

**Sri Sai Ram Engineering College**  
**Department Of Humanities And Sciences**

*Name :* **Dr. K. SELVARAJU**



*Designation :*

*Associate Professor*

*Qualification :*

*M.Sc. M. Phil. Ph.D.,*

*Area of Specialization*

*Synthetic Organic Chemistry and Physical Chemistry*

*Experience :*

*Teaching : UG : 9 Years and 9 Months*

*PG : - Years*

*Industry : 7 Years and 10 Months*

*No. of Workshops / Conferences/ FDP / Webinar attended*

**5 / 14 / 21 / 15**

*Publications :*

**Journals**

*International : 14*

*National : 1*

*Patents : 4*

**Conferences**

*National : 7*

*International : 7*

*Research Supervisor :*

*Anna University and Bharathiar University*

*Research Guidance :*

*Guiding two Ph.D students*

*Staff Achievements :*

- *Achieved 100% result in Engineering Chemistry-I, Achieved 100% result in Engineering Chemistry-II.*
- *Achieved 100% result in Engineering Chemistry, Achieved 100% result in Environmental Science and Engineering in many times.*

### Educational Qualification:

Category	Name of the Degree	Specialization	Year of Passing	Name of the college	Name of the University	% of Marks / Grades	Class Obtained
UG	B.Sc	General Chemistry	01/04/1998	Kandaswamy Kandar's college	Madras University	71.83 %	First class
PG	M.Sc	General Chemistry	01/06/2000	Kandaswamy Kandar's college	Periyar University	67.20 %	First class
	M.Phil	Physical Chemistry	01/02/2002	--	Annamalai University	64.80 %	First class
Research	Ph.D	Organic Chemistry	01/06/2005	--	Annamalai University	--	--

### Academic Experience:

Name of the College	Designation	Joining Date	Relieving Date	Experience		
				Years	Months	Days
Sri Sairam Engineering College	Associate Professor	01/06/2019	Till Date	2	9	0
Sri Sairam Engineering College	Assistant Professor	01/06/2013	31/05/2019	7	0	0
<b>Total</b>				<b>9</b>	<b>9</b>	<b>0</b>

### Industrial Experience:

Name of the organization	Designation	Nature of work	Joining Date	Relieving Date	Experience		
					Years	Months	Days
Apex Laboratories limited	Executive	Analytical R&D	11/07/2005	28/02/2007	1	7	22
Neuland laboratories Limited	Assistant manager	Synthetic R & D	02/03/2007	05/01/2011	3	10	10

<i>Piramal Enterprises limited</i>	<i>Research scientist</i>	<i>Synthetic R&amp;D</i>	<i>07/01/2011</i>	<i>28/05/2013</i>	<i>2</i>	<i>4</i>	<i>22</i>
<b>Total</b>					<b>7</b>	<b>10</b>	<b>19</b>

## PUBLICATIONS

### Journals:

#### International:

1. A. Kishore babu, **K. Selvaraju**, "Design, synthesis, characterization, and antimicrobial studies of novel 1, 3, 5-Trisubstituted Pyrazoline derivatives" **NeuroQuantology**, Volume20, Issue 10, 3277-3294, **August 2022**.
2. A. Kishore babu, **K. Selvaraju**, "Synthesis, biological evaluation and docking studies of novel chalcone derivatives as antimicrobial agents", **Materials Today: Proceedings**, Vol.48, 382-386, **2022**.
3. A. Kishore babu, **K. Selvaraju**, "Synthesis and characterization of some novel chalcone derivatives", **Rasayan Journal of chemistry**, Vol.11, No.4, 1501-1505, **2018**.
4. **K. Selvaraju**, A. Manimekalai, "Conformational studies of some N-acyl-3- Ethyl Piperidin-4-ones' ", **Rasayan Journal of chemistry**, Vol.11, No.3, 962-966, **2018**.
5. **K. Selvaraju**, A. Manimekalai, "Synthesis and spectral characterization of some novel N-acyl piperidin-4-ones", **Rasayan Journal of chemistry**, Vol.10, No.1, 25-31, **2017**.
6. **K. Selvaraju**, A. Kishore babu, "Synthesis, Spectral and Conformational studies of some Nacyl-t(3)-methyl-r(2),c(6)-bis-(2'-furyl)piperidin-4-ones", **International Journal of ChemTech Research**, Vol.8, No.7, pp 363-372, **2015**.
7. A. Manimekalai, T. Maruthavanan, **K.Selvaraju**, "DFT and experimental prediction of negative chemical shifts of methyl protons in some piperidines", **Spectrochimica acta. Part A, Molecular and biomolecular spectroscopy.**, 97, 942-947, **2012**.
8. A. Manimekalai, T. Maruthavanan, **K.Selvaraju**, "Unexpected shielding of methyl group protons in some piperidines" **Magn. Reson. Chem.**, 46; 256-260, **2008**.
9. A.Manimekalai, **K.Selvaraju**, and T.Maruthavanan., "Conformational studies of some N-acyl-t(3)-isopropyl-r(2),c(6)-bis(2'-furyl)piperidin-4-ones., **Indian Journal of Chemistry**, Vol. 46B,160-169,**2007**.
10. A. Manimekalai, T. Maruthavanan, **K.Selvaraju**, Ibon Alkorta "Benzyl group conformation in some 4-benzyl-4-hydroxypiperidines", **Journal of structural chemistry**, Vol. 48, Issue no.6,1036-1045, **2007**.
11. S.Balamurugan, A.Thiruvalluvar, A.Manimekalai, **K.Selvaraju.**, T.Maruthavanan., "1-acetyl-r(2),c(6)-di-2-furyl-3,5-dimethylpiperidin-4-one.", **Acta crystallographica section E**, 789-791, E63, **2007**.
12. S.Balamurugan, A.Thiruvalluvar, A.Manimekalai, **K.Selvaraju.**, T.Maruthavanan., N-benzoyl-r(2), c(6)-di-2'-furyl-t(3)-methylpiperidin-4-one., **Acta crystallographica section E**, E63,2909, **2007**.

13. S.Balamurugan, A.Thiruvalluvar, A.Manimekalai, **K.Selvaraju**, T.Maruthavanan., "1-acetyl-3-ethyl-piperidin-4-one.", **Acta crystallographica section E** E62, 2005-2006, **2006**.
14. N.Ashok kumar, L.Pari, A.Manimekalai, **K.Selvaraju**, "Effect of N-benzoyl-D-phenylalanine on streptozotocin induced changes in lipid and lipoprotein profile in rats", **Journal of Pharmacy and Pharmacology**, 57, 359-366, **2005**.

#### **National:**

1. A. Manimekalai, T. Maruthavanan, **K.Selvaraju**, "Synthesis and Spectral Studies of Some 4-hydroxy-4-methylpiperidines" **Chemical Science Review and Letters**, 2(7), 580-587, **2014**.

#### **Patents:**

1. Publication Number : **202241059048** Topic : A formulation based on pyridine derivative and preparation method thereof, Publication Date : **28.10.2022**.
2. Publication Number: **EP 2640711 A2** Topic: Improved process for the preparation of Rufinamide, Publication Date: **September 25, 2013**, Granted date: **14.10.2015**.
3. Publication Number: **US 20130184469 A1** Topic: Process for preparation of Rufinamide, Publication Date: **July 18, 2013**, Granted date: **28.10.2014**.
4. Publication Number: **WO 2012025936 A2** Topic: Improved process for the preparation of Rufinamide, Publication Date: **April 19, 2012**.

#### **Book chapter**

1. CONFORMATIONAL STUDIES OF N-ACYL-PIPERIDIN-4-ONES Dr. K. Selvaraju, Mr. A. Kishore Babu, Dr. M.K. Raman. *NEW GLOBAL BUSINESS, SCIENCE AND TECHNOLOGY*. ISBN: 978-81-958752-6-9
2. *Chemical and Biological Significance of Chalcones and its Derivatives*- Mr. A. Kishore Babu, Dr. M.K. Raman and Dr. K. Selvaraju *CHALLENGES AND OPPORTUNITIES IN NEW GLOBAL BUSINESS, SCIENCE AND TECHNOLOGY*. ISBN: 978-81-958752-6-9
3. *TREATMENT OF TEXTILE DYES BY SUSTAINABLE METHOD – AN ADSORPTION WITH NATURAL MATERIALS* Dr. M.K. RAMAN Dr. K. SELVARAJU Mr. A. KISHORE BABU Mr. M.J. RAMASWAMY. *CHALLENGES AND OPPORTUNITIES IN NEW GLOBAL BUSINESS, SCIENCE AND TECHNOLOGY*. ISBN: 978-81-958752-6-9

#### **Conferences:**

1. Presented a paper on, "Conformational studies of some *n*-acyl-3-methylpiperidin-4-ones" in International conference (AICASSETM'22), organized by **Alpha College of Engineering, Thirumazhisai, Chennai, September 23, 2022.**
2. Presented a paper on, "Synthesis, Characterization and conformational studies of some Heterocyclic Compounds" in National conference on Chemical Sciences for Futuristic advancement, organized by **Easwari Engineering College, Ramapuram, Chennai-89, September 1-2, 2022.**
3. Presented a paper on, "Spectral and Conformational studies of some *N*-acyl-*t*(3)-methyl-*r*(2),*c*(6)-di-(2'-furyl)piperidin-4-one oximes" in International conference on Recent Trends in Chemical Sciences, organized by **SRM Institute of Science and Technology, Ramapuram campus, Chennai-89, September 24-25, 2021.**
4. Presented a paper on, "Conformational studies of some novel piperidin-4-one oxime derivatives" in International conference on Recent Trends in Chemical Sciences, organized by **Easwari Engineering College, Ramapuram, Chennai-89, October 6-7, 2021.**
5. Presented a paper on, "Spectral and Conformational studies of some novel *N*-acyl-*t*(3),*t*(5)-dimethyl-*r*(2),*c*(6)-di-(2'-furyl)piperidin-4-ones" in International conference on Recent Trends in Chemical Sciences, organized by the **Indian Chemical Society, December 26-29, 2020, Kolkatta.**
6. Attended a International Virtual Conference on "Super Capacitors and Batteries for Future Avenues" conducted during 8 - 9<sup>th</sup> September 2020 at **Bharthidhasan University, Tiruchirappalli.**
7. Attended a National Conference on "Current Trends in Energy Conservation Devices & Environment" held at Selvamm Arts and Science College (Autonomous), Department of Chemistry, **Periyar University, Namakkal, February 22-23, 2019.**
8. Presented a paper on, "Spectral and Conformational studies of some novel *N*-acyl-*t*(3),*t*(5)-dimethyl-*r*(2),*c*(6)-di-(2'-furyl)piperidin-4-ones" in International conference on Science, Engineering and Technology, May 2-3, 2017 organized by **VIT, Vellore.**
9. Presented a paper on, "Synthesis and Conformational studies of some novel *N*-acyl-*t*(3)-alkyl-*r*(2),*c*(6)-bis-(2'-furyl)piperidin-4-one oximes", in 3<sup>rd</sup> national level seminar on "The concepts of green chemistry" March 27, 2017 organized by Department of Chemistry, **Valliammi Engineering College, Chennai. (Best oral presentation award).**
10. Attended a National Conference on "Recent Advances in Chemical Research" held at University college of Science, **Osmania University, Hyderabad, February 6-7, 2009.**
11. Presented a paper on, "Influence of A<sup>1,3</sup> strain in some *N*-Acyl-*r*(2),*c*(6)-bis(2'-furyl)-3-alkylpiperidin-4-one oximes" The 94<sup>th</sup> Indian Science Congress held at **Annamalai**

**University, Annamalainagar from January 3 to 7, 2007.**

12. Presented a paper on, Conformational studies of some N-benzoyl-r(2),c(6)-di-2'-furylpiperidin-4-ones. CRSI Seminar on Recent Advances in Chemistry, **Annamalai University, Annamalainagar, March 10-11, 2006.**
13. Presented a paper on, Influence of A<sup>1,3</sup> strain on the conformations of some N-Acetyl-2,6-di-2'-furylpiperidin-4-ones. Chemists' Meet 2004, **IIT, Madras, Chennai, March 26 - 27, 2004.**
14. Presented a paper on Conformational analysis of some N-Formyl-2,6-di-2'-furylpiperidin-4-ones. Current Trends in Chemistry, **Annamalai University, Annamalainagar, March 24-25, 2004.**

### **Workshops:**

1. Attended a International level workshop on "Improving research and performance outcomes" organized by Elsevier's zoom webinar, held on **31.08.2021 to 01.09.2021.**
2. Attended a National level workshop on "Socially relevant technical Education: Exploring co-operation Oriented action" organized by **NITTTR, Chennai, held on 6<sup>th</sup> & 7<sup>th</sup> Dec-2019.**
3. Attended a one day workshop on "Intellectual property rights & innovations" by Department of Research & Development, **Sri Sairam Engineering College, Chennai, held on 20<sup>th</sup> July 2019.**
4. Attended a National level workshop on "Advancements in Chemical Sciences" organized by Department of Chemistry, **Sri Sairam Institute of Technology, Chennai, held on 18th July 2016.**
5. Attended a workshop on "Modern Analytical Techniques: A Practical Training" organized by Industry Institute partnership cell, Department of Pharmacy in association with the Pharmaceutical Manufacturers' Association of Tamil nadu, **Annamalai University, Annamalainagar, March 26-27, 2005.**

### **FDP:**

1. Attended 5 Days Faculty Development programme on "Universal Human Values" organized by **All India Council for Technical Institution at Sri Sairam Engineering College, Chennai held from 26.07.22 to 30.07.22.**
2. Attended 5 Days Faculty Development programme on "Inpod's faculty development program on advanced concepts of outcome based education" organized by **Inpod's India Private Limited, Pune held from 04.04.22 to 08.04.22.**
3. Attended a National level FDP on "Outcomes-based Teaching, Assessments and

*Evaluation” organized by **Impods Ed - tech**, held on **17.09.2021**.*

4. *Attended 5 Days ATAL Faculty Development programme on “Renewable Energy for Industry & Domestic Applications” organized by **Jawaharlal Nehru Technological University Anantapur College of Engineering, Pulivendula** held from **06.09.21 to 10.09.21**.*
5. *Attended 5 Days Faculty Development programme on “Current Technology in Chemistry” organized by **Easwari Engineering College, Chennai** held from **23.08.21 to 27.08.21**.*
6. *Attended 5 Days ATAL Faculty Development programme on “Environment, Energy, Health and Safety: Trends & Industrial Aspects” organized by **Karmaveer Kakasaheb Wagh Polytechnic, Nashik** held from **17.05.21 to 21.05.21**.*
7. *Attended one week online AICTE – RGPV Teachers Training Programme on “Artificial Intelligence in Pharmaceuticals : Contemporary Status & Impending Prospects” organized at **Chameli Devi Institute of Pharmacy, Indore** held from **15.02.21 to 20.02.21**.*
8. *Attended 5 Days ATAL Faculty Development programme on “Waste Technology” organized by **Dr. M.G.R. Educational and Research Institute, Chennai** held from **26.10.20 to 30.10.20**.*
9. *Attended 5 Days ATAL Faculty Development programme on “Stress Management” organized by **Maulana Azad National Urdu University Polytechnic, Hyderabad** held from **02.11.20 to 06.11.20**.*
10. *Attended 5 Days ATAL Faculty Development programme on “Training for Social Connectedness & Inspiration” organized by **Sri Venkateshwara College of Engineering, Bangaluru** held from **14.12.20 to 18.12.20**.*
11. *Attended 5 Days ATAL Faculty Development programme on “Personal Effectiveness” organized by **Birla Institute of Technology, Jharkhand** held from **05.01.21 to 09.01.21**.*
12. *Attended 5 Days Faculty Development programme on “Chemistry in Medicine and materials Science” organized by the Department of Chemistry, School of Sciences, **National Institute of Technology, Andhra Pradesh** held from **21.09.20 to 25.09.20**.*
13. *Attended 5 Days Faculty Development programme on “Education 4.0 The Future Ahead”, conducted by **Sri Sairam College of Engineering, Bangaluru** held from **10<sup>th</sup> to 14<sup>th</sup> Aug’-2020**.*
14. *Attended 3 Days Faculty Development programme on “Frontiers in Chemistry” conducted by **St. Joseph’s College of Engineering, Chennai** held from **16.09.20 to 18.09.20**.*
15. *Attended 5 Days Faculty Development programme on “Applications of Advanced*



*materials and Technologies in Chemical Science” conducted by **Easwari Engineering College, Chennai** held from **31.08.20 to 04.09.20**.*

16. *Attended 3 Days Faculty Development programme on “Advancements in Applied Chemistry” conducted by **St. Joseph’s College of Engineering, Chennai** held from **06.07.20 to 08.07.20**.*
17. *Attended 10 Days Faculty Development programme on “Waste water treatment and recycling”, conducted by **The Ministry of HRD, Govt. of India** online NPTEL – AICTE Course, **2019**, Roll No: NPTEL19CE32541212231.*
18. *Attended 6 Days Faculty Development programme on “Working culture for Professionals”, conducted by **Sri Sairam Engineering College, Chennai** held from **11<sup>th</sup> to 16<sup>th</sup> NOV-2019**.*
19. *Attended 10 Days Faculty Development programme on “Industrial Inorganic Chemistry”, conducted by **The Ministry of HRD, Govt. of India** online NPTEL – AICTE Course, **2019**.*
20. *Attended 3 Days Faculty Development programme on “Infrared Spectroscopy for Pollution Monitoring”, conducted by **The Ministry of HRD, Govt. of India** online NPTEL – AICTE Course, **2018**, Roll No: NPTEL18CH24511180538.*
21. *Attended 2 Days Faculty Development Programme on “Characterization of Materials” organized by Department of Physics, **Sri Sairam Institute of Technology, Chennai** held on 20th & 21st July **2017**.*

## **Webinar:**

1. *Attended webinar on “**Yoga – Boosting our Immunity**” organized by Sir Theagaraja college (Shift – II) held on 18.09.21.*
2. *Attended webinar on “**Teacher’s E-Kit: A Four Quadrant Approach for development of OERs for Higher Education**” organized by Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNTT) of Ministry of Education held on 09.09.21.*
3. *Attended webinar on “**The Importance of Data Visualization**” organized by Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNTT) of Ministry of Education held on 10.08.21.*
4. *Attended webinar on “**Ionic liquids as Environmental Benign Solvents for sustainable developments**” organized by Rasayan Journal of Chemistry held on 24.02.21.*
5. *Attended webinar on “**Criteria 3 NBA Accreditation**” organized by In Pods Ed-tech*

held on 28.01.21.

6. *Attended International webinar on “Renewable Energy Sources” conducted by Department of Chemistry, SRM Valliammai Engineering College, Chennai on 18<sup>th</sup> December 2020.*
7. *Attended a National webinar on “Recent Trends in Modern Chemistry” organized by the Department of Organic Chemistry, Sri Padmavathi Mahila Visvavidyalayam (Women’s University) held on 28<sup>th</sup> Nov. 2020.*
8. *Attended webinar on “Ionic liquids as Environmental Benign Solvents for Sustainable Developments’, organized by Rasayan Journal of Chemistry, held on 24.02.2021.*
9. *Attended webinar on “Waste Management Strategies” organized by Hindusthan College of Engineering and Techno.ogy, Coimbatore held on 31.05.2020.*
10. *Attended webinar on “Computational Chemistry on Biofuel Development” organized by St. Joseph’s College of Engineering, Chennai held on 16.07.2020.*
11. *Attended webinar on Leadership Talk organized by MHRD’s Innovation Cell held on 13.06.20.*
12. *Attended webinar on Leadership Talk organized by MHRD’s Innovation Cell held on 06.06.20.*
13. *Attended webinar on Leadership Talk organized by MHRD’s Innovation Cell held on 08.06.20.*
14. *Attended webinar on “R&D Proposal Writing” organized by Sri Sairam Engineering College held on 12.06.20.*
15. *Attended webinar on “CO-PO Attainment Computation and Outcomes Analysis” organized by In Pods Ed-tech held on 01.06.20.*