Dr. N. SENGOTTUVELAN, M. Sc., B. Ed., Ph. D

Associate Professor of Chemistry

Directorate of Distance Education

Alagappa University, Karaikudi – 630 003, Tamil Nadu, INDIA

Contact Phone (Mobile) : +91 9488260744

Contact e-mail(s) : nsvelan1975@yahoo.com, <u>nsvelan@gmail.com</u>

University Email ID : <u>svelann@alagappauniversity.ac.in</u>

Scopus Author ID : 7801573781 | ORCID ID: 0000-0002-2400-8467; Vidwan-ID: 68019

Universityweb: https://alagappauniversity.irins.org/profile/68019#personal information panel

Academic Qualifications: M.Sc., B. Ed., Ph.D.

Post-Doctoral fellow Pusan National University, South Korea

2007-2008 Supervisor Prof. Young-Inn Kim

Ph.D. Department of Inorganic Chemistry, University of Madras, Chennai, India

1999-2007 Supervisor: Prof. M. Kandaswami

B. Ed., University of Madras, Chennai, India

1997-1998

M. Sc., Department of Analytical Chemistry, University of Madras, Chennai, India

1995-1997

Teaching Experience: 14 Years

Research Experience: 19 Years

Additional Responsibilities

- 1. Co-coordinator, M. Sc., Chemistry, Personal Contact Program, Directorate of Distance Education, Alagappa University.
- 2. Chairperson- M. Sc., Chemistry Directorate of Distance Education
- 3. University Representative: Visited various examination centers in India to oversee the conduct of Alagappa University Distance Education Examinations (May 2009 onwards).

Areas of Research

- 1. Bio-Inorganic Chemistry,
- 2. Material Chemistry
- 3. Organic Light emitting diodes

Research Supervision / Guidance

Progra	m of Study	Completed	Ongoing
Research	Ph.D.	05	04
	M.Phil.	07	-
Project	PG	26	-



Publications						
Inte	ernational		National	Others		
Journals	Conferences	Journals	Conferences	Books / Chapters / Monographs / Manuals		
57	10	3	30	04		

Cumulative Impact Factor (as	96.97	
h-index	:	20
i10 index	:	26
Total Citations	:	1200

Funded Research Projects

Agency		Period		Project Title	Budget (Bo. In
	Agency	From	То	r roject ritte	(Rs. In lakhs)
1	Alagappa University Research Fund, (AURF)	2011		Ferrocene grafted hydroxy terminated poly butadiene (Fc-HTPB): Burningr ate evaluation studies as ballistic modifier in high energy rocket propellant binder.	0.64
2	DST- Fast Track project	2010	2013	Metallonuclease activity and structural analysis of binuclear metal complexes of pendant functionalized tetraazamacro cyclic ligand	16.00
3	UGC-MRP	2011	2014	Development of High-Efficiency Phosphorescent Cationic Iridium (III)Complexes for Organic Light Emitting Devices	12.15
4	DST-Women Scientist Scheme A – mentor	2017	2020	Luminescent cyclometalted iridium(III) complexes and its application in protein/DNA interaction, cytotoxicity and cellular uptake properties	25.35
5	ICMR	2019	2021	Ferrocene conjugated macrocyclic transition metal complexes as photosensitizer for photodynamic therapy	33.98
6	RUSA 2.0, Alagappa University	2019	2021	Sustainable energy and sensor	3.35

DDE Course materials prepared

- ➤ Prepared Alagappa University Course material Instrumental Methods II for post graduate diploma in Instrumental Methods of Analysis
- > Prepared Alagappa University Course material Practical Paper for post graduate diploma in Instrumental Methods of Analysis.
- ➤ Prepared Alagappa University Course material Advanced Inorganic Chemistry for M. Sc., Chemistry
- > Prepared Alagappa University Course material –Inorganic Chemistry Practical Manual

Events organized in leading roles

Number of Seminars / Conferences / Workshops / Events organized:

- 1. Acted as Organizing Secretary in the National workshop on "Expansion and Enrichment of Distance Learning" [EEDL 2012], in the Directorate of Distance Education, Alagappa University, Karaikudi held on March, 27-28, 2012.
- 2. International Webinar on "Strategic Approach in Chemistry" Department of Chemistry, DDE, Alagappa University, Karaikudi

Events Participated

Conferences / Seminars / Workshops: 35

Other Training Programs:

- 1. Participated Orientation Course for College and University Teachers held at Bharathidasan University, Tiruchirappalli between 09.11.2010 to 06.12.2010.
- 2. Participated Refresher Course in Chemistry for College and University teachers held at Bharathidasan University, Tiruchirappalli between 20.11.2012 to 10.12.2012.
- 3. Refresher Course in Chemistry for College and University teachers held at Bharathiar University, Coimbatore between 15.07.2016 to 04.08.2016.
- 4. Short Term Course in MOOCs, E-Content, Development and Open educational Resources, held at Bharathidasan University, Tiruchirappalli between 15-02-2019 to 21-2-2019.
- 5. Short Term Course in Curriculum Development & Evaluation, held at Bharathidasan University, Tiruchirappalli between 07.01.2020 to 13.01.2020.

Overseas Exposure / Visits

- 1. Visited as Post-Doctoral Researcher to Pusan National University, Pusan, South Korea from May 2007 to December 2008.
- 2. Participated in 6th International Conference in Biosensing Technologies 2019 at Malaysia, 16th -19th June -2019.

Membership in

Professional Bodies

- 1. Life Member: Indian Society for Analytical Chemists (ISAC), Mumbai.
- 2. Life Member: Indian National Science Congress

Academic Bodies (such as Board of Studies etc.,)

- 1. Member Board of Studies: M. Sc., Chemistry, Directorate of Distance Education, Alagappa University
- 2. Member Board of Studies: M. Sc., Chemistry, Department of Industrial Chemistry, Alagappa University
- 3. Member Board of studies: DDE, B.Sc., Zoology, Allied chemistry, Directorate of Distance Education, Alagappa University.
- 4. Member Board of Studies. M. Sc., Chemistry, Pope's College, Thoothukudi, Tamilnadu.

Distinctive Achievements/ Awards

- ➤ **Junior and Senior Research Assistant** awarded by Indian Space Research Organization (ISRO), Bangalore, India (1999 2003).
- Research Fellow awarded by Science City, Government of Tamil Nadu, Chennai (2004 2006).
- **Post-Doctoral Fellowship,** awarded by Pusan National University (May, 2007 December, 2008).
- > DST -FAST track young scientist award in year 2009.
- > Fellow of The Academy of Sciences, Chennai
- Alagappa University, Karaikudi, Tamil Nadu, India **Vallal Alagappar Research Recognition Award** -2020.
- ➤ Promising Researcher Award -2022- Excellence in Research at Alagappa University

Reviewer – International journal: The Journal of Biological and Chemical Luminescence; Journal of Materials Chemistry B, Journal of Molecular Structure, European Journal of Medicinal Chemistry, Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, Journal of Coordination Chemistry, Applied Organometallic Chemistry, Inorganic and Nano-Metal Chemistry, Dalton Transactions, Inorganica Chimica Acta.

Others

- 1. No. of PhD Thesis evaluated: 05
- 2. No. of PhD Public Viva Voce Examination conducted: 05

Ph.Ds Awarded

Name / Reg. No.	Title of the Thesis	Date of Award
A. Jayamani (0321)	Synthesis, Spectral, Structural, Electrochemical And Metallonuclease Activities of Copper(II) And Nickel(II) Complexes With N/O Containing Ligands"	12.11.15
S.Nagasubramanian (0108)	"Dna Interaction And Antimicrobial Studies Of Schiff Base And Mixed Ligand Copper(II) And Nickel(II) Complexes"	05.02.16
V.Thamilarasan (0474)	Synthesis, Spectral, Biological Activities of Mixed Ligand Transition Metal Complexes	14.07.16
Ms N. Kavitha (1129)	Synthesis, Characterization and Biological Studies of Ferrocene Appended Moieties	14.10.2022
M. Sethupathi (1591)	Tetraaza Macrocyclic Chemosensor and Their Transition Metal Complexes For Biological Application	04.11.2022

M.Phil. awarded

Name / Reg. No.	Title of the Thesis	Month and
		Year
P. Revathi	Structural and biological activities of [Co(II), Ni(II), Cu(II)] Schiff base	July
2014596010	complexes derived from 2-hydroxy-1-naphthaldehyde and 2-picolylamine	2015
C. Chitra	Synthesis of symmetric oxamidato bridged binuclear Cobalt(II) and	July
2016596001	vanadium(IV) complexes: spectral, electrochemical, DNA binding, cleavage	2017
	and antibacterial activity	
P. Fidali Stanley Edwin	Synthesis, Spectral, Biological Activities of Schiff Base Copper(II)	October 2017
2016597003	Complexes of L-Tryptophan.	
P. Rajeshwari	Borche's Reagent Based Schiff Base Receptor For Selective Sensing of	July
2017596007	Acetate Ions	2018
T. Valarmathi	Synthesis, characterization and chemosensing properties of Brady's reagent-	July
2017596012	based Schiff base organic receptor for sensing of hydrogen sulphate	2018
S. Poornima	Hydrazone based Schiff base ferrocene derivative as optical and	July
2018596007	electrochemical sensor for the detection of copper and iodide ions.	2019
F. Virginia	Synthesis, characterization, electrochemical and DNA binding analysis of	November
2019596005	imidazole based mixed ligand Co ^{II} , Mn ^{II} and Cu ^{II} complexes.	2020

Recent Publications

- T. Angelin Swetha, V. Ananthi, Abhispa Bora, N. Sengottuvelan, P. Kumar, G. Muthusamy, A. Arun. A review on biodegradable polylactic acid (PLA) production from fermentative food waste-lts applications and degradation. International Journal of Biological Macromolecules. 234 (2023) 123703. https://doi.org/10.1016/j.ijbiomac.2023.123703. (I.F. = 8.025)
- 2. N. Kavitha and N. Sengottuvelan; Mono- and di-ferrocene conjugated 5-methyl benzimidazole based Multi-channel Receptor for Cation/Anion with their Antimicrobial and Anticancer studies. *New J. Chem.*, 47, 2023, 4656–4666. https://doi.org/10.1039/D2NJ05960F. (I.F. = 3.925)
- M. Sethupathi, A. Praveena, N. Sengottuvelan, P. Kumar, Ferrocenyl Chalcone Armed Macrocyclic Tet a Based Cobalt (II) and Copper (II) Complexes: DNA Photocleavage Activity and Photocytotoxicity. (In press) Appl Organomet Chem (2022) e6957. https://doi.org/10.1002/aoc.6957 (I.F. = 4.1)
- 4. M. Sethupathi, T. Boobalan, **N. Sengottuvelan**, P. Kumar, Franc Perdih, A. Arun, K. Muthusamy. Macrocyclic "tet a"-Derived Cobalt(III) Complex with a N,N'-Disubstituted Hexadentate Ligand: Crystal Structure, Photonuclease Activity, and as a Photosensitizer. ACS Omega 2022, 7, 669–682. https://doi.org/10.1021/acsomega.1c05306. (I.F. = 4.132).
- 5. V. Thamilarasan, J. Kim, M. Azam, Saud I. Al-Resayes, A. Stalin, B. SenthamaraKannan, A. Jayamani, A. Arumugam, **N. Sengottuvelan**, Influence of co-ligand on the biological properties of Schiff base metal complexes: Synthesis, characterization, cytotoxicity, and antimicrobial studies, Appl Organomet Chem (2021) e6542. (I.F = 4.1) https://doi.org/10.1002/aoc.6542.
- N. Kavitha, V. Thamilarasan, N. Sengottuvelan, Diketonato based Ferrocene Appended Cyclometalated Iridium(III) Complexes: Anti-microbial and Anti-cancer studies. Journal of Organometallic Chemistry, (2021) 122032 (I.F = 2.36). https://doi.org/10.1016/j.jorganchem.2021.122032.
- 7. V. Vinothkumar, C. Koventhan, Shen-Ming Chen, M. Abinaya, G. Kesavan, **N. Sengottuvelan** Preparation of three-dimensional flower-like cobalt phosphate as dual functional electrocatalyst for flavonoids sensing and supercapacitor applications. Ceramics International, (2021) (I.F = 4.53). https://doi.org/10.1016/j.ceramint.2021.07.140.
- 8. B. Thulasinathan, T. Jayabalan, M. Sethupathi, W. Kim, S. Muniyasamy, **N. Sengottuvelan**, S. Nainamohamed, P. Kumar, A. Arun, Bioelectricity generation by natural microflora of septic tank wastewater (STWW) and biodegradation of persistent petrogenic pollutants by basidiomycetes fungi: An integrated microbial fuel cell system. Journal of Hazardous Materials. 412, 15 (2021) 125228. (I.F = 10.588). https://doi.org/10.1016/j.jhazmat.2021.125228
- 9. V. Thamilarasan, P. Revathi, A. Praveena, J. Kim, V. Chandramohan, **N. Sengottuvelan,** Synthesis and characterization of dimeric Schiff base Co^{II}, Ni^{II}, Cu^{II} complexes for their catalytic application of aerobic oxidation of alcohol and interaction with biomolecules, Inorganica Chimica Acta 508 (2020) 119626. (I.F = 2.54). https://doi.org/10.1016/j.ica.2020.119626.
- 10. M. Sethupathi, A. Jayamani, G. Muthusankar, P. Sakthivel, K Sekar, S. Gandhi, **N. Sengottuvelan**, G. Gopu, C. Selvaraju. Colorimetric and fluorescence sensing of Zn²⁺ ion and its bio-imaging applications based on macrocyclic "tet a" derivative. J. Photochemistry and Photobiology B: Biology, 207, 2020, 111854. (I.F = 6.25). DOI: https://doi.org/10.1016/j.jphotobiol.2020.111854.
- 11. T. Boobalan, M. Sethupathi, **N. Sengottuvelan**, P. Kumar, P. Balaji, B. Gulyás, P. Padmanabhan, S. Tamil Selvan, A. Arun. Mushroom-Derived Carbon Dots for Toxic Metal Ion Detection and as Antibacterial and Anticancer Agents. ACS Applied Nano Materials. 2020, 3, 6, 5910-5919. (I.F = 5.09).DOI: https://doi.org/10.1021/acsanm.0c01058.
- 12. M. Sethupathi, G. Muthusankar, V. Thamilarasan, **N. Sengottuvelan**, G. Gopu, M. Vinita, P. Kumar, Franc Perdih. Macrocyclic "tet a" derived colorimetric sensor for the detection of mercury cations and hydrogen sulphate anions and its bio-imaging in living cells. J. Photochemistry and Photobiology B: Biology, 203, 2020, 111739 (I.F = 6.25). DOI: 10.1016/j.jphotobiol.2019.111739.
- 13. G. Muthusankar, C. Rajkumar, S.-M. Chen, G. Gopu, A. Sangili, **N. Sengottuvelan**. Sonochemical driven simple preparation of nitrogen-doped carbon quantum dots/SnO₂

- nanocomposite: ...determination of riboflavin, Sensors and Actuators B: Chemical, 281 (2019) 602–612. (I.F = 7.46). DOI: 10.1016/j.snb.2018.10.145.
- 14. G. Muthusankar, M. Sethupathi, S.-M. Chen, R. Keerthika Devi, R. Vinoth, G. Gopu, N. Anandhan, N. Sengottuvelan, N-doped carbon quantum dots @ hexagonal porous copper oxide decorated multiwall carbon nanotubes: A hybrid composite material for an efficientultrasensitive ...caffeic acid. Composites Part B. 174 (2019) 106973. (I.F = 6.864). DOI: 10.1016/j.compositesb.2019.106973
- 15. A. Jayamani, R. Bellam, G.Gopu, S.O.Ojwach, **N.Sengottuvelan**. Copper(II) complexes of bidentate mixed ligands as artificial nucleases: Synthesis, crystal structure, characterization and evaluation of biological properties. Polyhedron, 156 (2018) 138-149. (I. F = 3.05).
- 16. G. Muthusankar, A. Sangili, S. Ming Chen, R. Karkuzhali, M. Sethupathi, G. Gopu, S. Karthick, R. KeerthikaDevi, N. Sengottuvelan. In situ assembly of sulfur-doped carbon quantum dots surrounded iron(III) oxide nanocomposite; a novel electrocatalyst for highly sensitive detection of antipsychotic drug olanzapine. <u>Journal of Molecular Liquids</u>. 268 (2018) 471–480. (I. F = 6.16). https://doi.org/10.1016/j.molliq.2018.07.059
- 17. A. Jayamani, S. Nagasubramanian, V. Thamilarasan, S. O. Ojwach, G. Gopu, **N. Sengottuvelan**. In-situ nickel(II) complexes of 3-(dimethylamino)-1-propylamine based Schiff base ligands: Structural, electrochemical, biomolecular interaction and antimicrobial properties, Inorganica Chimica Acta, 482 (2018) 791-799. (I. F = 2.54).
- 18. G. Muthusankar, R. Sasikumar, S.-M. Chen, G. Gopu, **N. Sengottuvelan**, S.-P. Rwei. Electrochemical synthesis of nitrogen-doped carbon quantum dots decorated copper oxide for the sensitive and selective detection of non-steroidal anti-inflammatory drug in berries. Journal of Colloid and Interface Science, 523, (2018), 191-200. (I.F = 8.12). https://doi.org/10.1016/j.jcis.2018.03.095
- 19. A. Jayamani, M. Sethupathi, S. O. Ojwach, **N. Sengottuvelan**, Investigation on biomolecular interactions of nickel(II) complexes with monoanionic bidentate ligands. Journal of Molecular Structure 1151 (2018) 6 16. (I.F = 2.01).
- 20. A. Jayamani, S. Ojwach, **N. Sengottuvelan**, Synthesis, Characterization and biomolecular interactions of Cu(II) and Ni(II) complexes of acyclic Schiff base ligand, Inorg. Chem. Communs, 84 (2017) 144-149. (I.F = 1.762).
- 21. V. Thamilarasan, V. Sethuraman, P. Karunakaran, M. Sethupathi, P. Manisankar, C. Selvaraju, **N. Sengottuvela**Synthesis, physicochemical properties, thermal analysis and biological application of phosphorescent cationic iridium(III) complexes. Inorganica Chimica Acta 467 (2017) 264–275.
- 22. V. Thamilarasan, P. Karunakaran, N. Kavitha, C. Selvaraju, **N. Sengottuvelan**, (2016) "Red emitting cyclometallated iridium(III) complexes: Synthesis, characterization and evaluation of biological activities" Polyhedron, 118 12-24. (I. F = 3.05).
- 23. V.Thamilarasan, **N. Sengottuvelan**, A. Sudha, P. Srinivasan, G.Chakkaravarthi, (2016) "Cobalt(III) complexes as potential anticancer agents: Physicochemical, structural, cytotoxic activity and DNA/protein interactions", Journal of Photochemistry and Photobiology B: Biology, 162 558-569. (I. F = 3.03).
- 24. V. Thamilarasan, **N. Sengottuvelan**, N. Stalin, P. Srinivasan, G. Chakkaravarthi, (2016), "Synthesis, interactions, molecular structure, biological properties and molecular docking studies on Mn, Co, Zn complexes containing acetylacetone and pyridine ligands with DNA duplex", Journal of Photochemistry and Photobiology B: Biology, 160, 110- 120. (I. F = 3.03).
- 25. A. Sudha, P. Srinivasan, V. Thamilarasan, **N. Sengottuvelan**, (2016), "Exploring the binding mechanism of 5-hydroxy-3',4',7-trimethoxyflavone with bovine serumalbumin: Spectroscopic and computational approach", Spectro chimica Acta A: Molecular and Biomol. Spectros., 157, 170-181. (I. F = 2.65).
- 26. A. Jayamani, **N. Sengottuvelan**, S. K. Kang, Y.-I. Kim, (2015), "Mono- and binuclear copper(II) complexes of the bipyridine ligand: Structural, electrochemical and biological studies", Polyhedron, 98, 203–216. (I.F = 3.05).
- V. Thamilarasan, N. Sengottuvelan*, A. Sudha, P. Srinivasan, A. Siva, (2015), "Synthesis, molecular structure, theoretical calculation, DNA/protein interaction and cytotoxic activity of manganese(III) complex with 8-hydroxyquinoline", Journal of Photochemistry and Photobiology B: Biology", 142, 220–231. (I.F = 3.03).
- 28. V. Thamilarasan, A. Jayamani, N. Sengottuvelan, (2015), "Synthesis, molecular structure,

- biological properties and molecular docking studies on MnII, CoII and ZnII complexes containing bipyridine-azide ligands". European Journal of Medicinal Chemistry, 89, 266–278. (I.F = 3.902).
- 29. A. Jayamani, **N. Sengottuvelan**, S.K. Kang, Y-I. Kim, (2014) "Studies on nucleic acid/protein interaction, molecular docking and antimicrobial properties of mononuclear nickel(II) complexes of piperazine based Schiff base", Inorg. Chem. Communs, 48, 147-152. (I.F = 1.762).
- 30. A. Jayamani, **N. Sengottuvelan**, G. Chakkaravarthi, (2014), "Synthesis, structural, electrochemical, DNA interaction, antimicrobial and molecular docking studies on the dimeric copper(II) complexes involving some potential bidentate ligands", Polyhedron, 81, 764–776). (I.F = 3.05).
- 31. Jayamani, V. Thamilarasan, **N. Sengottuvelan**, P. Manisankar, S.K. Kang, Y-I. Kim, V. Ganesan, (2014), "Synthesis of mononuclear copper(II) complexes of acyclic Schiff's base ligands: Spectral, structural, electrochemical, antibacterial, DNA binding and cleavage activity", Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, 25, 365–374. (I.F = 2.65).
- 32. Jayamani, V. Thamilarasan, V. Ganesan, **N. Sengottuvelan**, (2013), "Structural, Electrochemical, DNA Binding and Cleavage Properties of Nickel(II) Complex", [Ni(H₂biim)₂(H₂O)2]²⁺ of 2,2′-Biimidazole", Bull. Korean Chem. Soc. 34, 3695 3702. (I.F = 0.79).
- 33. Saravanan, A. Jayamani, **N. Sengottuvelan**, G. Chakkaravarthi V. Manivannan, (2013), "Di-μ-hydroxido-κ4O:O-di-μ-perchlorato-κ4O:O'-bis[(2,2_-bipyridine-κ2N,N') copper(II)]", Acta Cryst. E69, m600. (I.F = 0.34).
- 34. V. Thamilarasan, A. Jayamani, P. Manisankar, Young-Inn Kim, **N. Sengottuvelan**, (2013), "Green-emitting phosphorescent iridium(III) complex: Structural, photophysical and electrochemical properties", Inorganica Chimica Acta, 408, 240 245. (I.F = 1.853).
- 35. Saravanan, V. Thamilarasan, **N. Sengottuvelan**, G. Chakkaravarthi, V. Manivannan, (2013), "6-Chloro-2-(4-methoxyphenyl)-4-phenylquinoline", Acta Cryst. E69, o1463. (I.F = 0.34).
- 36. B. Saravanan, A. Jayamani, **N. Sengottuvelan**, G. Chakkaravarthi, V. Manivannan, (2013), "1,2-Bis(2-hydroxy-5-methylbenzylidene)-hydrazine", Acta Cryst. E69, o1394–o1395. (I.F = 0.34).
- 37. S. Nagasubramanian, V.Thamilarasan, A. Jayamani, S. Kang, Y.-I. Kim, **N. Sengottuvelan**, (2013), "Synthesis, characterization and crystal structure of dimeric copper(II) complex bearing mixed ligands acetylacetone and biimidazole: DNA binding and cleavage studies", Bull. Korean Chem. Soc. 34, 1875. (I.F = 0.79).
- 38. B. Gunasekaran, A. Jayamani, **N. Sengottuvelan**, G. Chakkaravarthi, (2013), "2-Hydroxy- 3-methoxymethyl-5-methylbenzaldehyde", Acta Cryst. E69, o317. (I.F = 0.34).
- 39. **N. Sengottuvelan**, S.J. Yun, D.Y. Kim, I. Hwang, S. Kang, Y.-I. Kim, (2013), "Highly Efficient Red Emissive Heteroleptic Cyclometalated Iridium(III) Complexes Bearing Two Substituted 2-Phenylquinoxaline and One 2-Pyrazinecarboxylic Acid", Bull. Korean Chem. Soc. 34, 167. (I.F = 0.79).
- 40. **N. Sengottuvelan**, P. Srinivasan, M. Kandaswamy, H.K. Fun, (2013), "DNA Cleavage, Electrochemical and Magnetic Studies of Scorpionand Copper(II) complex", International Journal of Chem. Tech Research, 5, 367-375.
- 41. S. K. Kang, H.W. Lee, **N. Sengottuvelan**, Y.-I. Kim, (2012), "Extended Bifurcated Hydrogen Bonds Network Material of Copper(II) Complexes with 2-Dimethylaminomethyl-3- hydroxypyridine: Structures and Magnetic Properties, Bull. Korean Chem. Soc., 33, 95. (I.F = 0.79).
- 42. **N. Sengottuvelan**, S.J. Yun, S. K. Kang, Y.-I. Kim, (2011), "Red-orange emissive cyclometalated neutral Iridium(III) Complexes and Hydridoiridium(III) complex Based on 2-Phenylquinoxaline: Structure, Photophysics and Reactivity of acetylacetone Towards Cyclometalated Iridium Dimer", Bull. Korean Chem. Soc. 32, 12, 4321-4326. (I.F= 0.797).
- 43. D. Saravanakumar, **N. Sengottuvelan**, V. Narayanan, M. Kandaswamy, T. L. Varghese, (2011), "Burning-Rate Enhancement of a High-Energy Rocket Composite Solid Propellant Based on Ferrocene-Grafted Hydroxyl-Terminated Polybutadiene Binder" Journal of Applied Polymer Science, 119, , 2517–2524. (I.F = 1.6).
- 44. **N. Sengottuvelan**, H.-J. Seo, S.K Kang, Y.-I. Kim, (2010), "Tuning Photophysical and Electrochemical Properties of Heteroleptic Cationic Iridium(III) Complexes Containing Substituted 2-Phenylquinoxaline and Biimidazole" Bull. Korean Chem. Soc., 31, 8, 2309 14. (I.F = 0.797).
- 45. **N. Sengottvelan**, Y.-S. Lee, H.-S. Lim, Y.-I. Kim S. K. Kang, (2009), "Bis(3- methylpyridinium) tetrachloridocuprate(II)", Acta Cryst. E65, m384. (I.F = 0.34).

- 46. **N. Sengottvelan**, Y.-S. Lee, H.-S. Lim, Y.-I. Kim S. K. Kang, (2008), "Coordination modes of 2-dimethyl aminomethyl-3-hydroxypyridine with nickel(II) halides: Structural and Electrochemical properties", Bull. Korean Chem. Soc. 29, 9, 1784. (I.F= 0.797).
- 47. **N. Sengottvelan**, Y.-S. Lee, H.-S. Lim, Y.-I. Kim S. K. Kang, (2008), "Structural and magnetic properties of monomeric and dimeric copper(II) complexes with phenyl-N- [(pyridine-2-vl)methylene] methaneamide", Bull. Korean Chem. Soc., 29, 9, 1711. (I.F= 0.797).
- 48. **N. Sengottuvelan**, D. Saravanakumar, M. Kandaswamy, (2007), "Electrochemical, magnetic, catalytic and DNA cleavage studies of binuclear copper(II) complexes derived from pendant substituted tetraaza macrobicyclic compartmental ligands", Polyhedron, 26, 3825. (I. F = 2.10).
- 49. D. Saravanakumar, **N. Sengottuvelan**, M. Kandaswamy, P. G. Aravindan, D. Velmurugan. (2005), "Amide–nitrophenyl based colorimetric receptors for selective sensing of fluoride ions", Tetrahedron Letters, 46, 7255. (I. F = 1,75).
- 50. D. Saravanakumar, **N. Sengottuvelan**, M. Kandaswamy, (2005), "Ferrocene substituted N,N'-bis(3-aminopropyl)oxamide: A new electrochemical sensor for copper(II) and fluoride ions in the biological pH range", Inorganic Chemistry Communications, 8, 386. (I. F = 1.80).
- 51. **N. Sengottuvelan**, D. Saravanakumar, M. Kandaswamy, (2005), "Synthesis and characterization of formyl group containing N-monofunctionalised tetraaza macrocyclic ligand and its nickel(II) complex", Inorganic Chemistry Communications, 8, 297.
- 52. D. Saravanakumar, **N. Sengottuvelan**, V. Narayanan, M Kandaswamy, K. Chinnakali, G. Senthilkumar, H. K. Fun, (2004), "Synthesis, structural, magnetic and electrochemical studies of antiferromagnetically coupled symmetric oxamidate bridged binuclear copper(II) complexes", European Journal of Inorganic Chemistry, 872. 33. (I. F = 3.20).
- 53. D. Saravanakumar, **N. Sengottuvelan**, G. Priyadarshni, M. Kandaswamy, H. Okawa (2004), "Synthesis of unsymmetrical 'end-off' phenoxo and oximinato di bridged Copper(II) and Nickel(II) Complexes: Spectral, electrochemical and magnetic properties", Polyhedron, 23, 665. (I. F = 2.10).
- 54. **N. Sengottuvelan**, D. Saravanakumar, S. Sridevi, V. Narayanan, M. Kandaswamy. (2004), "Macrocyclic Unsymmetrical Binuclear Copper(II) complexes as Ligands: spectral, structural, magnetic and electrochemical studies", Supramolecular Chemistry, 16, 129. (I. F = 2.10).
- 55. **N. Sengottuvelan**, D. Saravanakumar, V. Narayanan and M. Kandaswamy, K. Chinnakali, G. Senthilkumar, (2004), "Synthesis and characterization of new macrocyclic dendrons and their Copper(II) and nickel(II) complexes: Electrochemical, magnetic and catalytic studies" Bulletin of the Journal of chemical Society of Japan, 77, 1153. (I. F = 2.0).
- 56. **N. Sengottuvelan**, D. Saravanakumar, G Thirumal, T Prabu, V Narayanan, M. Kandaswamy, (2003), "Epoxidation of olefin using Mn(III) tetraphenylporphyrin complex as catalyst" Indian Journal of Chemical Technology, 10, 505. (I. F = 0.7).
- 57. **N. Sengottuvelan**, J. Manonmani, M. Kandaswamy, (2002), "Synthesis of unsymmetrical compartmental oxime nickel(II) and copper(II) complexes: Spectral, Eleectrochemical and Magnetic studies", Polyhedron, 21, 2767-2772. (I. F = 2.10).
- 58. Prabusankar, G. Ashok, **N. Sengottuvelan**, D. Saravanakumar, V. Narayanan, M. Kandaswamy, (2002), "Synthesis, spectral and electrochemical studies of novel porphyrin bound tetranuclear acyclic manganese(III) and copper(II) complexes", Indian Journal of Chemical Technology, 9, 9. (I. F = 0.7).

Poster/ Paper presented at National/ International Conferences.

- [1] Cyclic Voltammetric studies of some chemically modified electrodes based on substituted porphyrins, N. Sengottuvelan, International conference on Advances in surface science and engineering (INSURE 2001) held during Feb 21-23rd 2001 organized by Department of analytical Chemistry, University of Madras, Chennai.
- [2] Design and Synthesis of 'Tet A' Containing Macrocyclic Dissimilar Compartmental Ligands and Their Copper(II) Complexes, at the 11th National Symposium in Modern Trends in Inorganic chemistry (MTIC-XI) held from 8th-10th December, 2005 at Department of Chemistry, Indian Institute of Technology, Delhi.
- [3] Eco-friendy and Energy Saving Organic Light Emitting Device Phosphor (Poster), N. Sengottuvelan, V. Thamilarasan, A. Jayamani: National conference on Recent Trends in Green Synthesis (Aug 5 & 6, 2011) organized by Department of Industrial Chemistry, Alagappa University, Karaikudi-3, Tamil Nadu.
- [4] Synthesis, Crystal Structure and Biological Evaluation of Copper (II) Complexes of Tetradendate Amine and its Schiff's Base (Poster), A. Jayamani, V. Thamilarasan, N. Sengottuvelan: National conference on Recent Advances in Textile and Electrochemical Science-2012 (Mar 22 & 23, 2012) organized by Department of Industrial Chemistry, Alagappa University, Karaikudi-3.
- [5] Syntheses and characterization of mono and binuclear copper(II) complexes of new acyclic dicompartmental ligands: Crystal structure, antibacterial, DNA binding & Cleavage studies (Poster), A. Jayamani, V. Thamilarasan, N. Sengottuvelan: CRSI-15th National Symposium in Chemistry (Feb 1-3, 2013) organized by Department of Chemistry, Faculty of Science, Banaras Hindu University, Varanasi, U.P.
- [6] Synthesis and characterization of green-emitting phosphorescent Iridium(III) complexes for organic light emitting diodes: Structural, photophysical and electrochemical properties (Poster:), V. Thamilarasan, A. Jayamani, N. Sengottuvelan: CRSI-15th National Symposium in Chemistry (Feb 1-3, 2013) organized by Department of Chemistry, Faculty of Science, Banaras Hindu University, Varanasi, U.P.
- [7] DNA interaction studies of dimeric nickel(II) complex with 2,2'-biimidazole (Poster-47), A. Jayamani, V. Thamilarasan, N. Sengottuvelan: International conference on Recent Advances in Textile and Eletrochemical Sciences -2013 (Mar 21-23, 2013) organized by Department of Industrial Chemistry, Alagappa University, Karaikudi, Tamil Nadu.
- [8] Synthesis, structural, electrochemical and DNA interaction studies of mixed ligand copper(II) complex(Poster-72). S. Nagasubramanian, V. Thamilarasan, N. Sengottuvelan: International conference on Recent Advances in Textile and Electrochemical Sciences -2013 (Mar 21-23, 2013) organized by Department of Industrial Chemistry, Alagappa University, Karaikudi, Tamil Nadu.
- [9] Synthesis of mono and binuclear nickel(II) complexes of acyclic schiff base ligands: spectral, structural, electrochemical, DNA binding and antimicrobial activity (Poster), A. Jayamani, N. Sengottuvelan: National Conference on Chemo sensor (Sep 19,20-2013) organized by Department of Chemistry, National Institute of Technology, Tiruchirapalli, Tamil Nadu.
- [10] Impact of Co-ligands on the DNA interactions and BSA binding of bipyridine based copper(II) complexes (Poster), A. Jayamani, S. Nagasubramanian, N. Sengottuvelan: CRSI-16th National Symposium in Chemistry (Feb 7-9, 2014) organized by Department of Chemistry, IIT Bombay, Mumbai, Maharashtra.
- [11] Hetero-metallic trigonal cage shaped dimeric Ni₃K core complex of L-proline ligand: Synthesis, structural, electrochemical and DNA binding and cleavage activities (Poster: Co-author), S. Nagasubramanian, A. Jayamani, N. Sengottuvelan: CRSI-16th National Symposium in Chemistry (Feb 7-9, 2014) organized by Department of Chemistry, IIT Bombay, Mumbai, Maharashtra.
- [12] Intercalative interaction of dimeric mixed ligand copper(II) complex with DNA: Crystal structure, Nuclease activity, molecular docking and antimicrobial studies (Poster), A. Jayamani, N. Sengottuvelan: International Conference on Advances in New materials (Jun 20& 21, 2014) organized by Department of Inorganic Chemistry, Madras University, Chennai, Tamil Nadu.

- [13] Synthesis of copper(II) and nickel(II) complexes with O₂ chelating bidentate ligands: spectral, structural, electrochemical and biological studies (Poster), A. Jayamani, N. Sengottuvelan: CRSI-17th National Symposium in Chemistry (Feb 6-8, 2015) organized by National Chemical Laboratory, Pune.
- [14] Synthesis, Molecular structure, theoretical calculation, DNA/Protein interactionand cytotoxic activity of Manganese(III) complex with 8-hydroxyquinoline (OP-60). V. Thamilarasan, N. Sengottuvelan, A. Sutha, P. Srinivasan and A. Siva: National seminar on "Current Scenario in Material Chemistry" [CSIMC-2015] February, 9-10, 2015, organized by Jamal Mohamed College, Tiruchirappalli.
- [15] Synthesis, molecular structure, biological properties and molecular docking studies on Mn^{II}, Co^{II}, and Zn^{II} complexes containing bipyridine-Azide ligands. V. Thamilarasan, N. Sengottuvelan. National Seminar on "Frontier Areas in Chemical Technologies 2015" [FATCs 2015] held on March, 6-7, 2015 organised by Department of Industrial Chemistry, Alagappa University, Karaikudi.
- [16] Invitro antibacterial activity of newly synthesized hydroxyaldehyde based HN-AEP Schiff base. N.Kavitha, N. Sengottuvelan: Association of Microbiologist of India, 56th conference 2015, Dec, 7-10th 2015, organized by JNU, New Delhi.
- [17] Hydroxy-napthaldehyde based Schiff base receptor as a selective fluorescent chemosensor for detection of Al 3+ and Cu ²⁺ metal ions. N. Kavitha, N. Sengottuvelan: International Conference on Recent Trends in Analytical Chemistry (ICORTAC-2015), 28-30 Dec 2015, organized by Department of Inorganic Chemistry, University of Madras, Guindy campus. Tamil Nadu.
- [18] Pyrene appended Bis-aminopropyl piperazine based molecular sensors for chlorimetric and fluorescent detection of Cu(II) ions (OP-9). G. Gopu, S. Elakiya, N. Sengottuvelan, G. Muthusankar: National conference on Advanced materials and their application, held on 21-22 January 2016, organized by PG and Research Department of Chemistry, V.O.Chidambaram College, Thoothukudi- 628008.
- [19] Intercalative DNA interaction studies and antimicrobial activity of copper(II) complex derived from piperazine containing acyclic Schiff base ligands (poster No. 1). A. Jayamani, N. Sengottuvelan: CRSI-18th National Symposium in Chemistry (Feb 5-7, 2016) organized by Punjab University, Chandigarh.
- [20] Piperazine based Schiff base for chemosensor and biological applications. N. Kavitha, N. Sengottuvelan: International Conference on Frontier Areas in Chemical Technologies 2016 (FACTs 2016), March 21-23, 2016 organized by Department of Industrial Chemistry, Alagappa University, Karaikudi-3, Tamil Nadu.
- [21] Influence of solvent in synthesis of copper(II) 2,2'-biimidazole complex on geometry and Hirshfeld surfaces. A Jayamani, V. Thamilarasan, S. Nagasubramanian, N. Sengottuvelan. International Conference on Frontier Areas in Chemical Technologies 2016 (FACTs 2016), held on March 21-23, 2016 organized by Department of Industrial Chemistry, Alagappa University, Karaikudi-3, Tamil Nadu.
- [22] Synthesis, spectral characterization and biological activities of Co^{II}, Ni^{II}, Cu^{II} Schiff base complexes. K. Mageswari, R. Regina, A. Surya, V. Thamilarasan, N. Sengottuvelan. International Conference on Frontier Areas in Chemical Technologies 2016 (FACTs 2016), March 21-23, 2016 organized by Department of Industrial Chemistry, Alagappa University, Karaikudi-3, Tamil Nadu.
- [23] Synthesis, characterization of hydroxy-napthaldehyde based HN-AEP Schiff base ligand and its interaction with pneumococcal surface antigen PsaA. N. Kavitha, N. Sengottuvelan: 6th International Symposium on current Trends In Drug Discovery and Research 25-28th 2016, organized by CSIR-CDRI Lucknow.
- [24] Synthesis, spectral, electrochemical and DNA binding studies of symmetric oxamidato –bridged binuclear cobalt(II) complexes. C. Chitra, N. Kavitha, N.Sengottuvelan. International Conference on Frontier Areas in Chemical Technologies 2017 organized by Department of Industrial Chemistry, Alagappa University, Karaikudi-3, Tamil Nadu.
- [25] Investigation on biomolecular interactions of nickel(II) complexes. A. Jayamani, M. Sethupath, N.Sengottuvelan. International Conference on Frontier Areas in Chemical Technologies 2017 organized by Department of Industrial Chemistry, Alagappa University, Karaikudi-3, Tamil Nadu.
- [26] Carbozole based cationic heteroleptic cyclometalated iridium(III) complexes: Synthesis, spectral properties and its biological application. V. Thamilarasan, M. Sethupathi, N. Kavitha, N. Sengottuvelan. Third National Seminar on "Advanced oxidation Processes" December 17-19, 2017, Organized by Department of Chemistry, Bharathidasan Institute of Technology, Anna University, Tiruchirappalli, Tamilnadu 620 024 and in association with Society for environmental Chemistry and Allied sciences, (SECAS), India.

- [27] *Tetraaza Macrocyclic Copper(II) complex: DNA Cleavage, Electrochemical and Magnetic Studies.* N. Kavitha, P. Rajeshwari, N. Sengottuvelan, M. Kandaswamy, UGC Sponsored One Day National Level Seminar on Modern Trends in Chemical Sciences 29th January, 2018 Organized by Government Arts College for Men, Nandanam, Chennai -600 035.
- [28] Copper(II) L-tryptophan Schiff base Complexes: Synthesis, Spectral Studies and its Biological Evaluation. N. Kavitha, Fidali Stanley Edwin, P. Rajeshwari, S. FathimaFarhana, N. Pavithra, K. Suganya, N. Sengottuvelan* National Seminar on Frontier Areas in Chemical Technologies 2018. National Seminar on 'Frontier Areas in Chemical Technologies' (FACTs-2018) 22nd and 23rd March 2018. Organised by Department of Industrial Chemistry, Alagappa University, Karaikudi 630003, Tamilnadu, India. OP-30.
- [29] Symmetric oxamidato-bridged binuclear cobalt(ii) complexes: synthesis, spectral, electrochemical and its dna binding studies. M. Sethupathi, R. Indumathi, T. Valarmathi, V. Vinoth kumar, A.R. Maheswari, N. Sengottuvelan* National Seminar on Frontier Areas in Chemical Technologies 2018 on 22nd and 23rd March 2018. Organized by Department of Industrial Chemistry, Alagappa University, Karaikudi 630003, Tamilnadu, India. PP-69.
- [30] Maleonitrile Schiff base derivative as chemosensor for the detection of Cr^{2+} and HSO_4 ions and its Bioimaging application in living cells. M. Sethupathi, M.Thirumalaikumar, N. Sengottuvelan. International conference on "Recent Trends in Bioplastics (RTB- 2019)" held during 9 & 10th December 2019 organized by the Department of Microbiology, Alagappa University, Karaikudi.
- [31] Diphenyl-imidazol derived selective turn-on fluorescent sensor for Pb²⁺ & Co²⁺ ions and it's bio-imaging in living cells". M. Sethupathi, N. Sengottuvelan, 6th International Conference in Biosensing Technologies 2019. Malaysia, held during 16th-19th June-19.
- [32] Macrocyclic "tet *a*" derived Colorimetric sensor for the detection of mercury and hydrogen sulphate and its bio-imaging in living cells. 6th International Conference in Biosensing Technologies 2019. Malaysia, held during 16th-19th June-19.
- [33] Carbon dots-silver nanohybrid using white-rot mushroom: Metal sensing, bioimaging, antimicrobial, and DNA binding studies. 6th International Conference in Biosensing Technologies 2019. Malaysia, held during 16th-19th June-19.
- [34] Electrochemical and spectroscopic approach for iodide ion sensing by ferrocene-based Schiff base receptor (Fc-AEP). OP 25 Page No. 37. N.Kavitha, R.Jenny, A. Rishwandhani, N. Sengottuvelan. Frontier Areas in Chemical Technologies -2019. Organised by Dept. of Ind. Chemistry Alagappa University, 25th-26th July-19.
- [35] Hydrazine based Schiff base ferrocene derivative as optical and electrochemical sensor for the detection of copper(II) and iodide ions. OP39, Page No. 48. <u>S.Poornima</u>, M.Sethupathi, N. Kavitha, N. Sengottuvelan. Frontier Areas in Chemical Technologies -2019. Organised by Dept. of Ind. Chemistry Alagappa University, 25th-26th July-19.
- [36] Maleonitrile Schiff base derivative as chemosensor for the detection of Cr²⁺ and HSO₄⁻ ions and its Bioimaging application in living cells. PP 107, Page No. 169. <u>M.Sethupathi</u>, M.Thirumalaikumar, P. Kumar, N. Sengottuvelan. Frontier Areas in Chemical Technologies -2019. Organised by Dept. of Ind. Chemistry Alagappa University, 25th-26th July-19
- [37] Imidazole Based "Turn Off" fluorescence Chemoensor for detection of Fe³+ ions. A. Praveena, N. Sengottuvelan. "Two-day International Conference on Advanced Materials and Their Applications 2022 (ICAMA'22) held during 29th & 30th September 2022, Organized by PG & Research Department of Chemistry, V.O.Chidambaram College, Thoothukudi, Tamilnadu, India.
- [38] Oxalamide-Bridged Imidazole based 'Turn Off' Fluorescent Receptor for Cu2+ and Fe3+ ions. Three-day International Conference on "Frontier Areas in Chemical Technologies 2022" (FACTs 2022) Organised by Dept. of Ind. Chemistry Alagappa University, 16th-18th February-23.
- [39] Synthesis, Characterization, Electrochemical and DNA Binding Analysis of Imidazole Based Mixed Ligand Mn^{II}, Co^{II} and Cu^{II}. G Vijay, Bavani and N. Sengottuvelan. Three-day International Conference on "Frontier Areas in Chemical Technologies 2022" (FACTs 2022) Organised by Dept. of Ind. Chemistry Alagappa University, 16th-18th February-23.
- [40] Structural elucidation and spectroscopic studies of acetyl substituted piperazine nucleus tethered with 4, 5-diaryl-1 H-imidazole scaffold: DNA binding, Cu2+and Sn2+ ions sensing and cytotoxicity

Praveena Rajendran, Sengottuvelan Nallathambi. Three-day International Conference on "Frontier Areas in Chemical Technologies – 2022" (FACTs – 2022) Organised by Dept. of Ind. Chemistry Alagappa University, 16th-18th February-23.

3.6.(iv) State / University

Participation of Workshops/Seminars/Symposium/ Conferences.

- [1] Participated in the workshop on "Thermal Analysis for the Next Millennium" held on 21st -23rd, October 1999 at Regional Sophisticated Instrumentation Centre, Indian Institute of Technology, Madras.
- [2] Participated in the National Symposium on "Modern Trends in Inorganic chemistry" held from 18th 20th January, 2000 at Department of Inorganic and Physical Chemistry, Indian Institute of Science, Bangalore.
- [3] Participated in the conference on "Inorganic Materials for the New Millennium" held from 18th-19th January, 2001 at MSRC, Indian institute of Technology Madras.
- [4] Participated in the DST sponsored "Orientation Program in Catalysis for Research Scholars" held from 28th Feb -16th March 2001 at the Department of Chemistry, Indian Institute of Technology, Bombay.
- [5] Participated in the "20th conference of Indian Council of Chemists" held from 22nd- 24th, December 2001 at Mysore University, Mysore.
- [6] Participated in the Fifth National Symposium in Chemistry (NSC-5) held from 7th 9th Feb, 2003 at Central Leather Research Institute, Chennai.
- [7] Participated in the National Workshop on "Green Process Techniques for Industrial Application" (GREPTIA-2009) held from 20th-21th, March 2009 at Department of Industrial Chemistry, School of Chemistry, Alagappa University, Karaikudi, Tamil Nadu.
- [8] Participated in the "Workshop for Lesson Writers of Distance Education Programme" held from 11th-12th June, 2009 organized by DDE Alagappa University Karaikudi, Tamil Nadu.
- [9] Participated in the Two-Day UGC Sponsored Seminar on "Promoting Environmental Values Among the Teacher Trainees at Secondary Level" held from 22nd-23rd October, 2009 organized by DDE, Alagappa University, Karaikudi, Tamil Nadu.
- [10] Participated in the "International Conference on Emerging Trends in Teaching Language and Literature" (INCOETTLL-09) held from 4th-5th December, 2009 organized by the Department of English and Foreign Languages, Alagappa University, Karaikudi, Tamil Nadu.
- [11] Participated in the Workshop on "Constructivism Based Learning Approach" held on 19th March, 2010 organized by DDE, Alagappa University, Karaikudi, Tamil Nadu.
- [12] Participated in the one-day National Level Workshop on "Shift System in Government Colleges on the Total Department of the Sudies" held on 31st March 2010, organized by DDE, Alagappa University, Karaikudi, Tamil Nadu.

- [13] Participated in National Seminar on "Evolving Strategies for Employability of Students in Higher Education" held from 23rd-24th April 2010 at Department of Lifelong Learning, Alagappa University, Karaikudi, Tamil Nadu.
- [14] Participated in National Conference on "Expansion of Distance Education-Experiences and Expectations" held from 7th-8th July 2010 organized by DDE, Alagappa University, Karaikudi, Tamil Nadu.
- [15] Participated in "National Workshop on Electroanalytical Techiques" held from 11th-13th October, 2010 organized by Department of Industrial Chemistry and SINSIL International in co-operation with CH Instruments, Inc. USA at Alagappa University, Karaikudi, Tamil Nadu.
- [16] Participated in the "One Day Workshop on Personality Enhancement" held on 3rd Feb, 2011 organized by Personality Development Cell, Alagappa University, Karaikudi, Tamil Nadu.
- [17] Acted as Organizing Secretary in the National workshop on "Expansion and Enrichment of Distance Learning" [EEDL 2012], in the Directorate of Distance Education, Alagappa University, Karaikudi held on March, 27-28, 2012.
- [18] Participated in the Workshop on innovative and creative Approaches for Sustainable Development of India held on 30th April 2013 organized by Industry and Consulancy Cell, Alagappa University, Karaikudi -3.
- [19] Participated in the International Workshop on Frontier areas in Chemical Technologies held on 21&22nd Feb 2014 organized by Department of Industrial Chemistry, Alagappa University, Karaikudi-3.
- [20] Participated in the National conferences on Recent Advances in Nanomaterials for Sensor Applications (NANOSE-2014) held during 6-7th March 2014 organised by Department of Bioinformatics and Biosensors, Alagappa University, Karaikudi, Tamil Nadu.
- [21] Participated in the Agni's Centre for Research and Development Science Project Competition held on 2nd December 2014, Karaikudi.
- [22] Participated in the Workshop on Metrohm Autolab Electrochemical Instruments for Biosensor Energy and Corrosion Applications held on 16th Feb 2015 Organized by Department of Bioinformatics and Biosensors, Alagappa University, Karaikudi, Tamil Nadu.
- [23] Acted as a Co-Chairperson in the International Conference on Frontier Areas in Chemical Technologies 2016 (FACTs 2016), March 21-23, 2016 organized by Department of Industrial Chemistry, Alagappa University, Karaikudi-3, Tamil Nadu.
- [24] Chaired a session in the National Conference on "Impact of Electronic Resources on Teaching, Learning and research: Issues and Opportunities" held on 24-25th April 2016 organized by Central Library and Directorate of Distance Education, Alagappa University, Karaikudi.
- [25] Chaired a session in the National seminar on Educational Practices in Chola Kingdom (850-1279 AD) EPICK-2016, held on 6-7th October 2016 organized by the Department of History and Directorate of Distance Education, Alagappa University, Karaikudi.
- [26] Participated in the National workshop on "Materials chemistry for future industrial development" (MATCH FIND-2017), held on 6th&7th January 2017 organized by Department of Industrial Chemistry, Alagappa University, Karaikudi.
- [27] Participated in the Business Training Programme on Textiles and Batteries held on 7th&8th February 2017 organized by Department of Industrial Chemistry and Business Collaboration Centre, Alagappa University, Karaikudi
- [28] Participated in the National seminar on "Nanomaterials for specialized applications" (NMSA-2017) & World Standard Day" (WSD) held on 9th&10th February 2017 organized by Department of Nanoscience and Technology, Alagappa University, Karaikudi.
- [29] Participated and acted as Rapporteur in the National conferences on "Human Rights Education" held on 14th &15th March 2017 organized by the Department of History, Alagappa University, Karaikudi.
- [30] Participated in the National seminar on Quality Education for the students Belonging to the Marginalized sectors in India (QESBMS 2018) held on 15th & 16th March 2018 organized by Department of Education and directorate of Distance Education Alagappa University, Karaikudi.
- [31] Participated in the One-day workshop on "Design and Development of MOOCs for the Faculty members of Alagappa University and affiliated colleges" held on 8th November, 2018 organized by Digital education Cell, Alagappa University, Karaikudi.

- [32] Participated in the National level workshop on "E-Content Development" held during 18.11.2019 to 22.11.2019 organized by Department of Education, Directorate of Distance Education, Alagappa University, Karaikudi.
- [33] Participated in the Two-day international workshop on "Design and Development of Technology Enabled Courseware" held during 05 & 06th December 2019 organized by Department of Education, Directorate of Distance Education, Alagappa University, Karaikudi.
- [34] Participated in the Two-day international workshop on "Biomedical Application in translational Research (BATR 2019)" held during 6th and 7th June 2019 organized by Department of Biomedical Science & Health Care Centre, Alagappa University, Karaikudi.
- [35] Participated in the National workshop on "Indian Research Information Network system (IRINS): Adaption and Promotion" held on 8th February 2020 organized by INFLIBNET and Alagappa University, Alagappa University, Karaikudi.
- [36] Participated in the "RECENT APPROACHES AND HUMAN GENES AGAINST COVID 19" organized by DDE Zoology wing & Department of Animal Health Management, Alagappa University, Karaikudi held on 11.6.2020.
- [37] Participated in the Two-day international conference on "MAHATMA GANDHI'S CONTRIBUTIONS TO EDUCATION, CULTURE AND SOCIETY (ICMGECS 2020)" held during 26 & 27th February 2020 organized by Department of Education (DDE), Alagappa University, Karaikudi.
- [38] Participated in the "Two-Week online capacity building program for faculty members and Research Scholars" sponsored under Alagappa University, UGC Stride component -1, Karaikudi, held during 12th to 23rd June 2020.
- [39] Participated in the "Two-day International Webinar" Interdisciplinary Research on Societal Applications: Challenges and Opportunities (IRSA-2020) held during 26th & 27th June 2020, organized by Department of Chemistry, Bharathiar University, Coimbatore
- [40] Participated in the Webinar On "Frontiers in Organic Electronics" held during 29th June 3rd July 2020 organized by Department of Chemistry, National Institute of Technology, Rourkela, Odisha.