

List of Ongoing Projects

Sr. No / Year	Title / Project Investigator's name & dept
104/2009	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 A Dhorde, Dept of Geography, Nowrosjee Wadia College, Pune</i>
105/2009	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 Pandit, Dept of Zoology, UoP</i>
106/2009	Deposition of layered transition metal chalcogenides thin film by SILAR method for their tribological application <i>Dr S D Sartale, Dept of Physics, UoP</i>
107/2009	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>
108/2009	Chemical deposition of CuInSe₂ CdS and ZnO thin films for solar cell applications <i>Dr Habib Pathan ,Dept of Physics, UoP</i>
109/2009	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 Sciences, UoP</i>
110/2009	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>
111/2009	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>
112/2009	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>
113/2009	Study of the radiative forcing of atmospheric aerosols over environments <i>Prof G R Aher, Dept of Physics, Nowrosjee Wadia College, Pune</i>

- 115/2011 **Studies on structural, optical and electrical properties of transparent conducting thin film (TCO).**
Dr Arle Ramdas Nivrutti, Jijamata College of Science and Arts, Bhende
- 116/2011 **Novel electrochemical approach to prepare CuInGaSe₂ based solar cells using non-aqueous bath.**
Dr N B Chaure, Dept of Physics, UoP
- 117/2011 **Design and development of an odor tracking system.**
Dr (Mrs) DC Gharpure Dept of Electronic Sciences, UoP
- 118/2011 **Study of interferometric data and its applications for subsidence monitoring.**
Mrs Chaitali Abhijit Laulkar, Sinhgad College of Engineering, Pune
- 119/2011 **Identification of critical areas of conservation concern using RS-GIS technique from northern Western Ghats of India.**
Dr Ankur Patwardhan, Abasaheb Garware College, Pune
- 120/2011 **Development of high performance Polycarbonate/Graphite nanocomposites with low percolation for EMI shielding application.**
Dr Rajendra Kumar Goyal, College of Engineering, Pune
- 121/2011 **Synthesis and characterization of Copper Chromite for propellant**
Dr S L Bonde, Nowrosjee Wadia College, Pune
- 122/2011 **Preparation of Barium Magnesium Tantalate (BMT) and Barium Zinc Tantalate (BZT) with and without dopants for microwave dielectric application.**
Dr (Mrs) MY Khaladkar, College of Engineering, Pune
- 123/2011 **Biogradation of Ammonium Perchlorate by phytoremediation approaches.**
Dr Rekha Gupta, Modern College of Arts, Science and Commerce, Pune
- 124/2011 **Enhancing rural development through improved communication: case study western India.**
Prof Sanjeev Sonawane, Dept of Education & Extension, UoP
- 125/2011 **Measurement of plasma temperature and identification of species during re-entry of Space Shuttle, using plasma emission spectroscopy.**
Dr V L Mathe, Dept of Physics, UoP

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126/2011	Hazardous Nitrous Oxide gas leakage detection and monitoring system using wireless sensor network <i>Prof. Arunkumar Walunj, Poona College of Arts, Science & Commerce, Pune</i>
127/2012	Development of conducting polyaniline-ZnO nano particle composite paint coating for corrosion protection. <i>Dr Pravin Deshpande, College of Engineering, Pune</i>
128/2012	Impact of Geo-hazards on human settlement. <i>Dr Vijaya Khairkar, Dept.of Geography, UoP</i>
129/2012	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>
130/2012	Development of transition metal oxide nanoparticle films for solar radiation protection and solar cells. <i>Dr Jayashree Pant, Abasaheb Garware College, Pune</i>
131/2012	Preparation of Co₃O₄ 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>
132/2012	Real time human detection using covariance matrix as human descriptor <i>Prof.S.A.Kakade, PDEA's College of Engineering, Manjari(Bk), Pune.</i>
133/2012	Metallic surface plasmon phenomenon as a biosensor for the identification of biomolecules <i>Dr V M Harpale, Ahmednagar College, Ahmednagar</i>

134/2012 **Sensor-less XY planar flexural scanning mechanism for precision application**
Dr. Suhas P. Deshmukh, Sinhgad Academy of Engineering, Kondhawa(Bk), Pune

135/2012 **Digital elevation model (DEM) fusion**
Dr Pratibha P Shingare, College of Engineering, Pune

- 136/2013 **Naphthoquinone containing metal polypyridyl complexes for solar cells: Computational and experimental study.**
(Dr Sunita Salunke) Department of Chemistry UoP
- 137/2013 **Feasibility study on indigenous development of electrochemical based gas sensors and transmitters**
(Prof A D Shaligram) Dept. of Electronic Science, UoP
- 138/2013 **Development of microwave excess noise generator heads using gas discharge of reactive and non reactive gases.**
(Prof S A Gangal) Department of Electronic Science UoP
- 139/2013 **Development of graphite fiber reinforced aluminum (7075) in the rolled sheet form.**
(Prof Madhuri Deshpande) Vishwakarma Institute of Technology, Pune
- 140/2013 **Halophilic bacterial diversity of marine ecosystems from West Coast of India.**
(Dr Rebecca Thombre) Modern College, Shivajinagar, Pune
- 141/2013 **Studies on nano porous metal oxides via anodization and their applications in super capacitors.**
(Dr Arif Shaikh) Poona College of Arts, Science & Commerce, Camp, Pune
- 142/2013 **The development of the F C Observatroy an autonomous robotic telescope.**
(Dr Raka Dabhade) Fergusson College, Pune
- 143/2013 **Multifunctional conducting polymertransition metal composite nanostructure based sensor device for detection of NO₂ H₂S and NH₃.**
(Dr Vasant Chabukswar) Nowrosjee Wadia College, Pune

- 144/2014 **Development of Flexible and high temperature aerogels**
(*Dr N B Chaure*) *Department of Physics, UoP*
- 145/2014 **Occurrence and distribution of fluoride in groundwater of Terekhol river basin, Sindhudurg and district, Maharashtra: A Remote Sensing and GIS based study**
(*Dr S K Gaikwad*) *Department of Geology, UoP*
- 146/2014 **Remote sensing application in Coastal geomorphology, changes in morphology in parts of West coast of Maharashtra**
(*Dr Milind Herlekar*) *Department of Geology, Uop*
- 147/2014 **Study of precipitation characteristics using disdrometer and satellite datasets over Pune** (*Dr Rohini Bhawar*) *Department of Atmospheric Space Sciences, UoP*
- 148/2014 **Optimization of low voltage DC micro-grid with intelligent Solar PV Utilization for a computer laboratory**
(*Prof Vivek Aranake*) *VIIT College, Pune*
- 149/2014 **Processing of Natural Biopolymers-Wild and Domestic Silk varieties of Northern Western Ghats: Fabrication of biopolymer film based technological substrate for advanced optical structures**
(*Dr R D Chaudhari*) *Shri Shiv Chhatrapati College of Arts, Science & Commerce, JUNNAR, Dist-Pune*
- 150/2014 **Stabilization of zirconia for electronic applications, in tetragonal and cubic structure using various dopants**
(*Dr M Y Khaladkar*) *College of Engineering, UoP*
- 151/2014 **Interaction of plasma with thermal protecting system (TPS) material during Re-entry of space vehicle**
(*Dr V L Mathe*) *Department of Physics, UoP*

- 152/2015 Development of Nuclear Batteries using Radioactive Sources**
Prof Sanjay Dhole, Dept.of Physics, SPPU
- 153/2015 Design, fabrication and testing of a compact and robust Monochromator**
Mr C. S. Garde, Vishwakarma Institute of Information Technology, Pune
- 154/2015 Fabrication of Magnetolectric Energy harvesters by Utilizing Piezoelectric-Macro fiber composite (MFC) and Magnetostrictive- Nickel/Metglas/Magnetic oxide materials**
Dr R C Kambale, Dept.of Physics, SPPU
- 155/2015 Design feasibility of PLL frequency synthesizer for Ku band**
Mrs Shobha Nikam, Institute of Information Technology, Pune
- 156/2015 Space Radiation from the Optically Transparent Planar Microstrip Antenna Integrated with the Solar Panels of Small Satellites**
Dr Jayashree Shinde, Sinhgad Academy of Engineering, Pune
- 157/2015 Development of coating/manufacturing technology for friction stir coating/welding tool for welding of 3 mm thick stainless steel sheets**
Prof Rajesh Chaudhari, Vishwakarma Institute of Technology, Pune
- 158/2015 Studies on Biodiversity of poly-extremophilic bacteria for their probable use as test organisms in space research**
Dr Neelima Deshpande, Abasaheb Garware College, Pune

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159/2016	Development of Pre qual engineering model of “SEAPS” (300 KHz to 30 MHz) RF front-end electronics and data acquisition system for low frequency Space Science studies <i>(Dr D C Gharpure) Department of Electronics Science SPPU</i>
160/2016	Converting energy derivable from low energy sources into electrical power for autonomous sensors applications <i>(Prof Subash Ghaisas) Department of Electronic Sciense, SPPU</i>
161/2016	Development of high current density thermal-field (T-f) cathodes <i>(Prof M A More) Department of Physics, SPPU</i>
162/2016	Fabrication of a small satellite for monitoring radiations in different orbits of outer atmosphere wheren orbit maneuvering will be controlled by solar sail <i>(Dr (Mrs) Rohini Mudhalwadkar) College of Engineering, Pune</i>
163/2016	Studies on glare reduction techniques for indoor illumination systems <i>(Dr Jayashri Bangali) Kaveri College of Arts, Science & Commerce, Erandwane, Pune</i>
164/2016	Valve-less linear compressor driven stirling cycle cryo-cooler for space <i>(Prof Virendra Bhojwani) JSCOE College, Hadapsar, Pune</i>
165/2016	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) VIT College, Bibwewadi, Pune</i>
166/2016	Bioleaching of Electronics Wastes (E-wastes) <i>(Prof Ameeta Ravikumar) Department of Biotechnology Science SPPU</i>

- 167/2017 **Study of cloud parameters observed by Ceilometer with the satellite retrieved and Mesoscale model generated, cloud parameters**
Prof Pradeep Kumar, Dept. of Atmospheric & Space Science, SPPU
- 168/2017 **Astrobiology experiments on effect of impact and space related stress on micro-Organisms isolated from rocks: Implications for origin of life and lithopanspermia,**
Dr Rebecca Thombre, Dept. of Biotechnology, Modern College of Arts, Science & Commerce Shivajinagar, Pune
- 169/2017 **Wear corrosion and impact toughness of the high nitrogen martensitic stainless steel (XD15NW) (16Cr, 0.20N, 0.42C,1.8Mo, 0.35V, balance Fe (in wt%))** *Dr N B Dhokey*
Dept. of, Metallurgy & Materials Science, College of Engineering, Shivajinagar
- 170/2017 **Miniaturized microstrip antenna designs for 3U cubesat covering UHF, L- and S-band frequency spectrum and their interference study for earth observations,** *Dr Pratap Shinde, Dept. of, Electronics & Telecommunication, Sinhgad Academy of Engineering, Kondhwa, (BK) Pune*
- 171/2017 **Design and development of work function measurement set up and its use to measure work function of thrusters,** *Dr V L Mathe, Dept. of Physics, SPPU*
- 172/2017 **Development of solders for use in cryogenic applications (E 2.1)** *Prof Madhuri Deshpande, Dept. of Industrial & Production, VIT College, Pune*
- 173/2017 **Selective capture and conversion of CO₂ to methanol from direct air using MOFs supported polyamines,** *Dr (Mrs) Shobha Waghmode, Dept. of Chemistry, Abasaheb Garware College, Karve Road, Pune*
- 174/2017 **Conducting polymer supported bimetallic nanostructures for fuel cell and hydrogen storage applications,** *Dr Geeta Sharma, Dept. of Chemistry, SPPU*

- 175/2017 **Investigations on ZnSe:Te quantum dot scintillators for charge particle detection in space radiation environment** *Dr Shweta Jagtap, Dept. of Instrumentation Science, SPPU*
- 176/2017 **Development of Aluminium nitride and alumina based ceramics for high temperature electrical insulation,** *Mr Kaustubh Kambale, Dept. of Metallurgy and Materials Science,*
- 177/2017 **QPSK demodulator based on wideband acquisition technique**
Dr Vishal Wankhede Dept. of Electronics & Telecommunication, SNJB's College of Engineering, Neminagar, Chandwad – Nashik
- 178/2018 **Development of NDT technique for through thickness measurement of non Uniform residual stresses in metallic materials**
Mr Vikas Dive, Dept. of Mechanical Engineering, D Y Patil Institute of Engineering Management & Research, Akurdi, Pune
- 179/2018 **An investigation of tropical mesospheric echoes: causative mechanisms and application to study mesospheric turbulence**
Dr G Kishore Kumar Dept. of Atmospheric & Space Science, SPPU
- 180/2018 **Development of image quality improvement algorithms for satellite imagery/radiometric data**
Dr (Mrs) Ashwini Deshpande, Dept. of Electronics & Telecommunication Engineering, Cummins College of Engineering for Women Karvenagar, Pune
- 181/2018 **Development of optical disdrometer**
Dr Aditee Joshi, Dept. of Electronic Science, SPPU
- 182/2018 **Ontology enabled disaster management web service using data integration**
Mrs Shilpa Pimpalkar, Dept. of computer Engineering, AISSMS IOIT, Pune
- 183/2018 **Effects of Simulated microgravity on expression profile of Micro-RNA in cardiomyocytes** *Dr Varsha Wankhade, Dept. of Zoology, SPPU*
- 184/2018 **Applications of plasmonic nanoshapes in hybrid flexible solar cells**
Dr N B Chaurse, Dept. of Physics, SPPU

- 185/2018 **Development of sequestration and biotransformation strategies for the treatment of ammonium perchlorate**
Prof. Kisan Kodam, Dept. of Chemistry, SPPU
- 186/2018 **Development of Nano - material Smart Coating for Anti - Reflection and Thermal Control of Space Structures** *Mr Kunal Shinde, Dept. of Mechanical Engineering, Sandip Institute of Engineering and Management, At Post Mahiravani, Trimbak Road, Nashik*
- 187/2018 **Characterization of AISI 321 stainless steel at low temperatures**
Dr Rajesh Chaudhari, Dept. of Industrial & Production Engineering, Vishkarma Institute of Technology, Bibwewadi, Pune
- 188/2019 **Estimation of Inter laminar transverse shear stresses in sandwiched structures using a higher order shear and normal deformation theory** *Dr S M Shiyekar, Dept. of Civil Engineering, D Y Patil College of Engineering, Akurdi, Pune*
- 189/2019 **Data driven modeling of morphology and formation of impact craters in Basalt: A case study of Lonar** *Dr Bhalchandra Pujari, Dept. of Centre for Modeling and Simulation, SPPU, Pune*
- 190/2019 **Ab initio study of thermal properties of transition metal ceramics for thermal barrier coating** *Dr Ankita Katre, Dept. of Center for Modeling and Simulation, SPPU, Pune*
- 191/2019 **Effect of altered gravity on gene expression of human blood mononuclear cells and bone cell with special reference immunity and differentiation**
Prof Kalpana Pai & Richa Ashma, Dept. of Zoology, SPPU, Pune
- 192/2019 **Development of anti-erosion coatings on polymers for low earth orbit Space applications.** *Prof Sanjay Dhole, Dept. of Physics, SPPU, Pune*
- 193/2019 **Process development and optimization of novel electro discharge machining variants for machining of super alloys**
Prof Ganesh Dongre, Dept. of Industrial & Production Engineering, Vishwakarma Institute of Technology, Bibwewadi, Pune
- 194/2019 **Development of Nano-polishing technology for metal mirrors**
Prof Girish Kotwal, Dept. of Industrial & Production Engineering, Vishwakarma Institute of Technology, Bibwewadi, Pune

- 195/2021 **Synthesis and characterization of Si based nanomaterials for lithium ion cells**
Dr Ashish Yengantiwar, Dept. of Physics, Fergusson College (Autonomous) Pune
- 196/2021 **Design of accurate & efficient machine learning autonomous algorithm for guidance & navigation of space landing mission** *Dr Dipti Patil, Dept. of Information Technology, MKSSSS's Cummins College of Engineering for Women, Pune*
- 197/2021 **Fusion of thermal and optical image features in classification of space objects to identify debris using deep learning, Dept. of Computer Engineering,**
Dr Sunita Jahirabadkar, MKSSSS's Cummins College of Engineering for Women, Pune