

<b>Name:</b>  Dr K SUBA	<b>Photo</b> 			
<b>Designation:</b>	Associate Professor			
<b>Qualification:</b>	M.Sc., M.Phil., Ph.D.			
<b>Area of specialization:</b>	Materials Science			
<b>Experience:</b>	<b>Industrial Experience</b>		<b>Teaching Experience</b>	
			19 years and 2 months	
<b>Number of workshops / FDP attended:</b>	<b>Number of Workshops</b>		<b>Number of FDPs</b>	
	3		7	
<b>Publications:</b>	<b>Conference</b>		<b>Journal</b>	
	<b>National</b>	<b>International</b>	<b>National</b>	<b>International</b>
	3	6	1	10
<b>Books / Book Chapters</b>	2			
<b>Patents:</b>	<b>National</b>		<b>International</b>	
	2			
<b>Professional Body Membership</b>	IEEE			
<b>Staff Achievements</b>	<b>*Best Poster Display I Prize:</b> Awarded on 31st August 2010 by Hindustan University. <b>*Silver Award for Best Poster Presentation on NANO 2010:</b> Achieved on 16th December 2010 at KSR, Thiruchengode.			

			<b>*Best Paper Award:</b> Won on 28th September 2019 from ESN Awards. <b>Outstanding Contribution Award:</b> Received in 2013 and 2017 from KCG College of Technology.				
Category	Name of the Degree	Specialization	Year of Passing	Name of the College	Name of the University	% of Marks / Grades obtained	Class obtained
UG	B.Sc	General Chemistry	2001	M.R.G .Arts college , Mannargudi	Bharathidasan University	68.9%	I
PG		General Chemistry	2003	T.U.K.Arts and Science College, Thanjavur	Bharathidasan University	76.1%	I
	M.Phil.	Organic Chemistry	2005	Bharathidasan University	Bharathidasan University	82.1%	I <sup>st</sup> Class Distinction
Ph.D.	Ph.D.	Material Science	2020		Bharathiar University	Commendable	

### Educational Qualifications:

### Academic Experience:

Name of the College	Designation	Joining Date	Relieving Date	Experience		
				Years	Months	Days
Periyar E.V.R Arts and Science College, Trichy.	Lecturer	19.09.2003	02.09.2005	2	2	
KCG College of technology, Chennai.	Assistant Professor	16.08.2007	19.09.2023	16		
Sri Sairam Engineering College	Associate Professor	17.12.2024	Till date	1		
<b>Total</b>				<b>19</b>	<b>2</b>	

### Workshops/Seminars attended:

- One Day Workshop on Cheminformatics, Madras Christian College (12-10-2019).
- Instrumental Methods of Analysis, NIT, Tiruchirappalli (24-01-2019 to 26-01-2019).
- Dr. V. Andal, Dr. R. Lakshmiathy, Dr. K. Suba (KCG College of Technology, Department of Science and Humanities - Chemistry). *PALS-Virtual Labs Development Initiative* (March 2023 – July 2023). *Experiment Development - Concept Stage: Conductometric Titration of Mixture of Acids vs Strong Base* (Experiment ID: NITK\_PALS\_23\_002\_1).

FDP/STTP Attended:

- **AICTE NPTEL. (October 2024). Basic Environmental Engineering and Pollution Abatement.**
- **“Integrating Cutting-Edge Technical Tools for Enhanced Research and Teaching Excellence”**, SRM Institute of Science and Technology, Ramapuram, Chennai (12/02/2024 - 27/02/2024). *Materials Science.*
- **AICTE NPTEL, Energy & Environment**, NPTEL (19/01/2024 - 27/04/2024).
- **Energy and Environment**, NITTTR Chennai (10/06/2024 - 14/06/2024). *Energy and Environment.*
- **Advanced Tools and Techniques for Research Methodology**, Research Foundation of India (03/06/2024 - 12/06/2024). *Advanced Tools and Techniques for Research Methodology.*
- **Recent Advancements in Chemistry**, Easwari Engineering College (24/06/2024 - 29/06/2024). *Materials Science.*
- **Advancements in Additive Manufacturing and Nano-Science Technologies**, SRM Institute of Science and Technology, Vadapalani campus (09/10/2023 - 14/10/2023). *Additive Manufacturing - Materials Science.*

Symposium Attended:

Conference Attended:

- **ICIATI-2020**, KCG College of Technology, AICTE (12-06-2020 to 13-06-2020). International Conference on Integration of Advanced Technologies for Industry 4.0.
- **National Conference on Chemistry Driven Clean Process and Alternate Energies (NCCP)**, Hindustan University, Chennai (07-02-2018). Presentation: *Investigation of Antimicrobial and Wound Healing Activity of Silver Nanoparticles Loaded Chitosan/Alginate Sponge.*
- **Recent Trends in Nanobiosensors**, University of Madras (22-02-2018 to 23-02-2018). Presentation: *A Review on Nanoparticles and Its Colorimetric Detection of Cation.*
- **ICONN-17**, SRM University (09-08-2017 to 11-08-2017). Presentation: *Acid Fuchsin Schiff Base-Modified Silver Nanoparticles and Its Antimicrobial Efficacy.*
- **EAPP-2016**, Sathyabama University (27-06-2016 to 29-06-2016). Presentation: *Green Synthesis, Characterization & Antibacterial Studies of Schiff Base Modified Silver Nanoparticles.*
- **NCRTAC 2016**, SRM Easwari Engineering College, Chennai (04-05-2016). Presentation: *Corrosion Inhibition Using Nanomaterials – An Overview.*
- **NCNER**, KCG College of Technology (19-03-2015 to 20-03-2015). Presentation: *Schiff Base (New Fuchsin) Functionalized Silver Nanoparticles.*
- **International Conference on Engineering and Technology**, Turyaa, Chennai (27-09-2019 to 28-09-2019). Presentation: *A Review on Nanoparticles-Based Colorimetric Detection of Toxic Ion - Chromium.*

- **NCGPNM-2014**, Hindustan University (08-01-2014 to 09-01-2014). Presentation: *Green Synthesis of Copper Nanoparticles Using the Leaf Extract of Azadirachta Indica and Ocimum Sanctum*.

Completed / Ongoing Projects:

Patent:

- **Continuous Transdermal Alcohol Monitoring Device**. Indian Patent No. 403826-001. Filed in 2024.
- **Synthesis of Nitrogen and Oxygen-Containing Heterocyclic Compounds Using Nanocatalyst and Pharmacological Evaluation for Antidiabetic Activity**. Indian Patent No. 202341079731. Published in 2023.

Journal Publications:

1. **Suba Kannaiyan**, M.G.K., Gopal, A., Lakshmipathy, R., Ali, D., & Alarifi, S. (2024). Glycine-modified chitosan-embedded nanoparticles: A green approach to Pb<sup>2+</sup> adsorption and bioactivity enhancement. *Chemical Papers*.
2. Jayanthi, G., Andal, V., Prabakaran, M., & **Suba Kannaiyan**, S. (2024). TMAB modified NiFe<sub>2</sub>O<sub>4</sub> nanoparticles for the effective removal of Eriochrome Black-T azo dye. *Bulletin of the Chemical Society of Ethiopia*, 38(6), 1569–1581.
3. Nageswara Reddy Gosu, R.R.K.S., Yadav, H., & **Suba, K.** (2024). Spectroscopic elucidation and biological evaluation of Cu<sup>2+</sup> and metal complexes derived from azomethine ligand. *Indian Journal of Natural Sciences*, 15(83).
4. Andal, V., Kannan, K., Selvaraj, V., & **Suba, K.** (2022). Plant-derived nanoparticles for heavy metal remediation. In *Phytonanotechnology* (pp. 59–76).
5. Kannaiyan, Suba., Kannan, K., & Andal, V. (2022). Green synthesis of phenothiazinium Schiff base and its nano silver complex using white as a catalyst under solvent-free condition. *Materials Today: Proceedings*, 55, 267–273.
6. **Kannaiyan, Suba.**, Easwaramoorthy, K., Kannan, K., & Andal, V. (2020). Synthesis, characterisation, and antimicrobial efficacy of fuchsin Schiff base-modified silver nanoparticles. *Nanotechnologies in Russia*, 15(11), 828–836.
7. **Kannaiyan, Suba.**, Easwaramoorthy, K., & Gopal, A. (2017). Biogenic synthesized silver colloid for colorimetric sensing of dichromate ion and antidiabetic studies. *Research on Chemical Intermediates*, 43, 2693–2706.
8. **Kannaiyan, Suba.**, Easwaramoorthi, A.G., & Gopal, A. (2016). Corrosion inhibition using nanomaterials: An overview. *International Journal of Scientific Research and Modern Education (IJSRME)*.
9. Linu, S., **Suba, K.**, & Amrutha, R. (2015). Structural and thermochemical analysis of nano-boric acid. *Advanced Materials Research*, 1086, 128–131.
10. **Kannaiyan, Suba.**, & Easwaramoorthi, A. (2015). Synthesis, characterisation, and antibacterial activities of Schiff base [New Fuchsin] functionalised silver nanoparticles. *International Journal of PharmTech Research*, 8(5), 54–60.
11. Sam, L., **Suba, K.**, & Amrutha, R. (2013). Comparative study of thermochemical properties of fluorographene at different temperatures: A computational approach. *Asian Journal of Chemistry*, 25 (Supplementary Issue), S430.

Books / Book Chapters:

- Suba, K. (2024). Pharmaceutical Chemistry. JEC Publication. ISBN: 978-93-6175-046-5. <https://doi.org/10.581/Zenodo.12737818>
- Andar, V., Kannan, K., Selvaraj, V., & Suba, K. (2022). Plant-derived nanoparticles for heavy metal remediation. In S. Dasgupta & A. K. Mukherjee (Eds.), Phytonanotechnology: Challenges and Perspectives (pp. 59–76). Elsevier.
- Dr.A.Kulasekaran & Suba.K.,(2009) Engineering Chemistry - I & II, Chemistry Lab Manual. Dhannam Publications..

Awards:

Startup:

Webinar:

- **Ethics and Values in Technical Education in the Context of National Education Policy 2020**, Centre for Value Based Education, Delhi Technological University (15/04/2021).
- **Novel Materials for Energy and Biomedical (Covid-19) Healthcare Applications**, M.Kumarasamy College of Engineering, Karur (11/05/2020).
- **Advanced Materials and Their Applications**, AUXILLIUM College (02/06/2020).
- **Digital Skills for Smart Teaching**, Annamalai University (12/06/2020).
- **3D Printing and Design**, Crescent Institute of Science and Technology (06/12/2020).

Resource Person:

Online Courses:

- **NPTEL**. (October 2024). Basic Environmental Engineering and Pollution Abatement.
- **NPTEL**, (April 2024)Renewable Energy Engineering: Solar, Wind and Biomass Energy Systems
- **NITTR Module 1** - Orientation Towards Technical Education & Curriculum Aspects
- **Module 2** - Professional Ethics & Sustainable Development
- **Module 3** - Communication Skills, Modes, and Knowledge Dissemination
- **Module 5** - Technology Enabled Learning and Life-Long Self Learning
- **Module 6** - Student Assessment and Evaluation
- **Module 8** - Institutional Management and Administrative Procedures
- **Coursera, Israel Institute of Technology**: Nanotechnology and Nanosensors, Part 1 (8 weeks)
- **Coursera, The University of Manchester**: Introduction to Molecular Spectroscopy (8 weeks)
- **Coursera, Yale**: Introduction to Climate Change and Health (4 weeks)

- **Coursera, UC Davis:** Materials Science: 10 Things Every Engineer Should Know (4 weeks)
- **Coursera, MEPHI:** Methods of Surface Analysis (4 weeks)
- **Coursera, Georgia Institute of Technology:** Material Processing (4 weeks)
- **Coursera, American Museum of Natural History:** Our Earth's Future (4 weeks)
- **Coursera, University of Copenhagen:** Air Pollution – a Global Threat to Our Health (4 weeks)
- **Coursera, Pohang University of Science and Technology:** Ferrous Technology I (4 weeks)
- **Coursera, Pohang University of Science and Technology:** Ferrous Technology II (4 weeks)
- **TATA Steel eLearning Program: Heat Treatment of Steel (Completed on 24-04-2020)**
- **ALISON, Chemistry - The Nature of Substances:**
- **ALISON, Advanced Chemistry 1:**