



R.Sofia Jeniffer

Research Scholar

Centre for Nanotechnology Research

Vellore Institute of Technology

Vellore

Qualifications :

Ph. D. : Pursuing - Vellore Institute of Technology.

M. Sc. (Physics) - 2014 – Kongunadu Arts and Science College, Coimbatore.

B. Sc. (Physics) - 2016 – Karpagam University, Coimbatore.

Research Experience:

- Currently working on Carbon materials for supercapacitors under the guidance of Dr.R.Vimala Assistant Professor, Vellore Institute of Technology.
- Dissertation work under Dr. M. Kanagaraj , Assistant Professor, Department of Physics, Karpagam University. (Synthesis and characterization of Nanomagnetic materials)

Research Interest:

- Green and chemical Synthesis
- Supercapacitors and electrochemical workstation
- Characterization of various nanomaterials and nanostructures for various applications.
- Nanoparticles/Nanomaterials/Nanostructures for electrical applications.
- Nano electronics-based devices.

Skills Learned and Expertise:

- Very good knowledge in synthesis of Nanomaterials from various chemical methods.
- Very good knowledge in biomass synthesis of nanoparticles for supercapacitor applications.

- Very familiar to handle nano material characterization instruments such as UV, FTIR, DLS & XRD.
- Data analysis using XPERT Highscore plus, Origin Pro.

Publications:

- **RS Jeniffer**, R Vimala, Facile synthesis of activated carbon derived from Eucalyptus globulus seed as efficient electrode material for supercapacitors, Diamond and Related Materials, 108038 (2020).
- S Ghosh, R Santhosh, **S Jeniffer**, V Raghavan, G Jacob, K Nanaji, P Kollu, Natural biomass derived hard carbon and activated carbons as electrochemical supercapacitor electrodes, Scientific reports 9 (1), 1-15 (2019)
- M Kanagaraj, IP Kokila, **RS Jeniffer**, PS Kumar, HA Therese, Structural Confinement Assisted a Robust Superparamagnetic State in MgNi₂O₃ and MgNi_{1.5}Co_{0.5}O₃ Nanoparticles at Room Temperature, Journal of Superconductivity and Novel Magnetism, 1-9 (2018)
- A.P.S.Prasanna ,K.S.Venkataprasanna, Balashanmugam Pannerselvam, Vijayshankar Asokan, **R.SofiaJeniffer**, G.Devanand Venkatasubbu, Multifunctional ZnO/SiO₂ Core/Shell Nanoparticles for Bioimaging and Drug Delivery Application, Journal of Fluorescence, 1-9 (2020)

Participated International and National Conference / Seminar / Workshop/ Symposium:

International Conference:

- 5th International conference on Nanoscience and Nanotechnology (ICONN 2019) SRM University kattankulathur (**Poster presented**) on Preparation and characterization of activated carbon derived from Borassus flabellifer by KOH activation.
- International conference on Recent trends in biomedicine (ICRAB 2018) Saveetha dental college, Chennai (**Poster presented**) on an effect of silica coating on ferrite nanoparticles: synthesis, characterization and applications.

National Conference:

- Third National workshop on Recent trends in material science, Nanoscience and Nanotechnology in PSG College of technology, DATE 22.2.14
- National seminar on Advanced Materials and Applications in Karpagam Academy of Higher Education DATE 12.2.15 and 13.2.15
- National seminar on Advanced Materials and Applications in Karpagam Academy of Higher Education DATE 11.3.16 and 12.3.16
- National workshop on recent trends in physics at NGM College, Pollachi DATE: 23.01.2015 and 24.01.2015
- National technical symposium on emerging trends in instrumentation and process control in AJK College of arts and science, Coimbatore 29.8.13 and 30.8.13
- National workshop on academic writing and publication ethics in Vellore institute of technology vellore 5.8.16

State level:

- Seminar on Helio Sparks-2012 in Kongunadu Arts & Science College during DATE: 27.03.2012
- State level symposium on Santronics-2012 (Paper presented) in Sankara college of science and commerce ,Coimbatore 4.01.2012

Science fair projects:

- Exhibited project on Electricity generation from speed breakers in Regional science congress held at kongunadu arts and science college 12 and 16 dec 2012
- Project on Automatic Room Light Controller with Bidirectional Visitor Counter , prism 2014 in sri GVG visalakshi college for women, ugumalpet 29.1.14
- Project on Auto Night Lamp using High Power LED in PKR arts college for women in spectra,erode 2k14 28.1.14
- Project on Purpose of nanorobots in multirary in VLB Janakiammal college of arts ans science,Coimbatore in recatrics 21-9-11.