



Name - **Dr. M. SYED ALI PADUSHA**

Designation - **Associate Professor**

Address(office) - Post-Graduate & Research Department of Chemistry  
Jamal Mohamed College (Autonomous)  
Tiruchirappalli-620020  
Phone 0432-2331135 \*215

Mobile - **+91-98654 47289**

E-mail ID - [sp@jmc.edu](mailto:sp@jmc.edu)  
[syedalipadusha@gmail.com](mailto:syedalipadusha@gmail.com)

### Academic Qualification:

<b>DEGREE</b>	<b>Examination Passed</b>	<b>Institution</b>
Bachelor's Degree	<b>B.Sc. Chemistry</b>	Sadakathullah Appa College- (Manonmanium Sundarnar University)
Master's Degree	<b>M.Sc. Chemistry</b>	Jamal Mohamed College (Bharathidasan University)
Master's Degree	<b>M.Sc. Psychology</b>	Alagappa University
Research Degree	<b>Ph.D.</b>	Bharathidasan University
Any other degree/ diploma/ certificate	<b>Certificate in Arabic</b>	Manonmanium Sundarnar University
NET/ SLET	<b>SLET</b>	Bharathidasan University
Online Course	<b>Coordination Chemistry</b>	Swayam (NPTEL)

### Area of Interest:

- ✓ Synthetic Organic Chemistry
- ✓ Coordination Chemistry
- ✓ Physical Chemistry

### Teaching Experience:

<b>DEGREE</b>	<b>YEAR</b>	<b>MONTH</b>
UG	23	5
PG	23	5
M.Phil.	15	-

**Research Guidance:**

DEGREE	No. of Candidates		
	Awarded	Submitted	Pursuing
M.Phil.	27	-	-
Ph.D.	11	-	5

**Research Projects: (Major/Minor/Other Research Projects:**

S. No	Title of the Project	Name of the Funding Agency	Amount in Rs.	Duration	Remarks Completed / Pursuing.
1	Synthesis charactersisation and Biological Studies of some mannich bases	UGC	75,000/-	2002-03	Completed
2	Synthesis of organic compound by claisen condensation process.	TNSCST	5,000/-	2003-04	Completed
3	Microwave assisted synthesis of Novel Mannich base and their metal complexes structural andBioactivity studies	UGC	90, 000 /-	2007-09	Completed
4	Synthesis ,Characterization and antimicrobial studies of metal complexes of Mannich bases.	TNSCST	6,000/-	2010-11	Completed
5	Synthesis,Charecterisation and Antimicrobial Study of Novel Derivatives of 2-Hydroxy Pyrrolidine	UGC	10,10,800/-	2012-15	Completed
6	Popularization of basic Science among theSchool Children of Rural Areas in and around Tiruchirappalli.	TNSCST	25,000/-	2017 December	Completed

### Seminars/Conferences/Workshop:

<b>Seminars/Conferences/Workshops- Attended/Participated</b>	<b>Upto Academic Year (Number) 2022</b>
At the State Level	15
At the National Level	12
At the International Level	05
<b>Seminars/Conferences/ Workshops- Participated &amp; Presented Papers</b>	<b>Upto Academic Year (Number) 2022</b>
At the State Level	11
At the National Level	09
At the International Level	05

### Membership in Academic body:

- ✓ Member - Board of Studies- Sadakathullah appa college, Tirunelveli 2010-2011,2017-2020
- ✓ Member - Board of Studies -Jamal Mohamed college, Tirchirappalli
- ✓ Member - Board of Studies- Poompuhar college, Melaiyur, Nagai(Dt),2012-2015
- ✓ Member - Board of Studies - Selvam Arts and Science College, Namakkal –2015-2018,2021-2023
- ✓ Member - Board of Studies - Thanthi Hans Rover College, Perambalur–June2018-2020
- ✓ Member- Board of Studies- Mannar Thirumalai Naicker College,Madurai-2019-2021
- ✓ Member- Board of Studies- J J College of Arts and Science College, Pudukottai-2018-2019
- ✓ Member- Board of Studies- G.T.N Arts College, Dindigul 2020-2021.

### Membership in Professional body:

- ✓ Member of Association of Chemistry Teachers (LM.NO891)
- ✓ Life Member of Indian Society of Systems For Science & Engineering (ISSE) LM04444

<b>Number of Publications</b>	<b>Academic Year Upto 2022</b>	
	<b>Published</b>	<b>Accepted for Publication</b>
(i) Books	2	-
(ii) Contribution to edited Volume of Books	1	-
(iii) Journals (national Level)	--	-
(iv) Journals (International Level)	84	-

### Publications:

- ✓ Co-Authored a book entitled “**Selected Topics In Chemistry**”, Vandana Publications, Lucknow-226001, India.ISBN:978-81-932843-3-9
- ✓ Co-Authored a book entitled **Soft Skills Development** - book published by Jamal Mohamed College,Trichy-20
- ✓ Contributed a chapter on Respecting elders in **value education** book published by Jamal Mohamed College,Trichy-20

### Participation in Extracurricular Activities (NSS, NCC, Sports, Games, Voluntary association and Cultural activities):

- ✓ Served as NSS Officer in the College from April 2008 to March 2011
- ✓ Served as LEO club faculty advisor from 2012 to 2018

### Administrative position held in the College:

- ✓ Subwarden in Khajamian Hostel, Jamal Mohamed College, from 2000 to 2005
- ✓ Department Library in charge from 2003 to 2011.
- ✓ Vice President of Chemistry Association, during the year 2015-2016.
- ✓ Advisory committee member of NSS during the year 2016-17.
- ✓ Assistant Secretary JMC-Alumni association from June 2017
- ✓ Deputy warden Khajamian Hostel, Jamal Mohamed college from June 2012 to June 2018
- ✓ Secretary Baithulmal association from June 2017 to May 2019
- ✓ Additional Coordinator –DBT Star College Scheme -2020
- ✓ Deputy Coordinator - Curriculum Development Cell from June 2020
- ✓ Member-Civil services examination study Centre from June 2021
- ✓ Coordinator -Khajamian Hostel from July 2018-July 2022
- ✓ Deputy Controller of Examinations from June 2022
- ✓ Chief Superintendent –Autonomous Examinations-2022
- ✓ Nodal Officer-NIRF-2022

### Member ship in autonomous programme:

- ✓ Member - value education during 2006-08.
- ✓ Member- Board of studies of Chemistry since 2000
- ✓ Member- Extracurricular Activities from 2010 to 2012.
- ✓ Member- value education during 2006 –2008 and 2010-2012
- ✓ Member academic council during 2015-17 and 2020-
- ✓ Member Anti ragging committee 2018-2020
- ✓ Member-Grievance Appeal committee from 2018-2020
- ✓ Member-Students welfare committee from 2018-2020
- ✓ Convener –Students Welfare committee, 2020-2023

### Convener / Organizing Secretary:

- ✓ Convener and organizing secretary for Two Day National conference on Current Scenario Material Chemistry Held on Feb 9th and 10<sup>th</sup> 2015.
- ✓ Organizing Secretary for National Science Day Celebrations-2020, organized by Jamal Mohamed College (Autonomous), Tiruchirappalli-20 on 28.02.2020.

### Member in Editorial Board / Journal Referee

- ✓ Reviewer of International Journal of Pharma and BioSciences.
- ✓ Reviewer of Indian Journal of Chemistry – Section A(IJCA)
- ✓ Reviewer : Royal society of chemistry journal
- ✓ Advisory Editorial board member in Jamal Academic Research Journal

### Awards received

Out- standing LEO-Faculty advisor (324 A2 District) 2017-2018

Best Senior researcher in Science Faculty for the academic year 2022-2023

### ✓ National advisory committee member:

- ✓ National conference held at Selvam Arts college Dec 2015
- ✓ National conference held at L.N Govt Arts college Ponneri ,February 2016
- ✓ Convener for a Two Day workshop on Domestic Products Preparation held from 3rd to 5th January 2017

- ✓ Adroit conference on Emerging Trends in Chemistry (National Level) held at Department of Chemistry, JEPPIAAR SRR Engineering college, old Mamallapuram Road, Chennai-603103 on 2<sup>nd</sup> August 2018.
- ✓ External Advisory committee member for certificate course on social useful products work during the academic year 2015-2016 conducted by Bon Secours College for women.

## ANNEXURE

### List of Publications:

1. "Studies on ground water pollution of Tannery effluent at Sempattu, Tiruchirappalli, Tamil Nadu.", **JARJ.**, 1(2), 2004.
2. Synthesis, characterization and antimicrobial studies of Cu<sup>II</sup>, Ni<sup>II</sup> and Co<sup>II</sup> complexes of furan- and thiophene-2-aldoximes, J. Indian Chem. Soc., 83 608-610,2006
3. Physico-chemical characteristics of Ground water status in and around Tuticorin SIPCOT. JARJ.,2(2), 2005.
4. Synthesis and Biological activities of some new Mannich bases of furfural. Indian J. Heterocyclic Chem., 16 197,2006
5. Synthesis, characterization and antimicrobial studies of Co<sup>II</sup>, Ni<sup>II</sup> and Cu<sup>II</sup> complexes of 5-chlorothiophene-2-aldehyde semi and thiosemicarbazones JARJ:Int 3(2) 27-31,2006
6. Synthesis, Characterization and Antimicrobial activities of Some Novel Derivatives of Phenol,AsianJ.Chem.,22,(5)3422-3428,2010
7. Synthesis, Characterization and Antimicrobial activities of Some Novel Derivatives of Phenol and their Co<sup>II</sup>,Ni<sup>II</sup>,Cu<sup>II</sup> and Zn<sup>II</sup> Chloro complexes,AsianJ.Chem.,23,(5)3422-3428,2011
8. Microwave assisted synthesis of Novel Mannich bases and their biological Studies, Asian J.Chem, 23,(5)3422-3428,2011
9. Synthesis, Characterization and Antimicrobial activities of Some Novel Mannich bases derived from N-methylpiperazine,Int.J.ChemTech Res., 3,(4)1974-1977,2011
10. Synthesis, Characterization and Antimicrobial activities of Mannich bases derived from Benzhydrazide, RJPBCS, 3,(1)185-188,2011
11. Synthesis, Characterization and Antimicrobial activities of Sallaldehyde derivatives,Int.J.ChemTech Res., 4,(1)12-15,2012
12. Synthesis, Characterization and Antimicrobial Activities of Some Novel Mannich bases derived from 2-Furyl methyl ketone , IJSC 5,(1)61-64,2012
13. Synthesis, characterization and antimicrobial activity of novel Mannich Bases, Der Chemica Sinica, 3,(5)1098-1101,2012

14. (E)-N<sup>1</sup>-(4-Methoxybenzylidene)pyridine-3-carbohydrazide dehydrate, Acta Cryst.(2013), E69, o1177-o1178 ISSN:1600-5368.
15. Synthesis characterization and antimicrobial study of N – Mannich base and its complexes, Der Chemica Silica, 4(3) 93 – 99,2013
16. Synthesis and spectral characterization of hydrazone derivative off urfural using experiment and DFT methods, Spectrachimica Acta A 120 314– 322,2014
17. Cycloalkenyl nonaflates as electrophilic cross-coupling substrates for palladium catalyzed C-N bond forming reactions with enolizable heterocycles under microwave enhanced conditions. **New Journal of Chemistry** 38(3) 1294-1305,2014
18. Spectral and X – ray Crystallographic structure determination of (E)-N-(Furan – 2- yl) methylene)benzohydrazide. Int.J.of.App.Resarch,3(12), 495 – 97,2013
19. Antimicrobial activities of Mannich bases derived from hetero aldehydes. Ijprbs, 2(6): 218-232 , 2013
20. A rapid and modified approach for C-7 amination and amidation of 4-methyl-7- nonafluorobutylsulfonyloxy coumarins under microwave irradiation Impact Factor 2.562, ISSN 2046-2069, RSC Adv.,4(38),19766–19777,2014
21. Synthesis of Co(II), Ni(II), Cu(II) and Zn (II) complexes of (1-(3-furan-2-yl)-3-oxo-1-phenyl propyl)semicarbazide and their biological activities, Int.J.of.App.Resarch
22. Synthesis, characterization and antimicrobial activities of some transition metal complexes with a new mannich base. Ijcp 4(1), 47 -51, 2014
23. Regioselective synthesis of C-2 substituted imidazo[4,5-b]pyridines utilizing palladium catalysed C-N bond forming reactions with enolizable heterocycles, Tetrahedron Lett.55(10) 1778-178A,2014
24. Design, synthesis and structure- activity relationship (SAR) studies of imidazo[4,5-b] pyridine derived purine Isosteres and their potential as cyclotoxic agents, European Journal of Medicinal Chemistry, 89 21-31,2015
25. Synthesis of Co(II), Ni(II), Cu(II) and Zn (II) complexes of (1-(3-furan-2-yl)-3-oxo-1-phenyl propyl)semicarbazide and their biological activities, Int.J.of.current pharmaceutical and clinical research 4(1),2014
26. Synthesis, Crystal Structure and Antimicrobial Activities of Di ((E)-2-(Pyridine-2-Ylmethylene) Hydrazinecarboxamide) Cobalt (II) Dichloride Trihydrate. Physical Science International Journal 4(6):816-824,2014
27. Strucural and Vibrational studies on (E)-1-[(4-methoxybenzylidene)semicarbazide Ind. J.App.Research 4(4) 40-45,2014.
28. (E)-N/(3,4-Dimethoxybenzylidene)-nicotinohydrazide monohydrate, ActaCryst. (2014).E70, o793–o794Wiley Publisher,
29. Synthesis and structural characterization of (E)-N0-((Pyridin-2-yl)methylene)benzohydrazideby X-

30. Crystal structure of ethyl 6-(chloromethyl)-4-(4-chlorophenyl)-2-oxo-1,2,3,4-tetrahydropyrimidine-5-carboxylate Acta Cryst (2014) E70, o 1185-o1186 Publisher : Elsevier impact factor: 3.432
31. Synthesis characterization and biological study of Mannich bases and their Copper(II) Complexes Int J Pharm Pharm Sci, 16, (9), 466-472
32. Synthesis characterization and antimicrobial study of a novel compound and its metal complexes derived from nicotinic acid Der Chemica Sinica, 5(5):81-90, 2014
33. "FeCl<sub>3</sub>-Catalysed C-N Coupling reaction between cyclic ethers and heterocyclic amines" European Journal Of Chemistry" 89 21-31, 2015
34. Mn(II), Co(II), Cu(II) and Zn(II) complexes of ((E)-N'-Furan-2-ylmethylene)Nicotino hydrazide: Synthesis, Characterisation and Biological Activities. Int J Pharma Bio Sci 2015 Jan; 6(1): (B) 1210 – 1219, 2018
35. Synthesis characterization and antimicrobial study of (morpholine-4-yl-methyl)-urea and its metal(II) complexes. Ind. J. App. Res. 3(12), 19-22, 2013
36. Synthesis characterization and antimicrobial activity study of (Morpholino (Thiophen-2-yl)Methyl)Nicotino Hydrazide and its Metal(II) complexes. Ind. J. Sci. Res. 3(7), 59-61, 2014
37. Synthesis characterization and antimicrobial studies of Some Mannich bases derived from Phenylethylamine and their transition metal complexes. J. App. Chem. 2(3), 5-11, 2014
38. Synthesis of Cobalt (II), Nickel(II), Copper(II) and Zinc(II) complexes of N-(1-Morpholinosalicyl)benzohydrazide and their antimicrobial activities. J. Environ. Nano Technol. 3(2), 188-193, 2014
39. Synthesis of Mn(II), Co(II), Cu(II) and Zn(II) complexes with (E)-N-(pyridine-2-ylmethylene)nicotino hydrazide and their evaluation of antimicrobial activities. Der. Chemica Sinica 5(3), 116-123, 2014
40. Crystal structure of 3-([thiophene-2-yl]-methylidene) hydrazinyl}carbonyl)-pyridinium chloride dihydrate. Acta Cryst. (2014). E70, 0976-0977.
41. Synthesis, Characterization and Antimicrobial studies of a chiral compound and its Metal complexes. IJSRP volume 4, issue (7), 1-7, 2014
42. Synthesis, structural and spectral analysis of 1-(pyrazin-2-yl) piperidin-2-ol by density functional theory. Spectrochimica Acta Part A. Molecular and Biomolecular Spectroscopy 138 271-282, 2015
43. Crystal structure of (E)-3-{[2-(2,4-di-chlorobenzylidene)hydrazin-1-yl]-carbonyl}pyridinium chloride trihydrate. Acta Cryst. (2015). E71, -0105-0106.
44. Crystal structure of ethyl 6-methyl-2-sulfanylidene-4-(thiophene-2-yl)-1,2,3,4-



45. A highly efficient catalyst for the Suzuki cross-coupling reaction of 3-chloro-5-oxadiazol-2-yl pyridine. Journal of Heterocyclic Chemistry(2014).
46. Vibrational spectroscopy investigation and density functional theory calculations on (E)-N0- (4-methoxybenzylidene) benzohydrazide, Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy 143,230-241,2015
47. Crystal structure determination and antimicrobial studies on di((E)-2-(pyridine-2-ylmethylene)hydrazinecarboxamide)nickel(II) dichloride dihydrate.IJDR.4(12) 2698-2701,2014
48. Synthesis, characterization and In-Vitro cytotoxic study of novel ligands and their metal complexes. Der ChemicaSinica,6(2): 56-70,2015
49. Vibrational studies of (E)-{Pyridine-2-yl)methylene Semicarbazide using experimental and theoretical methods. Journal of Molecular Structure 1094 254-263,2015
50. Synthesis and characterisation of N-substituted 2-hydroxypyrrolidine/piperidine derivatives using cerium chloride as catalyst. Int. J.Che 54B 999-1004,2015
51. Palladium catalysed Suzuki cross coupling of 2-halodeazapurines with potassium organotrifluoroborate salts in the regioselective synthesis of imidazo[4,5-b] Pyridine analogues. Australian Journal of Chemistry 69 (6),618,2016
52. Synthesis, Molecular Structure and Quantum Chemical Computational Interpretations on (E)-N'- (3, 4-Dimethoxy benzylidene)-Nicotinohydrazide Monohydrate by DFT-B3LYP andM02-2X level of Calculations; A Comparative Study, Int. J. Adv. Sci. Eng. 2(1) 36-57,2015
53. Vibrational spectral analysis and first order hyperpolarizability calculations on(E)-N'-(furan-2-yl methylene) nicotinohydrazide, : 10.14302/issn.2377-2549.jndc-16-949 Vol-1 Issue –2 Page No– 2 open access
54. Antimicrobial and larvicidal activities of 2-hydroxypyrrolidine/piperidine derivatives,SOJ Pharm Pharm Sci, 3(1), 1-6.2016 Open Access(symbiosis)
55. Mo(CO)<sub>6</sub> as a Solid CO Source in the Synthesis of Aryl/Heteroaryl Weinreb Amidesunder Microwave-Enhanced Condition Aust. J. Chem 2015,70(1),44-51,2016
56. A facile access for the synthesis of some C-2 substitute dimidazopyrazines by utilizing the palladium catalyzed Suzuki cross- coupling reaction under microwave irradiation MN Joy, B Savitha, AM Sajith, YD Bodke, T Venkatesh, KKA Khader, ... Chinese Chemical Letters 27 (1), 31-36,2016.
57. Structural and vibrational studies on 1-(5-methyl-[1, 3, 4]thiadiazol-2-yl)-pyrrolidin-2-olNR Babu, H Saleem, S Subashchandrabose, MSA Padusha,Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy 152, 252-261,2016
58. Suzuki-Miyaura cross-coupling reaction in water: facile synthesis of (hetero) aryl uracil bases

- using potassiummanganotrifluoroborates under microwave irradiation. B Savitha, AM Sajith, EK Reddy, CS Kumar, M Padusha *ChemistrySelect* 1 (15),4721-4725,2016
59. Diethyl 4-(3-chlorophenyl)-2-methyl-6-phenyl-1, 4-dihydropyridine-3, 5-dicarboxylate FMM Ahamed, MSA Padusha, B Gunasekaran *1(1)*,x160155.
  60. Metal complexes of n-[morpholine-4-yl-(4-nitrophenyl)-methyl]-benzamide: synthesis, characterization and evaluation of pesticidal and larvicidal activity, *World Journal of Pharmaceutical Research*, Kannan et al., 6(10),1138,2017
  61. 3-(benzo[d][1,3]dioxol-5-yl)-3-morpholin-4-yl-1-phenylpropan-1-one and its metal complexes: synthesis and exploration of their bioactivity kannan et al., *world journal of pharmaceutical research*, 6(12),87,2017
  62. Phytochemical Screening and Antimicrobial Studies in Leaf Extracts of *Indigofera aspalathoides* (Vahl.) *Pharmacogn J.*10(6)1208-1215,2018.
  63. Fabrication of electrospun poly(vinyl alcohol)/dextran nanofibers via emulsion process as drug delivery system: Kinetics and in vitro release study process as drug delivery system: Kinetics and in vitro release study *International Journal of Biological Macromolecules* 1250-1259, 116 (2018)
  64. A Highly Efficient Catalyst for the Suzuki-Miyaura Cross-Coupling Reaction of 5-(5-chloropyridin-3-yl)-3-methyl-1,3,4-oxadiazol-2(3H)-one *J. Heterocyclic Chem.*,55(10),2277-2283,2018
  65. Molecular docking of 2-[(morpholin-4-yl) (pyridin-3-yl) methyl] hydrazinecarboxamide (mph) against extended spectrum of beta lactamase enzyme inhibition, *4(4)*655,2018.
  66. Mass spectrometric method for distinguishing isomers of dexamethasone via fragment mass ratio: An HRMS approach. *Mass Spectrometry*,53(11),1046-1058,2018
  67. A Highly Efficient Catalyst for the Suzuki-Miyaura Cross-Coupling Reaction of 5-(5-chloropyridin-3-yl)-3-methyl-1,3,4-oxadiazol-2(3H)-one *J. Heterocyclic Chem.*,55(10),2277-2283,2018
  68. A highly efficient precatalytic system (XPhos- PdG2) for the Suzuki-Miyaura cross-coupling of 7-chloro-1H-pyrrolo[2,3-c]pyridine employing low catalyst loading, *Molecular Diversity* ,23(3),697-707,2019
  69. Molecular docking of 2-[(morpholin-4-yl) (pyridin-3-yl) methyl] hydrazinecarboxamide (mph) against extended spectrum of beta lactamase enzyme inhibition *RJLBPCS* 2018 S. Farook Basha<sup>1\*</sup>, A. Raja<sup>2</sup>, M. Syed Ali Padusha<sup>1</sup>
  70. Ultrasonic Studies on the Nature of Molecular Interaction of Synthesized Mannich Bases in DMSO at Different Temperatures. *Asian Journal of Chemistry*; Vol. 4,960-96,2019
  71. Suzuki-Miyaura coupling under microwave enhanced conditions: synthesis of 2-(hetero)aryl benzimidazoles *Arkivoc International Journal*
  72. Fabrication of sustained release system of electrospun poly(acrylic acid)/Dextran

nanofibers using emulsion electrospinning as wound dressing applications, *Journal of Nanoscience and Nanotechnology*, 21(3), 1613-1622 -10, 2021

73. Application of Palladium Based Precatalytic Systems in the Suzuki-Miyaura Cross-Coupling Reactions of Chloro- Heterocycles, *Journal of Chemistry Select*, 5(29), 9005-9016, 2020
74. Synthesis, quantum chemical calculations and molecular docking studies 2-ethoxy-4[(2-trifluoromethyl-phenylimino)methyl]phenol, *Molecular Physics*, 118(24), 2020
75. Core-shell nanofibers from poly(vinyl alcohol) based biopolymers using emulsion electrospinning as drug delivery system for cephalexin drug, *Journal of Macromolecular Science, Part A*, 132-144, 2020
76. Synthesis, crystal structure, DFT calculations and antimicrobial activity of 4-(4-Fluoro- phenyl)-2,6-dimethyl-1,4-dihydro-pyridine-3,5-dicarboxylic acid diethyl ester, *Journal of Chemistry*, 64(8), 4583-4590, 2021
77. A novel anticancer chromeno-pyrimidine analogue inhibits epithelial-mesenchymal transition in lung adenocarcinoma cells, *Toxicology Mechanisms and Methods*, 31(6), 401-412, 2021
78. Quantum Mechanical Study, Spectroscopic (FT-IR, FT-Raman and UV-Vis) Study, NBO, NLO Analysis and Molecular Docking Studies of 2-Ethoxy-4-(Pyridine-2yliminomethyl)- Phenol, *Polycyclic Aromatic Compounds*, 42(2) 4819-4842, 2022
79. Synthesis, Characterization, Crystal structure of 4-(4-Bromo-phenyl)-2,6- dimethyl-1,4-dihydro-pyridine-3,5-dicarboxylic acid diethyl ester: Hirshfeld surface analysis and DFT calculations, 65(2), 439-448, 2022.
80. Spectroscopic analysis, DFT studies and molecular docking of 2,3-dichloro-benzylidene-(2-trifluoromethyl-phenol)-amine, *Vietnam Journal of Chemistry*, 60(1), 49-69, 2022
81. Identification of Medically Important Phytochemicals in Solvent Extracts of Areca catechu L. Nut, *International Journal of Zoological Investigations*, 80, 7-17 ,2022
82. Molecular structure determination, spectroscopic, quantum computational studies and molecular docking of 4-(E)-[2-(benzylamino)phenylimino) methyl-2]ethoxy phenol, *Journal of Bimolecular Structure and Dynamics*, 1-18, 2022
83. Electrospun Nanofibers for Drug Delivery Applications: Methods and Mechanism, *Polymers for Advanced Technologies*, 2022
84. Synthesis, Characterization and antimicrobial activities of metal complexes of a new class of polydentate Mannich bases, *YMER*, 21(12), 2569 -2591, 2022.
85. Phytochemical and pharmacological potential of the genus plecranthus-A review, *South African Journal of Botany* 154, 159-189 ,2023.

### Conference / Seminar attended with presenting paper:

1. Presented a Paper entitled **“Studies on ground water pollution of Tannery Effluent at Sempattu, Tiruchirappalli, Tamil Nadu.”** at the State Level Seminar on Environmental Pollution organized by Sri Parasakthi College for Women, courtallam, Tamil Nadu held on 12<sup>th</sup> and 13<sup>th</sup> Dec 2002.
2. Presented a Paper entitled **“Synthesis and characterization of Biologically active Nitrogen containing Mannich bases.”**, at the UGC sponsored State Level Seminar on The New Vistas in Spectroscopic techniques organized by Department of Chemistry, Islamiah College, Vaniyambadi, Tamil Nadu, held on 12<sup>th</sup> and 21<sup>st</sup> Aug 2005.
3. Presented a Paper entitled **“Synthesis, characterization and Biological activity Cu(II), Ni(II), Co(II) and Zn(II) complexes of N-(1-morpholinosalicylyl) acetamide”**, at the DST, TNSCST and NCSTC sponsored National Seminar on Emerging Trends in Chemistry organized by Department of Chemistry, PSGR Krishnammal College for Women, Coimbatore, Tamil Nadu, held on 28<sup>th</sup> and 29<sup>th</sup> Dec 2006.
4. Presented a Paper entitled **“Synthesis and characterization and antimicrobial activity of novel Mannich bases of salicylaldehyde”** at the National Level Seminar on Recent Trends in Heteroatom Chemistry conducted by Annamalai University, Annamalai Nagar, Tamilnadu held on 28<sup>th</sup> and 29<sup>th</sup> March 2007.
5. Presented a Paper entitled **“Synthesis and characterization and Biological activity of Cu(II), Ni(II), Co(II) and Zn(II) complexes of N-(1-morpholinosalicylyl)semi- and thiosemicarbazide”**, at the National Level Seminar on Recent Trends in Heteroatom Chemistry conducted by Annamalai University, Annamalai Nagar, Tamilnadu held on 28<sup>th</sup> and 29<sup>th</sup> March 2007.
6. Presented a Paper entitled **“Synthesis and characterization and Biological activity of Cu(II), Ni(II), Co(II) and Zn(II) complexes of N-(1-piperidinosalicylyl)semi- and thiosemicarbazide”**, at the National Level Seminar on Recent Trends in Heteroatom Chemistry conducted by Annamalai University, Annamalai Nagar, Tamilnadu held on 28<sup>th</sup> and 29<sup>th</sup> March 2007.
7. Presented a Paper entitled **“Synthesis and characterization and Biological study of metal complexes of Novel Mannich base (PSNA)”**, at the National Conference in Chemistry conducted by Periyar University, on 1<sup>st</sup> and 2<sup>nd</sup> March 2007. Presented a paper entitled **“Synthesis and characterization and Biological study of metal complexes of Novel Mannich base (MSBA)”** at the National Conference in Chemistry conducted by Periyar University, on 1<sup>st</sup> and 2<sup>nd</sup> March 2007.
8. Presented a Paper entitled **“Synthesis and characterization and Antimicrobial activity of some Novel Mannich bases** at the National Symposium on Frontier areas in Chemistry in Chemistry

organized by The American College, Madurai, Tamilnadu held on 10<sup>th</sup> and 11<sup>th</sup> Jan 2008.

9. Presented a Paper entitled **“Synthesis and characterization and Biological activity of Cu(II) and Ni(II) Complexes containing O,N-donor ligands** at the National Level Seminar on Recent advances in physical organic chemistry organized by National College, Tiruchirappalli Tamilnadu held on 11<sup>th</sup> and 12<sup>th</sup> Feb 2008.
10. Presented a Paper entitled **“Synthesis and characterization and Biological activity of Cu(II)Ni(II) and Co(II) Complexes of Phenolic derivatives** at the UGC Sponsored National Conference on Recent Trends in coordination and organometallic chemistry organized by Department of Chemistry ,Sri Ramakrishna Mission Vidyalaya College Of Arts And Science, Coimbatore, Tiruchirappalli, Tamilnadu held on 17<sup>th</sup> and 18<sup>th</sup> July 2008.
11. Presented a Paper entitled **“Synthesis and characterization of Novel derivatives of 2-Hydroxy pyrrolidine** at Chennai Chemistry Conference held at Indian Institute of Technology during February 11-13,2011.
12. Presented a Paper entitled **“Synthesis and characterization and antimicrobial study of metal complexes of O,N-donor ligands** at the National Conference on Emerging Trends in Chemistry organised by Bishob Heber College, Tiruchirappalli, on 11<sup>th</sup> Jan2012.
13. Presented a Paper entitled **“Synthesis and characterization and ”** at the National Seminar on Chemistry Education and Research & National convention of chemistry teachers(NCCT- Sponsored by SERB (DST) Organized by Department of Chemistry - Annamalai University Tamilnadu – held on Nov – 8 – 10 –2013.
14. Presented a Paper entitled **“Aryl/heteroaryl penta fluoro benzene sulfonates.electrophilic coupling partners for Suzuki-Miyaura cross coupling reactions and regioselective synthesis of C-2substituted imidazo[4,5-b]pyridines ”** at the 6th International Chemistry Conference Organized by Saudi Chemical Society and Department of Chemistry,College of Science ,King Saud University,Riyadh-Saudi Arabia on 8 –10 Nov 2016.
15. Presented a paper entitled **"Transition metal complexes of N-(1-Morholinosalicyl)Acetanilide and their antimicrobial activity"**. At a two day international conference on new vistas in material science organized by P.G. research department of J.J.college of arts and science on 8 & 9th March 2018.
16. Presented a Paper entitled **“Aryl/heteroaryl penta fluoro benzene sulfonates.electrophilic coupling partners for Suzuki-Miyaura cross coupling reactions and regioselective synthesis of C-2substituted imidazo[4,5-b]pyridines ”**4<sup>th</sup> International Confrence on Chemical and Environmental Research(ICCER-2019)
17. Presented a Paper entitled **An efficient and sustainable methodology for one-pot synthesis of 1,4-dihydro pyridine derivatives by hantzsch reaction in 5<sup>th</sup>International Confrence on Chemical and Environmental Research(ICCER-2020).**

18. presented a paper entitled "**Synthesis of 3,4 Dihydropyrimidine derivative using Diamine modified  $\beta$ -Cyclodextrins as a metal free supramolecular catalyst**" in the "7th International Conference on Innovations in Chemical and Environmental Research, [ICICER-2022]"

**Conference / Seminar / Webinar attended without presenting paper:**

1. Participated in the National Symposium on "Recent Developments in Organometallic Chemistry" held on 27 and 28 March 2003, organized by the Department of Chemistry, Manonmaniam Sundaranar University, Tirunelveli, Tamilnadu.
2. Participated in the UGC Sponsored **National Symposium on Recent Trends in Heterocyclic Chemistry (NSRTHC-2004)** Conducted by PG & Research Department of Chemistry, Jamal Mohamed College, Tiruchippalli-20 during 24 & 25 September 2004.
3. Participated in the UGC sponsored State Level Seminar on "**Emerging Trends in Chemistry**" held on 9<sup>th</sup> March 2006, organized by Jamal Mohamed Collge, Tiruchirappalli
4. Participated in the TANSCH AND UGC Sponsored three day workshop on "**Curriculum development and evaluation**" conducted during 2-4 March 2006, organized by UGC-ACADEMIC STAFF COLLEGE, BHARATHIDASAN UNIVERSITY, Tiruchirappalli, Tamil Nadu.
5. Participated in the Seminar Sponsored under Autonomous Grant "**Advanced Topics in Chemistry**" held on 13, 14 March 2007, organized by the Department of Chemistry, Jamal Mohamed College, Tiruchirappalli, TamilNadu.
6. Participated in the UGC Sponsored National Level workshop on "**Computational Chemistry**" held on 26, 27, 28 March 2007, organized by the Department of chemistry, Sir Syed College, Kannur Dt, Kerala.
7. Participated in the UGC Sponsored Statel Level seminar on "**Modern Techniques in Chemistry**" held on 5<sup>th</sup> & 6<sup>th</sup> March 2008, organized by the Department of Chemistry, Jamal Mohamed College, Tiruchirappalli, TamilNadu.
8. Participated in the UGC Sponsored Statel Level seminar on "**Frontier studies in Chemistry**" held on 9<sup>th</sup> & 10<sup>th</sup> Feb 2010, organized by the Department of Chemistry, Jamal Mohamed College, Tiruchirappalli, TamilNadu.
9. Participated in the UGC Sponsored Statel Level seminar on "**Modern Techniques in Chemistry**" held on 5<sup>th</sup> & 6<sup>th</sup> March 2008, organized by the Department of Chemistry, Jamal Mohamed College, Tiruchirappalli, TamilNadu.
10. Participated in the Workshop on "**Testing and Evaluation**" held from 28<sup>th</sup> to 30<sup>th</sup> May 2009, organized by the National Testing Service-India at National College, Tiruchirappalli, TamilNadu.
11. Participated in the UGC Sponsored Statel Level seminar on "**Examination reforms Chemistry**" held on 12<sup>th</sup> March 2010, organized by Jamal Mohamed College, Tiruchirappalli, TamilNadu.

12. Participated in the NAAC Sponsored National Level seminar on **“Quality Enhancement in teaching, Research and Extension in Higher Education Institutions-Prospects and Problems** held on 15<sup>th</sup> & 16<sup>th</sup> April 2010, organized by **Internal Quality Assurance Cell** Jamal Mohamed College, Tiruchirappalli, TamilNadu.
13. Participated in the UGC Sponsored Statel Level seminar on **“Recent trends in Chemical Research** held on 5<sup>h</sup> & 6<sup>th</sup> Oct 2010, organized by the Department of Chemistry, Jamal Mohamed College, Tiruchirappalli, TamilNadu.
14. Participated in the UGC Sponsored Statel Level seminar on **“Examination reforms Chemistry”** held on 12<sup>th</sup> March 2010, organized by Jamal Mohamed College, Tiruchirappalli, TamilNadu.
15. Participated in workshop on Quality enhancement of Research: New Paradigm in Trans-disciplinary approaches and IPR” held on 6<sup>th</sup> September 2019, organized by Internal quallit assurance Cell and Innovation and incubation Centre, Jamal Mohamed College, Tiruchirappalli, TamilNadu
16. Participated in the Emerging Frontiers in Chemical Sciences held from 13<sup>th</sup> to 15<sup>th</sup> December, Organized by Post Graduate & Research Department of Chemistry, Farrok College (Autonomous) Kozhikode, Kerala.
17. Participated in Orientation programme on **“MOOOC’s and E-learning”** held on 29<sup>th</sup> January 2020, organized by Department of Library, Jamal Mohamed College, Tiruchirappalli-01
18. Participated in GYANOTSAV-2020 (An Educational Conclave), held from 19<sup>th</sup> to 20<sup>th</sup> February 2020, Jointly organized by SHIKSHA SANSKRITI UTHAN NYAS (SSUN), Tamil Nadu Chapter and National College, Tiruchirappalli-01.
19. Attended four days Webinar on **“An Effective Research Paper Writing Skills”** from April 13-16, 2020 conducted by Bhagwan Mahavir University.
20. Participated in the workshop on **“Online Research Methodology Workshop”** and qualified the exam from April 12-14, 2020 organised by REST society for Research International [RSRI], Krishnagiri, Tamilnadu.
21. Participated in the webinar on **“Quantifying The Quality Of Research”** enfolded by Dr. Hiren Patel from May 2-3, 2020.
22. Participated in the National level online workshop on **“Smart Research 2020”** from May 7-9, 2020 organized by Government First Grade College, Kanakapura, Karnataka.
23. Participated in the webinar **“Good teacher to great teacher”** expertisesession by DR. Sylendara Babu IPS held on 14<sup>th</sup> May 2020, conducted by ICT Academy.
24. Attended National online Workshop on **“Ict Based Teaching In Chemistry”** held on 18<sup>th</sup> May 2020, at Kasturba Gandhi Degree & PG College for Women, Secunderabad, Telugana.
25. Participated in the Webinar on **“Quality Metrics In Higher Education”** organized by the Internal Quality Assurance Cell, Sadakathullah Appa College, Tirunelveli, under the Paramash Scheme

on 21<sup>st</sup> May2020.

26. Attended an Online Lecture on “**Fundamental Concepts In Physical Chemsitry And Online Help**” organised by the SRM Institute of Science and Technology, Ramapuram, Chennai, held on 22<sup>nd</sup> May2020.
27. Participated in the Webinar on “**Structural Charecterisation Of Drugsby Spectroscopic**” organized by PG and Research Department of Chemistry, G.T.N.Arts College, Dindigul on 20<sup>th</sup> May2020.
28. Participated in the UGC-Sponsored Interaction Programme for Principals Jointly organisedby UGC-HRDC and CCCD of Bharathidasan University, Tiruchirappali-24, on 26<sup>th</sup> November-2022.
29. Participated in the two day “**4th National LevelWorkshop on NIRF India Rankings 2023**” held on 21st & 22nd December, 2022 through Online, conducted by Institute for Academic Excellence (IAE), Hyderabad in collaboration with Collegiate Education & Technical Education Department, Govt. of Telangana.
30. Attended TANSCH- Sponsored Workshop on Institutional Ranking Framework: Data and Documentation Perspective, Jointly organisedby UGC-HRDC and CCCD of Bharathidasan University, Tiruchirappali-24, on 30<sup>th</sup> December-2022.
31. Participated in the IP Awareness/Training program under National Intellectual Property Awareness held on 16<sup>th</sup> December, 2022 Organised by Intellectual Property Office,

Acted as Resource person:

1. Acted as a resource person for the UGC-NET free coaching class held at Govt College (Autonomous) Kumbakonam-612001 held on 16th Nov-2010. Served as a member in the selection of national youth award for the year 2009-2010 awarded by Tamilnadu Sports Development Commission ,Chennai held on 9.8.2010.
2. Acted as a resource person for the aspirants of - NET free coaching class organized by the Centre for the youth Development and Studies, Bharathidasan University, Tiruchirappali-620023. held on 27.11.2010. Acted as a resource person for the UGC-NET free coaching class held at Govt College (Autonomous) Kumbakonam - 612001 held on 11<sup>th</sup> Dec - 2010.
3. Acted as a resource person for the UGC-NET free coaching class held at Tamilavel Umamaheswarnar Karanthi Arts College 612001 held on 22.6.2011.
4. Acted as a resource person for the seminar organised by the Department of Chemistry, Oxford Engineering College ,Tiruchirappalli-620009 held on 26th Feb 2011.
5. Acted as a resource person for the chemistry Association meeting held at Govt Arts College Thuvakudimalai, Tiruchirappalli-22
6. Acted as a resource person in the UGC-CSIR NET and SET coaching for the chemistry students organised by the Department of Industrial Chemistry, Alagappa University, Karikudi. Association



7. Acted as a panel member to conduct personal interview towards the recruitment of faculty member in the Department of chemistry of Pavendar Bharathidasan College of Engineering and Technology, Tiruchirappalli-24 held on 23.1.2013
8. Acted as a resource person for the aspirants of -NET free coaching class organised by the Centre for the youth Development and Studies, Bharathidasa University, Tiruchirappali- 620023. held on 21.12.2013.
9. Acted as a resource person for the chemistry Association meeting held at Bishob Heber College ,Tiruchirappalli-17 on 30-1-2015.
10. Acted as a resource person for the state level technical symposium held at Sasure College of Engineering, Coimbatore may 2016.
11. Acted as a resource person for the chemistry association meeting held at J.J. College of Arts and Science Pudukottai on June 2016.
12. Acted as a resource person for the aspirants of -NET free coaching class organised by the School of Economics Bharathidasan University, Tiruchirappali-620023. held on Feb 2017
13. Acted as a resource person for the aspirants of -IAS, free coaching class organised by the School of Economics Bharathidasan University, Tiruchirappali-620023. held on 16<sup>th</sup> March 2017 at Bharathidasan University Constituent college-Inamkulathur
14. Acted as a resource person and delivered a lecture on "Good Laboratory Practices" for the Lab Assistants of chemistry Department organised by P.G. and Research Department of Chemistry Bishob Heber College ,Tiruchirappalli-17, on 15<sup>th</sup> March 2017.
15. Acted as a resource person in the UGC-CSIR NET and SET coaching for the chemistry students, organised by the Department of Chemistry, Khadir Mohideen College, Adirampattinam, on 19<sup>th</sup> March 2017
16. Acted as a resource person in the state Level preparative Workshop in Chemistry for the NET/GATE aspirants-2017 organised by the PG&Research Department of Chemistry, St. Joseph College (Autonomous), Tiruchirappalli-620002, on 7<sup>th</sup> December 2017
17. Acted as a chairperson for the Technical Session in the International conference on Frontiers in Advanced Materials and their Applications chemistry organised by P.G. and Research Department of Chemistry Bishob Heber College, Tiruchirappalli-17, on 9<sup>th</sup> January 2018
18. Acted as a Judge on SWACHHTA PAKHWADA-2020, organized by UGC nodal office, Water & Forest Conservation, Jamal Mohamed College, Tiruchirappalli-20
19. Acted as a resource person and inaugurated chemistry association on 4<sup>th</sup> March 2020, at VIDIAL College, Virulimalai, Pudukottai.
20. Acted as a resource person in National Science Day celebration at Mahindra College (Autonomous), Namakkal-637503.
21. Acted as a resource person in State Level Intercollegiate Extravaganza JAM CHEM FEST-2K20 on

27<sup>th</sup> Feb 2020 at Jamal Mohamed College, Tiruchirappalli-20

22. Acted as a Coordinator in National Chemistry Week on 11<sup>th</sup> March 2020, at Jamal Mohamed College, Tiruchirappalli-20
23. Acted as a resource person in State Level People and Environment on 17<sup>th</sup> Feb 2021, at Placement Cell Jamal Mohamed College, Tiruchirappalli-20
24. Acted as the Chairperson for the International Conference on Frontiers in Chemical Research on 4<sup>th</sup> Feb 2021 organised by P.G. and Research Department of Chemistry Bishop Heber College, Tiruchirappalli-17
25. Acted as a resource person in Discussion on Star College Scheme Proposal on 25<sup>th</sup> March 2021, at Marudhar Kesari Jain College for Women Vanniyambadi, Tamil Nadu
26. Acted as a resource person in Preparation of DBT Star College Proposal on 1<sup>st</sup> Jan 2021, at GTN arts college Dindigul, Tamil Nadu
27. Acted as a Coordinator in National Chemistry Week on 11<sup>th</sup> March 2020, at Jamal Mohamed College, Tiruchirappalli-20
28. Acted as a resource person in Innovation in a New Dimension on 1<sup>st</sup> Dec 2021, at Selvam arts and Science College, Salem, Tamil Nadu
29. Acted as a resource person in Quiz Master, National Pollution Control Day on 2<sup>nd</sup> Dec 2021, at Jamal Mohamed College, Tiruchirappalli-20
30. Acted as a resource person in Training programme on Manufacturing Households Products on 18<sup>th</sup> Dec 2021, at Tamilnadu Urban Habitat Development Board, Periyar Nagar, Nagamangalam Panchayat, Tiruchirappalli
31. Acted as a Subject Expert in Interview panel for Staff Recruitment on 23<sup>rd</sup> March 2021, at Cauvery College for Women, Tiruchirappalli
32. Acted as a Panel Member in Staff Selection Committee, Department of Chemistry on 3<sup>rd</sup> Feb 2022, at Holy Cross College, Tiruchirappalli-2, Tamil Nadu
33. Acted as a resource person in How to submit proposal for DIST FIST & DBT Star College on 27<sup>th</sup> Jan 2022, at The New College, Chennai-14
34. Acted as a Chairperson for the International Virtual Conference on “Frontiers in Chemical Research” on 4<sup>th</sup> Feb 2022, at Bishop Heber College, Tiruchirappalli-17
35. Acted as a Subject Expert in Screening Cum Evaluation Committee on 17<sup>th</sup> Feb 2022, at Holy Cross College, Tiruchirappalli-620 002
36. Acted as a Chairperson for the International Conference on “Frontiers in Chemical Research” on 3<sup>rd</sup> Feb 2022, at Jamal Mohamed College, Tiruchirappalli-20
37. Acted as a Subject Expert in Board of Studies on 24<sup>th</sup> March 2022, at Mannar Tirumalai Naicker College, Madurai-625004

38. Acted as a Coordinator in Visiting Departments for DBT Star College Scheme Activities on 1<sup>st</sup> March 2020, at Stella Maris College, 17, Cathedral road, Chennai-600086
39. Acted as a Member in For Scrutiny and Approval of Question Paper Proof on 1<sup>st</sup> March 2022, at University of Madras, Chepauk, Chennai-600005
40. Acted as a Chairperson for the Second Doctral Committee Meeting on 23<sup>rd</sup> Apr 2022, at AVVM Sri Pushpam College, Poondi, Thanjavur-613503
41. Acted as a Subject Expert in Board of Studies on 30<sup>th</sup> Apr 2022, at Selvam Arts and Science College, Namakkal-633003
42. Acted as a Organizing Secretary in Chemistry in Our Day to Day Life on 4<sup>th</sup> Jun 2022, at Jamal Mohamed College, Tiruchirappalli-20
43. Acted as a resource person in Young Student Scientist Programme (YAAP-2022) on 18<sup>th</sup> May 2022, at Jamal Mohamed College, Tiruchirappalli-20
44. Acted as a resource person in UGC-NET Coaching for Paper 1 on 18<sup>th</sup> May 2022, at Department of Nutrition and Dietetics, Jamal Mohamed College, Tiruchirappalli-20
45. Acted as a resource person in UGC-NET Coaching for Paper 1 on 30<sup>th</sup> May 2022, at Department of Nutrition and Dietetics, Jamal Mohamed College, Tiruchirappalli-20
46. Acted as a Subject Expert in Project review meeting for the projects sanctioned under minor Research Projects for Teachers Scheme by TANSCHHE on 29<sup>th</sup> Jul 2022, at Tamil Nadu State Council For Higher Education, Chennai-5