based nanostructures for charge storage applications	Dr. S. B. Ogale Department of Physics IISER, Dr. Homibhabha Road, Pashan, Pune-411008 (Maharashtra)	36
7.	03.06.2016	SR/NM/NS-1053/2015 Fabrication of fluorescent carbon quantum dots: Role of functional group	Dr. S. Philip Anthony Department of Chemistry SASTRA University	36

		of precursor and sensing, catalysis and biological application		
8.	03.06.2016	SR/NM/NS-1062/2015 Theoretical and experimental investigation of induced magnetism in grapheme nanoribbons (GNRs) upon conjugation	Dr. Suwarna Datar Department of Applied Physics Defense Institute of Advanced Technology (DIAT), Girinagar, Pune- 411 025(Maharashtra)	36
9.	03.06.2016	SR/NM/NS-1105/2015 Low temperature partial of methane to synthesis gas over nanocrystalline Ni/CeO ₂ Catalysts	Dr. Rajaram Bal Nanocatalysis Area Refining Technology Division Indian Institute of Petroleum, Mohkampur, Haridwar Road, Dehradun-248 005	36
10.	08.06.2016	SR/NM/NS-1054/2015 Design, Synthesis and application of carbon-metal oxide/zeolite-metal oxide hybrid materials	Dr. Rajendra Srivastava Department of Chemistry Indian Institute of Technology-Ropar, Nangal Road Rupnagar-140 001(Punjab)	36
11.	08.06.2016	SR/NM/NS-1036/2015 Spin transport in 2D material(grapheme)/perovskites(LSMO) heterostructures	Dr. Jayakumar Balakrishnan DST INSPIRE Faculty Department of Physics Indian Institute of Technology-Patna, Navin Govt. Polytechnic Campus, Patliputra Colony Patna-800 013	36
12.	08.06.2016	SR/NM/NS-1469/2014 A molecular dynamics based atomistic simulation to study the effect of nanofillers on the mechanical and thermal properties of polymer nanocomposites	Dr. Avinash Parashar Department of Mechanical and Industrial Engineering Indian Institute of Technology-Roorkee Roorkee-247 667 (Uttarakhand)	36
13.	09.06.2016	SR/NM/NS-1140/2015 Influence of functionalized nanomaterial biosensing of biotin-avidin couple	Dr. Pradip Kar Department of Applied Chemistry Birla Institute of technology-Mesra, Ranchi-831215 (Jharkhand)	36
14.	21.06.2016	SR/NM/NS-1065/2015 Pd-Nanoparticles catalyzed synthesis of	Dr. Debabrata Maiti Department of Chemistry	36

		heterocycles via multiple C-H bond activation	Indian Institute of Technology- Bombay Powai, Mumbai-400076 (Maharashtra)	
15.	05.07.2016	SR/NM/NS-1118/2014 Brain targeting of an anti-epileptic drug via intra-nasal nanostructured lipid carriers	Dr. Sabitha M. Department of Pharmaceutics Amrita School of Pharmacy Health Science Campus, AIMS Ponekkara, Kochi- 682041 (Kerala)	36
16.	12.07.2016	SR/NM/NS-1109/2015 Improvement in Zinc Micronutrient delivery for cereal crops employing engineered nanoparticles	Dr. Kuldeep Singh Amity International Centre for Post-Harvest and Cold chain Management, Block-J1, Room no. G-19, Sector-125, Noida - 201313 (Uttar Pradesh)	36
17.	13.07.2016	SR/NM/NS-1141/2015 Multifunctional Magnetic Nanoparticles for Cancer Teranostic Applications	Dr. Dipak Murthy Department of Mechanical Engineering Shiv Nadar University Noida-201 314 (Uttar Pradesh)	36
18.	13.07.2016	SR/NM/NS-1118/2015 Engineering of Self-assembled lipidated nanoparticles for cancer combination therapy	Dr. Avinash Bajaj Regional Centre for Biotechnology 3 rd Milestone Faridabad-Gurgaon Expressway, Village Bhankri Faridabad- 121 001(Haryana)	36
19.	20.07.2016	SR/NM/NS-1004/2015 Hybrid Magnetic Nanoparticle Aptamer Bio-sensor for On-Farm Early Pregnancy Diagnosis in Cattle	Dr. K. G. Tirumruaan Translational Research Platform for Veterinary Biological and Animal Biotechnology Tamil Nadu Veterinary and Animal Sciences University, Chennai	36
20.	22.07.2016	SR/NM/NS-1509/2014 Acoustic detection of Leidenfrost dynamics on scalable micro-/nano-structured surfaces	Dr. Rishi Raj Department of Mechanical Engineering Indian Institute of Technology- Patna, Patna-800 013(Bihar)	36

21.	25.07.2016	SR/NM/NS-1349/2014 Nanotechnology-related environment, health and safety research: Examining the nanotoxic effects on non-human biota earthworm for environmental health perspectives	Dr. Kathireswari Palanisamy Department of zoology Kongunado Arts and Sciences College G. N. Mills P.O., Couimabtoore-641 029(Tamil Nadu)	36
22.	03.08.2016	SR/NM/NS-1111/2015 Evaluating therapeutic potential of polyglutamine aggregation peptide inhibitors through nanoparticles-based-delivery approach in Huntington's disease	Dr. Ashwani Kumar Thakur Department of Biological Sciences and Bioengineering Indian Institute of Technology-Kanpur, Kanpur-208016	36
23.	09.08.2016	SR/NM/NS-1470/2014 Synthesis and characterization of siRNA loaded ligand bearing PLGA nanoparticles for targeted delivery to the lung cancer	Dr. Awadh Bihari Yadav Centre for Biotechnology University of Allahabad Allahabad- 211 002(Uttar Pradesh)	36
24.	06.09.2016	SR/NM/NS-1091/2015 Development of biodegradable nanoparticles for concomitant delivery of anti-cancer peptide/DNA and chemotherapeutic drugs for cancer therapy	Dr. Harpal Singh Centre for Biomedical Engineering Indian Institute of Technology New Delhi-110 016	36
25.	15.09.2016	SR/NM/NS-1135/2015 Development of nanofibrous membrane for wound healing by controlled release of Indian honey and curcumin	Dr. Ketankumar Vadodaria Centre of Excellence for Medical Textiles South India Textile Research Association (SITRA), Tamil Nadu, Coimbatore- 641 014	36
26.	26.09.2016	SR/NM/NS-1439/2014 Ordered assemblies of nanoparticles confined in self-assembled block copolymer structures	Dr. Bhanu Nandan Department of Textile Technology Indian Institute of Technology New Delhi-110 016	36
27.	28.09.2016	SR/NM/NS-1125/2015 Efficient conversion of CO ₂ into fuel and chemicals using ordered nano intermetallics	Dr. Sebastian C. Peter Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR), Jakkur, Bangalore-560 064 (Karnataka)	36
28.	28.09.2016	SR/NM/MS-1001/2016	Dr. J. Jayabharathi	36

		Hybrid inorganic-organic nanosemiconductor light-emitting devices with pristine and doped ZnO as an electron injection layer and Iridium(III) complexes as emissive layer	Department of Chemistry Annamalai University Annamalainagr-608002 (Tamil Nadu)	
29.	21.09.2016	SR/NM/NS-1491/2014 Synthesis and characterization of cinnamaldehyde-FITC-Folate conjugated Fe ₃ O ₄ nanoparticles for targeted delivery in breast cancer	Dr. Ruchika Kaul Ghanekar Cell and Translational Research Laboratory Interactive Research School for Health Affairs Medical College Campus, Bharati Vidyapeeth. Dhankawadi Pune	36
30.	29.09.2016	SR/NM/NS-39/2016 Design of advanced nanostructured materials for novel applications	Dr. B.R. Mehta Department of Physics Indian Institute of Technology Hauz Khas, New Delhi-110 016	36
31.	29.09.2016	SR/NM/NS-23/2016 Dipolar and Multipolar Interactions in Assembled Molecules and Nanostructures: Developing a General Description and its applications	Dr. K George Thomas School of Chemistry IISER-Thiruvananthapuram Trivandrum 695 016(Kerala)	36
32.	29.09.2016	SR/NM/NS-45/2016 Superconducting 2D materials and their nanoscale devices	Dr. Mander M Deshmukh Department of Condensed Matter Physics Tata Institute of Fundamental Research (TIFR) Homi Bhabha Road Mumbai-400005 (Maharashtra)	36
33.	25.11.2016	SR/NM/NS-1154/2015 Delivery of miRNA-nanoparticle complex to promote repair and regeneration after myocardial injury	Dr. Virendra Gajbhiye Centre for Nano bioscience Agarkar Research Institute GG Agarkar Road, Pune, Maharashtra-411 004	36
34.	16.12.2016	SR/NM/NS-1183/2015 Development of lipophilic gadolinium chelates conjugated silica and titanium dioxide nanoparticles as contrast enhancing agents for magnetic resonance angiography	Dr. V. Alexander Department of Chemistry Loyola College, Nungambakkam, Chennai, Tamil Nadu-600 034	36

35.	04.01.2017	SR/NM/NS-1475/2014 Molecular structure and supramolecular packing of misfolded proteins within the amyloid nanostructures: A Nanoscale Biophysics Approach	Dr. Samrat Mukhopadhyay Chemical Sciences & Biological Sciences Indian Institute of Science Education and Research (IISER) Sector-81, S. A. S. Nagar, P.O. Manauli, Mohali-140306 (Punjab)	36
36.	05.01.2017	SR/NM/NS-1510/2014 Low cost diagnostic system for public health surveillance targets bacterial enteric pathogens	Prof. Ashok K Ganguli Department of Nanotechnology Institute of Nano Science and Technology, Habitat Centre, Phase-10, Sector-64 Mohali-160062 (Punjab)	36
37.	06.01.2017	SR/NM/NS-1017/2016 Hepatocyte Targeted Carbohydrate Anchored Smart Nanostructured Lipid Carriers for treatment of Malaria	Dr. (Mrs.) Ujwala A. Shinde Department of pharmaceuticals Bombay College of Pharmacy Kalia, Santacruz(East) Mumbai-400 098	36
38.	13.01.2017	SR/NM/NS-1027/2016 Evaluation of the potential of siRNA loaded lactoferrin nanoparticles for the treatment of prostate and testicular cancer	Dr. Suresh Yenugu Animal Biology University of Hyderabad P.O. Central University Hyderabad, Telangana- 500 046	36
39.	16.01.2017	SR/NM/NS-1420/2014 Design and applications of magnetically responsive self assembled polymer nanocomposites	Dr. Nandakumar Kalarikkal Centre for Nanoscience and Nanotechnology Mahatma Gandhi University Priyadarshini Hills, Kottayam-	36
40.	17.01.2017	SR/NM/NS-1185/2015 A Therapeutic approach of targeted delivery of miRNAs through nanoparticles to control metastasis of Triple Negative Breast cancer in-vitro and in-vitro and in-vivo	Dr. Argya Adhikary DST INSPIRE FACULTY Centre for Research in Nanotechnology University of Kolkata Kolkata, West Bengal-700 098	36
41.	20.01.2017	SR/NM/NS-57/2016 Synthesis and application of nano materials towards energy storage and EMI shielding, targeted drug delivery and theranostic application of biocompatible micro particles derived from human platelet for nano	Prof. O. N. Srivastava Department of Physics Institute of Science Banaras Hindu University Varanasi-221 005 (Uttar Pradesh)	36

		therapeutics		
		SR/NM/NS-57/2016	Prof Shyam Sundar Department of Medicine Institute of Medical Science Banaras Hindu University Varanasi-221 005	
		SR/NM/NS-57/2016	Prof. D. Dash Department of Biochemistry Institute of Medical Science Banaras Hindu University Varanasi-221 005	
42.	28.02.2017	SR/NM/NS-1018/2016 Ferromagnetic-semiconductor heterostructures for magnetic field sensing and optoelectronics applications	Dr. Subhankar Bedanta National Institute of Science Education and Research (NISER)-Bhubaneswar, Khurda-752 050 (Orissa)	36
43.	28.02.2017	SR/NM/NS-1157/2015 Frequency stabilization of MoS ₂ nanoresonator using internal resonance	Dr. Akshay Naik Centre for Nano Science and Engineering, Indian Institute of Science, Bengaluru, Bengaluru-560 012 (Karnataka)	36
44.	28.02.2017	SR/NM/NS-1178/2015 An investigation on the optical, electrical and spectral characteristics of strain-coupled facility	Dr. Subhananda Chakrabarti Department of Electrical Engineering Indian Institute of Technology-Bombay, Powai, Mumbai-400 076 (Maharashtra)	36
45.	23.01.2017	SR/NM/NS-16/2015 Exploring the synergism of PPAR-Y agonist and HDAC inhibitor for reversal of Alzheimer's type of dementia and developing their brain targeted nano-carrier system for effective treatment	Dr. Rajiv Taliyan Department of Physics Birla Institute of Technology and Science, Pilani, Rajasthan-333031	36
46.	25.01.2017	SR/NM/NS-1205/2015 Multifunctional stimuli responsive theranostic magnetic nano micelles for treatment of breast cancer	Dr. S. Anuradha Center of Nanotechnology & Advanced Biomaterials, School of Chemicals & Biotechnology, SASTRA University, Thanjavur, Tamil Nadu-613 401	36
47.	20.02.2017	SR/NM/NS-1185/2016 Candidate chikungunya virus vaccine:	Dr. Yogesh A. Karpe Center for Nanobioscience	36

		nanoparticle-mediated delivery of recombinant antigens to antigen presenting cells (APCs)	Agharkar Research Institute G.G. Agharkar Road, Pune-411004	
48.	06.03.2017	SR/NM/NS-1113/2016 Supramolecular assembly of glycol-nanoparticles to target endothelial inflammation in brain	Dr. Raghvendra Kikkeri Department of Chemistry Indian Institute of Science Education & Research (IISER) Dr. Homibhabha Road, Pashan, Pune-411008 (Maharashtra)	36
49.	20.03.2017	SR/NM/NS-1099/2016 Targeting onco-miRNAs with a novel oleic acid-pluronic stabilized porousTiO ₂ nanoparticle for specific synergistic delivery of small molecule combination to combat triple negative breast cancer	Dr. Parimal C. Sen Department of Molecular Medicine Bose Institute, P1/12 CIT Scheme VIIM, Kolkata, West Bengal-700054	36

Technology Projects=8

Sr. No.	Date of Sanction	DST Reference Number and Project Title	Principal Investigator details	Project duration (months)
1.	22.09.2016	SR/NM/NT-1034/2015 Fluorescence nose (F-Nose) for MTB VOC detection	Dr. Phani Kumar Pullela Department of Chemistry CMR Institute of Technology 132 ITPL Main Road AECS Layout, Kundalahalli Bangalore-560 037(Karnataka)	36
2.	28.09.2016	SR/NM/NT-1011/2015 Development of bulk nano-hetrojunction solar cell based on atomically passivated quantum dots	Dr. Arup Kumar Rath Physical and Material Chemistry Division CSIR-National Chemical Laboratory, Dr. Homi Bhabha Road, Pune-411 008	36
3.	29.09.2016	SR/NM/NT-1090/2014 Construction of diatoms solar panels for bio- fuel production	Dr. Vandana Vinayak Department of Criminology and Forensic Sciences Dr. H.S. Gour Central University, Sagar-470003 (Madhya Pradesh)	36
4.	05.12.2016	SR/NM/NT-1039/2015	Dr. R. John Bosco Balaguru	36

		Development of multifunctional textiles by modifying textiles with nanostructured metal oxide materials for UV filter applications	Centre for Nanotechnology & Advance Biomaterials & School of Electrical & Electronics Engineering SASTRA University Triumalaisamudram, Thanjavur-613 401(Tamil Nadu)	
		SR/NM/NT-1039/2015	Dr. Apurba Das Department of Textile Technology Indian Institute of Technology-Delhi Hauz Khas, New Delhi- 110016	36
5.	27.12.2016	SR/NM/NT-1038/2015 Devices for neuromorphic networks for learning and recognition	Dr. Udayan Ganguly Department of Electrical Engineering Indian Institute of Teechnology-Bombay, Powai, Mumbai-400 076 (Maharashtra)	36
6.	16.01.2017	SR/NM/NT-1045/2015 Development of anti-bacterial silver Nanoparticle-graphene composites to control microfouling and corrosion of steels	Dr. Chandan Srivastava Department of Materials Engineering Indian Institute of Science Bangalore-560 012 (Karnataka)	24
7.	18.01.2017	SR/NM/NT-1464/2014 Development of nanoporous capacitive thin film ceramic sensor for low ppm moisture detection in gas/liquid system	Dr. Debdulal Saha Sensor & Actuator Division CSIR-Central Glass & Ceramic Research Institute, 196, Raja S.C. Mullick Road Jadavpur Kolkata-700 032 (West Bengal)	24
8.	22.02.2017	SR/NM/NT-1065/2015 Development of nanoscale multiferroic heterostructures integrated on silicon for room temperature ME-RAM and magnetic sensors applications	Dr. (Mrs.) Davinder Kaur Department of Physics Indian Institute of Technology Roorkee-247 667 (Uttarakhand)	36

Thematic Projects in frontiers of Nano S & T=6

Sr. No.	Date of Sanction	DST Reference Number and Project Title	Principal Investigator details	Project duration (months)
1.	22.09.2016	SR/NM/TP-13/2016 Thematic Project in frontiers of Nano S & T entitled „Nanoscience for clean energy“ at the Indian Institute of Science Education & Research,Pune	Prof. S. B. Ogale Indian Institute of Science Education & Research (IISER) Dr. Homibhabha Road, Pashan, Pune-411008 (Maharashtra)	36
2.	29.09.2016	SR/NM/TP-62/2016 Thematic Project in frontiers of Nano s 7 T entitled “2D materiasl“ at the Indian Institute of Science, Bengaluru	Prof. P.S. Anil Kumar Department of Physics Indian Institute of Science Banglore-560 012(Karnataka)	36
3.	29.09.2016	SR/NM/TP-83/2016 3-D printing and development of Tissue-on-Dish and Lab-on-chip	Dr. S. Swaminathan Centre for Nanaotechnology & Advanced Biomaterials Anusandhan Kendra, SASTRA University,Thanjavur-613 401	36
4.	29.09.2016	SR/NM/TP-56/2016 Development of Lab-on-chip platforms for efficient and automated farming (LEAF)-Agricultural Sensors	Prof. V. Ramgopal Rao Indian Institute of Technology Hauz Khas, New Delhi-110 016	36
		SR/NM/TP-56/2016	Prof. C. Subramaniam Department of Chemistry Indian Institute of Technology-Powai, Mumbai- 400 076 (Maharashtra)	36
		SR/NM/TP-56/2016	Dr. Balaram Marathi Institute of Biotechnology PJ Telangana State AgriculturalUniversity Rajendranagar, Hyderabad- 500 030 (Telangana)	36
5.	29.09.0216	SR/NM/TP-15/2016 Clinical translation and new frontiers of medical nanosystems	Prof. Shantikumar V. Nair Amrita Institute of Medical Sciences & Research Centre(AIMSRC) Kochi-682026(Kerala)	36

6.	09.11.2016	SR/NM/TP-25/2016 Chemical physics of functional nanostructures and interfaces	Prof. G.U. Kulkarni Centre for Materials for Nano and soft matter Sciences Bangalore-560013(Karnataka)	36
		SR/NM/TP-25/2016	Prof. G.U. Kulkarni Director Centre for Nano and Soft Matter Sciences (CeNS) Jalahalli, Bangalore 560 013 (Karnataka)	36

International collaborative projects=1

Sr. No.	Date of Sanction	DST Reference Number and Project Title	Principal Investigator details	Project duration (months)
1.	08.06.2016	SR/NM/Z-24/2015 Indian beamlines at Photon Factory, KEK, Tsukuba, Japan-Phase II	Prof. Chandrabhas Narayan Chemistry and Physics of Materials Unit Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR), Jakkur, Bangalore-560 064(Karnataka)	60

Major facilities=1

Sr. No.	Date of Sanction	DST Reference Number and Project Title	Principal Investigator details	Project duration (months)
1.	31.03.2017	SR/NM/NS-1041/2016 National facility for the atomic scale materials characterization using remote operatable atom probe tomography (NFAPT)	Prof. B. S. Murthy Department of Electrical Engineering, IIT-Madras Chennai-600 036 (Tamil Nadu)	36

National /International conferences supported =3

Sr. No.	Date of Sanction	DST Reference Number and Project Title	Principal Investigator details
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1.	08.06.2016	SR/NM/Z-04/2016 International conference on Nanotechnology for Better Living” (NBL-2016 during May 25-29, 2016.	Dr. Kamal K Kar Department of Mechanical Engineering Indian Institute of Technology-Kanpur Kanpur-208 016 (Uttar Pradesh)
2.	15.12.2016	SR/NM/Z-16/2016 INDO-US International conference on “Nanotechnology: Science and Application in Advanced Materials and Beyond” at Banaras Hindu University during December 19-22, 2016.	Dr. R.N. Rai Department of Chemistry Banaras Hindu University Varanasi (Uttar Pradesh)
3.	15.12.2016	SR/NM/Z-15/2016 3 rd International conference on Emerging Electronics (ICEE 2016) to be held during December 27-30, 2016 at IIT-Bombay.	Dr. Saurabh Lodha Department of Electrical Engineering Indian Institute of Technology Bombay Powai, Mumbai-400 076 (Maharashtra)