

### List of the Completed Projects

Project Number	Duration (Yrs)	Title of Research Project	Summary of findings published in
1/98	1.5	Determination of moisture in rubber insulators used in rocket motors <i>Dr (Mrs) RC Aiyer, Dept of Physics, UoP</i>	Research Project Compendium – 2006-07
2/98	2	Development of fibre optic microstrain sensors for low strain measurement <i>Dr AD Shaligram /Dr (Mrs) DC Gharpure, Dept of Electronic Sciences, UoP</i>	Research Project Compendium – 2006-07
3/98	3	Nanoparticles by sol-gel method <i>Dr (Mrs) SK Kulkarni, Dept of Physics, UoP</i>	Research Project Compendium – 2006-07
4/98	3	Study of the irradiation effects of Mev energy electrons on semiconductor devices and plastic materials <i>Prof VN Bhoraskar/Dr SD Dhole, Dept of Physics, UoP</i>	Research Project Compendium – 2006-07
5/00	2	Forecasting applications of the microwave data from AMSU on board NOAA satellite <i>Prof RN Karekar/Wing Cdr DM Puranik, DASS, UOP</i>	Research Project Compendium – 2006-07
6/00	3	Study of atmospheric boundary layer over Sriharikota <i>Prof PN Sen, Dr S Sivramkrishnan, DASS, UoP &amp; Dr. GV Rama, ISRO</i>	Research Project Compendium – 2006-07
7/01	3	Development of low energy electron beam facility for testing surface charge monitor (SCM) payload of G SAT-II <i>Prof VN Bhoraskar, Dr (Mrs) SV Bhoraskar/Dr SD Dhole, Dept of Physics, UoP</i>	Research Project Compendium – 2006-07
8/00	2	Development of regional atmospheric model to predict weather and upper wind field over Sriharikota range <i>Prof KC Sharma, Dr T Venugopal, DASS, UoP &amp; Dr. GV Rama, ISRO</i>	Research Project Compendium – 2006-07

9/99	2	Studies on origin of extra chromosomal DNA (plasmids) in bacterial population of preantibiotic area: A probable clue for origin of plasmid DNA and its correlation to the origin of life <i>Dr BA Chopade, Dept of Microbiology/Dr SB Khadikar, Dept of Physics, UoP</i>	Research Project Compendium – 2006-07
10/99	2	Ammonium perchlorate biodegradation by eco-friendly approach <i>Dr S V Ghole/ Dr S G Joshi, Dept of Chemistry, UoP</i>	Research Project Compendium – 2006-07
11/01	2	Application of remote sensing and GIS technology in crop inventory in a mixed cropping region, Karveer Tehsil, Kolhapur district, Maharashtra <i>Dr(Mrs) Vrishali Deosthali, Dept of Geography, UoP</i>	Research Project Compendium – 2006-07
12/02	1	Study of superfine Fe <sub>2</sub> O <sub>3</sub> particles <i>Dr(Mrs) SS Joshi, Dept of Chemistry, UoP</i>	Research Project Compendium – 2006-07
13/02	1	Soft solution processing-a new route to synthesize patterned ceramics <i>Dr(Mrs) AA Athawale, Dept of Chemistry, UoP</i>	Research Project Compendium – 2006-07
14/02	1	Establishment of information resource exchange network for rural development <i>Dr K Sadanand Nair, Dept of Anthropology, UoP</i>	Research Project Compendium – 2006-07
15/02	1	Electronic structure and physics and chemistry of small clusters <i>Dr DG Kanhere, Dept of Physics, UoP</i>	Annual Report – 2008-09
16/02	1	Feasibility study of Non-destructive microwave complex permittivity measurement technique for ISRO applications <i>Dr(Mrs) Kalpana Joshi, SP College, Pune</i>	Research Project Compendium – 2006-07
17/02	1	Feasibility of Time domain on-line/off-line moisture measurement using optional electromagnetic software technique-ISRO DRDO Application <i>Dr(Mrs) Kalpana Joshi, S P College, Pune</i>	Research Project Compendium – 2006-07
18/02	1	Al-Li alloys for cryo engine propellant tank	Research Project

		<i>Prof SP Butee, Govt College of Engg, Pune</i>	Compendium – 2006-07
19/02	1	Metal foams for aerospace applications <i>Prof SG Sane, Govt College of Engg, Pune</i>	Research Project Compendium – 2006-07
20/02	1	Application of artificial neural network (ANN) to the analysis of weather using images in microwave from AMSU on board NOAA satellite-a feasibility study <i>Dr Ranjana Abhang, Abasaheb Garware College, Pune</i>	Research Project Compendium – 2006-07
21/02	3	Conducting polymer coatings for corrosion protection of steels <i>Prof PP Patil, North Maharashtra University &amp; Prof SA Gangal, UoP</i>	Research Project Compendium – 2006-07
22/02	3	Application of Raman Spectroscopy for the characterization of aerogels <i>Dr VM Harpale, Ahmednagar College, Ahmednagar</i>	Research Project Compendium – 2006-07
23/02	1	Process development for preparation of nano sized CdS powder by organo metallic routes for solar cell application <i>Dr P K Khanna (C-MET)/ Prof S K Kulkarni UoP</i>	Research Project Compendium – 2006-07
24/03	2	Cloning and sequencing of plasmid encoded antibiotic and metal resistant genes from bacterial population of preantibiotic era: A probable clue for the origin of plasmid DNA and its correlation to the origin of life <i>Prof BA Chopade, Dept of Microbiology, UoP</i>	Research Project Compendium – 2006-07
25/03	3	Investigation into rules governing the transition from the pre-biotic to the biotic based on polymeric behavior of macromolecules and its possible reflection in the genetic code <i>Prof V Sitaramam, Dept of Biotechnology, UoP</i>	Research Project Compendium – 2006-07
26/03	1	Automatic target recognition and tracking <i>Ms MS Puranik, Dept of Instrumentation Science, UoP</i>	Research Project Compendium – 2006-07
27/03	1	A study of weather over Himalayan terrain using microwave data from AMSU-B	Research Project Compendium – 2006-07

*Prof RN Karekar/Wing Cdr DM Puranik, DASS,  
UoP*

28/03	1.5	Development of flow meters and their application in flow controls <i>Mrs PU More, Dept of Instrumentation Science, UoP</i>	Research Project Compendium – 2006-07
29/03	1	Implementation of the designed HRPT receiver for NOAA satellites <i>Prof SA Gangal, Dept of Electronic Sciences, UoP</i>	Research Project Compendium – 2006-07
30/03	2	New chemical routes towards synthesis of nanopiezoelectrics <i>Dr (Mrs) Anjali Athawale, Dept of Chemistry, UoP</i>	Research Project Compendium – 2006-07
31/03	2	Development of potent bacterial strain for bioremediation of Ammonium Perchlorate for an eco-friendly end product <i>Dr VS Ghole, Dept of Chemistry, UoP</i>	Research Project Compendium – 2006-07
32/03	1	Study of delay in solid propellant ignition as a function of different humidity and temperatures <i>Prof (Mrs) RC Aiyer, Dept of Physics, UoP</i>	Research Project Compendium – 2006-07
33/03	1	Feasibility study of low loss microwave filter using suspended strip lines <i>Prof (Mrs) RC Aiyer, Dept of Physics, UoP</i>	Research Project Compendium – 2006-07
34/03	1	Application of artificial neural network (ANN) to mesoscale meteorological studies using multispectral visible/ microwave data from satellite like NOAA <i>Dr (Mrs) DC Gharpure, Dept of Electronic Sciences, UoP</i>	Research Project Compendium – 2006-07
35/03	1	Development of Cu-8% Cr-4% Nb alloy for rocket engine combustion chamber <i>Prof NB Dhokey, Govt College of Engg, Pune</i>	Research Project Compendium – 2006-07
36/03	1	Oxide dispersion in copper matrix composite for elevated temperature application <i>Prof NB Dhokey, Govt College of Engg, Pune</i>	Research Project Compendium – 2006-07
37/03	3	Role of quantum dots as burn rate catalysts in	Research Project

		combustion mechanism of rocket propellants <i>Dr (Mrs) SS Joshi, Dept of Chemistry, UoP</i>	Compendium – 2006-07
38/04	2	Studies on the phase stabilization of Ammonium Nitrate through crystal modification and its application as an oxidizer of composite solid propellants <i>Dr (Mrs) SS Joshi, Dept of Chemistry, UoP</i>	Research Project Compendium – 2006-07
39/98	3	Optical study of atmospheric aerosols at Pune <i>Prof V V Agashe/ Dr G R Aher, Dept of Physics, UoP</i>	Research Project Compendium – 2006-07
40/04	1	Synthesis of bulk and thin films of diluted magnetic semiconductors and investigation of their electrical, optical and magnetic properties for various sensing applications <i>Dr (Mrs) Sangeeta N Kale, Fergusson College, Pune</i>	Research Project Compendium – 2006-07
41/04	1	Synthesis of elastomer nanocomposites for potential use at cryogenic temperature conditions <i>Prof Satyendra Mishra, North Maharashtra University, Jalgaon</i>	Research Project Compendium – 2006-07
42/04	1	Behavior of fiber reinforced high strength concrete under shear and tension <i>Prof B G Birajdar/ Mrs S N Madhekar (Dr A S Pant) PIET, Pune</i>	Annual Report 2007-08
43/04	1	Feasibility study of phased array fed reflector antennas for satellite communication <i>Prof Kamble Ashok, Modern College of Arts, Commerce and Science, Pune</i>	Research Project Compendium – 2006-07
44/04	1	Materials for magneto elastic sensors for displacement/ deflection transducers <i>Prof CS Garde, VIIT, Pune</i>	Research Project Compendium – 2006-07
45/04	1	Study of single event effects on short channel and highly packed memory devices using heavy ion irradiation <i>Prof SD Dhole, Dept of Physics, UoP</i>	Research Project Compendium – 2006-07
46/04	1	Feasibility study of diluted magnetic semiconductor quantum dots <i>Dr Shailaja Mahamuni, Dept of Physics, UoP</i>	Research Project Compendium – 2006-07

47/04	3	Modeling spatio-temporal changes in morphology and tectonic elements along with seismicity in the NE regions of India, with the help of remote sensing techniques <i>Prof RK Sukhatankar, DASS, UoP</i>	Research Project Compendium – 2006-07
48/04	2	A dynamic climatological study of precipitation over Maharashtra using conventional and remote sensed data <i>Dr K C Sinha Ray, DASS, UoP</i>	Research Project Compendium – 2006-07
49/05	1	Nanoparticle polymer resistive composites <i>Dr SK Kulkarni, Dept of Physics, UoP</i>	Research Project Compendium – 2006-07
50/05	1	High temperature oxidation study of plasma sprayed Yttria stabilized zirconia thermal barrier coatings <i>Prof S P Butee, Govt college of Engg, Pune</i>	Annual Report 2007-08
51/05	1	Perovskite nanoparticles as sensors for pollutant gases <i>Dr (Mrs) Anjali Athawale, Dept of Chemistry, UoP</i>	Research Project Compendium – 2006-07
52/05	1	Simulation of optical properties of metal nanoparticles polymer composites <i>Dr Suresh Gosavi, Dept of Physics, UoP</i>	Annual Report 2009-10
53/05	1	Analysis of residual stresses in TIG welded AA2219-T87 aluminum alloy for aerospace application. <i>Prof S P Butee, Govt College of Engg, Pune</i>	Annual Report 2007-08
54/05	1.5	Fabrication of sensitive hand held magnetometer and its use for surveying near Pune geomagnetic rock system <i>Dr (Mrs) SK Adhi, Dept of Instrumentation Science, UoP</i>	Annual Report 2009-10
55/05	1	Integrated approach to teaching Programming and Mathematics : Development of study material with accompanying software <i>Mr Rustom Mody &amp; Dr Jayant Kirtane, Dept of Computer Science, UoP</i>	Annual Report 2009-10
56/05	1	Application of Artificial Neural networks for Non	Research Project

		Destructive fault detection <i>Dr (Mrs) DC Gharpure, Dept of Electronic Sciences, UoP</i>	Compendium – 2006-07
57/05	1	Prototyping microwave network analyzer attachment for the Non-destructive microwave complex permittivity measurement of materials <i>Dr Kalpana Joshi, S.P. College, Pune</i>	Annual Report 2007-08
58/05	2	Doppler shift flow meters for liquid and gases <i>Mrs Pooja More, Dept of Instrumentation Science, UoP</i>	Annual Report 2011-12
59/05	2	Development of Cu-8% Cr-4% Nb alloy and Oxide dispersion copper composite <i>Prof NB Dhokey, Govt. College of Engg, Pune</i>	Annual Report 2007-08
60/05	2	Studies on magnetic semiconductors for optical and/ magnetic sensors <i>Dr (Mrs) Shailaja Mahamuni, Dept of Physics, UoP &amp; Dr Sangeeta N Kale, Fergusson College, Pune</i>	Research Project Compendium – 2006-07
61/05	2	Development of low cost NLO Chromophore doped polymer (Guest Host System) for Optoelectronics applications <i>Dr UP Mulik, C-MET, Pune &amp; Dr (Mrs) RC Aiyer, Dept of Physics, UoP</i>	Annual Report 2008-09
62/05	2	Radio meteor shower observations from the Indian sub continent <i>Dr (Ms) Raka Dabhade, Fergusson College, Pune</i>	Annual Report 2007-08
63/05	1.5	Study of free space laser communication using semiconductor laser diode at 1 MBPS duplex with the target distance of 500/1000 meters <i>Dr (Mrs) SK Adhi, Dept of Instrumentation Science, UoP</i>	Annual Report 2009-10
64/05	1.5	Frequency allocation in mobile communication using genetic algorithms <i>Mrs AV Kulkarni, D. Y. Patil College of Engg, Akurdi, Pune</i>	Annual Report 2007-08
65/05	1.5	Fabrication of narrow bandwidth low loss microstrip filter <i>Dr (Mrs) RC Aiyer, Dept of Physics, UoP</i>	Annual Report 2007-08

66/05	2	Optical wave guide based CO-CO <sub>2</sub> sensors using biomaterials <i>Dr (Mrs) Deepti Deobagkar, Dept of Zoology &amp; Dr (Mrs) RC Aiyer, Dept of Physics, UoP</i>	Annual Report 2008-09
67/05	2	Study of the apparent convective cloud and cloud systems motion during the southwest monsoon season using the Meteosat-5 half-hourly infrared images <i>Wing Cdr DM Puranik, DASS, UoP</i>	Annual Report 2007-08
68/05	1.5	Development of cloud climatology and preparation of a cloud atlas on the analysis of microwave images from AMSU on board NOAA satellites using Artificial Neural networks (ANN) technique <i>Dr (Ms) Ranjana Abhang, Garware College, Pune</i>	Annual Report 2008-09
69/05	2	Modeling sorghum growth curve using IRS P4 OCM-Land data <i>Dr (Mrs) Vrishali Deosthali, Dept of Geography, UoP</i>	Annual Report 2007-08
70/06	3	Irradiation effects of electrons, protons and UV radiation on the optical coatings and thin films <i>Prof VN Bhoraskar/Dr SD Dhole, Dept of Physics, UoP</i>	Annual Report 2009-10
71/06	2.5	Gas sensors composed of maghemite and magnetite nanoparticles <i>Dr (Mrs) Anjali Athawale, Dept of Chemistry, UoP</i>	Annual Report 2008-09
72/06	2	Design of a reconfigurable embedded system platform for data collection <i>Dr NM Kulkarni, Dept of Electronic Science, Fergusson College, Pune, Dr A D Shaligram (Co-PI) and Dr D C Gharpure (Co-PI), Dept of Electronic Sciences, UoP</i>	Annual Report 2008-09
73/06	3	Crystal habit modification and morphology control of Ammonium Nitrate (AN) and Ammonium Perchlorate (AP) by crystal habit modifiers <i>Dr (Mrs.) S.S.Joshi, Dept of Chemistry, UoP</i>	Annual Report 2008-09
74/06	1	Geo-environmental study of urban/rural interface of NW part of Pune Metropolis, Maharashtra	Research Project Compendium – 2006-07

75/06	2	<i>Dr Bhavana Umrikar, Dept of Geology, UoP</i> Investigation of catalytic efficiencies by studying structural and thermal properties of quantum dots <i>Dr (Mrs) SS Joshi, Dept of Chemistry, UoP</i>	Annual Report 2007-08
76/06	2	Identification of suitable sites for Jatropha plantation in Maharashtra using remote sensing and GIS <i>Dr (Mrs) Vrishali Deosthali, Dept of Geography, UoP</i>	Annual Report 2009-10
77/06	2	Application of ANN for defect detection in NDT images <i>Dr. (Mrs.) DC Gharpure, Dept of Electronic Sciences, UoP</i>	Annual Report 2009-10
78/06	2	Development of a sustainable house hold health-food production system by using Spirulina and promotion of the developed technology with the help of Edusat programme of ISRO <i>Dr. T.D. Nikam, Dept of Botany, UoP</i>	Annual Report 2009-10
79/07	2	Exploring semiconductor quantum dots for solar cell applications <i>Dr Shailaja Mahamuni, Dept of Physics, UoP</i>	Annual Report 2009-10
80/07	3	Biodiversity assessment of tropical midges using geo-biological parameters and remote sensing techniques <i>Dr B B Nath (PI), Dept of Zoology, UoP &amp; Dr DC Meshram (Co-PI), Dept of Geology, UoP</i>	Annual Report 2009-10
81/07	2	Design and development of a thermal gradient diffusion chamber for measurement of ice nuclei in the atmosphere <i>Dr P Pradeep Kumar, DASS, UoP</i>	Annual Report 2009-10
82/07	2	Application of RS and GIS techniques to evaluate effects of landuse- landcover on ravination along Pravara Basin, Maharashtra <i>Dr Veena U. Joshi, Dept of Geography, UoP</i>	Annual Report 2009-10
83/07	3	Reconstruction of late quaternary fluvio-sedimentary response of Kaveri and Palar Rivers: based on chronostratigraphy, digital geomorphometry and remote sensing analysis <i>Prof Vishwas S. Kale (PI), Dept of Geography,</i>	Annual Report 2010-11

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84/07	3	Design, development, characterization, analysis and fabrication of high response hydrogen leak sensors <i>Mrs R P Mudhalwadkar (PI), Govt. College of Engineering, Pune</i>	Annual Report 2009-10
85/07	3	Preparation of micro crystalline powders of ZnNb <sub>2</sub> O <sub>6</sub> , Mg Nb <sub>2</sub> O <sub>6</sub> , MgTa <sub>2</sub> O <sub>6</sub> , ZnTaO <sub>3</sub> , MgTaO <sub>3</sub> for microwave dielectric applications <i>Dr MY Khaladkar (PI), Govt. College of Engg., Pune</i>	Annual Report 2009-10
86/07	2	A study of geomorphic characteristics and structural elements in select seismically active regions of India; with the help of remote sensing techniques <i>Dr P Pradeep Kumar, Prof R K Sukhtankar &amp; Dr S K Guha, DASS, UoP</i>	Annual Report 2009-10
87/07	3	Development and analysis of MOS device with embedded nanocrystals of silicon dioxide layer for enhancement in charge transfer rate <i>Prof SV Ghaisas, Dept of Electronic Sciences, UoP</i>	Annual Report 2011-12
88/07	3	Synthesis and characterization of composite of single walled carbon nanotubes with Ag by Electrochemical methods <i>Dr Santosh K Haram, Dept of Chemistry, UoP</i>	Annual Report 2009-10
89/07	2	Simulating urban growth using GIS&RS- a case study of Pune city, India <i>Dr Vijaya Pradip Khairkar, Dept of Geography, UoP</i>	Annual Report 2009-10
90/07	3	Synthesis of ZnS thin film by modified spray pyrolysis method and study of its physical properties for optical sensor and solar cell applications <i>Prof R V Zavare (PI), &amp; Mr S A Arote (Co-PI), Sangamner college, Sangamner</i>	Annual Report 2011-12
91/07	1	Feasibility study of tailoring Diluted Magnetic Semiconductor (DMS) materials with transition temperature (T <sub>c</sub> ) around room temperature	Annual Report 2009-10

92/07	2	<i>Dr (Mrs) Anjali Kshirsagar, Dept of Physics, UoP</i> Biodiversity and gravitational studies of rotifer fauna from few freshwater bodies around Pune, Maharashtra <i>Dr Kalpana Pai, Dept of Zoology, UoP</i>	Annual Report 2010-11
93/07	2	Autonomous navigation system for Low Earth Orbit (LEO) satellite using global navigation satellite system (GNSS) <i>Prof S A Gangal (PI) &amp; Dr Suwarna Datar, (Co-PI), Dept of Electronic Sciences, UoP</i>	Annual Report 2011-12
94/07	3	Study of temporal and spacial distribution of seaweeds for their sustainable utilization using ground based and satellite borne systems <i>Dr BB Chaugule, (PI), Dept of Botany, UoP</i> <i>Dr DB Jadhav, (Co-PI), IITM, Pune</i>	Annual Report 2011-12
95/07	1	Design and simulation of Satellite-borne, high-resolution interferometric measurement of monsoon Rain rate (SHIMMER) <i>Dr D M Puranik, DASS &amp; Prof RN Karekar, UoP</i>	Annual Report 2009-10
96/08	2	Gas sensing applications of Metallophthalocyanines <i>Datir Ashok Maruti, Arts, Commerce and Dadasaheb Rupwate Science College, Akole, Dist. Ahmednagar</i>	Annual Report 2010-11
97/08	3	Synthesis of undoped and Cd, Al, In, B doped nanostructures of ZnO by intermittent chemical spray pyrolysis for optoelectronic and gas sensing applications <i>Mr C M Mahajan, Engineering Sciences Department, VIT, Pune</i>	Annual Report 2011-12
98/08	2	Application of GIS-RS in mapping and conservation of threatened medicinal plant species from Northern Western Ghats of India <i>Dr Ankur Patwardhan, Dept. of Biodiversity, Garware College, Pune</i>	Annual Report 2009-10
99/08	3	Studies on preparation and photo catalytic applications of Nanocrystalline TiO <sub>2</sub> and its nanocomposites <i>Dr (Mrs) SS Joshi, Dept of Chemistry, UoP</i>	Annual Report 2011-12

100/08	3	Development and characterization of thin film solid electrolyte cells as voltage source, temperature, pressure and gas sensor <i>Dr SB Iyyer, Dept of Physics, Ahmednagar College</i>	Annual Report 2011-12
101/08	2	Photographic observations of meteor showers <i>Dr Ms Raka V Dabhade, Fergusson College, Pune</i>	Annual Report 2011-12
102/08	2	Design, development and realization of gasifier Cookstoves <i>Shri SK Babar, DY Patil College of Engineering, Akurdi, Pune</i>	Annual Report 2009-10
103/08	3	Developing magnetic tracers for anthropogenic dust-aerosol particulate loading in the Metropolitan regions of Mumbai and Pune in Maharashtra <i>Dr S J Sangode, Dept of Geology, UoP</i>	Annual Report 2011-12

104/2010	3	Application of remotely sensed data for the evaluation of impervious surface growth and its effect on surface run off in two rapidly urbanizing watersheds of Western Maharashtra, India <i>Dr (Mrs) Anargha Dhorde, Dept of Geography, Nowrosjee Wadia College, Pune</i>	Annual Report 2013-14
105/2010	3	Modelling spatial patterns in fresh water reservoirs with special reference to plankton, mollusks and fishes using physico-chemical of water and remote sensing techniques <i>Dr Sangeeta Pandita Dr Sangeeta Pandit, Dept of Zoology, UoP</i>	Annual Report 2013-14
106/2010	2	Chemical deposition of layered transition metal chalcogenides to study their tribological properties <i>Dr S D Sartale, Dept of Physics, UoP</i>	Annual Report 2012-13
107/2010	3	Synthesis and applications of nanocomposites of metal oxides with multiwalled Carbon nanotubes and metal chalcogenides <i>Dr. (Mrs) Pragati Thakur, Dept. of Chemistry, UoP</i>	Annual Report 2013-14
108/2010	2	Chemical deposition of CuInSe <sub>2</sub> CdS and ZnO thin films for solar cell applications <i>Dr Habib Pathan, Dept. of Physics, UoP</i>	Annual Report 2012-13
109/2010	2	Use of Geographical Information System to study tuberculosis epidemiology and the factors affecting case detection in a population in Pune district, Maharashtra <i>Dr Anita Kar, Interdisciplinary School of Health Science, UoP</i>	Annual Report 2013-14
110/2010	2.5	A comparative study of telecommunication technology: Its impact and relevance on Urban, Rural and Tribal community of Maharashtra <i>Dr Prakash B. Gambhir, Academic Staff College, UoP</i>	Annual Report 2012-13
111/2010	3	Study of biodiversity of some invertebrates of Sawanga (Vithoba) lake region, Dist Amravati, Maharashtra <i>Dr (Mrs) Varsha W. Wankhade, Dept. of Zoology, UoP</i>	Annual Report 2013-14
112/2010	3	Impact of low and high radiation doses on the nutritional quality, functional properties and shelf life of various foods <i>Prof Madhurima Dikshit, Dept. of Chemistry, UoP</i>	Annual Report 2012-13
113/2010	3	Study of the direct radiative forcing of atmospheric aerosols over environments <i>Prof G R Aher, Dept. of Physics, Nowrosjee Wadia College, Pune</i>	Annual Report 2013-14

114/09	1	Study of Si quantum dots for solar cell applications <i>Dr Shailaja Mahamuni, Dept of Physics, UoP</i>	Annual Report 2011-12
115/2011	2	Studies on structural, optical and electrical properties of transparent conducting thin film (TCO). <i>Dr Arle Ramdas Nivrutti, Jijamata College of Science and Arts, Bhende</i>	Annual Report 2013-14
119/2011	2	Identification of critical areas of conservation concern using RS-GIS technique from northern Western Ghats of India. <i>Dr Ankur Patwardhan, Abasaheb Garware College, Pune</i>	Annual Report 2013-14
120/2011	2	Development of high performance Polycarbonate/Graphite nanocomposites with low percolation for EMI shielding application. <i>Dr Rajendra Kumar Goyal, College of Engg., Pune</i>	Annual Report 2013-14
121/2011	2	Synthesis and characterization of Copper Chromite for propellant <i>Dr S L Bonde, Nowrosjee Wadia College, Pune</i>	Annual Report 2013-14
122/2011	2	Preparation of Barium Magnesium Tantalate (BMT) and Barium Zinc Tantalate (BZT) with and without dopants for microwave dielectric application. <i>Dr (Mrs) M Y Khaladkar, College of Engg., Pune</i>	Annual Report 2013-14

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123/2011	3 yrs	Biodegradation of Ammonium Perchlorate by phytoremediation approaches. <i>Dr Rekha Gupta, Modern College of Arts, Science and Commerce, Pune</i>	Annual Report 2014-15
124/2011	2 yrs	Enhancing rural development through improved communication: case study western India. <i>Prof Sanjeev Sonawane, Dept of Education &amp; Extension, SPPU</i>	Annual Report 2014-15
125/2011	2 yrs	Measurement of plasma temperature and identification of species during re-entry of Space Shuttle, using plasma emission spectroscopy. <i>Dr V L Mathe, Dept of Physics, SPPU</i>	Annual Report 2014-15
126/2012	2 yrs	Hazardous Nitrous Oxide gas leakage detection and monitoring system using wireless sensor network <i>Prof. Arunkumar Walunj, Poona College of Arts, Science &amp; Commerce, Pune</i>	Annual Report 2015-16
127/2012	2 yrs	Development of conducting polyaniline-ZnO nano particle composite paint coating for corrosion protection <i>Dr Pravin P Deshpande, College of Engineering, Pune</i>	Annual Report 2015-16
128/2012	2 yrs	Impact of Geo-hazards on human settlement <i>Dr Vijaya Pradip Khairkar, Dept of Geography, SPPU</i>	Annual Report 2015-16
129/2012	2 yrs	Splitting of carbon dioxide into oxygen and carbon moiety using biomimetics of biological catalysts involved in photosynthesis <i>Dr (Mrs)Waghmode Shobha Ajeet, Abasaheb Garware College, Pune</i>	Annual Report 2015-16
130/2012	2 yrs	Development of transition metal oxide nanoparticle films for solar radiation protection and solar cells. <i>Dr Jayashree Pant, Abasaheb Garware College, Pune</i>	Annual Report 2015-16
131/2012	2 yrs	Preparation of Co <sub>3</sub> O <sub>4</sub> films by using electrochemical and spray pyrolysis deposition methods for gas sensing applications <i>Dr Shelke Pandit Nivrattirao, Baburaoji Gholap College, New Sangvi, Pune</i>	Annual Report 2015-16
132/2012	2 yrs	Real time human detection using covariance matrix as human descriptor <i>Prof S A Kakade, PDEA's College of Engineering, Manjari(Bk), Pune.</i>	Annual Report 2014-15
133/2012	2 yrs	Metallic surface plasmon phenomenon as a biosensor	Annual Report

		for the identification of biomolecules <i>Dr V M Harpale, Ahmednagar College, Ahmednagar</i>	2014-15
134/2012	2 yrs	Sensor-less XY planar flexural scanning mechanism for precision application <i>Dr Suhas P Deshmukh, Sinhgad Academy of Engineering, Kondhawa(Bk), Pune</i>	Annual Report 2014-15
135/2012	2 yrs	Digital elevation model (DEM) fusion <i>Dr Pratibha P Shingare, College of Engineering, Pune</i>	Annual Report 2014-15

<b>Project Number</b>	<b>Duration (Year)</b>	<b>Title of Research Project</b>	<b>Summary of findings published in</b>
136	2 yrs	Naphthoquinone containing metal polypyridyl complexes for Solar Cells: Computational and Experimental Study <i>Dr Sunita Salunke, Dept.of Chemistry, SPPU</i>	<b>Annual Report 2016-17</b>
137	2 yrs	Feasibility study on indigenous development of electrochemical based gas sensors and transmitters <i>Prof Arvind Shaligram, Dept. of Electronic Science, SPPU</i>	<b>Annual Report 2018-19</b>
138	2 yrs	Development of Microwave Excess Noise Generator Heads using Gas Discharge of Reactive and Non-Reactive gases <i>Prof S A Gangal, Dept. of Electronic Science, SPPU</i>	<b>Annual Report 2016-17</b>
139	2 yrs	Development of transition metal oxide nanoparticle films for solar radiation protection and solar cells <i>Prof Madhuri Deshpande, Vishwakarma Institute of Technology, Pune</i>	<b>Annual Report 2016-17</b>
140	2 yrs	Halophilic bacterial diversity of marine ecosystems from West Coast of India <i>Dr Rebecca Thombre, Modern College, Shivajinagar, Pune</i>	<b>Annual Report 2016-17</b>
141	2 yrs	Studies on nano-porous metal oxides via anodization and their applications in super capacitors <i>Dr Arif Shaikh, Poona College of Arts, Science &amp; Commerce, Pune</i>	<b>Annual Report 2016-17</b>
142	2 yrs	The development of the F.C. Observatory - an autonomous robotic telescope <i>Dr Raka Dabhade, Fergusson College, Pune</i>	<b>Annual Report 2016-17</b>
143	2 yrs	Multifunctional conducting polymer transition metal nano structure based sensor device for detection of NO <sub>2</sub> , H <sub>2</sub> S and NH <sub>3</sub> <i>Dr Vasant Chabukswar, Nowrosjee Wadia College, Pune</i>	<b>Annual Report 2016-17</b>
144	2 yrs	Development of flexible and high temperature aerogels <i>Dr N B Chaure, Department of Physics, SPPU</i>	<b>Annual Report 2017-18</b>
145	2 yrs	Occurrence and distribution of fluoride in groundwater of Terekhol river basin, Sindhudurg district, Maharashtra: A Remote Sensing and GIS based study <i>Dr S K Gaikwad, Department of Geology, SPPU</i>	<b>Annual Report 2017-18</b>

146	2 yrs	Remote sensing application in coastal geomorphology, changes in morphology in parts of West coast of Maharashtra, India <i>Dr Milind Herlekar, Dpartment of Geology, SPPU</i>	<b>Annual Report 2017-18</b>
147	2 yrs	Study of precipitation characteristics using disdrometer and satellite datasets over Pune <i>Dr Rohini Bhawar, Dept. of Atmospheric Space Science, SPPU</i>	<b>Annual Report 2017-18</b>
148	2 yrs	Optimization of low voltage DC micro-grid with intelligent solar PV utilization for a Computer laboratory <i>Prof Vivek Aranake, VIIT College, Pune</i>	<b>Annual Report 2017-18</b>
149	2 yrs	Processing of natural biopolymers - wild and domestic silk varieties of Northern Western Ghats : Fabrication of biopolymer film based technological substrate for advanced optical structure <i>Dr R D Chaudhari, Shiv Shiv Chhatrapati College of Arts, Science &amp; Commerce, Junnar</i>	<b>Annual Report 2017-18</b>
150	2 yrs	Stabilization of zirconia for electronic applications, in tetragonal and cubic structure using various dopants <i>Dr M Y Khaladkar, College of Engineering, Pune</i>	<b>Annual Report 2017-18</b>
151	2 yrs	Interaction of plasma with thermal protecting system (TPS) material during re-entry of space vehicle <i>Dr V L Mathe, Department of Physics, SPPU</i>	<b>Annual Report 2017-18</b>
152	2 yrs	Development of nuclear batteries using radioactive sources <i>Prof Sanjay Shore, Dept. of Physics, SPPU</i>	<b>Annual Report 2018-19</b>
153	2 yrs	Design, fabrication and testing of a compact and robust Monochromator <i>Mr C S Garde, Vishwakarma Institute of Information Technology</i>	<b>Annual Report 2018-19</b>
154	2 yrs	Fabrication of magnetoelectric energy harvesters by utilizing piezoelectric – macro fiber composite (MFC) and magnetostrictive – Nickle / Metglas / magnetic oxide materials <i>Dr R C kambale, Dept. of Physics, SPPU</i>	<b>Annual Report 2018-19</b>
155	2 yrs	Design feasibility of PLL frequency synthesizer for Ku band <i>Mrs Shobha Nikam, Institute of Information Technology, Pune</i>	<b>Annual Report 2017-18</b>
156	2 yrs	Space radiation from the optically transparent planar microstrip antenna integrated with the solar panels of small satellites <i>Dr Jayashri Shinde, Sinhgad Academy of Engineering, Pune</i>	<b>Annual Report 2017-18</b>

157	2 yrs	Development of coating/manufacturing technology for friction stir coating/welding tool for welding of 3 mm thick stainless steel <i>Prof Rajesh Chaudhari, Vishwakarma Institute of Technology, Pune</i>	<b>Annual Report 2018-19</b>
158	2 yrs	Studies on biodiversity of poly-extremophilic bacteria for their probable use as test organisms in space research <i>Dr Neelima Deshpande, Abasaheb Garware College, Pune</i>	<b>Annual Report 2017-18</b>
159	2 yrs	Development of Pre—qual engineering model of “SEAPS” 9300 KHz to 30 MHz) RF Front-End electronics and data acquisition system for low frequency space science Studies <i>Mrs Damayanti Gharpure, Dept. of Electronics Sciences, SPPU</i>	<b>Annual Report 2021-22</b>
160	2 yrs	Converting energy derivable from low energy sources into electrical power for autonomous sensors applications <i>Prof Subash Ghaisas, Dept. of Electronics Science, SPPU</i>	<b>Annual Report 2019-20</b>
161	2 yrs	Development of high current density thermal-field (T-f) cathodes <i>Prof M A More, Dept. of Physics, SPPU</i>	<b>Annual Report 2018-19</b>
162	2 yrs	Fabrication of a small satellite for monitoring radiations in different orbits of outer atmosphere where orbit maneuvering will be controlled by solar sail <i>Dr (Mrs) Rohini Mudhalwadkar, College of Engineering, Shivajinagar, Pune</i>	<b>Annual Report 2021-22</b>
163	2 yrs	Studies on glare reduction techniques for indoor illumination systems <i>Dr Jayashri Bangali, Kaveri College of Arts, Science &amp; Commerce, Erandwane, Pune</i>	<b>Annual Report 2018-19</b>
164	2 yrs	Valve-less linear compressor driven stirling cycle cryo cooler for space applications systems <i>Prof Virendra Bhojwani, JSCOE, Hadapsar, Pune</i>	<b>Annual Report 2018-19</b>
165	2 yrs	Drilling techniques/technology for drilling of miniature size holes of diameter less than 10 microns in super alloys for a depth of 1.0 mm <i>Prof Ganesh Dongare, Vishwakarma Institute of Technology, Bibwewadi, Pune</i>	<b>Annual Report 2018-19</b>
166	2 yrs	Biorecovery of electronics wastes <i>Prof Ameeta Ravikumar, Dept. of Biotechnology, SPPU</i>	<b>Annual Report 2019-20</b>

167	2 yrs	Study of cloud parameters observed by Ceilometer with the satellite retrieved and Mesoscale model generated, cloud parameters <i>Prof Pradeep Kumar, Atmospheric &amp; Space Science, SPPU</i>	<b>Annual Report 2020-21</b>
168	2 yrs	Astrobiology experiments on effect of impact and space related stress on micro-organisms isolated from rocks: Implications for origin of life and lithopanspermia <i>Dr Rebecca Thombre, Modern College of Arts, Science &amp; Commerce, Shivajinager, Pune</i>	<b>Annual Report 2018-19</b>
169	2 yrs	Wear, Corrosion and impact toughness of the high nitrogen martensitic stainless steel (XD15NW) <i>Dr N B Dhokey, Dept. of Metallurgy &amp; Materials Science, College of Engineering, Shivajinagar, pune</i>	<b>Annual Report 2019-20</b>
171	2 yrs	Designs and development of work function measurement set up and its use to measure work function of thrusters <i>Dr V L Mathe, Dept. of Physics, SPPU</i>	<b>Annual Report 2021-22</b>
172	2 yrs	Development of solders for use in cryogenic applications <i>Prof Madhuri Deshpande, VIT College, Pune</i>	<b>Annual Report 2019-20</b>
173	2 yrs	Selective capture and Conversion of CO <sub>2</sub> to methanol from direct air using MOFs supported polyamines <i>Dr Shobha Waghmode, Abasaheb Garware College, Pune</i>	<b>Annual Report 2021-22</b>
174	2 yrs	Conducting polymer supported bimetallic nanostructures for fuel cell and hydrogen storage applications <i>Dr Geeta Sharma, Dept. of Chemistry, SPPU</i>	<b>Annual Report 2020-21</b>
175	2 yrs	Investigations on ZnSe:Te quantum dot scintillators for charge particle detection in space radiation environment <i>Dr Shweta Jagtap, Dept. of Instrumentation Science, SPPU</i>	<b>Annual Report 2020-21</b>
177	1 yr	QPSK demodulator based on wideband acquisition technique <i>Dr Vishal Wankhede, SNJB's College of Engineering, Nashik</i>	<b>Annual Report 2019-20</b>
180	2 yrs	Development of image processing algorithms for blur reduction and noise elimination in satellite imagery/radiometric data <i>Dr Ashwini Deshpande, Cummins College of Engineering for Women, Karvenager, Pune</i>	<b>Annual Report 2020-21</b>