

# **Faculty Profile**



**Dr. L.Sangeetha , M.Sc, M.Phil, Ph.D**  
Associate Professor & HoD – Physics

## **HIGHLIGHTS:**

- Number of Journal Publications: 13
- H-Index:3
- Patents Published: 3

## **PROFESSIONAL LINKS:**

- Scopus ID: 57211662676
- Scopus Link: <https://www.scopus.com/authid/detail.uri?authorId=57211662676>
- Google Scholar ID: <https://g.co/kgs/xSzmtgh>
- Anna University Faculty ID: 2122087
- AICTE Faculty ID: 1-1500277398
- Anna University Supervisor ID: 4170024
- LinkedIn: [www.linkedin.com/in/l-sangeetha-b87128212](http://www.linkedin.com/in/l-sangeetha-b87128212)

## **PROFESSIONAL BACKGROUND:**

- Teaching Experience till date: 22 years 4 months

## **AREA OF SPECIALIZATION:**

- Luminescence
- Materials Science

## **ACADEMIC EXPERIENCE:**

- Associate Professor - Saveetha Engineering College (02.01.2017 till date)
- Assistant Professor (SG) - Saveetha Engineering College (02.06.2014 to 01.01.2017)
- Assistant Professor (OG) - Saveetha Engineering College (02.07.2012 to 01.06.2014)
- Assistant Professor - Srinivasa Institute of Engineering and Technology (06.06.2003 to 31.05.2012)
- Lecturer in Physics Dept., Tagore College of Arts and Science (01.07.2002 to 31.05.2003)

## JOURNAL PUBLICATIONS

- New thermoluminescence dosimetric characteristics of Cu-doped  $\text{Li}_2\text{B}_4\text{O}_7$  phosphors with X-rays, gamma, and proton beams, **Journal of Materials Science: Materials in electronics, Springer**, 35 (2024) 2240.
- Effect of Flux and Co-doping on Photoluminescence Properties of  $\text{Zn}_2\text{SiO}_4$ :  $\text{Eu}^{3+}$  Red Phosphors for Blue LED Excitable White LED, **Journal of Fluorescence**, (2024).
- Optimizing Supercapacitor Performance with LSCF, ST, BST, and Coconut Shell Activated Carbon, **Journal of New Materials for Electrochemical Systems**, Vol. 27, No. 3 (2024) pp. 215- 226.
- Applications Intense Red Fluorescence from Surface Traps in  $\text{BaSO}_4$ : $\text{V}^{5+}$ ,  $\text{Eu}^{3+}$  and Its Applications, **Luminescence: The Journal of Biological and Chemical Luminescence, Wiley**, Volume39, Issue11 (2024) e70035.
- Development of binary transition metallic selenide ( $\text{NiSe}/\text{Co}_3\text{Se}_4$ ) hybrid counter electrode for highly efficient Pt-free dye-sensitized solar cells, **Ionics**, 2024.
- Low temperature synthesis and enhancement of blue emitting  $\text{CaMgSi}_2\text{O}_6$ : $\text{Eu}^{2+}$  phosphor by co-doping, **Displays, Elseiver**, 80 (2023) 102524.
- Luminescence Characteristics and X-ray Induced Defects in  $\text{BaFBr}:\text{Eu}^{2+}$  storage phosphor, **Luminescence: The Journal of Biological and Chemical Luminescence, Wiley**, 2023;1–12.
- Vibrational Spectra and Quantum chemical Investigations on Nicotinium Nitrate Monohydrate Single Crystal for Anti bacterial studies. **Chemical Physics Impact, Elseiver**, Vol. 6 (2023) 100200.
- Zinc Silicate Phosphor: Insights of X-Ray Induced and Temperature Enabled Luminescence **Luminescence: The Journal of Biological and Chemical Luminescence, Wiley**. 2023 Mar 16 (Published online).
- Effect of divalent co-dopants on the photostimulated luminescence efficiency of  $\text{BaFBr}:\text{Eu}^{2+}$ , **Journal of Materials Science: Materials in electronics, Springer**, vol 33, (2022), pp.14979–14991.
- A sensitive x-ray storage phosphor based on  $\text{BaFBr}:\text{Eu}^{2+}$ ,  $\text{KF}/\text{LiF}$  with higher storage stability, **Radiation Measurements, Elseiver**, vol 129, (2019), 106209.
- Ab-Initio calculations on group – III: elements and their halides, **Indian Journal of Chemistry**, Vol 41A, 2002, pp. 1329-1333.
- SCF Molecular orbital studies in chlorinated cumulenes, **Indian Journal of Chemistry**, Vol 41A, 2002, pp.897-903.

## SPONSORED RESEARCH / FUNDING APPLIED / CONSULTANCY:

- Working as Co-Principal Investigator under the Intramural project “Development of Optically Stimulated Luminescence (OSL) phosphors for high-capacity Optical Data Storage”.
- Worked as Co-Principal Investigator under the DST SERB project “Development of x-ray imaging plate based on filmless radiography” and completed on August 2019.

### **PATENTS PUBLISHED/GRANTED:**

- **Dr.L.Sangeetha**, Innovative Bioabsorbent Preparation from Guava Plant, Appl. No. 202441014976, March 2024.
- Dr.Arunachalam Lakshmanan, Dr.M.Selvi, , **Dr.L.Sangeetha**, Ms.S.Varalakshmi, Data Storage and Optical Computing utilizing new Optically Stimulated Luminescence (OSL) phosphors, Appl. No.202341072218, Feb. 2024.
- Dr. S. Kalpana, Dr.S.Suresh, **Dr.L.Sangeetha**, Ms. C. Saveetha, Dr. S. Thennarasu, A nanotechnology based technique to analyse growing metallic nanoclusters and compositions, Appl. No.202341068047, Oct. 2023.

### **COURSES CERTIFIED:**

Completed online course on **Accreditation and Outcome Based Learning** conducted by Swayam NPTEL with a percentage of 88.

### **ACHIEVEMENTS AND AWARDS:**

- Received Best Paper Presentation award in National Conference on Current trends in Advanced Materials at Bharath Institute of Higher Education and Research in 2019.
- Received Best Paper Presentation award in National Conference on Current trends in Advanced Materials at Hindustan University in 2017.
- Received Best Paper Presentation award in National Conference on Advanced Materials at SSN College of Engineering in March 2016.

### **SPECIAL SESSIONS DELIVERED:**

- Delivered a Guest Lecture in one day Seminar on "X-ray Storage Phosphor Imaging Technology" organized by Department of Applied Physics, SIMATS Engineering, Thandalam, Chennai held on 21.06.2024.
- Session Expert for the Session on Innovative Strategies: Path to Successful Entrepreneurs held on 08.02.2024 at Saveetha College of Nursing, SIMATS, Thandalam, Chennai.
- Delivered a Guest Lecture on Invited as Chief Guest for the IDS activity conducted by RMK Senior Secondary School, Chennai on 28.04.2023.

### **CONFERENCES/SEMINARS/WORKSHOPS ATTENDED:**

- One day Webinar on International Webinar on Multifunctional Materials-2024 conducted by SRM on 28.10.2024.
- Two days International Conference ICISH-2024 conducted by Saveetha Engineering College, Chennai on 18.07.2024 & 19.07.2024.
- Faculty Development Program on The Power of Positivity Approach in Teaching & Learning System of Cultural Transformation conducted by Hindusthan College of Arts & Science from 19.09.23 to 26.09.23.
- Two days National Seminar on Advances in Material Science Research conducted by Thiruvallur University on 19.10.23 to 20.10.23.
- One day Seminar on Overview of IPR and patent Filing procedures conducted by IPR Cell, Saveetha Engineering College on 27.08.22.
- One day Seminar on Effective Proposal writing for funded projects conducted by Saveetha Engineering College on 26.08.22.

- Faculty Development Program on Accreditation and Outcome Based Learning from 22.08.2022 to 30.10.2022 (ongoing) conducted by Swayam NPTEL.
- International Faculty Development Program on Advanced Computational and Experimental Research in Physics-2021 from 13 - 25 September 2021 conducted by SRM Institute of Science and Technology, Chennai.
- Faculty Development Program on Virtual Labs, “PALS-VLABS 2021-22 Initiative with NITK Surathkal” from 23-Aug-2021 to 27-Aug-2021.
- International Conference on Advances in Chemistry and Materials (ICCM-21) conducted by Saveetha Engineering College, Chennai on 21&22 July 2021.
- Online Faculty Development Program on Inculcating Universal Human Values in Technical Education from 12.07.2021 to 16.07.2021 conducted by AICTE.
- Online Faculty Development Program on Application of new materials in emerging field from 24.06.2020 -30.06.2020 conducted by Sathyabama Institute of Science and Technology, Chennai,
- Online Faculty Development Program on Active Learning and advanced Scientific Computing Methods from 15.06.2020 to 19.06.2020 conducted by Loyola College, Chennai.
- Faculty Development Program on Continuing professional development for teachers on 30.10.2018 at Saveetha Engineering College
- Faculty Development Program on Skill development in research, projects and patent filling on 17.02.2018.
- Completed Faculty Development Program on Pedogogy For Online And Blended Teaching-Learning Process conducted by IIT, Bombay and Saveetha Engineering College from Sep to Oct. 2017.
- Completed Faculty Development Program on Foundation program in ICT for Education conducted by IIT, Bombay and Saveetha Engineering College from Aug. to Sep. 2017.
- ISTE short term Training Program on Engineering Physics conducted by IIT, Bombay & Saveetha Engineering College from 8/12/15 to 18/12/15.
- ISTE short term Training Program on Environment Studies conducted by IIT & Saveetha Engineering College from 2/6/15 to 12/6/15.
- ISTE Workshop on Fluid Mechanics during 20-30<sup>th</sup> May, 2014 at Saveetha Engineering College organized by IIT Kharagpur.

#### **PROFESSIONAL MEMBERSHIPS:**

- Indian Association for Crystal Growth
- International Association of Engineers (IAENG)