

NEW PROJECTS SANCTIONED DURING FY 2015-2016 BY NANO MISSION

Individual Scientist-Centric Research Projects = 52

Sr. No.	Date of sanction	DST Reference Number and Project Title	Principal Investigator details	Project duration (months)
1.	12.05.2015	SR/NM/NS-1117/2012(G) Improvements in electro-optical properties of semiconductor nanocrystals and their assemblies.	Dr. Anshu Pandey Department of Solid State and Structural Chemistry Unit Indian Institute of Science, Bangalore - 560 012 (Karnataka).	36
2.	12.05.2015	SR/NM/NS-1090/2012 Nanoformulation of siRNA: A strategy for effective treatment of drug resistant breast cancer.	Dr. Josyula Venkata Rao Department of Pharmaceutical Biotechnology, Manipal College of Pharmaceutical Sciences, Manipal University, Manipal-576 104 (Karnataka).	36
3.	12.05.2015	SR/NM/NS-1141/2012(G) Development of multi-modal nonlinear plasma optical microscopy workstation to probe metallic nanoarchitectures.	Dr. G.V. Pavan Kumar Department of Physics Indian Institute of Science Education and Research (IISER), Pune-411008 (Maharashtra).	36
4.	12.05.2015	SR/NM/NS-1111/2013(G) Target-specific nanomaterials as contrast agents for high precision multimodal bioimaging applications.	Dr. Sivakumar Department of Chemical Engineering Indian institute of Technology, Kanpur(Uttar Pradesh).	36
5.	12.05.2015	SR/NM/NS-1179/2012(G) Iso-reticulation, nano-particle loading and layered growth of porous crystalline covalent organic nano – materials with remarkable chemical stability.	Dr. Rahul Banerjee Physical and Materials Chemistry Division CSIR- National Chemical Laboratory Dr. Homi Bhabha Road, Pune-411008 (Maharashtra)	36
6.	28.05.2015	SR/NM/NS-1169/2012 Entrapment of nanoparticles in metal organic frame work (MOF): Bridging the materials gap in asymmetric catalysis.	Dr. K.V.S. Ranganath Department of Chemistry Guru Ghasidas Vishwavidyalaya (Central University) Koni, Bilaspur– 495 009 (Chhattisgarh)	36
7.	08.06.2015	SR/NM/NS-1288/2014 Two dimensional infrared (2D-IR) spectroscopic studies of molecular relaxation of nano-confined water and aqueous binary mixtures: Role of ions, composition fluctuations and dynamic heterogeneity.	Dr. Biman Bagchi Department of Solid State and Structural Chemistry Unit, Indian Institute of Science, Bangalore—560012 (Karnataka)	36
8.	02.07.2015	SR/NM/NS-1434/2014 Design of controlled and targeted agricultural pesticide delivery nano-	Dr. P.S. Vijaya Kumar Shanmugam Institute of Nano Science and Technology	

		carrier with copper- graphene oxide composite	Habitat Center, Sector- 64, Mohali - 160 062 (Punjab)	
9.	06.07.2015	SR/NM/NS-1016/2013 Peptides, peptidomimetics based hydrogelators and organogelators; magnetically separable metal nanocatalysts, peptidic catalysts and their application in organic, peptide and peptidomimetics synthesis	Dr. V.V Sureshababu Department of Chemistry Bangalore University Bengaluru -560001 (Karnataka)	36
10.	08.07.2015	SR/NM/NS-1153/2013 Targeting pain neurons topically: A nanotechnology approach to treat chronic neuropathic pain	Dr. Sahadev A Shankarappa Department of Nanoscience and Molecular Medicine Amrita Institute of Medical Science and Research Center Ponekkara P.O Kochi -682041 (Kerala)	36
11.	09.07.2015	SR/NM/NS-1134/2012 Fabricated nano-structured organic hybrids Chemosensors and Logic Devices	Dr. Subodh Kumar Department of Chemistry Guru Nanak Dev University Amritsar-143005 (Punjab)	36
12.	23.07.2015	SR/NM/NS-1198/2013 Ab-initio search of new magnetoelectric multiferroic materials	Dr. Arti Kashyap School of Basic Sciences and School of Computing & Electrical Engineering Indian Institute of Technology-Mandi Mandi-175 001 (Himachal Pradesh)	36
13.	12.08.2015	SR/NM/NS-1075/2013 Peptide-generated metal nanoparticles and their potential biomedical applications.	Dr. Dindyal Mandal School of Biotechnology KIIT University Bhubaneswar – 751 024 (Odisha)	
14.	21.08.2015	SR/NM/NS-1346/2014 Development of Nanocomposite scaffolds with high wet strength for Bone tissue engineering	Dr. Devender Verma Department of Biotechnology and Medical Engineering, NIT Rourkela, Rourkela– 769 008(Odisha)	36
15.	21.08.2015	SR/NM/NS-27/2013 Development of electrical conductivity and EMI shielding effectiveness in polymer/MWCNT/graphene composites at very low filler loading.	Dr. Bhanu Bhusan Khatua Department of Materials Science Centre Indian Institute of Technology-Kharagpur Kharagpur-721302 (West Bengal)	36
16.	27.08.2015	SR/NM/NS-1310/2014 Nano-catalyst embedded hierarchically porous carbon AIR carbon for Li/Air rechargeable batteries.	Dr. Siluvai Michael SSN College of Engineering Rajiv Gandhi Salai Kalavakkam, Chennai – 603 110 (Tamil Nadu)	36
17.	14.09.2015	SR/NM/NS-1066/2013 Multiscale modeling of pharmaceutically relevant drug-dendrimer nanoscale complexes.	Dr. Prasad V. Bharatam Department of Medicinal Chemistry, National Institute of Pharmaceutical Education and Research (NIPER), Mohali – 1600 062 (Punjab)	36

18.	18.09.2015	SR/NM/NS-20/2014 Application of emerging nanomaterials in health, energy and water.	Dr. Geetha Balakrishana Centre for Nano and Material Sciences Jain University Kanakapura Taluk,Ramanagar District Bangalore-562 112 (Karnataka)	36
19.	12.10.2015	SR/NM/NS-1408/2014 Development nano-structured magnesium silicide thermo-electric materials by spark plasma sintering and evaluation of electric power generation from thermal systems	Dr. S. Kumaran Department of Metallurgical and Materials Engg. National Institute of Technology Tiruchirappalli-620015 (Tami Nadu)	36
20.	12.10.2015	SR/NM/NS-06/2015 Spin transport in magnetic nanostructures made by sputtering and electron beam lithography	Prof. R.C Bhudhani Department of Physics Indian Institute of Technology Kanpur-208016 (Uttar Pradesh)	36
21.	12.10.2015	SR/NM/NS-1364/2014 Biometric, tissue adaptive nanofibre membrane for guided tissue regeneration.	Dr. Jyotsnendu Giri Department of Biomedical Engineering Indian Institute of Technology, Hyderabad Yeddumailaram-502205 (Telangana)	36
22.	21.10.2015	SR/NM/NS-1334/2014 Quantum phenomena at superconductor-semiconductor nano-hybrid devices.	Dr. Anindya Das Department of Physics Indian Institute of Science Bengaluru-560012 (Karnataka)	36
23.	21.10.2015	SR/NM/NS-1219/2013 Uptake and effects of control and target directed carbon nanoparticles by differentiating and matured subpopulations of leukocytes in resting and activated states.	Dr. Rajiv Saxena Faculty of Life Science and Biotechnology South Asian University Chanakyapuri, New Delhi-110021(Delhi)	36
24.	23.10.2015	SR/NM/NS-1058/2015- BI Development of nano-particle based directed delivery systems for peptide therapeutics.	Dr. Siddhartha Roy Department of Biophysics Bose Institute P-1/12,Cit Sheme,VII M Kolkata-700054 (West Bengal)	36
		SR/NM/NS-1058/2015- IICB	Dr. Marinal Kanti Ghosh Indian Institute of Chemical Biology Kolkata – 700032 (West Bengal)	36
		SR/NM/NS-1058/2015- JNCASR	Dr. Tapas Kundu Department of Molecular Biology and Genetics Unit Jawaharlal Nehru Centre for Advanced Scientific Research, Jakkur P.O. Bangalore – 560 064 (Karnataka)	36
25.	30.10.2015	SR/NM/NS-1302/2014	Dr. Prashant Krishnarao Deshmukh	

		Synthesis and characterization of 2-D carbon backbone based hybrid magnetic nano composites for selective tumor theranostics.	Department of Pharmaceutics H. R. Patel Institute of Pharmaceutical Education and Research, Shirpur Shirpur, Dist: Dhule – 425 405 (Maharashtra)	
26.	16.11.2015	SR/NM/NS-1340/2014 Detail investigation and understanding of newly described solid supported hybrid junction of transition metal nanoparticles for their physico-chemical and chemical behaviors in organic synthesis.	Dr. Pralay Das Natural Plant Product Division CSIR-Institute of Himalayan Bioresource Technology (IHBT), Palampur – 176 061 (Himachal Pradesh)	36
27.	23.11.2015	SR/NM/NS-1380/2013 Peptide aggregation in neurodegenerative diseases: Inhibition of oxidative amyloid-beta aggregation by antioxidant nanozymes.	Dr. Govindasamy Mugesh Department of Inorganic & Physical Chemistry Indian Institute of Science Bangalore-560012 (Karnataka)	36
28.	20.11.2015	SR/NM/NS-1085/2014 Formulation and fabrication of composite titania matrix with surface plasmon and quantum dots for use in dye sensitized solar cell and sensor system.	Dr. (Mrs.) Jayati Datta Department of Chemistry Indian Institute of Engineering Science and Technology, Shibpur Howrah-711103 (West Bengal)	36
29.	24.11.2015	SR/NM/NS-1354/2014 Lanthanide doped hydrocyapatite based nano-materials for theranostics applications : Sensing, imaging and therapeutics.	Dr. Meenal Kowshik Department Biological Sciences BITS Pilani K K Birla Goa Campus, Zuarinagar – 403 726 (Goa)	36
30.	24.11.2015	SR/NM/NS-1140/2014 Materials-by-design: controlled and template assisted nanofabrication of multifunctional nanostructured materials for advanced application.	Dr. Manjusha V. Shelke Physical and Materials Chemistry Division National Chemical Laboratory, Dr. Homi Bhabha Road, Pune – 411 008 (Mahrastra)	36
31.	08.12.2015	SR/NM/NS-1007/2015 Magneto-opto-electronic properties and application of 2-dimensional electro gas system at oxide interfaces.	Prof. Ashok K. Ganguli Institute of Nano Science and Technology Mohali-160 062 (Panjab)	36
32.	09.12.2015	SR/NM/NS-1383/2014 Architecting visible-NIR light absorbing hetero-nanostructures for harvesting solar light.	Dr. Narayan Pradhan Department of Materials Science Indian Association for the Cultivation of Science Jadavpur, Kolkata-700032 (West Bengal).	36
33.	09.12.2015	SR/NM/NS-1068/2015 Effect of nanoparticles on a biological system probed by quantification of biomarkers, proteome profiling of tissues using Imaging Mass	Dr. Amit Kumar Mandal Department of molecular Medicine St. John's Research Institute Bengaluru-560034 (Karnataka)	36

		Spectrometry and conformational analysis of desorbed hemoglobin.		
34.	17.12.2015	SR/NM/NS-1032/2012 Phase I clinical trials on stem cells based nanofibrous scaffolds for wound healing.	Dr. S. Swaminathan Centre for Nanotechnology & Advanced Biomaterials SASTRA University Thanjavur- 613401 (Tamil Nadu)	36
35.	30.12.2015	SR/NM/NS-1430/2014 Search for optimum bimetallic catalyst for Fischer-Tropsch synthesis.	Dr. Vinod C Prabhakaran Catalysis Division and Centre of Excellence on Surface Science National Chemical Laboratory (NCL), Pune Dr. Homi Bhabha Road, Pune – 411 008 (Maharashtra)	36
36.	30.12.2015	SR/NM/NS-1285/2014 Nanoholes in grapheme and hexagonal boron nitride as template for two-dimensional high spin magnetic arrays at a metal interface.	Dr. Prasenjit Ghosh Department of Physics and Chemistry Indian Institute of Science Education Research (IISER)-Pune Dr. Homi Bhabha Road, Pune – 411 008 (Maharashtra)	36
37.	30.12.2015	SR/NM/NS-1320/2014 Development & evaluation of infrared nanoparticles for cellular-wide sensitive E-field mapping.	Dr. Manoj Kumar Department of Chemical Engineering Indian Institute of Technology, BHU Varanasi-221 005 (Uttar Pradesh)	36
38.	30.12.2015	SR/NM/NS-61/2014 In vitro and <i>in vivo</i> approaches to explore the mechanism of anti-bacterial and anti-cancer activities of different copper-based nano particles for developing potential drugs of dual section.	Dr. Tarakdas Basu Department of Biochemistry and Biophysics University of Kalyani Nadia -741 235 (West Bengal)	36
39.	04.01.2016	SR/NM/NS-1507/2014 Development of Nucleic acid aptamer based functional nanodevice strategies for sensing, capture and activation of bacterial pathogens	Dr. Naveen Kumar Navani Indian Institute of Technology, roorkee-247 667 (Uttarakhnad)	36
40.	04.01.2016	SR/NM/NS-1370/2014 Exploring optical behavior of nanocrystals and nano-hetero-structures	Dr. Shailaja Mahamuni Department of Physics Phule Pune University Pune-411 007 (Maharashtra)	36
41.	04.01.2016	SR/NM/NS-1502/2014 III-Nitride semiconductor core shell nanowires for next generation photovoltaic applications.	Dr. K. Jaganathan Centre for Nanoscience and Nanotechnology School of Physics Bharathidasan University Tiruchurapalli-620 024 (Tamil Nadu)	36
42.	31.12.2015	SR/NM/NS-1057/2015 Synthesis of functionalized	Dr. Poonma Bhandari Khullar Department of Chemistry	36

		Biomaterials with Biological applications to understand protien-protien interactions	BBK D.A.V. College for women Lawrence Road Amritsar-143 001 (Punjab)	
43.	31.12.2015	SR/NM/NS-1458/2014 Synergistic effect of self assembling organic inorganic hybrid materials for the applications in Nanoscience	Dr. Apurba Kumar Das Department of Chemistry Indian Institute of Technolgy- Indore Khandwa Road Indore-452 001 (Madhya Pradesh)	36
44.	31.12.2015	SR/NM/NS-1471/2014 Bimettalic core shell nanostructures of transition metals for hogeneous hydrogenation catalysis and heterogeneous co-catalysis	Prof. Bonamali Pal School of Chemistry and Biochemistry Thapar university Bhadson Road Patial-147 004 (Punjab)	36
45.	13.01.2016	SR/NM/NS-1447/2014 Targeted radiosensitized breast cancer therapy approaching surface functionalized gold nanorods and its composite	Dr. Keka Sarkar Department of Microbiology University of Kalyani Kalyani- 741 235 (West Bengal)	36
46.	08.02.2016	SR/NM/NS-1095/2012-SASTRA Development of a nanotheranostic tool for pancreatic cancer	Dr. (Ms.) K. Uma Maheshwari Centre for Nanotechnology and Advanced Biomaterials Anusandhan Kendra SASTRA University Thanjavur-613 401 (Tamil Nadu)	36
		SR/NM/NS-1095/2012-SVIMS Development of a nanotheranostic tool for pancreatic cancer	Dr. Thanjavur S. Ravi Kumar Sri Venkateshwara Institute of Medical Science Tirupati-517 507 (Andhra Pradesh)	36
47.	12.02.2016	SR/NM/NS-1046/2015 Imaging neuro infection through nano ncleolipids.	Prof. Prasenjit Sen School of Physical Sciences Jawaharlal Nehru University New Delhi	36
48.	23.02.2016	SR/NM/NS-1246/2013 Nanoparticles of Palladium, Ruthenium and Platinum Chalcogenides: Generation by single source precursor, role and application in coupling reactions.	Dr. Ajai Kumar Singh Department of Chemistry Indian Institute of Technology-Delhi Hauz Khas, New Delhi-110016	36
49.	23.02.2016	SR/NM/NS-1010/2015 Size control of multifunctional properties in nanocrystalline $\text{BiFeO}_3\text{-PbTiO}_3$	Dr. Ranjeev Ranjan Department of Materials Engineering Indian Instituee of Science, Bengaluru-560 012 (Karnataka)	36
50.	23.02.2016	SR/NM/NS-1474/2014 Doped semiconductors nanocrystals for plasmonic and elctron spin-based applications: synthesis, thin film and spectroscopy.	Dr. Angshuman Nag Department of Chemistry IISER Pune Dr. Homi Bhabha Road Pune , Maharastra -411 008	36
51.	28.03.2016	SR/NM/NS-1382/2014 Fabrication of porus and hollow metal oxide nanostructured materials vis gas bubble template method for different applications.	Dr. Bibhuti Bhusan Nayak National Institute of Technology- Rourkela Rourkela, Odisha- 769 008	36

52.	23.02.2016	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 Ropar, Punjab -140 001	36
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Proof-of –Concept (Technology Development projects) =2

1.	22.03.2014	SR/NM/NS-1339/2014 Metal oxide and sulfide based nanostructures for charge storage applications	Dr. S. B. Ogale Department of Physical and Materials Chemistry National Chemical Laboratory (CSIR-NCL) Dr. Homi Bhabha Road Pashan Pune– 411 008 (Maharashtra)	36
2.	22.03.2014	SR/NM/NT-1001/2015 Multiplexed detection of neurotransmitters on a chip using nanoparticle decorated graphene modified electrodes.	Dr. Somenath Roy CSIR-Central Glass and Ceramic Research Institute, 196 Raja S.C. Mullick Road West Bengal- 700032(Kolkata)	36

Joint Industry-Institution Project (JIIP) supported = 1

1.	05.01.2016	SR/NM/NAT-02/2012 Novel nano silver polymer composites for bioactive technical textiles and plastics.	Dr. Ashwini K. Agrawal Department of Textile Technology Indian Institute of Technology- Delhi Hauz Khas, New Delhi – 110 016 (Delhi)	60
		Industry Partner	Shri Ganesh Srinivasan Resil Chemicals Pvt Ltd. No 30, BCIE, Old Madras Road, Vijanapura, Bangalore 560 016 (Karnataka)	

M.Tech. Projects Supported = 5

Sr. No	Date of sanction	DST Reference Number and PG Programme Title	Coordinator details	Project duration (months)
1.	23.09.2015	SR/NM/PG-05/2015 M. Tech. Nanotechnology with specialization in Nanoelectronics and Nanophotonics (Duration: 2 years) for 20 regular students at the VIT University, Vellore.	Dr. (Ms.) Gargi Raina Centre for Nanotechnology Research VIT University Vellore-632 014 (Tamil Nadu)	60
2.	07.10.2015	SR/NM/PG-01/2015 M.Tech programme in Nano Medical	Dr. Shantikumar V. Nair Amrita Centre for Nanosciences and	60

		Sciences (Duration: 2 years) with annual intake of 20 regular students at the Amrita Institute of Medical Sciences and Research Centre, Kochi	Molecular Medicine, Amrita Institute of Medical Sciences and Research Kochi- (Kerala)	
3.	15.10.2015	SR/NM/PG-02/2015 M.Tech Programme in Nano Science & Technology (Duration: 2 years) with annual intake of 20 regular students at the Anna University, Chennai	Dr. R. Jayavel Centre for Nanoscience and Technology, Anna University Chennai- (Tamil Nadu)	60
4.	27.10.2015	SR/NM/PG-04/2015 M.Tech Programme in Medical Nanotechnology (Duration: 2 years) with annual intake of 20 regular students at the SASTRA University, Thanjavur.	Dr. S. Swaminathan Centre for Nanotechnology & Advanced Biomaterials, SASTRA University, Thanjavur – 613 402 (Tamil Nadu)	60
5.	19.10.2015	SR/NM/PG-03/2015 M.Tech Programme in Nano Science & Technology (Duration : 2 years) with annual intake of 20 regular students at the Jadavpur University, Kolkata.	Dr. K.K. Chattopadhyay School of Materials Science & Nanotechnology, Jadavpur University, Kolkata- (West Bengal)	60

International collaborative projects

Sr. No.	Date of sanction	DST Reference Number and PG Programme Title	Coordinator details	Project duration (months)
1	29.03.2016	SR/NM/Z-15/2015 Assured access to all the beam lines of ISIS neutron scattering facility at Rutherford Appleton Laboratory (RAL), UK for carrying out research in Nano Science and Technology	Prof. M.K. Sanyal Adjunct Professor Jawaharlal Nehru Centre for Advanced Scientific Research, Jakkur P.O., Bangalore - 560 064	60

International Conference/ National Conference / Symposium/ Workshop supported = 3

Sr.	Date of sanction	DST Reference Number and Conference Title	Organizer details
1.	27.11.2015	SR/NM/Z- 25/2015 Third International Conference on Nanotechnology for Biological and Biomedical Applications (Nano-Bio-Med 2015)” during December 1-4, 2015	Prof. V. Ramgopal Rao Department of Electrical Engineering Indian Institute of Technology- Bombay Powai, Mumbai – 400 076 (Maharashtra)
2.	28.12.2015	SR/NM/Z-30/2015 Workshop on Sensors for agriculture” proposed to	Dr. Enakshi Bhattacharya Department of Electrical

		be held at IIT Madras during January 25-26, 2016	Engineering Indian Institute of Technology- Madras Chennai - 600 036 (Tamil Nadu)
3.	31.12.2015	SR/NM/Z- 27/2015 4 th Bio-Nano Agri Summit 2015 “Technologies to transform Agriculture in India” on September 03, 2015 at New Delhi	Mr. D.S. Rawat Secretary General ASSOCHAM 5, Sardar Patel Marg, Chanakyapuri New Delhi-110 021 (Delhi)
4.	08.03.2016	SR/NM/Z-02/2016 Bangalore INDIA Nano 2016 proposed to be held at Bangalore during March 3-5, 2016	Dr. H. Honne Gowda CEO & Member Secretary Karnataka Science and Technology Academy Vijnana Bhavana 3 rd Floor # 24/2, 21 st Main Road, BSK II Stage, Bangalore 560070 (Karnataka)