# **Research Group**

| <ul> <li>Anjali G<br/>Research Fellow (UGC-SRF)</li> <li>Education: <ul> <li>M.Sc. Physics, Kerala University</li> </ul> </li> <li>Research Areas:<br/>Transition metal dichalcogenides,<br/>Metal oxide nanoparticles,<br/>Spintronics</li> </ul>  | <ul> <li>Arsha Ashokan<br/>Junior Research Fellow (RUSA 2.0<br/>Project)</li> <li>Education: <ul> <li>M. Tech Polymer Technology,<br/>CUSAT, Kerala</li> <li>MSc Polymer Science, CIPET,<br/>Kerala</li> </ul> </li> <li>Research Areas:<br/>SERS Sensors, Polymer Synthesis,<br/>Biomaterials</li> </ul>  |
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| <ul> <li>Bhadrapriya B C<br/>Research Scholar</li> <li>Education: <ul> <li>M. Phil. Physics, School of Pure and Applied Physics, MGU</li> <li>M. Sc. Physics, School of Pure and Applied Physics</li> </ul> </li> <li>Research Areas:<br/>Multiferroics, Polymer<br/>Nanocomposites, Magnetoelectric composites, Energy harvestors</li> </ul>   | <ul> <li>Bosely Anne Bose<br/>Research Scholar</li> <li>Education: <ul> <li>M. Phil. Physics, School of Pure<br/>and Applied Physics, MGU</li> <li>M. Sc Physics, Mahatma Gandhi<br/>University</li> </ul> </li> <li>Research Areas:<br/>Photocatalysis, Biomass-derived<br/>carbon, Metal-metal oxide hybrid<br/>structures</li> </ul>                                    |
| <ul> <li>Deepa S Dev<br/>Research Fellow-UGC JRF (National<br/>Fellowship)</li> <li>Education: <ul> <li>UGC NET (Electronic Science)-<br/>Dec 2018, June 2021, June 2022</li> <li>M.Tech. in Embedded Systems,<br/>Kerala University</li> </ul> </li> <li>Research Area:<br/>Artificial Intelligence, Machine<br/>Learning, Deep Learning, Data<br/>Science, Materials Science</li> </ul> | <ul> <li>Deepika Vishwas Kale Junior Research Fellow (RUSA 2.0 Project)</li> <li>Education: <ul> <li>M.Sc. Microbiology, University of Mumbai</li> </ul> </li> <li>Research Areas: <ul> <li>Microbial Molecular Biology,</li> <li>Antimicrobials, Antibiotic Resistance,</li> <li>Polyherbal Formulations, Burn Wound Healing, Medical Microbiology</li> </ul> </li> </ul> |
| <ul> <li>Fadeela C U<br/>Research Fellow</li> <li>Education: <ul> <li>M.Sc-B.Ed Polymer Chemistry</li> <li>M.Tech in Nanoscience and<br/>Technology, University of<br/>Calicut</li> </ul> </li> <li>Research Areas:<br/>Graphene hybrids, Polymer<br/>nanocomposites, Optoelectronic<br/>properties of nanomaterials, Chemical<br/>and biosensors</li> </ul>                              | <ul> <li>Fency Sunny<br/>Research Fellow -GATE 2018</li> <li>Education: <ul> <li>M. Sc Physics, MGU</li> </ul> </li> <li>Research Areas:<br/>Halide Perovskites, Nanocomposites, Optoelectronic properties of perovskites, Photodetectors, Solar Cells</li> </ul>  |

| <ul> <li>Jyothish Kumar J S<br/>Research fellow</li> <li>Education: <ul> <li>M. Tech Nano Technology, NIT,<br/>Kozhikode, Kerala</li> <li>B.Tech Mechanical Engineering,<br/>SNIT, Adoor, Kerala</li> </ul> </li> <li>Research Areas:<br/>Nanotechnology, Nanomedicine</li> </ul>   |               | <ul> <li>Merin Mary Sebastian<br/>Senior Research Fellow</li> <li>Education: <ul> <li>M. Sc Physics, Kuriakose Elias<br/>College, Mannanam, MG<br/>University (2017)</li> <li>M. Phil Physics, School of Pure<br/>and Applied Physics (2019), MGU</li> </ul> </li> <li>Research Areas:<br/>Transition metal dichalcogenides,<br/>Spinel metal oxides, Water splitting,<br/>Energy Materials and Sensing</li> </ul>   |
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| <ul> <li>Mridula Sreedharan<br/>DST-BRICS Fellow</li> <li>Education: <ul> <li>M. Tech Nanomedical Science,<br/>Amrita Vishwavidyapeetham</li> <li>GATE 2021</li> </ul> </li> <li>Research Area:<br/>Tissue Engineering, Molecular<br/>Biology, Nanomedicine, Materials<br/>Science</li> </ul>   |               | <ul> <li>Mohamed Nawas Vengoli<br/>Junior Research Fellow (RUSA 2.0<br/>Project)</li> <li>Education: <ul> <li>M.Sc Physics, School of Pure and<br/>Applied Physics, Mahatma Gandhi<br/>University</li> </ul> </li> <li>Research Areas:<br/>Ferroelectric, Ferromagnetic,<br/>Multiferroic materials, 2D material<br/>hybrids, Sensing and Energy<br/>applications</li> </ul>   |
| <ul> <li>Muhammed Swalihu P M<br/>Research Fellow (UGC-SRF)</li> <li>Education: <ul> <li>MSc. Physics, Mahatma Gandhi<br/>University (2019)</li> </ul> </li> <li>Research Areas:<br/>Multiferroics, Spintronics, Magnetic<br/>Solitons, Thin Films, Topological<br/>Insulators, Spin Lasers, Spin-<br/>Orbitronics.</li> </ul>  | FABLAB KERALA | <ul> <li>Nideesh P K<br/>Research Scholar (DST-INSPIRE)</li> <li>Education <ul> <li>M. Sc Physics, Govt. College<br/>Kottayam (2018), Kerala</li> </ul> </li> <li>Research Areas:<br/>Optics, Random lasing, Nanophotonics,<br/>Complex systems</li> </ul>   |
| <ul> <li>Seetha Lakshmy<br/>Research Fellow, SERB-CRG Project</li> <li>Education: <ul> <li>M. Sc Physics, Mahatma Gandhi<br/>University (2018)</li> <li>M. Phil Physics, School of Pure<br/>and Applied Physics (2020),<br/>MGU</li> </ul> </li> <li>Research Areas:<br/>First-principles Density Functional<br/>Theory, Gas or Biomolecule sensing,<br/>Drug delivery applications</li> <li>Google Scholar link:<br/><u>https://scholar.google.com/citations?u</u><br/>ser=gAcTBTIAAAAJ&amp;hl=en</li> </ul> |               | <ul> <li>Shilpa Santhosh<br/>Research Fellow</li> <li>Education: <ul> <li>M. Sc Physics, School of Pure and<br/>Applied Physics (2018), MGU</li> <li>M. Phil Physics, School of Pure<br/>and Applied Physics (2020), MGU</li> </ul> </li> <li>Research Areas:<br/>Spinel Structures, Nanocomposites,<br/>Electrocatalysis, Sensing and Energy<br/>Materials</li> <li>Google Scholar link:<br/><u>https://scholar.google.com/citations?use</u><br/><u>r=XDsbRVgAAAAJ&amp;hl=en</u></li> </ul> |

## **Post Doctoral Fellows**

| Petbali | <ul> <li>Dr. Chitra Lekha C S<br/>Postdoctoral Fellow (CEFIPRA Project 6408-1)</li> <li>Education <ul> <li>Ph. D Physics, Central University of Kerala (2018)</li> <li>M.Phil Physics, Central University of Kerala (2013)</li> <li>M. Sc Physics, University of Kerala</li> </ul> </li> <li>Research areas<br/>Multiferroics and magnetoelectric heterostructures, Spintronics, Thin film multilayers, Magnetic nanoparticles, Ferroelectric and piezoelectric ceramics, Piezopolymers, Piezoelectric and Triboelectric nanogenerators.</li> <li>Google Scholar Link: <a href="https://scholar.google.co.in/citations?user=8V3NUuAAAAJ&amp;hl=en">https://scholar.google.co.in/citations?user=8V3NUuAAAAJ&amp;hl=en</a></li> </ul>                     |
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|         | Dr. Parvathi Nancy<br>Research Associate (RUSA 2.0 Project)         Education         • Post Doctoral Fellow: Mahatma Gandhi University (2022)         • Ph. D Physics: Mahatma Gandhi University (2021)         • M. Phil Physics: Mahatma Gandhi University (2015)         • M. Sc Physics: University of Kerala (2011)         Research areas         Light Matter Interactions, Laser Plasma Spectroscopy, SERS, Nonlinear Optics, E lectrochemistry, Nanohybrid Materials, High Energy Materials         Google Scholar Link: https://scholar.google.com/citations?user=0dMB0dAAAAAJ&hl=en   |
|         | <ul> <li>Dr. Mallikarjun Anandalli<br/>Postdoctoral Fellow</li> <li>Education <ul> <li>Ph. D Physics, Karnatak University Dharwad (2023), Karnataka</li> <li>M. Sc Physics, Vijayanagara Sri Krishnadevaraya University, Ballari (2015), Karnataka</li> </ul> </li> <li>Research Areas <ul> <li>Experimental Condensed Matter Physics and Materials Science: Nonlinear Optics, Microstructural properties of Polymer nanocomposites, Synthesis of Nanomaterials.</li> <li>Google Scholar Link: <u>https://scholar.google.co.in/citations?user=WQ2NXdEAAAAJ&amp;hl=en</u></li> </ul> </li> </ul>   |
|         | Dr. Blessy M Mani         Research Associate (RUSA 2.0 project)         Education:         • Ph. D Investigative Medicine (Allergen proteomics), Escuela Superior de Medicina, Mexico         • M. Sc Nano Biotechnology, Manonmanium Sundaranar University, Tamil Nadu, India         Post-doctoral Experience:         Indian Institute of Science (IISc) Bangalore, India         Inter University Centre for Biomedical Research, Mahatma Gandhi University, Kerala, India         Research Areas:         Proteomics, Exosomes, Allergen Proteins, Nano Biotechnology         Google Scholar Link: <a href="https://scholar.google.com/citations?user=VhXedW8AAAAJ&amp;hl=en">https://scholar.google.com/citations?user=VhXedW8AAAAJ&amp;hl=en</a> |



#### **Dr. Kevin V. Alex** Research Associate (RUSA 2.0 project)

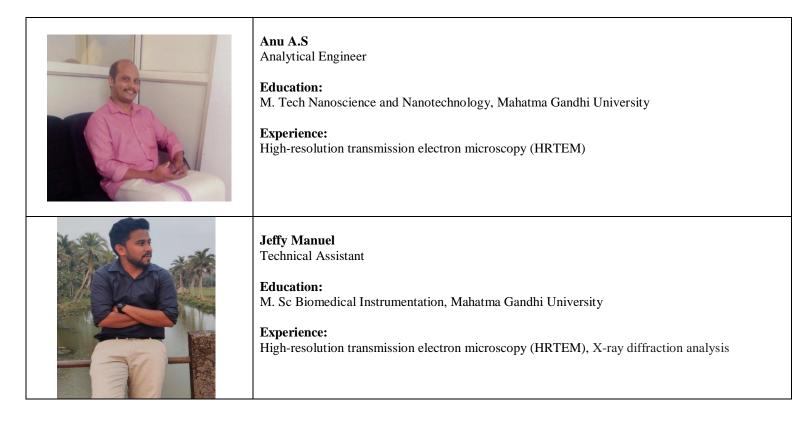
#### Education:

- Ph. D Physics, Central University of Tamil Nadu (2023)
- M. Sc Physics, Mahatma Gandhi University (2016)

#### **Research Areas:**

Thin films, Heterostructures, Photocatalysis, Resistive switching, Plasmonic sensing

Google Scholar Link: https://scholar.google.co.in/citations?user=vbllehgAAAAJ&hl=en



### Previous group members-Ph. D details

1. **Dr. Parvathy N (2021**)

Laser Plasma Induced Green Synthesis of Nano Hybrids and Nanocomposites for Multifunctional Applications

2. **Dr. Shabina Kappadan (2020)** *Metal oxide based hybrid nanostructures for water purification* 

### 3. **Dr. Sandhya Gopalakrishnan (2019)** Development and characterization of engineered metal and metal oxide nanoparticle/ cluster polymer composite for prosthodontic application

4. Dr. Rajakumari R (2019)

Dietary Supplements and Nutraceutical formulations

5. Dr. Anshida Mayeen (2018)

*Electroactive polymer ceramic nanocomposites for multifunctional applications* 

- 6. **Dr. Indu Raj (2018)** Synthesis and characterizations of metal and metal oxide nano particle cluster polymer composites for their uses in craniofacial prosthesis and prosthodontic and dental applications
- 7. **Dr. Arunima R (2018)** *Recyled polyurethane toughened epoxy resin*
- 8. **Dr. Ann Rose Abraham (2018)** Development of Hybrid Multiferroic Materials for Tailored Applications
- 9. **Dr. Lakshmipriya S (2018)** Polyhedral Oligmeric Silsesquioxane (POSS) Filled Natural Rubber Composites
- 10. **Dr. Srinivasarao Yaragalla (2016)** Graphene and Carbon Nano tube Reinforced Elastomer Nanocomposites
- 11. **Dr. El Hadji Mamour Sakho (International student) (2016)** Graphene Based Hybrid Materials for Tailored Applications
- 12. **Dr. Rehana P Ummer (2016)** Investigation on Nano sized Multiferroic BiFeO<sub>3</sub>-NaNbO<sub>3</sub> ceramics and its polymer composites
- 13. **Dr. Robin Augustine (2015)** *Design and development of polymer nanocomposites for biomedical applications*
- 14. **Dr. Raneesh B (2013)** Synthesis and characterisation of selected nanomultiferroic systems
- 15. **Dr. Shiji Krishnan (2013)** *Multifunctional studies on pure and Fe modified Yttrium chromite nanosystems*
- 16. Dr. Jeevan Job Thomas (2012)

Investigations on selected nanomagnetic systems

- 17. **Dr. Nuja S John (2012)** *Preparation and characterization of selected luminescent nanoparticles*
- 18. **Dr. Seema R (2011)** Synthesis and spectroscopic studies of pure and rare earth doped Sr<sub>2</sub>CeO<sub>4</sub> phosphors
- 19. **Dr. Jaimon Yohannan (2001)** *Investigations on structural and electrical properties of selected ferroelectric ceramics*

### Titles of Ph. D theses co-supervised

- 1. Nanoparticles for Improved Plant growth and secondary metabolite production-Dr. Rakhimol K. R (2020)
- 2. Investigations on Ag/TiO<sub>3</sub>/GQD Nanoparticles based PMMA-polymer nanocomposites for multifunctional Applications- **Dr. Bhavitha K B (2020)**
- 3. Role of Multiwall Carbon Nanotubes on the Morphology, Rheology and Properties of Natural Rubber/Polypropylene Blends- **Dr. Sharika T Nair (2019)**
- 4. Studies on Electrospun Chitosan and its Composites- Dr. Merin Sara Thomas (2019)

- 5. Microbiological Application of Nanostructured Materials- Dr. Snigdha S (2019)
- 6. Development of carbon nanotube based polymer blend nanocomposites for electromagnetic interference shielding- **Dr. P Mohammed Arif (2018)**
- 7. Study on Polyvinyl Chloride/Graphene Nanocomposites- Dr. Akhina H (2018)
- 8. Noble metal nanostructures and hetero atom doped graphene hybrids for multifunctional applications- **Dr. Anju K. Nair (2017)**
- 9. Ionic liquid modified carbon nanotube based styrene butadiene rubber nanocomposites- **Dr. Jiji Abraham (2017)**

### **Previous Post-Doctoral Fellows**

- 1. Dr. Raji V (Dr. K S Kothari Fellow)
- 2. Dr. Sathiyanthan P (CEFIPRA)