# S.S. Govarthini

**Research guide:** Dr. D. Thangaraju

**Date of joining:** July 2021

**Department:** Physics

**Education Details (UG & PG)**

- M.Sc. Physics - PSG College of Arts and Science – CGPA 9.3
- B.Sc. Physics - PSG College of Arts and Science – CGPA 9.2

**Tentative title of the research work**

Pesticide detection and supercapacitor performance of rare earth metal gallium oxide and transition metal vanadate nano self assembly.


**Brief abstract**

The research work showcase the bifunctional applications of rare earth metal gallium oxides and transition metal vanadates. The synthesis of nanomaterials are carried out using various cost effective techniques. The as synthesized nanomaterials are subjected to analyze their performance in pesticide sensors and supercapacitor.


**Publications**

- Lutetium gallium garnet ($Lu_3Ga_5O_{12}$): A potential material for supercapacitor and pesticide detection applications – Journal of Alloys and Compounds
- Enhanced asymmetric supercapacitor device performance of graphene templated β-$Bi_{2-x}Eu_xMo_2O_9$ nano self-assembly – Journal of Electroanalytical Chemistry
- Performance analysis of three distinct Ni-V-O single-phase nano self-assemblies for asymmetric