

## **VIDYA BABU**

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### **PERSONAL**

First Name : Vidya  
Last Name : Babu  
Age & Date of Birth : 26 yrs.; 20 January, 1998.  
Sex & Marital Status : Female, Unmarried  
Nationality : Indian

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### **RESEARCH EXPERIENCES**

- **Research Fellow: School of Chemical Sciences (SCS), Mahatma Gandhi University Campus, Priyadarshini Hills, Kottayam, Kerala, India** (1<sup>st</sup> December 2022 – 20 December 2023).

**Area: Bio-polymer and Synthetic Polymer Based Nanocomposites for Flexible Electronic Applications**

- **M.Phil. Research Fellow:** Department of Physics, Kariavattom campus, University of Kerala, Kerala, **India** (January 2021- July 22).  
Dissertation: **Tunable Negative Permittivity and Absorption-Dominated Electromagnetic Interference Shielding in Cold Sintered Mayenite Electride – Ethylenediaminetetraacetic acid Composites.**
- **Project Intern:** Department of Physics, Sree Narayana College Kollam, Kerala, **India** (January 2020-March 2020).  
Dissertation: **Dextrose Mediated Synthesis of Nickel Oxide Nanoparticles.**
- **Project Intern:** Department of Physics, Sree Narayana college Punalur, Kerala, **India** (January 2018-March 2018).  
Dissertation: **Voltage Regulators**

## **EDUCATION**

- **Master of Philosophy (M.Phil.)**, Physics, Kariavattom campus, University of Kerala, India, 2021-22.
- **Master of Science (M.Sc.)**, Physics, University of Kerala, India, December 2020 (Sree Narayana College Punalur, Kerala, India).
- **Bachelor of Science (B.Sc.)**, Physics, University of Kerala, India, April 2018 (Sree Narayana College Punalur, Kerala, India).
- **Senior Secondary, Science**, Board of Higher Education Department, India, March 2015 (G.H.S.S Yeroor, Kerala, India).
- **X Secondary**, General Education Department, G.H.S.S Yeroor, Kerala, India, March 2013).

## **HONORS AND AWARDS**

- Master of Philosophy (**M. Phil**) in Physics (**88.87 %**) with A plus grade at University of Kerala, Kariavattom campus, Thiruvananthapuram, Kerala, India.
- Second Position in Master of Science (**M. Sc**) in physics (**82.77 % -A Grade**) at Sree Narayana College Punalur, Kollam, Kerala, India.
- Second position in Bachelor of Science (**B. Sc**) in Physics (**86.9 %-A Grade**) at Sree Narayana College Punalur, Kollam, Kerala, India.

## **RESEARCH SKILLS**

### **Analytical skills**

- Design of Natural Rubber (both Dry Rubber & Latex), Silicon Rubber, PANI and PLA based Nanocomposites and Its Characterizations.
- Synthesis and characterization of nanomaterials (rGO, TiO<sub>2</sub>, MXene, Fe<sub>3</sub>O<sub>4</sub>, Layered Double Hydroxide etc.) Ceramic Compounds and Polymer Nanocomposites.
- Experience in working with and maintaining various types of equipment's, Vacuum Oven, Tubular Furnace, Probe Sonicator, UV-Visible spectrophotometer, X-Ray diffractometer (XRD), FTIR Spectrometer, Raman Spectrometer, Impedance Analyzer, Vector Network Analyzer (VNA), Contact Angle Goniometer, Joule Heating Instrument, Hot Pressing unit, Compression Molding, Two-Roll Mill, Hakke Mixer, Brabender Mixer and Electro Spinning Unit.

## Computer skills

- MSWord, Power Point and other MS Office Programs.

## Software packages

- Origin, Avantage, Casa, Ivium soft, Toppas (Le bail & Reitveld Refinement), ImageJ, End note, Mendeley, Find it, Blender and Crystal Maker.

**Languages:** English and Malayalam

## CONFERENCES AND ORAL PRESENTATIONS

- **Participation** in the one Day Seminar on “**IPR Awareness**” organized by the **Inter University Centre for IPR Studies (IUCIPRS), CUSAT under RUSA 2.0 Major Project T5F** held on **15<sup>th</sup> November 2023** at Convergence Academia Complex, School of Nanoscience & Nanotechnology, Mahatma Gandhi University, Kottayam.
- **Oral Presentation** in International Hybrid Conference on Advances in Materials Science Breaking Barriers and Building Future (**ICAMS 2023**), organized by **SEM, SNSNT, IIUCNN, SPST, Mahatma Gandhi University**, Priyadarsini Hills P.O, Kottayam, Kerala (**July 21,2023**).
- **Presentation** in International Hybrid Conference on Nano Structured Materials and Polymers (**ICNP 2023**) organized by **IIUCNN, SNSNT&SEM**, Mahatma Gandhi University, Kottayam, Kerala (**May 12-14,2023**).
- **Participation** in Raman Optronics Webinar Series (**ROWS-2022**) Virtual **International** Conference, Organized by **RAMAN INTERNATIONAL OPTRONICS SOCIETY(RIOS-17.11.2022-07.12.2022)**.
- **Oral presentation** in International Conference on Materials-Properties, Measurements and Applications, (**ICMPMA- 2022**) organized by the Research and Postgraduate Department of Physics, Fatima Mata National College (Autonomous)Kerala, India during **9-13 May 2022**.
- **Oral presentation** in a Three-day National Seminar on Advanced Functionalized Materials for Analytical, Environmental and BiomedicalApplications (**NSAFM-2022**) held on **23-25 March 2022**, Thiruvananthapuram, Kerala, India.
- **Oral presentation** in the National Webinar on Neoteric Advances in Chemical

Sciences (**NACS-2021**) organized by the Department of Chemistry, University of Kerala, Thiruvananthapuram, India during **December 30-31,2021**.

- **Participation** in Virtual International Conference on **Raman Optronics Webinar Series (ROWS 2021)** organized by Department of Optoelectronics, University of Kerala, Kerala, India (**07.11.2021 to 07.12.2021**).
- **Participation** in webinar (**COGNIZANCE 2020**) on **INTRODUCTION TO ELECTRONIC MATERIALS** organized by Department of Physics & IQAC, Sree Narayana College, Punalur, Kerala, India.
- **Participation** in Webinar on “**Astronomy and Astrophysics**” organized by the Department of Physics, Mar Ivanios College (Autonomous), Thiruvananthapuram, India on 25.07.2020.

### **DECLARATION**

I hereby declare that all the statements made in this application are true and correct to the best of my knowledge and belief.

**Place: Eroor, Kollam, Kerala, India**

**VIDYA BABU**