

## NEW PROJECTS SANCTIONED DURING FY 2012-2013 BY NANO MISSION

### INDIVIDUAL SCIENTIST-CENTRIC RESEARCH PROJECTS = 21

Sr.	DST Reference Number and Project Title	Principal Investigator details
1.	SR/NM/NS-1097/2011 Study of catalytic activity of nanosize metals and metal oxides prepared by novel or conventional routes	Dr. Bhalchandra Mahadev Bhanage Department of Chemistry Institute of Chemical Technology N.M. Parekh Marg, Matunga Mumbai - 400 019 (Maharashtra)
2.	SR/NM/NS-147/2010 Experimental & first-principles theoretical studies of metal oxide nanostructures for photoelectrochemical splitting of water.	Dr. Sahab Dass Department of Chemistry Dayalbagh Educational Institute Dayalbagh Agra – 282 110 (Uttar Pradesh)
3.	SR/NM/NS-1002/2010 Magneto-transport in magnetic tunnel junctions	Dr. Ram Shankar Patel Department of Physics Birla Institute of Technology and Science, Pilani K.K. Birla Goa Campus, Zuarinagar Goa – 403 726 (Goa)
4.	SR/NM/NS-1045/2011 Organic – Inorganic hybrid materials of the conjugates of carbohydrates and calixarenes and proteins of $\alpha$ -helical albumins and $\beta$ -sheet lectins	Dr. Chebrolu Pulla Rao Department of Chemistry Indian Institute of Technology – Bombay, Powai Mumbai – 400 076 (Maharashtra)
5.	SR/NM/NS-1068/2011 An innovative interfacial control layer on Ge channel substrate for the effective fabrication and integration of novel ‘Ge/ALD High-k/capping layer/Metal bilayer Gate stacks’ for future nanoelectronics applications	Dr. A.M. Mahajan Department of Electronics North Maharashtra University Post Box No. 80, Umavi Nagar Jalgaon-425 001 (Maharashtra)
6.	SR/NM/NS-1088/2011 Superferromagnetism in magnetic nanoparticle systems	Dr. Subhankar Bedanta Department of Physics National Institute of Science Education and Research- Bhubaneswar P.O. Sainik School Bhubaneswar – 751 005 (Odisha)
7.	SR/NM/NS-1001/2010 Development of nano fibrous membrane polymer electrolytes and nano structured electrode materials for lithium rechargeable batteries	Dr. M. Abdul Kader Central Institute of Plastics Engineering and Technology- Bhubaneswar B-25 CNI Complex, Patia Bhubaneswar-751 024 (Odisha)
8.	SR/NM/NS-05/2011 Development of hybrid nanomaterials for energy production from renewable sources.	Dr. V. Selvaraj Department of Chemistry University College of Engineering-Villupuram, Kakuppam Villuparam - 605 103 (Tamil Nadu)

9.	SR/NM/NS-1134/2011 Development of Titania aerogel photoanode for dye sensitized solar cell application	Dr. Stanly Jacob K Centre for Materials for Electronics Technology (C-MET) Shoranur Road, Mulangunnathukavu, P.O. Athani, Thrissur -680 581 (Kerala)
10.	SR/NM/NS-1103/2011 Bone targeted nano drug delivery systems for treatment of osteodegenerative disease in improvement of women health	Dr. (Mrs.) M.S. Nagarsenker Department of Pharmaceutics Bombay College of Pharmacy Sundernagar, Kalina Santacruz (E) Mumbai-400 098 (Maharashtra)
11.	SR/NM/NS-1023/2011 Computational studies of bare and zeolite-supported metal nanoclusters and their application in catalysis	Dr. Ramesh C. Deka Department of Chemical Sciences Tezpur University, Napaam Tezpur -784 028 (Assam)
12.	SR/NM/NS-1132/2011 Mechanistic studies on extracellular biosynthesis of metal nanoparticles.	Dr. Jitender Panwar Department of Biological Sciences Birla Institute of Technology and Science Pilani-333 031 (Rajasthan)
13.	SR/NM/NS-1098/2011 Fabrication of mesoscopic electro-mechanical systems for ultra low temperature studies	Dr. Ananth Venkatesan Indian Institute of Science Education and Research-Mohali (IISER-Mohali) Knowledge City, Sector- 81, Manauli P.O., SAS Nagar -140 306 (Punjab)
14.	SR/NM/NS-1114/2011 Synthesis and characterization of novel nanoparticles and study of their intersections with stem cells	Dr. (Ms.) Aparna Khanna Department of School of Science SVKM's Narsee Mongee Institute of Management Studies, V.L. Mehta Road, Ville Parle (W), Mumbai-400 056 (Maharashtra)
15.	SR/NM/NS-1109/2011 Multifunctional materials for electrochemical energy conversion and storage devices.	Dr. C. Retna Raj Department of Chemistry Indian Institute of Technology-Kharagpur Kharagpur – 721 302 (West Bengal)
16.	SR/NM/NS-1127/2011 Development of protein nanoparticles delivery system for targeting antiretroviral drugs to HIV infected cells	Dr. Anand K. Kondapi Department of Biotechnology School of Life Sciences University of Hyderabad, Gachibowli Central University P.O. Hyderabad-500 046 (Andhra Pradesh)
17.	SR/NM/NS-1119/2011 New Generation Molecular Nano Magnets	Dr. R. Murugavel Department of Chemistry Indian Institute of Technology-Bombay, Powai Mumbai-400 076 (Maharashtra)
18.	SR/NM/NS-1085/2011 Green-synthesis of bioactive nanoparticles using bacterial biomass and latex producing plants and targeted delivery of drug-encapsulating nanobeads to macrophages for the treatment of tuberculosis	Dr. Avinash Sonawane School of Biotechnology Campus-11, KIIT University Bhubaneswar – 751 024 (Odisha)

19.	SR/NM/NS-1089/2011 Magneto-transport in graphene/grapheme based composite materials	Dr. Shyamal Kumar Saha Department of Material Science Indian Association for the Cultivation of Science 2A & 2B Raja S.C. Mullick Road, Jadavpur Kolkata-700 032 (West Bengal)
20.	SR/NM/NS-24/2011 Polymer/Calcium phosphate Nano-composites as scaffolds for Tissue Engineering	Dr. Kaushik Chatterjee Department of Materials Engineering Indian Institute of Science Bangalore-560 012 (Karnataka)
21.	SR/NM/NS-1118/2011 Development of parenteral sustained release dosage forms and colon targeted drug delivery systems for Low Molecular Weight Heparin (LMWH).	Dr. Aukunuru Jithan Department of Pharmaceutics Mother Teresa College of Pharmacy NFC Nagar, Ghatkesare Hyderabad-501 301 (Andhra Pradesh)

### **MAJOR RESEARCH PROJECTS = 1**

1.	SR/NM/NS-15/2011 Computational Studies on Novel Materials and Nanoscale Transport	Prof. (Ms.) Anjali Kshirsagar Centre for Modelling and Simulation University of Pune Pune-411 007 (Maharashtra)
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### **THEMATIC UNIT OF EXCELLENCE PROJECTS = 2**

Sr.	DST Reference Number and Project Title	Project Coordinator details
1.	SR/NM/NS-29/2011 Establishment of Thematic Unit of Excellence on Computational Materials Science at the S.N. Bose National Centre for Basic Sciences, Kolkata	Dr. (Ms.) Tanusri Saha-Dasgupta S.N. Bose National Centre for Basic Sciences JD Block, Sector-III, Salt Lake Kolkata- 700 098 (West Bengal)
2.	SR/NM/NS-14/2011 Establishment of a 'Thematic Unit of Excellence' on "Computational Materials Science" at the Indian Institute of Science, Bangalore.	Prof. D.D.Sarma Solid State and Structural Chemistry Unit Indian Institute of Science Bangalore - 560 012 (Karnataka)