



**NAME : Dr. S. VISWANATHAN**

**DESIGNATION: Assistant Professor**

## Contact

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## Academic Qualifications

Degree	Institution	Year	Branch	Class
Ph.D.	Alagappa University	2004	Chemistry	Commended
M.Sc.	Bharathidasan University	1995	Chemistry	First class
B.Sc	Bharathidasan University	1993	Chemistry	First class

## Teaching and Research Experience: 21 Years

**National Level:** 13 Years

Position	Institution	Duration
Assistant Professor	Alagappa University, Karaikudi, India	2012 – current
Assistant Professor	SASTRA University, Thanjavur, India	2004 –2005

**International Level:** 8 Years

Position	Institution	Duration
Auxiliary Investigator	REQUIMTE, Instituto Superior de Engenharia do Porto, Porto, Portugal	2009 –2012
Post-doctoral research fellow	National Taiwan University, Taipei, Taiwan	2009 –2009
Senior Lecturer	Institute of animal reproduction and food research, Polish academy of sciences, Olsztyn, Poland	2008 –2008
Marie Curie, Postdoctoral fellow	Polish Academy of Sciences, Olsztyn, Poland	2007 –2008
Post-doctoral research associate	National Tsing Hua University, Hsinchu, Taiwan	2005 –2007

## Areas of Research

**Electrochemistry, Analytical Chemistry, Biochemistry, Biosensor, Immunosensor**

## Research Supervision / Guidance

Program of Study		Completed	Ongoing
Research	PDF	1	-
	Ph.D	2	3
	M.Phil	11	-
Project	PG	60	7
	UG / Others	1	-

## Publications

International		National		Others
Journals	Conferences	Journals	Conferences	Books / Chapters / Monographs / Manuals

46	82	1	37	3
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Cumulative Impact Factor (as per JCR) : 271  
h-index : 29  
i10 index : 39  
Total Citations : 3030

### Funded Research Projects

#### Ongoing Projects:

S.No	Agency	Period		Project Title	Budget (Rs. In lakhs)
		From	To		
1	RUSA-EIR	2023-2024		Solar-Powered Electrochemical Technologies for Textile Wastewater Treatment	11.54
2	RUSA	2023-2024		Advanced Nanomaterials for Sustainable Energy and Sensor Applications (PI)	7.35

#### Completed Projects:

S.No	Agency	Period		Project Title	Budget (Rs. In lakhs)
		From	To		
1	DBT, India	2018-2022		Molecularly imprinted polymer sensor for Mycotoxin detection in plants	36.4
2	ICMR, India	2019-2022		Smart lab on a chip biosensor integrated with protein imprinted polymer electrodes for rapid detection of HIV infection	28.4
3	DST	2019-2022		Molecularly imprinted Polymer based biosensor for tuberculosis detection	17.7
4	RUSA-MHRD, India	2015- 2022		Sustainable Energy Technologies Fabrication of Low Cost Dye-sensitized Solar Cells	150
5	FCT, Portugal	2011-2014		Nano-electrode arrays Biosensor for Early and Decentralized Breast-Cancer Diagnosis	€112,547
6	FCT, Portugal	2010-2014		Cephalopods-Benefits and risks of consumption: Evaluation of biomarkers responses to organic pollution	€124,389

**Consultancy Projects:**

S.No	Agency	Period	Project Title	Budget (Rs. In lakhs)
1	TNCPL, Karaikudi	2016-2017	Groundwater analysis	5.0

**Distinctive Achievements / Awards**

- Marie Curie Postdoctoral Fellow European Union Marie Curie Actions - Transfer of Knowledge- 2007.
- Alagappa Excellence Research Award – 2017
- Vallal Alagappan Research Recognition Award - 2020

**Events organized in leading roles**

Number of Seminars / Conferences / Workshops / Events organized:

Position	Programme	Duration	Institution
Organizing Secretary	International Conference on Recent Advances in Textile and Electrochemical Sciences -2013	Mar 21-23, 2013	Dept. of Ind. Chemistry, Alagappa University, Karaikudi, Tamilnadu
Convener	International workshop on "Frontier Areas in Chemical Technologies -2014"	Feb 21-22, 2014	Dept. of Ind. Chemistry, Alagappa University, Karaikudi, Tamilnadu
Treasurer	International Conference on Frontier Areas in Chemical Technologies - 2016	Mar 21-23, 2016	Dept. of Ind. Chemistry, Alagappa University, Karaikudi, Tamilnadu
Convener	International Conference on Frontier Areas in Chemical Technologies - 2017	Jul 6-8, 2017	Dept. of Ind. Chemistry, Alagappa University, Karaikudi, Tamilnadu
Joint Secretary	International Conference on Frontier Areas in Chemical Technologies - 2019	Jul 25-26, 2019	Dept. of Ind. Chemistry, Alagappa University, Karaikudi, Tamilnadu
Coordinator	Workshop on instrumental methods of analysis	Jan 9-10, 2023	Dept. of Ind. Chemistry, Alagappa University, Karaikudi, Tamilnadu
Joint Secretary	International Conference on Frontier Areas in Chemical Technologies 2022	Feb 16-18, 2023	Dept. of Ind. Chemistry, Alagappa University, Karaikudi, Tamilnadu

## Events Participated

Number of Conferences / Seminars / Workshops: 98

## Overseas Exposure / Visits

- Poland, Portugal, Spain, France, Italy, Germany, Belgium, Taiwan , "Visits made to the above countries for research collaboration, conferences, and scientific meetings."

## Membership

### Professional Bodies

- Membership : International society of electrochemistry
- Membership : Indian Society for ElectroAnalytical Chemistry

### Advisory Board

Year / Period	Name of the BoS / Administrative Committee / Academic Committee	Role
2012-Till	Broad Based Board of Studies, Department of Industrial Chemistry	Member
2012-Till	Department Research Committee, Department of Industrial Chemistry	Member
2017-Till	Department of Nano Science & Technology, TNAU, Coimbatore	Member

### Academic Bodies in Other Institutes/ Universities

Year / Period	Name of the BoS / Administrative Committee / Academic Committee	Role
2023	Tamil Nadu Pollution Control Board, Sivaganga	Member
2012-	Czech Science Foundation, Czech Republic	Review committee member

## Ph.D. Thesis Supervised

S. No	Name of the Scholar	Title of the Thesis	Year of Completion
1	P. Karthika	Molecularly Imprinted Polymer Based Electrochemical Sensors for Endocrine Disruptors	2022
2	T. Ponmuthuselvi	Transition metal-based Metal-organic frameworks for electrochemical applications	2022

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

## List of Research Articles / Recent Publications

S. No	Authors/Title of the paper/Journal	Impact Factor
47.	P Karthika, S Shanmuganathan, V Subramanian, C Delerue-Matos, Selective detection of salivary cortisol using screen-printed electrode coated with molecularly imprinted polymer, Talanta, 125823, 2024	6.51
46.	P Karthika, S Shanmuganathan, S Viswanathan, Electrochemical sensor for picric acid by using molecularly imprinted polymer and reduced graphene oxide modified pencil graphite electrode, Proceedings of the Indian National Science Academy, 1-14, 2022	0.82
45.	BA Kumar, V Vetrivelan, G Ramalingam, A Manikandan, S Viswanathan, Computational studies and experimental fabrication of DSSC device assembly on 2D-layered TiO <sub>2</sub> and MoS <sub>2</sub> @ TiO <sub>2</sub> nanomaterials, Physica B: Condensed Matter 633, 413770, 2022	6.3
44.	P Karthika, S Shanmuganathan, S Viswanathan, C Delerue-Matos Molecularly Imprinted Polymer-Based Electrochemical Sensor for the Determination of Endocrine Disruptor Bisphenol-A in Bovine Milk, Food Chemistry, 2021, 130287	10.07
43.	J Jose, V Subramanian, S Shaji, PB Sreeja, An electrochemical sensor for nanomolar detection of caffeine based on nicotinic acid hydrazide anchored on graphene oxide (NAHGO), Scientific reports 11 (1), 2021, 1-11	4.576
42.	P Thangasamy, S Shanmuganathan, V Subramanian, A NiCo-MOF nanosheet array based electrocatalyst for the oxygen evolution reaction, Nanoscale Advances 2 (5), 2020, 2073-2079.	4.95
41.	S.Viswanathan, C. Delerue-Matos, Label-free voltametric immunosensor for prostate specific antigen detection, Electroanalysis 30 (11), 2018, 2604-26112.	2.544
40.	RCB Marques, E Costa-Rama, S. Viswanathan, Henri PA Nouws, A. Costa-García, C. Delerue-Matos, M B. González-García, Voltammetric immunosensor for the simultaneous analysis of the breast cancer biomarkers CA 15-3 and HER2-ECD, Sensors and Actuators B: Chemical 2018 Vol. 255, 918- 925	8.82

39	H da Silva, J Pacheco, J Silva, S. Viswanathan, C Delerue-Matos, Molecularly imprinted sensor for voltammetric detection of norfloxacin, <i>Sensors and Actuators B: Chemical</i> 2015 Vol. 219, 301-307	8.82
38.	S. Viswanathan and P. Manisankar, Nanomaterials for Electrochemical Sensing and Decontamination of pesticides, <i>Journal of Nanoscience and Nanotechnology</i> , 2014 Vol. 15 (9), 6914-6923	1.149
37.	R.C.B. Marques, S. Viswanathan, H.P.A. Nouws, C. Delerue-Matos, M. B. González-García, Electrochemical immunosensor for the analysis of the breast cancer biomarker HER2 ECD, <i>Talanta</i> , 2014, Vol.129, 594-599.	6.51
36.	Ribeiro, F.W.P., Barroso, M.F., Morais, S., Viswanathan, S., de Lima-Neto, P., Correia, A.N., Oliveira, M.B.P.P., Delerue-Matos, C. Simple laccase-based biosensor for formetanate hydrochloride quantification in fruits <i>Bioelectrochemistry</i> , 2014, Vol.95 , 7 - 14	5.35
35.	S. Viswanathan, Electrochemical biosensors for food-borne pathogens In <i>Microbial Food Safety and Preservation Techniques</i> Eds. V Ravishankar Rai, Jamuna A. Bai. 2014, CRC Press, Taylor& Francis Group, FL, USA.in press. (Book Chapter)	-
34.	H.Silva, J.P. Grosso, S. Viswanathan,* C. Delerue-Matos, MIP-graphene-modified glassy carbon electrode for the determination of trimethoprim, <i>Biosensors and Bioelectronics</i> , 2014, Vol 52, 56-61.	13.39
33.	33. M. Freitas, S. Viswanathan,* H.P.A. Nouws, M.B.P.P. Oliveira, C. Delerue-Matos, Iron oxide/gold core/shell nanomagnetic probes and CdS biolabels for amplified electrochemical immunosensing of Salmonella typhimurium, <i>Biosensors and Bioelectronics</i> , 2014, Vol 51, 195-200.	13.39
32.	V. Rajasekharan, T. Stalin, S. Viswanathan and P. Manisankar, Electrochemical Evaluation of Anticorrosive Performance of Organic Acid Doped Polyaniline Based Coatings <i>Int. J. Electrochem. Sci.</i> , 2013, 8, 11327 - 11336	3.729
31.	Túlio I.S. Oliveira, Marcela Oliveira, Subramanian Viswanathan, M. Fátima Barroso, Luísa Barreiros, Olga C. Nunes, José A. Rodrigues, Pedro de Lima-Neto, Selma E. Mazzetto, Simone Morais, Cristina Delerue-Matos, Molinate quantification in environmental waters by a Glutathione-S-transferase based biosensor, <i>Talanta</i> , 2013, 106, 249–254.	6.51
30.	S. Viswanathan, C.Rani, J.A. Ho. Electrochemical immunosensor for multiplexed detection of food-borne pathogens using nanocrystal bioconjugates and MWCNT screen-printed electrode. <i>Talanta</i> , 2012, Vol. 94, 315-319	6.51
29.	Virgínia C. Fernandes, Viswanathan S, Nuno Mateus, Valentina F. Domingues, Cristina Delerue-Matos, Determination of organochlorine pesticides in complex matrices by single-drop microextraction coupled to gas chromatography–tandem mass spectrometry, <i>Microchimica acta</i> , Vol. 178 (1-2), 2012, 195-202.	6.4
28.	S. Viswanathan, C. Rani, C. Delerue-Matos, Ultrasensitive detection of ovarian cancer marker using immunoliposomes and gold nanoelectrodes, <i>Anal. Chim. Acta</i> . Vol.726, 2012 79-84.	6.53
27.	M. Oliveira, S. Viswanathan, S .Morais, C. Delerue-Matos, Development of Polyaniline Microarray Electrodes for Cadmium Analysis, <i>Chemical Papers</i> , Vol. 66 (10) (2012) 891-898.	2.41
26.	S. Viswanathan, C. Rani, S. Ribeiro, C. Delerue-Matos, Molecular imprinted nanoelectrodes for ultra sensitive detection of ovarian cancer marker, <i>Biosensors and Bioelectronics</i> Vol.33 (1), 2012, 179-183.	13.39
25.	Ana Pinho, S. Viswanathan, S. Ribeiro, M. B. P. P. Oliveira, C. Delerue-Matos, Electroanalysis of urinary L-dopa using tyrosinase immobilized on gold nanoelectrode ensembles, <i>Journal of Applied Electrochemistry</i> Vol. 42 (3), 2012, 131-137.	3.06

24.	S.Viswanathan, Nanomaterials in soil and food analysis. In Encyclopedia of Agrophysics. Glinski, Jan; Horabik, Józef; Lipiec, Jerzy (Eds.) Springer, ISBN: 978-90-481-3585-1	Book Chapter
23.	P. Manisankar, S. Viswanathan, C.Vedhi. Analysis of pesticide residue Using electro analytical techniques: In <i>Handbook of Pesticides: Methods of Pesticide Residues Analysis</i> , Eds. Leo M. L. Nollet, Hamir S. Rathore. 2010, CRC Press, Taylor& Francis Group, FL, USA. pp165-186.	Book Chapter
22.	S. Viswanathan, H.Radecka, J. Radecki, Y. Z. Voloshin, Single molecular switch based on dodecanethiol- tethered iron(II) clathrochelate on gold. <i>Electrochimica Acta</i> , Vol.54, 2009, 5431-5438.	6.64
21.	S. Viswanathan, Hanna Radecka, Jerzy Radecki, Electrochemical biosensor for food analysis. <i>Monatshefte für Chemie Chemical monthly</i> , Vol. 140, 2009, 891–899.	1.9
20.	Y. Z. Voloshin, A.S. Belov, O.A. Varzatskii, A.V.Vologzhanina, S. Viswanathan, J. Radecki, Y.N. Bubnov , Synthesis, structure and electron-mediator properties of macrobicyclic iron(II) tris-dioximates with mono- and difunctionalizing ribbed spacer substituents with a terminal mercapto group. <i>Inorganica Chimica Acta</i> , Vol. 362, 2009, 2982–2988.	2.96
19.	S. Viswanathan, Hanna Radecka, Jerzy Radecki, Electrochemical biosensors for pesticides based on acetylcholinesterase and self assembled ssDNA wrapped carbon nanotubes. <i>Biosensors and Bioelectronics</i> , Vol.24, 2009, 2772–2777.	13.39
18.	S. Viswanathan, C.Rani, A.Vijay Anand, J.A. Ho. Electrochemical immunosensor for carcinoembryonic antigen using ferrocene liposomes and MWCNT screen-printed electrode. <i>Biosensors and Bioelectronics</i> , Vol. 24, 2009, 1984–1989.	13.39
17.	M. Wąsowicz, S. Viswanathan, A. Dvornyk, K.Grzelak, B. Kłudkiewicz, H.Radecka, Comparison of electrochemical immunosensors based on gold nanomaterials and immunoblot techniquis for detection of Histidine tagged proteins in culture medium. <i>Biosensors and Bioelectronics</i> , Vol. 24. 2008, 284-289.	13.39
16.	S.Viswanathan, Jerzy Radecki, Nanomaterials in electrochemical biosensors for food analysis- a review. <i>Polish Journal of Food and Nutrition Sciences</i> , Vol.58.2008, 157-164.	2.55
15.	S. Viswanathan, W.-C. Liao, C.-C. Huang, W.-L. Hsu, J.-a.A.Ho, Rapid analysis of L-dopa in urine samples using gold nanoelectrode ensembles, <i>Talanta</i> , Vol. 74, 2007, 229-234.	6.51
14.	S. Viswanathan, Ja-an Annie Ho, Dual electrochemical determination of insulin and glucose using enzyme and ferrocene microcapsules. <i>Biosensors and Bioelectronics</i> , Vol.22, 2007, 1147-1153	13.39
13.	S.Viswanathan, Li-chen Wu, Ming-Ray Huang, Ja-an Annie Ho, Electrochemical Immunosensor for cholera toxin using liposomes and poly(3,4-ethylenedioxythiophene) - coated carbon nanotubes. <i>Analytical chemistry</i> , 78 (2006) 1115-1121	7.49
12.	P. Manisankar, S. Viswanathan, A. Mercy Pushpalatha, C.Rani, Electrochemical studies and square wave stripping voltammetry of five common pesticides on poly 3, 4-ethylenedioxythiophene modified wall jet electrode. <i>Analytica Chimica Acta</i> Vol. 528, 2005, 157-163	6.43
11.	P.Manisankar, C.Rani, S. Viswanathan, Effects of halides on the electrochemical oxidation of distillery effluent. <i>Chemosphere</i> , Vol. 57(8), 2004, 961-966	9.63
10.	P. Manisankar, A. Mercy Pushpalatha, S. Vasanthakumar, A.Gomathi. S.Viswanathan, Riboflavin as an electron mediator catalyzing the electrochemical reduction of dioxygen	4.63



	with 1,4-napthoquinones. <i>Journal of Electroanalytical Chemistry</i> , Vol. 571(1) 43-50, 2004	
9.	P. Manisankar, S. Viswanathan, H.G. Prabu, Determination of direct orange – 8 in effluent using a polypyrrole modified electrode. <i>International Journal of Environmental Analytical chemistry</i> , Vol.84, No.5, 2004, 389-397.	2.34
8.	P.Manisankar, C.Vedhi, S.Viswanathan, H.G.Prabu, Investigation of the usage of clay modified electrode for the electrochemical determination of some pollutants. <i>Journal of Environmental Science and Health-Part B</i> , Vol.B39, No.1, 2004,89-100.	2.29
7.	N. Raman, A. Kulandaisamy, C. Thangaraja, P.Manisankar, S.Viswanathan, C.Vedhi. Synthesis, structural characterization and electrochemical and antibacterial studies of Schiff base copper complexes . <i>Transition Metal Chemistry</i> , Vol.29 (2) 2004 129-135.	1.7
6.	P.Manisankar, S.Viswanathan, C. Rani, Electrochemical treatment of distillery effluent Using catalytic anodes. <i>Green Chemistry</i> , Vol. 5, 2003, 270-274.	10.13
5.	P. Manisankar, G.Selvanathan, S.Viswanathan, H. Gurumallesh Prabu, Electrochemical Determination of Some Organic Pollutants Using Wall Jet Electrode. <i>Electroanalysis</i> , Vol. 14 (24), 2002, 1722-1727.	3.28
4.	P. Manisankar, S. Viswanathan, H.G. Prabu, Electroanalysis of endosulfan and o-chlorophenol in polypyrrole coated glassy carbon electrode. <i>International Journal of Environmental Analytical chemistry</i> , Vol. 82(5), 2002,331-340.	2.949
3.	P.Manisankar, C.Rani, S.Viswanathan, Electroanalytical studies of Dicofol an Organochlorine Acaricide (Article published in book), <i>Analytical Techniques in Environmental Monitoring</i> Ed.S. Jayarama Reddy, ISBN 81-7800-026-1 Article No I - 11,2002.	Book Chapter
2.	P.Manisankar, Sarpudeen, S.Viswanathan, Electroanalysis of Dapsone, An Anti-leprotic Drug. <i>Journal of Pharmaceutical and Biomedical Analysis</i> . Vol. 26(5-6), 2001, 873-881.	3.73
1.	P.Manisankar, C.Rani, S.Viswanathan, Electrochemical destruction of Disperse red-17 dye effluent in a batch reactor. <i>Journal of Indian Association for Environmental Management</i> , Vol. 27, 2000, 304-308.	1.00

## Resource persons in various capacities

National Conferences	:	3
International Conferences	:	6
Invited Lectures	:	16

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