

<b>Name:</b> Dr. C. SELVAKUMAR	<b>Photo</b> 			
<b>Designation:</b>	Associate Professor			
<b>Qualification:</b>	M.Sc., M. Phil., B.Ed., Ph.D			
<b>Area of specialization:</b>	Medicinal Chemistry Nano Chemistry			
<b>Experience:</b>	<b>Industrial Experience</b>		<b>Teaching Experience</b>	
			18 Years 1 Month	
<b>Number of workshops / FDP attended:</b>	<b>Number of Workshops</b>		<b>Number of FDPs</b>	
	<b>18</b>		<b>10</b>	
<b>Publications:</b>	<b>Conference</b>		<b>Journal</b>	
	<b>National</b>	<b>International</b>	<b>National</b>	<b>International</b>
	<b>0</b>	<b>2</b>	<b>2</b>	<b>8</b>
<b>Books / Book Chapters</b>	<b>2</b>			
<b>Patents:</b>	<b>National</b>		<b>International</b>	
	<b>3</b>			
<b>Professional Body Membership</b>	<b>5</b>			
<b>Staff Achievements</b>	<ul style="list-style-type: none"> <li>• Curriculum and Syllabus Development</li> </ul>			

- · Outcome-Based Education (OBE) Framework
- · Lab Manual Preparation and Lab Safety Compliance
- · Student Mentorship and Research Supervision
- · Project Proposal Writing (DST, IEEE, SERB)
- · Accreditation Documentation (NBA, NAAC, ISO)
- · Online Teaching Platforms (NPTEL, Coursera content integration)

- Academic Audit Coordination
- Technical Event & Boot Camp Organization (IEEE-EPS)
- Innovation Project Evaluation (SIP, EPICS)
- Graduation Day and Project Expo Coordination
- Institutional Outreach and Admission Camp Support

## Educational Qualifications:

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	2004	Islamiah Collge	University of Madras	65%	I
PG	M.Sc	General Chemistry	2006	Islamiah Collge	Thiruvallur University	64%	I
M.Phil	M.Phil	Medicinal Chemistry	2008	Islamiah Collge`	Thiruvallur University	60%	I
B.Ed	B.Ed	Education	2012	Rajeshwari Institution	Educational Board	73%	I

## Academic Experience:

Name of the College	Designation	Joining Date	Relieving Date	Experience		
				Years	Months	Days
GGR College of Engg, Vellore	Lecturer	10.07.2007	29.05.2009	1	10	19
Ganadipathy Tulsis Jain Engg, College, Vellore	Assistant Professor	01.06.2009	30.06.2015	6	-	-
Sri SaiRam Engineering College	Assistant Professor	03.07.2015	31.08.2022	7	1	20
	Associate Professor	01.09.2022	Till date	3	02	15
				<b>18</b>	<b>1</b>	<b>12</b>

Workshops/Seminars attended: 15

FDP/STTP Attended: 20

Symposium Attended: 0

Conference Attended: 14

Completed / Ongoing Projects:	3
Patent:	3
Journal Publications:	16
Books / Book Chapters:	2
Awards :	4
Startup:	Nil
Webinar:	12
Resource Person:	NIL
Online Courses:	34

### **Workshops/Seminars:**

1. Workshop on Industry-Institution Interaction Event on Environment Management in Industrial sector-Status and Needs on 24<sup>th</sup> to 25<sup>th</sup> July 2015.
2. National seminar on “Environmental issues and sustainable development” on 11<sup>th</sup> and 12<sup>th</sup> Nov 2013 at Sri Sairam Engineering College.
3. Workshop on “Art of Journal and Thesis writing” on 19<sup>th</sup> Jan 2012 at Sri Sairam Engineering College.
4. Workshop on “Recent trends in Analytical Instrumentation” on 12<sup>th</sup> April 2005 at S.R.M. Engineering College, Kattankulathur.
5. Online Workshop on Inculcating Universal Human Values in Technical Education. AICTE, 12<sup>th</sup> to 16<sup>th</sup> October 2020.
6. DST-FIST Sponsored Virtual Workshop on “Scanning Electron Microscopy” on 5<sup>th</sup> to 6<sup>th</sup> October 2021 at Sethu Institute of Technology.
7. Workshop on “Sustainable Materials Advances and Applications”, on 22<sup>nd</sup> July 2022 at SRM Institute of Science and Technology.
8. National seminar on “NEP 2020 Implementation using Change Management Concepts in Higher Educational Institutes”, on 21<sup>st</sup> April 2022 at Sri Sairam Engineering College
9. National level workshop on, An Overview of Patents & Procedure for Protection” on 20<sup>th</sup> January 2023 at Ramco Institute of Technology.

10. National level workshop on, Applications of Amorphous and Nanostructured Magnetic Materials for Transformer core” on 28<sup>th</sup> February 2023 at SRM TRP Engineering College.
11. National level workshop on, “Societal Advancement powered by Nuclear Energy” on 2<sup>nd</sup> March 2023 at SRM TRP Engineering College.
12. National level workshop on, “Density Functional Theory” on 6<sup>th</sup> March 2023 at SRM TRP Engineering College.
13. National level workshop on, “Women in Science and Technology” on 9<sup>th</sup> March 2023 at SRM TRP Engineering College.
14. National level workshop on, “National Level Education Policy ” on 11<sup>th</sup> March 2023 at SRM TRP Engineering College
15. National level workshop on, Synthesis of Nanomaterials using Electrochemical Methods, Characterisation and Application on 26<sup>th</sup> July 2024. at Sri Sairam Engineering College.

### **FDP/STTP:**

1. Faculty development programme on “Characterization of Materials on 20<sup>th</sup> and 21<sup>st</sup> July 2017 at Sri Sairam Institute of Technology
2. Faculty development programme on “Engineering Teaching Pedagogy and Effective Learning Process”, 3<sup>rd</sup> to 7<sup>th</sup> December 2018.
3. Attended the AICTE sponsored short term training programme on “Natural Fiber Composites –Recent technology for Sustainability and Eco-friendly Environment” at Sri Sai Ram Engineering College from 24<sup>th</sup> to 29<sup>th</sup> June 2019.
4. Attended the MHRD sponsored MHRD FDP on “Recent innovation in Electrical, Electronics, Instrumentation, Automation and Teaching Pedagogy from 18<sup>th</sup> to 30<sup>th</sup> May 2020 at Sri Sairam Engineering College..
5. Attended the ATAL FDP Energy Engineering 5<sup>th</sup> to 9<sup>th</sup> October 2020, at Netaji Subhas University of Technology.
6. Attended the FDP on Recent Innovations in Electrical, Electronics, Instrumentation, Automation and Teaching Pedagogy 18<sup>th</sup> to 30<sup>th</sup> May 2020, at Sri Sairam Engineering College.
7. Attended the International FDP programme on EDUCATION 4.0 The Future Ahead, 10<sup>th</sup> to 14<sup>th</sup> August 2020. at Sri Sairam College of Engineering, Bengaluru.
8. Attended the Human Values, Ethics, Morals, Behavioural Science and Attitude by AICTE 10<sup>th</sup> to 15<sup>th</sup> Sep 2020, at KIIT college of Engineering Gurugram.
9. Online Five Days Faculty Development Program on, “:Medical Image Analysis”, on 2<sup>nd</sup> to 7<sup>th</sup> Nov 2020 at V.S.B. Engineering College.
10. Attended the Five Days International Faculty Development Program on “Nanomaterials”, on 23<sup>rd</sup> to 27<sup>th</sup> November 2021 at St. Mary’s College.
11. Attended the Face-face UHB=II FDP, organized by AICTE at Sri Sairam Engineering College, Chennai, 26<sup>th</sup> to 30<sup>th</sup> July, 2022.
12. Two Days Online Faculty Development Program on Condensed Matter Physics” on 24<sup>th</sup> and 25<sup>th</sup> January 2022 at Jamal Mohamed College
13. Five Days International Faculty Development Program on (FDP-2.0) “Recent Research in Material Physics & Nano Devices”, by IQAC, 21<sup>st</sup> to 25<sup>th</sup> November 2022 at Rajas College.
14. Online Five Days Faculty Development Program on, “Insights on Emerging Research in Chemical Science (IERCS-2022)”, 10 to 14 October 2022 at National Institute of Technology, Andhra Pradesh

15. Online Five Days Faculty Development Program on, “Advanced Materials for Energy Applications”, 9<sup>th</sup> to 13<sup>th</sup> October 2023 at Sathyabama Institute of Science and Technology.
16. Attended Five Days Faculty Development Program on Nanotechnology in Biomedical Applications”, 13<sup>th</sup> to 18<sup>th</sup> March 2023 at Karpagam Academy of Higher Education.
17. International level FDP on, “Advanced Functional Materials:Energy Environment and Sustainable Development ” on 26<sup>th</sup> February to 5<sup>th</sup> March at SRM TRP Engineering College
18. Online Two week Faculty Development Program on, “ Frontiers in Material Research, Innovations and Entrepreneurship (FMRIE’24) Advanced Materials for Energy Applications”, 25<sup>th</sup> July to 08<sup>th</sup> August 2024 at Sri Sairam Engineering College.
19. Attended Five Days Faculty Development Program on “ Recent Advancements in Chemistry”, Nanotechnology in Biomedical Applications”, 26<sup>th</sup> to 29<sup>th</sup> June 2024 at Easwari Engineering College.
20. Attended a one week Faculty Development Program on “ Advanced Research Methodology for Social Science Research”, , 27<sup>th</sup> May to 01<sup>th</sup> June 2024 at Sri Sairam Engineering College.
21. Attended six days Faculty Development on “ Smart and Sustainable Materials: Advances in Material Chemistry for Global Challenges”, 21<sup>st</sup> July 2025 to 26<sup>th</sup> July 2025 at SMR Institute of Science and Technology.
22. Attended seven days Faculty Development on “ Innovation in Chemical Technologies for Industrial Applications”, 28<sup>th</sup> July 2025 to 02<sup>nd</sup> August 2025 at Easwari Engineering College.

## **Conferences:**

1. National level Symposium on Emerging Trends in Biotechnology, Anti-bacterial Investigations of Isolated flavonoids of P.Murex on 29<sup>th</sup> and 30<sup>th</sup> Sep 2005 at Shri AndalAlagar College of Engineering.
2. National seminar on GENES TO GENOMICS, Wound healing Investigations on the Isolated Flavonoids of C.Pulcherrima on 22<sup>nd</sup> Sep 2005 at Bharath University.
3. National level seminar on “Recent Trends in Laser Spectroscopy and its Applications” on 17<sup>th</sup> Oct 2013 at Sri Sairam Engineering College.
4. JEUNES ESPRITS D'ÉVOCATION VERS L'ESPRIT D'ENTREPRISE on 8-10 Jan 2013 at Sri Sairam Engineering College
5. National level workshop on “Advancements in Chemical sciences on 18<sup>th</sup> July 2016 at Sri Sairam Institute of Technology.
6. International conference on “Mechanical, Materials and Manufacturing systems on 24<sup>th</sup> to 25<sup>th</sup> February 2016 at Sri Sairam Engineering College.
7. National conference on “Chemistry & Materials”, on 22<sup>nd</sup> March 2019 at Saveetha Engineering College.
8. National conference on “Current trends in Energy Conversion Devices and Environment 22<sup>nd</sup> to 23<sup>rd</sup> February 2019 at Selvam Arts and Science College.
9. International conference on Indo-UK International Virtual Conference on “Advanced Nanomaterials for Energy and Environmental Applications” on 16<sup>th</sup> to 18<sup>th</sup> September, 2020, at Alagappa University.

10. International conference on “Advances in Mechanical Engineering”, on 27<sup>th</sup> to 28<sup>th</sup> January 2021 at Sri Sairam Engineering College.
11. National Conference on “Emerging Materials and Nanotechnology” on 28<sup>th</sup> to 29<sup>th</sup> Feb 2020, at Thiruvalluvar Government Arts College, Rasipuram.
12. International conference on instigating Research in Materials, energy and Environment 6<sup>th</sup> to 7<sup>th</sup> Oct 2021.
13. International Virtual conference on “Chemical Research for Sustainable Development, on 24<sup>th</sup> to 25<sup>th</sup> Sep 2021 at SRM Institute of Science and Technology, Chennai.
14. National virtual conference on “Intelligent Computing and Control for Engineering and Business Systems”. ICCEBS, IEEE, Nov 2023.

## **Projects Applied**

1. Project Title: Pico/Nanometre-Sized Plant and Animal Activated Charcoal for Enhanced Filter Bed Applications in Reverse Osmosis Processes for Industrial Water Treatment  
Reference Number: DST-PN-2024/001  
Institution/Organization: Department of Science and Technology in India.
2. Project Title: Pico/Nanometre-Sized Plant and Animal Activated Charcoal for Enhanced Filter Bed Applications in Reverse Osmosis Processes for Industrial Water Treatment  
Reference Number: DST-PN-2024/001  
Institution/Organization: Department of Science and Technology in India.
3. Project Title: SAIP with Versatile BLU-F1, Water Treatment based IOT technology.  
Reference Number: SIH1361  
Institution/Organization: IEEE, USA
4. Project Title: Emerging Multifunctional Materials and Devices for Sustainable Technologies (EMMDST'24)  
Reference Number: SSY/2024/000706  
Institution/Organization: Department of Science and Technology (SERB)

## **Patent filed**

1. Patent Number: 202241058170. Topic: Graphene nanocomposites having novel hybrid compositions and method thereof. Published Date:10.10.2022. Status: Published

2. Patent Number: 202341054680, Topic: Copper and Manganese Doped Nickel Oxide Nanoparticle for Enhanced Antimicrobial and Anticancer Applications, Published Date: 1.9. 2023, Status: Published.
  - a.
3. Patent Number: 202441067848, Topic: Nanoscale Modeling: Simulating Quantum and Classical behaviors in Nanostructures, Published Date: 9.9. 20234, Status: Published

## **International:**

### **Journals :**

1. **C.Selvakumar**, V.T.Geetha, "Tunable nonlinear optical response in Zn-doped cds nonmaterial: a route to next-generation photonic devices", **Journal of Optics, Springer Nature**, 2025.
2. **C.Selvakumar**, V.T.Geetha, "Enhancing Optical and Antioxidant Functionality in Zinc Doped Nickel Sulfide Nanoparticles", **Asian Journal of Chemistry**, 2025.
3. C.Selvakumar,**V.T.Geetha**, S.Sathiyamoorthi, R.Sharan, " Third order NLO study of Manganese doped copper Sulfide Nanoparticles for Optical Evolution", **Journal of Nonlinear Optical Physics & Materials**, 2024.
4. C.Selvakumar, V.T.Geetha, "Synthesis, Characterization and Catalytic Applications of Spinal Neodymium Doping in Co<sub>3</sub>O<sub>4</sub> Nanocatalyst for conversion of styrene to benzaldehyde", **Journal of Reaction Kinetics, Mechanisms and Catalysis** 2024.
5. V.T.Geetha, **C.Selvakumar**, S.Shravan kumar,S.Gopinath,C.Ragupathi and A.Rajendiran "Effect of morphological and particle size on the physical properties of Sr doped cobalt chromite for catalysis application", **Chemistry of Inorganic Materials**, 2024, 100058.
6. Kumaresan Lakshmanan, **Selvakumar Chidambaram** and Shanmugavelayutham, High-Performance Super capacitor with Plasma-Assisted AlN and Graphitic Carbon Nitride Composite Electrode, **ACS Applied Electronic Materials**, 2024.
7. V T Geetha, **C. Selvakumar**, Heterogeneous Catalyst of pure and Sr doped cobalt chromite styrene selective oxidation to benzaldehyde, **Journal of Cluster Science, Springer Journal**, 2024.
8. L. Kumaresan, **C. Selvakumar**, G. Shanmugavelayutham and K. Jayasankar, Fabrication of carbon-coated chromium nitride (CrN@C) and chromium oxynitride (CrON) nanoparticles by a thermal plasma technique for supercapacitor applications, **New Journal of Chemistry, Royal Society of Chemistry**, 2023 3,48.

9. **C.Selvakumar** , V.T.Geetha C. Govindaraju and T. Amirthavarshini, Optical And Anti-Oxidant Applications of Zinc Sulfide Doped Nano Biomaterial, **ICCEBS, IEEE**, 2024.
10. V.T.Geetha, **C.Selvakumar** , C. Govindaraju and T. Amirthavarshini, Optical And Anti-Oxidant Applications of Zinc Sulfide Doped Nano Biomaterial, **ICCEBS, IEEE**, 2024.
11. **C. Selvakumar**, A. Fiaz Ahamed, V.T. Geetha, Enhanced Transparency and Antibacterial Activity of Silver Doped Cadmium Sulfide Nanoparticles, AIP Conference Proceedings, 2020, 2464, 020006.
12. **Selvakumar, C**, Deepa, M, Optical and anti-oxidant application of zinc doped cadmium sulfide nanoparticles, **Indian Journal of Chemical Technology**, 2020, 27, 9-17.
13. **Selvakumar, C.**; Deepa, M.; Microwave-assisted synthesis of silver doped with cadmium sulphide using capping agent, **Nano Science and Nano Technology- an Indian Journal**, 2016, 10, 001-006.
14. **Selvakumar, C**, Deepa, M, Synthesis and characterization of silver-cadmium sulphide nanoparticles using wet chemical route, **International Journal of Chem.Tech**, 2015, 7, 2675-2680.

## Book Chapter

1. **Dr. V.T. Geetha**, Dr. C. Selvakumar and T. Amirthavarshini, Green Synthesis, Properties And Catalytic Applications Of Fe<sub>3</sub>O<sub>4</sub> Nano Materials For Sustainable Development, Emerging Trends in Business and Technology for sustainable Development, Wisdom Publication, ISBN- 978-81-956844-1-0, pp. 151-158, 2022
2. C.Selvakumar and **V.T.Geetha**, Synthesis, Characterization and Application of Bimetallic Sulfide Nanocomposites for need of Sustainable Development, Emerging Trends in Business and Technology for sustainable Development, Wisdom Publication, ISBN- 978-81-956844-1-0, pp. 35-50, 2022.

## Awards:

- Received best Faculty Award from Tech Forum Research Foundation on 20.3.2024.
- Ideathon Appreciation Award.
- Top 100 Mentos of Atal Tinkerpreneur 2023.
- Anna University Recognized Supervisor in Chemistry.
- Editorial Board member in Nanoscience and Nanometrology

## Webinar:

1. Webinar Series on “Research “, VISTAS, 22<sup>nd</sup> June to 24<sup>th</sup> June 2020.
2. Online Webinar on “Recent trend in Covid-19, Diagnosis and Management” , VISTAS, 3<sup>rd</sup> June2020.
3. National level webinar on “ Watershed Prioritization”, VMRF, on 30th May 2020

4. International level webinar on “Influence of Electromagnetic Theory in 5G Applications”, Sri Sairam Engineering College, 31<sup>st</sup> October, 2020.
5. International Webinar on “Natural Products and Drug Development”, at Crescent Institute of Science and Technology, Chennai on 4<sup>th</sup> to 6<sup>th</sup> October 2021
6. Webinar on “Magnetic Nanocarriers for Enhanced Enzyme Activity”, at Prathyusha College of Engineering, Chennai, on 30<sup>th</sup> May 2020
7. National level webinar on “Environment and Cancer”, at Arasu Engineering College, Kumbakonam, 3<sup>rd</sup> Feb 2021.
8. Webinar on “Intellectual Property Rights with Focus on Patent in Mathematics”, Sri Sairam Engineering College, 3<sup>rd</sup> Feb 2021
9. International Webinar on “Surface Chemistry and Catalysis”, on 16<sup>th</sup> December 2021.
10. Webinar on “Raman Spectroscopy and its Applications in Materials Science”, on 28<sup>th</sup> January 2022
11. National Webinar on,” Two Dimensional Materials: Graphene and Beyond”, at Sathyabama Institute of Science and Technology, on 28<sup>th</sup> March 2022.
12. Webinar on “Nanomaterials and their Applications”, at Bharath University on 30<sup>th</sup> November 2022.

## **ON - LINE COURSES**

1. Completed one online course (NPTEL-**Manufacturing of composites**)” Eight weeks, Successfully completed with “**Elite**” category, along with FDP 2018.
2. Udemy : Complete General Chemistry, 10<sup>th</sup> July 2020-08-14
3. Simpli Learn: Introduction to IOT, 05<sup>th</sup> April 2020
4. Simpli Learn: Introduction to Cybersecurity, 07<sup>th</sup> April 2020
5. Coursera: Introduction to Psychology, 19<sup>th</sup> May 2020
6. Coursera: Gmail.The foundation to Accessing Google Apps, 19<sup>th</sup> May 2020
7. Coursera: Spreadsheet for Beginners using Google Sheet, 19<sup>th</sup> May 2020
8. Coursera: Create Informative Presentation with Google Slides, 19<sup>th</sup> May 2020
9. Coursera: The Sustainable Development Goals-A global, transdisciplinary vision for the future, 19<sup>th</sup> June2020.
10. Coursera : Grow to Greatness: Smart Growth for private Business Part I, 19<sup>th</sup> June2020
11. Coursera : Grow to Greatness: Smart Growth for private Business Part II, 19<sup>th</sup> June2020
12. Coursera :The Holocaust- An Introduction(1): Nazi Germany: Ideology, The Jews and the world, 19<sup>th</sup> June2020
13. Coursera : Ecology: from cells to Gaia, 19<sup>th</sup> June2020
14. Coursera : Beyond the Sustainable Development Goals: Addressing Sustainability and Development, 18<sup>th</sup> June2020

15. Coursera: Social Psychology, 09<sup>th</sup> June 2020.
16. International Virtual Seminar on, “Advances in Chemical Science”, at Vivekananda College of Arts and Sciences for Women on 8<sup>th</sup> March 2021
17. Attended Training Program on National Intellectual Property Awareness Mission at Intellectual Property Office on 18<sup>th</sup> April 2022.
18. Completed on, “Scientific Writing and Health Research”, National Institute of Epidemiology, on 20<sup>th</sup> May 2022.
19. Completed one online course (NPTEL- Introduction to Environmental Engineering and Science - Fundamental and Sustainability concepts) of twelve weeks with the elite category along with FDP.
20. Scouts: A Journey to Growth 20<sup>th</sup> June 2024.
21. Scouts: Blended Learning 28<sup>th</sup> June 2024.
22. Scouts: Growing Together (Understanding the growth context) 28<sup>th</sup> June 2024
23. Scouts: How healthy is my screen time? 28<sup>th</sup> June 2024
24. Completed one online course (NPTEL-Technologies for clean and Renewable Energy Production)” Eight weeks, Successfully completed with “**Elite with Silver**” category, along with FDP 2024.
25. Completed one online course (NPTEL-Physics of Renewable Energy Systems” Twelve weeks, Successfully completed with “**Elite**” category, along with FDP 2024.
26. Completed one online course (NPTEL-Basic Environmental Engineering and Pollution Abatement)” Twelve weeks, Successfully completed with “**Elite with Silver**” category, along with FDP 2024.
27. Completed one online course (NPTEL-Sustainable Engineering concept and Life cycle Analysis)” Twelve weeks, Successfully completed with “**Elite**” category, along with FDP 2025.
28. Completed “Panchayat Administration and Rural Development Schemes”, State Institute of Rural Development and Panchayat Raj, 2025
29. Completed, Social Emotional Education: Knowledge to Practice (SEEK), 2025.

### **NITTTR Courses:**

1. Module: 1 - Orientation towards Technical Education and Curriculum Aspects, February 2023.
2. Module: 2 - Professional Ethics & Sustainability, February 2023.
3. Module: 3 - Communication Skills, Modes and Knowledge Dissemination, September 2021.
4. Module: 4 - Instructional Planning and Delivery, February 2023.
5. Module: 5 - Technology Enabled Learning & Life Long Self Learning, July 2022.
6. Module: 6 - Student Assessment and Evaluation, February 2023.
7. Module: 7 - Creative Problem Solving, Innovation and Meaningful R&D, February 2023.
8. Module: 8 - Institutional Management & Administrative Procedures, February 2023.

## **Professional Membership**

- Life Member, Indian Society for Technical Education
- Member, IEEE from 2020.
- Life Member, Asian Chemical Society
- International Association of Academic plus Corporate Society - [IAAC]