



# SATHYABAMA UNIVERSITY

(Established under section 3 of the UGC Act, 1956). Declared as Category 'A' University by MHRD, Govt of India.

## Internship/Final year B.E., and B.Tech., student's project offered at International Research Centre

### List of Centres:

1. Centre for Nano Science and Nano Technology
2. Centre for Excellence in Energy Research
3. Molecular and Nanomedicine Research Unit
4. Centre for Waste Management
5. Centre for Climate Change Studies

### List of Scientists, Thrust Areas, Topics of Research and Contacts for Student Research Projects

S. No.	Name of the Scientist, Designation	Thrust Areas	Topics of Research (Minimum 3)	Official mail id
<b>Centre for Nano Science and Nano Technology</b>				
1.	<b>Dr. P. Kuppusami</b> Senior Scientist	X-ray Diffraction Surface Engineering Material Science Nanotechnology Energy Materials	<ul style="list-style-type: none"> <li>• Thermal barrier coatings</li> <li>• Thin film electrolytes for solid oxide fuel cells</li> <li>• Thin film super capacitors</li> </ul>	<a href="mailto:pkigcar@gmail.com">pkigcar@gmail.com</a>
2.	<b>Dr. Vinita Vishwakarma</b> Scientist - F	Biofouling, Thin film, Concrete modification microbiology	<ul style="list-style-type: none"> <li>• Concrete modification and deterioration studies</li> <li>• Antimicrobial coating for marine applications</li> <li>• Nanophase modified concrete</li> </ul>	vinitavishwakarma@sathyabamauniversity.ac.in
3.	<b>Dr. Brijitta</b> Scientist - D	Soft condensed matter	<ul style="list-style-type: none"> <li>• Stimuli Responsive nano/microgels for Photonic Applications</li> <li>• Nano/microgel loaded Quantum Dots for Optical Imaging</li> <li>• Superabsorbent Oleophilic gels</li> </ul>	brijitta@sathyabamauniversity.ac.in

4.	<b>Mr. D. Ramachandran</b> Scientist - C	Cement and concrete research	<ul style="list-style-type: none"> <li>• Concrete biodegradation</li> <li>• Concrete nanomodification</li> <li>• <i>In-situ</i> high temperature-day diffraction studies of powder and natural samples</li> </ul>	<a href="mailto:ramachandran@sathyabamauniversity.ac.in">ramachandran@sathyabamauniversity.ac.in</a>
5.	<b>Mr. Arul Maximus Rabel,</b> Scientist - C	Magnetic nanomaterials and its applications Biomolecule imaging	<ul style="list-style-type: none"> <li>• SPIONS – Characterization and biomedical applications</li> <li>• Ultra structure imaging of microorganisms</li> <li>• Metal oxide NPS- Biomedical applications</li> </ul>	<a href="mailto:arulmaximus@sathyabamauniversity.ac.in">arulmaximus@sathyabamauniversity.ac.in</a>
6.	<b>Mr. K. Viswanathan</b> Scientist - C	Micro-Electronics Embedded systems and Industrial applications	<ul style="list-style-type: none"> <li>• Micro and Nano Sensors</li> <li>• PV cell development with sensor</li> <li>• Vacuum Devices</li> <li>• Advance CMOS devices</li> <li>• High Speed semiconductor Devices</li> </ul>	<a href="mailto:viswanathan@sathyabamauniversity.ac.in">viswanathan@sathyabamauniversity.ac.in</a>
7.	<b>Mr. K. Gobi Saravanan</b> Scientist - C	Antimicrobial coatings Surface modified materials for biomedical and biosensor applications	<ul style="list-style-type: none"> <li>• HAP coating for bioimplant applications</li> <li>• Antimicrobial coatings on bioimplants</li> <li>• Metal oxides for anticorrosion properties</li> </ul>	<a href="mailto:gobisaravanan@sathyabamauniversity.ac.in">gobisaravanan@sathyabamauniversity.ac.in</a>
8	<b>A.M. Kamalan Kirubaharan</b> Scientist 'C'	<ul style="list-style-type: none"> <li>• Thin films</li> <li>• Hard coatings</li> <li>• Diffusion Barrier Coatings</li> </ul>	<ol style="list-style-type: none"> <li>1. Microstructural and optical properties of thin films</li> <li>2. Mechanical Behavior of ceramic coatings</li> </ol>	<a href="mailto:kamalankiruba@gmail.com">kamalankiruba@gmail.com</a>

			<ul style="list-style-type: none"> <li>3. Electrochemical studies of coatings.</li> <li>4. High temperature studies of alloys and coatings</li> </ul>	
<b>Molecular and Nanomedicine Research Unit</b>				
9.	<b>Dr. Rajesh Kannan</b> Scientist - D	Molecular biology and Marine Biotechnology	<ul style="list-style-type: none"> <li>• Development and functional genomics</li> <li>• Neurodegeneration diseases</li> <li>• Small molecule discovery using Zebrafish as a model system</li> </ul>	<a href="mailto:rajeshnbt12@gmail.com">rajeshnbt12@gmail.com</a>
10.	<b>Dr. A. Dayanandan</b> Scientist - E	Therapeutic enzymes	<ul style="list-style-type: none"> <li>• Industrial enzymes</li> <li>• therapeutic enzymes</li> <li>• Exteremozymes</li> </ul>	<a href="mailto:dayanandhan@sathyabamauniversity.ac.in">dayanandhan@sathyabamauniversity.ac.in</a>
11.	<b>Dr. A. Madan Kumar</b> Scientist - C	Cancer Biology	<ul style="list-style-type: none"> <li>• Anticancer study using human breast cancer cell lines</li> <li>• Studies on Apoptosis against breast cancer in rat model</li> <li>• Molecular studies in liver cancer using zebra fish</li> </ul>	<a href="mailto:madankumar@sathyabamauniversity.ac.in">madankumar@sathyabamauniversity.ac.in</a>
12.	<b>Dr. Beema Shafreen</b> Scientist - C	Molecular microbiology and Infectious disease	<ul style="list-style-type: none"> <li>• Infectious disease in human due to bacteria and fungi</li> <li>• Antimicrobial drug resistance due to biofilm</li> <li>• Therapeutic approaches to treat biofilm mediated infections in human</li> </ul>	<a href="mailto:beemashafreen@sathyabamauniversity.ac.in">beemashafreen@sathyabamauniversity.ac.in</a> <a href="mailto:beema.shafreen@gmail.com">beema.shafreen@gmail.com</a>
13	<b>Dr.S.Johnson Retnaraj Samuel,</b> Scientist - C	Regeneration and Stem cell Biology, Ageing	<ul style="list-style-type: none"> <li>• Interaction of Lamin A and telomere.</li> <li>• Earthworm regeneration and Coelomic fluid</li> </ul>	<a href="mailto:johnnbt@gmail.com">johnnbt@gmail.com</a>

			<p>proteomics.</p> <ul style="list-style-type: none"> <li>• Location and migration of Stem cells in the earthworm.</li> </ul>	
14	<b>Dr.S. Jackson Durairaj,</b> Scientist C	Stem cell and Regenerative Biology	<ul style="list-style-type: none"> <li>• Identification of small molecules that stimulate regeneration in different species of earthworms</li> <li>• Screening of different plant extracts that induce tissue regeneration</li> <li>• and stem cell proliferation in model animals</li> <li>• Targeting the Stem cells for mosquito vector control</li> </ul>	<a href="mailto:jacksondurairaj@yahoo.com">jacksondurairaj@yahoo.com</a>
15	<b>Dr. Rajesh. R. P</b> Scientist-C	Venom based Proteomics Drug Discovery, Marine Natural Products from sedentary invertebrates	<ul style="list-style-type: none"> <li>• De-novo sequencing</li> <li>• of venom peptides.</li> <li>• Bioactivity of marine</li> <li>• invertebrates against</li> <li>• pathogenic bacteria.</li> <li>• Microscopic studies</li> <li>• of ascidian symbionts</li> </ul>	<a href="mailto:ieshran@gmail.com">ieshran@gmail.com</a>
<b>Centre for Waste Management</b>				
16.	<b>Dr. Dawn, S. S</b> Scientist - E	Alternate fuels Catalysis Heat and mass transfer studies in chemical process	<ul style="list-style-type: none"> <li>• Synthesis of novel catalyst systems for biofuel applications</li> <li>• Zerowaste technologies assessment</li> <li>• Biodiesel and waste water in cleaning applications</li> <li>•</li> </ul>	<a href="mailto:dawn@sathyabamauniversity.ac.in">dawn@sathyabamauniversity.ac.in</a>

**Centre for Climate Change Studies**

17.	<b>Dr. T. Subramoniam</b> Senior Scientist	Reproductive physiology, Endocrinology and Biomineralization	<ul style="list-style-type: none"> <li>• Reproductive physiology of crustaceans,</li> <li>• Hormonal regulation of reproduction in crustaceans</li> <li>• Biomineralization in marine invertebrates</li> </ul>	<a href="mailto:subramoniam@sathyabamauniversity.ac.in">subramoniam@sathyabamauniversity.ac.in</a>
18.	<b>Dr. Vinitha Ebenezer</b> Scientist - C	Aquatic Ecotoxicology assessment Impact of climate change on marine microorganisms	<ul style="list-style-type: none"> <li>• Ecotoxicology and risk assessment of environmental contaminants and environmental drivers ecological risks of metals, on aquatic organisms</li> <li>• Global climate change, Bio-geochemical cycle alteration and impact on aquatic microorganisms</li> <li>• -Microalgal carbon sequestration and mechanism</li> </ul>	vinithaebenezer@gmail.com
19	<b>Dr. Vinu S S</b> Scientist C	Invertebrate biology & Marine biotechnology	<ul style="list-style-type: none"> <li>• Aquaculture</li> <li>• Invertebrate immunology</li> <li>• Climate change</li> <li>• Molecular marker</li> </ul>	vinusiva@gmail.com
20.	<b>Dr. Thanga Suja</b> Scientist - C	Host plant resistance-biotic and abiotic Microbial symbiosis	<ul style="list-style-type: none"> <li>• Plant biotic and abiotic tolerance mechanism</li> <li>• Plant-insect interactions</li> <li>• Insect-microbial symbiosis</li> </ul>	<a href="mailto:sujasree07@gmail.com">sujasree07@gmail.com</a>

21	<b>Dr. Amit Kumar,</b> Scientist C	Marine Molecular Ecology and Physiology	<ul style="list-style-type: none"><li>• Effects of predicted climate change on marine organisms</li><li>• Seaweed-microbial interactions</li><li>• Marine Ecology</li><li>• Stress Physiology</li></ul>	<a href="mailto:amit.kumar.szn@gmail.com">amit.kumar.szn@gmail.com</a>
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**\*Interested students can contact respective scientists by the given email ID. Based on the interview, students will be selected for the Internship/final year project.**