

CURRICULUM VITAE

Dr.V. Thangaraj
Assistant Professor (Sr.Gr)
Department of Chemistry
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➤ **Research Area:**

- Electrodeposition of metals and alloys, supercapacitors
- Nanostructured materials, Nanoparticles, Electrochemical sensor, biosensor
- Corrosion, Corrosion inhibitor

➤ **Educational Qualifications:**

Qualification	College/University	Year of completion	Percentage	Class
Ph.D. (Chemistry)	National Institute of Technology Karnataka, Surathkal	2009	-	-
PG (Chemistry)	Gandhigram Rural Institute, Dindigul	2003	70%	First
UG (Chemistry)	SRNM College, Sattur	2001	68.5%	First
PGDCA	Alagappa University, Karaikudi	2002	62.4%	First

Experience: (chronological order)

Name of Company / Institutions	Designation of Post	From	To	Experience in Year
UCE-BIT Campus, Anna University, Tiruchirappalli	Assistant Professor	01.10.2009	Till date	14Y
MIT - Manipal	Lecturer	20-02-2008	12-08-2009	1M 10D
SRM University, Chennai	Assistant Professor	20-08-2009	30-09-2009	1.6Y
CECRI-Karaikudi	Project Fellow	24.02.2004	23.07.2004	0.5Y
CECRI-Karaikudi	Project Trainee	07.05.2003	31.12.2003	0.8Y

➤ **Awards / Honours Received:**

1. Best Presentation Award, International Conference on Functional Materials for Advanced Technology (ICFMAT -09), Velammal Engineering College, Chennai
2. Summer Research Fellowship, Indian Academy of Sciences, carried out summer research in IISc, Bangalore, 2009.

➤ **Additional / Academic Responsibilities at University:**

- **Coordinator – Exam Cell** from September 2022 to till date in UCE-BIT Campus, Anna University, Trichy
- **Coordinator – SC/ST Cell** from May 2022 to till date in UCE-BIT Campus, Anna University, Trichy
- **Coordinator – Library** from October 2013 to September 2022 in UCE-BIT Campus, Anna University, Trichy.
- Member, **NBA Centre Pool Committee** in Anna University, BIT Campus, Trichy (2013-2014).
- **Stock verification Officer** for Civil Engineering Dept. in the calendar year of 2010-2011 and 2011-2012 in Anna University, Trichy.
- Member, **Anti ragging Committee** in Manipal Institute of Technology (MIT), Manipal (2008-2009) and in Anna University, Trichy (2012-2013).
- Member, **Exam Cell**, in Anna University, BIT Campus, Trichy (2012-2013).
- **Student Counselor** in Manipal Institute of Technology (MIT) (2008-2009) and Anna University, Trichy (2010-11 and 2011-2012).
- Dept Coordinator, **SC-ST Cell**, during 2011-2012 in Anna University, Trichy.

➤ **Membership of Scientific and Professional Societies:**

1. Life Member – Indian Society of Technical Education (ISTE)
2. Life Fellow Member – Society for Advancement of Electrochemical Science and Technology (SAEST)
3. Life Member – Indian Society of Electro Analytical Chemistry (ISEAC)

➤ **Fellowships and Grants received:**

- Received 2 research projects from DST- SERB with grants of 35.5 Lakhs

➤ **Completed PG/UG Projects:**

Number of PG Projects Completed: 2 Nos

➤ **Research Guidance (M.S/Ph.D.) (Completed):**

Sl. No	Name of the scholar	Title of the thesis	Year of registration	Date of viva voce
1.	C. Narendhar	MULTITARGETED CANCER THERAPY USING MAGNETIC NANOPARTICULATES	2009	17.11.2016
2.	K. Perumal Raj	SYNTHESIS, CHARACTERIZATION, PHOTOCATALYTIC AND BIOLOGICAL APPLICATIONS OF NICKEL OXIDE NANOPARTICLES	2011	28.09.2017
3.	P. Siva Karthik	INVESTIGATIONS ON EFFECT OF SOME METAL ION DOPANTS ON STRUCTURAL, OPTICAL AND PHOTOCATALYTIC ACTIVITY OF SnO_3 , WO_3 , ZNO NANOPARTICLES	2011	09.11.2018
4.	V. Usha	SYNTHESIS, CHARACTERIZATION, SPECTRAL HAMMET APPLICATION AND BIOLOGICAL ACTIVITIES OF SOME CHALCONES	2012	12.12.2018
5.	V. Selvaraju	SYNTHESIS AND CHARACTERIZATION OF Zn-Fe GROUP METAL ALLOYS BY ELECTROCHEMICAL DEPOSITION	2015	29.04.2019

➤ **Research Guidance (M.S/Ph.D.) (Ongoing):**

Sl. No	Name of the scholar	Tentative Title of the thesis	Year of registration	Status
1.	M. Muthupandi	ANALYSIS OF AMINO ACID REPEATS AND STABILITY FOR PREDICTING BIPOLAR-CAUSED DISORDER IN PROTEINS USING MACHINE LEARNING TECHNIQUES WITH NATURAL VARIANTS	2016	Thesis Submitted
2.	A. Sivakumar Ponnambalam	SYNTHESIS OF NANOCELLULOSE AND ITS BIOPHYSICAL APPLICATIONS	2016	Ongoing
3.	S.A.T. Shanmugapriya	BIOSYNTHESIS OF NANO PARTICLES USING PLANT EXTRACTS FOR ANTIMICROBIAL AND CORROSION INHIBITION STUDY	2021	Ongoing
4.	G. Adaikala Selvan	PRODUCTION OF BIOPOLYMER FROM GROUNDNUT SHELL ASSISTED BY FUNGAL MYCELIUM FOR MEMBRANE SYNTHESIS	2023	Ongoing
5.	S. Rachel	FACILE SYNTHESIS, POTENT ANALYSIS OF Ag AND MgO NANOPARTICLES FROM MARINE SEAWEED	2023	Ongoing

➤ **Publications:**

a. Books / book chapters:

1. **Thangaraj Vairamuthu**, A. Chitharanjan Hegde, Electrodeposition and characterization of some Zn-Fe group metal alloys, LAP Lambert Academic Publishing, ISBN 978-3-8383-7710-0.
2. V. Raj and **V. Thangaraj**, Surface technology of Aluminum and its alloys, LAP Lambert Academic Publishing, ISBN 978-3-8433-9181-8.
3. K Perumalraj, **V Thangaraj**, A P Uthirakumar and P Sivakarthish, Invitro Cytotoxicity Studies Of Nickel Oxide Nanoparticles On Cancer Cells Using MTT Assay, ELSEVIER, ISBN 9789351072935
4. V. Usha, G. Thirunarayanan, **V. Thangaraj**, I.Muthuvel and S. Rajalakshmi, Antimicrobial behavior of Substituted Styryl 3-nitro-4-chlorophenyl Ketone, Nova Science Publishers, ISBN: 978-1-68507-008-3.

b. International Journals:

1. K. Mahalakshmi, R. Mary Jenila, E. Vivek, I. Vetha Potheher, V. Thangaraj, Studies on dielectric, thermal and electrochemical characteristics of rGO incorporated CoSe₂ nanocomposite for energy storage application, Synthetic metals, 299, 2023, 117450. IF: 4.0
2. MARIYAPPAN MUTHUPANDI, VAIRAMUTHU THANGARAJ, ITSRepeats: Amino Acids Repeats and Composition Differences for Detecting Proteins Causing Bipolar Related Disorder, *Revista de Chimie, Volume: 74, Year: 2023, Issue: 1, 28-39*, DOI: <https://doi.org/10.37358/RC.23.1.8561>. I.F: 1.75.
3. I. Muthuvel, G.Thirunarayanan, V. Thangaraj, N. Sundaramurthy, S. Rajalakshmi and V.Usha, Study of catalytic activity of Zn₃(PO₄)₂ on the synthesis of some pyrenyl enones, Materials Today: Proceedings, 43, 2021, 2203-2207. DOI : <https://doi.org/10.1016/j.matpr.2020.12.169>. IF : 1.24.
4. Selvaraju, V and Thangaraj, V , “Corrosion properties of mild steel surface modified by bright Zn-Co alloy Electrodeposit from acetate electrolytic bath” Materials Research Express, 6(2), 2019, 026501. DOI: 10.1088/2053-1591/aaea40 IF : 1.449
5. V. Usha, V. Thangaraj, G. Thirunarayanan, Synthesis and antimicrobial activity of some 3-Phenanthryl Chalcone, Organic preparations and procedures International, 50(4), 2018, 459-463. DOI: <https://doi.org/10.1080/00304948.2018.1468990>. IF : 1.520

6. Selvaraju, V and Thangaraj, V 2018, "Influence of γ -phase on corrosion resistance of Zn–Ni alloy electrodeposition from acetate electrolytic bath", *Materials Research Express*, 5(5), 2018, 056502. DOI : 10.1088/2053-1591/aabe64 IF : 1.449
7. V.Usha, V.Thangaraj, Synthesis and Characterisation of Substituted 2-benzofuranyl Chalcones, *Materials Today: Proceedings*, 5(8), 2018, 16703-16715. DOI: <https://doi.org/10.1016/j.matpr.2018.06.034> IF : 1.24
8. P Sivakarthik, V Thangaraj, M Parthibavarman, A facile and one-pot synthesis of pure and transition metals, *journal of materials science: materials in electronics*, 28(8), 2017, 5990 -96. DOI: 10.1007/s10854-016-6274-7. IF : 2.019
9. P Sivakarthik, V Thangaraj, S Kumaresan, K Vallalperuman, Comparative study of co and ni substituted ZnO nanoparticles: synthesis, structural, optical and photocatalytic activity, *journal of materials science: materials in electronics*, 28(14), 2017, 10582 -88. DOI: 10.1007/s10854-017-6832-7. IF : 2.019
10. P. Sivakarthik, V.Thangaraj, K.Perumal Raj , J.Balaji, Synthesis of Co-doped Tin Oxide Nanoparticles for Photo Catalytic Degradation of Synthetic Organic Dyes, *Digest Journal of Nanomaterials and Biostructures*, vol. 11(3), 2016 935-943. DOI: www.chalcogen.ro/935_SivaK.pdf. IF : 0.945
11. Synthesis, spectroscopic characterization, biological and DNA cleavage properties of complexes of Nicotinamide. C. Surendra Dilip, V. Thangaraj, A. Paul Raj, *Arabian Journal of Chemistry* 2016, 9, s731-s742. DOI: <https://doi.org/10.1016/j.arabjc.2011.07.016>, IF : 5.388
12. Perumal Raj, K, Thangaraj, V, Uthirakumar, AP, 'Enhanced Photocatalytic Behaviour of Synthesized Nickel Oxide Nanoparticles on Fluorescein under Different Irradiations', *Optik* vol. 127, issue 5, 2016 pp. 2631-2634. DOI: <https://doi.org/10.1016/j.ijleo.2015.11.222> IF : 0.835
13. Perumal Raj, K, Thangaraj, V, Uthirakumar, AP & Sivakarthik, P 2015, 'Organic solvent assisted synthesis of Nickel oxide Nanoparticles and its biological applications', *International Journal of Applied Engineering Research*, vol. 10, no. 51, 873-876. URL: https://www.ripublication.com/ijaerspl3/ijaerv10n51_139.pdf IF : 0.14

14. Perumal Raj, K, Thangaraj, V & Uthirakumar, AP 2015, 'Synthetic routes to nickel oxide Nanoparticles-on overview', Chem. Sci. Rew. Let., vol. 4, no. 14, pp. 494-501. IF : 6.208
15. Perumal Raj, K, Thangaraj, V, Uthirakumar, AP & Sivakarhik, P 2014, 'Synthesis, Characterization and Photocatalytic Study of Nickel Oxide Nanoparticles', The International Journal of Science & Technoledge, vol. 2, issue 10, pp. 113-116. IF : 1.05
16. Perumalraj K, Sivakarhik P and Thangaraj V, Comparative study of inhibition efficiency of some green inhibitors on mild steel corrosion at different temperatures. Int. J. Interdisci Res and Revs. 2013, 1(5) 1.
17. Synthesis and characterization of Co(III), Ni(II) and Cu(II) complexes of 3,8-dimethyl-5,6-benzo-4,7-diazadeca-3,7-diene-2,9-dione Dioxime. C. Surendra Dilip, V. Thangaraj, V.Siva Kumar and J. Joseph Prince, Elixir Chemical Physics, Vol. 34, 2011, 2491-495. IF : 0.4
18. Corrosion behavior of compositionally modulated multilayered Zn/Co electroplates developed by single bath technique. V. Thangaraj, N. Elias and A. Chitharanjan Hegde, Journal of Applied Electrochemistry, Vol. 39(3) (2009) 339. . IF : 2.23
19. Characterization and corrosion behavior of Zn-Fe group metal alloys deposited by direct and pulsed current in acid chloride bath, Thangaraj V, Transaction of Institute of Metal Finishing (Trans IMF), Vol. 87(4) (2009) 208. . IF : 1.33
20. Electrodeposition and Characterization of Zn-Co alloy. Thangaraj V and A. Chitharanjan Hegde. Russian Journal of Electrochemistry, Vol. 45(7) (2009) 756. . IF : 0.83
21. Surface modification by compositionally modulated Zn/Fe alloy coatings, Thangaraj V, K. Ravishankar and A. C. Hegde, Chinese Journal of Chemistry, Vol. 26 (2008) 2285. IF : 1.35

c. National Journals:

1. Usha, V, Thangaraj, V & Thirunarayanan, G 2017, 'Antimicrobial potent(2E)-3-chloro-4-nitro-phenylchalcone', Indian Journal of Chemistry-B, vol. 56B (10), pp. 1094-1102. IF : 0.509
2. Influence of molar concentration on structural, morphological and optical properties of CdS thin films obtained by SILAR method. K Manikandan, P Mani, P Fermi Hilbert Inbaraj, T Dominic Joseph, V Thangaraj and J Joseph Prince, Indian Journal of Pure and Applied Physics 52 (2014) 354-59. . IF : 0.521
3. Perumal Raj, K, Thangaraj, V, Uthirakumar, AP & Sivakarthik, P, 'Cytotoxicity assessment of synthesized nickel oxide Nanoparticles on MCF-7 and A-549 cancer cell lines', Journal of Chemical and Pharmaceutical Sciences, Special issue 4, 2014, 269-271. IF : 0.1
4. P. Sivakarthik, V.Thangaraj Tin oxide nanoparticle catalyzed one-pot synthesis of 3, 4 dihydropyrimidinones Journal of Chemical and Pharmaceutical Sciences, Special issue 4, pp. 146-147. IF : 0.1
5. Development of Zn-Co alloy coatings by pulsed current from chloride bath, Thangaraj V, N. K. Udayashankar and A.C. Hegde, Indian Journal of Chemical Technology, Vol. 15(11) (2008) 581. IF : 0.568
6. Effect of bath composition and operating parameters on deposit character and corrosion behavior of Zn-Ni alloy. K. Venkatakrishna, V. Thangaraj, A. Chitharanjan Hegde. Indian Journal of Chemical Technology, Vol. 15(5) (2008) 252. IF : 0.568
7. Electrodeposition and compositional behavior of Zn-Ni alloy. Thangaraj V and A.C.Hegde. Indian Journal of Chemical Technology, Vol. 14(5) (2007) 246. IF : 0.568
8. Anomalous Codeposition and Characterization of Zn-Fe Alloys. Thangaraj V and A.C.Hegde, Bulletin of Electrochemistry, Vol. 22(8-9) (2006) 393. I.F. 0.33
9. Electrodeposition and characterization of Zn-Ni alloy. Thangaraj V and A. C. Hegde, Bulletin of Electrochemistry, Vol. 22(2) (2006) 49-53. I.F. 0.33.

➤ **Patents:**

Dr.T.Jayasankar, Dr.V.Thangaraj, Dr.R. Udhayakumar, Dr.P.Vijayarajan, IOT Enabled Bed Dryer Apparatus and System – Design, Design No. 376710-001 (Granted)

➤ **Sponsored Research Projects:**

Sl.No	Name of the project	Funding agency	Project value (Rs.)	Duration	Status
1	Synthesis of Compositionally Modulated Multilayered Alloys by Electrochemical Deposition	SERB	24,50,000	3	Completed
2	Development of nanostructured multilayered solar absorber coatings by electrochemical deposition	SERB	11,00,000	2	Completed

➤ **Consultancy Activities: Nil**

➤ **List of Seminar / Short Term Course /FDP/ Workshop organized:**

- 1. Coordinator**, Royal Society of Chemistry (RSC) sponsored One day National Seminar on Photocatalysis for Sustainability: Fundamentals Applications (PHOCATS-2013) on 9th Oct, 2013 at Anna University, BIT Campus, Tiruchirappalli.
- 2. Coordinator**, National Seminar on Modern Trends in Chemistry (MTC-2013), on 17-18th Dec, 2013 at Anna University, BIT Campus, Tiruchirappalli.
- 3. Convener**, National Seminar on “Career guidance, GATE exam preparation and Developmen of Soft skills (CGSS-2014) on 6th Feb, 2014 at Anna University, BIT Campus, Tiruchirappalli.
- 4. Convener**, National seminar on “ Research Paper, Dissertation and Project proposal preparation (RDP-2014) on 14th Feb, 2014 at Anna University, BIT Campus, Tiruchirappalli.
- 5. Convener**, National seminar on “e-Resources for Scholarly Communication” on 28th Feb, 2014 at Anna University, BIT Campus, Tiruchirappalli

6. Coordinator, International Conference on Advances in Biological, Chemical and Physical Sciences (ABCPS'2017) during March 13th-15th 2017 at Anna University, BIT Campus, Tiruchirappalli.

➤ **List of Seminar / Short Term Course /FDP/ Workshop attended:**

1. Workshop on “Sustainable Municipal Solid Waste Management (SMSWM'10)” in Anna University of Technology, Tiruchirappalli, on 4th Oct. 2010.
2. National Seminar on “Societal Implications of Nanoscience & Technology” in Anna University of Technology, Tiruchirappalli, on 23rd Dec. 2010.
3. FDP on Current Developments in Life Sciences: An Interdisciplinary Approach (CDLS-2013)' during 19th August – 25th August, 2013 in Anna University, BIT Campus, Tiruchirappalli.
4. FDP on New perspective in drug discovery and progressive technological developments during 4th -17th May 2015 in Anna University, BIT Campus, Tiruchirappalli
5. FDP on Advanced research in materials for engineering and technological applications during 17th – 30th July 2015 in Anna University, BIT Campus, Tiruchirappalli.
6. MDP on Academic leadership programme for TEQIP Institutions during 23rd – 28th November 2015 at IIM-Kozhikode.
7. FDP on on Multi-disciplinary approaches in chemical Sciences during 18th-31st July 2016 in Anna University, BIT Campus, Tiruchirappalli.
8. FDP on Designing MOOCS, Digital Skills and E-Content development during 17th-30th August, 2020 conducted by Annamalai University, Chidambaram (Online).
9. Industrial Training on Basic Science and Communication during 8th-26th June, 2020 in BSNL Office, Trichy.
10. FDP on Managing Online classes and Co-creating MOOCS 3.0 from 25th July 2020 to 10th August 2020 conducted by Ramanujan College, University of Delhi (Online).
11. FDP on Multimedia enriched E-Content Development during 21st-26th May, 2020 conducted by SGTB Khalsa College, University of Delhi (Online).

➤ **National / International Conferences organized / Participated:**

1. Perumal Raj, K, **Thangaraj, V**, Uthirakumar, AP & Sivakarthik, P 2015, 'Organic solvent assisted synthesis of Nickel oxide Nanoparticles and its biological applications', International Conference on Advances in Science, Mathematics, English and its Applications (ICASMEA-2015), May 2015.
2. **V. Thangaraj** and A. Chitharanjan Hegde, Electrolytic synthesis and nanostructured multilayered coatings of Zn-Ni-Fe alloy. presented in International Conference on Functional Materials for Advanced Technology - 2009 (ICFMAT-09) held on January 29-30, 2009 at Velammal Engineering College, Chennai. (Best Presentation award).
3. **Thangaraj V** and A. C. Hegde, Study on the behavior of electrodeposited Zn-Ni alloy. presented in the International symposium on Advances in Electrochemical Science and Technology (ISAEST-8) held on Nov. 28-30, 2006 at Goa, India.
4. **Thangaraj V** and A. C. Hegde, Zn-Co alloy deposition by continuous and pulsed current. presented in International Symposium of Research Scholars on Metallurgy, Material Science and engineering (ISRS-06) held on December 18-20, 2006 at IIT, Madras, Chennai, India.
5. **Thangaraj V** and A. C. Hegde, Electrodeposition of cost effective black nickel solar absorber coatings. presented in International Conference on Electrochemical Power Systems (ICEPS - 2) held on Dec.20-21, 2004 at Hyderabad, India.

➤ **Professional recognitions:** (details like chairperson/member of a committee, reviewer, editor ...etc)

(A) Chairperson for conferences / Seminar / Technical symposia:

- Served as Member of Board of studies for B.E/B.Tech Engineering Chemistry program of Mahindra Engineering College, Namakkal for the period of 2022-2023.
- Served as Reviewer for several international journals from springer, Elsevier etc.,
- Served as Doctoral Committee member for 5 PhD students in Anna University

- Served as a Viva-voce Examiner for 3 PhD students in Bharathidasan University.

(B) Guest lectures delivered:

- Delivered invited lectures in Department of Chemistry, Jamal Mohamed College, Trichy in Oct'2014.
- Delivered invited lecture in FDP conducted by Department of Chemistry, UCE-BIT Campus, Anna University, Trichy in Dec'2013.
- Delivered two invited lecture in FDP conducted by Department of Mechanical Engineering, UCE-BIT Campus, Anna University, Trichy in June 2015.
- Delivered two invited lecture in FDP conducted by Department of Mechanical Engineering, UCE-BIT Campus, Anna University, Trichy in June 2016.

DECLARATION:

I certify that the information furnished above is correct and true to the best of my knowledge and belief.

Signature of the staff member

Head of the Department

Dean