

Faculty Profile

Name of the Faculty	: Dr.R.Thiruneelakandan
Department and Designation	: Chemistry and Associate Professor
Date of Joining	: 3 rd March 2003
Faculty ID	: TF0010
E-mail Address	: rtkchemaut@gmail.com
Date of Birth	: 14 th May 1974
Qualification	: M.Sc., M.Phil., Ph.D.



- **Doctor of Philosophy (Ph.D.)** in Chemistry, Annamalai University, Annamalai Nagar Tamil Nadu, (July-2005)

Thesis Title: “**Synthesis, Spectral and Single Crystal Structural Studies on Some Simple and Mixed Ligand complexes of Divalent Group X Planar Dithiocarbamates with Mono, Bidentate Phosphines and Isothiocyanate**”.

Research Supervisor: **Prof. K. RAMALINGAM, M.Sc., Ph.D.**

- **Master of Philosophy (M.Phil.)** in Chemistry, Annamalai University, Annamalai Nagar, Tamil Nadu, (December-1999)

Thesis Title: “**Studies on Simple and Mixed Ligand Complexes of Ni(II), Cu(II) with Ligands containing S, P Ligating Centers and Related BVS Calculations**”.

Research Supervisor: **Prof. K. RAMALINGAM, M.Sc., Ph.D.**

- **Master of Science (M.Sc.)** in Chemistry, Ramakrishna Mission Vivekananda College, Mylapore, Chennai, University of Madras (May-1997).

- **Bachelor of Science (B.Sc.)** in Chemistry, Govt. Arts College, C.Mutlur, Chidambaram, University of Madras. (May-1994).

Specialization:

- **Coordination Chemistry**
- X-ray crystal Structure Determination
- Environmental Chemistry

Professional Experience:

- **Associate Professor (2012 onwards):** Bharathidasan Institute of Technology, Anna University, Tiruchirappalli.
- **Assistant Professor (2009-2012):** Bharathidasan Institute of Technology, Anna University, Tiruchirappalli
- **Senior Lecturer (2007-2009):** Bharathidasan Institute of Technology, Anna University, Tiruchirappalli.
- **Lecturer (2003-2007):** School of Engineering & Technology, Bharathidasan University, Tiruchirappalli.

Research Guidance:

<u>Degree</u>	<u>Completed</u>	<u>Submitted</u>	<u>Ongoing</u>
Ph.D.	-	01	05
M.Tech.	02	-	-

Awards and Honours:

- Qualified in **National Eligibility Test** (Lectureship only) in June **1999** Conducted by Council of Scientific and Industrial Research (**CSIR**), New Delhi, India.
- Qualified in **State Level Educational Test (SLET)** in November **1999** Conducted by Bharathidasan University Tiruchirappalli-620 024.
- Qualified in **National Eligibility Test (JRF & Lectureship)** in December 1999 Conducted by Council of Scientific and Industrial Research (**CSIR**), New Delhi, India.
- Life member - Indian Society of Chemists and Biologists (ISCB), CDRI, Lucknow.
- Life member - Indian Council of Chemists (ICC), Agra.
- Life member - Indian Society of Technical Education (ISTE), New Delhi

Publications:

(i) Internationally Refereed Journals:

- A.Manohar, K.Ramalingam, **R.Thiruneelakandan**, G.Bocelli. L.Righi, Steric and Electronic effects of chelating phosphines: Synthesis and single crystal X-ray structural studies on [1,3-bis(diphenylphosphino-k,p,p)propane](diisopropylidithiocarbamate)nickel(II)perchlorate, [1,3-bis(diphenylphosphino-k,p,p)propane](piperidinecarbodithioato)nickel(II)perchlorate, **Z.Anorg.Allg Chem.,2001**, 627,1103.

DOI:10.1002/1521-3749(200105)627:5<1103::AID-ZAAC1103>3.0.CO;2-8,

Impact Factor:1.163

- **R.Thiruneelakandan**, A.Manohar, K.Ramalingam, G.Bocelli, L.Righi, X-ray photoelectron spectral studies on planar NiS₄ and NiS₂P₂chromophores. Single crystal X-ray structural studies on [1,4-bis(diphenylphosphino-k,p,p)butane](piperidinecarbodithioato)nickel(II) perchlorate,
Z.Anorg.Allg.Chem., **2002**, 628, 685.
 DOI:10.1002/1521-3749(200203)628:3<685::AID-ZAAC685>3.0.CO;2-D,
Impact Factor: 1.163

- **R.Thiruneelakandan**, K.Ramalingam, G.Bocelli, L.Righi, Synthesis, Spectral, Cyclic Voltammetric Studies and Single Crystal X-ray Structure Determination of the Planar NiS₂P₂, NiS₂PN, NiS₂PN and NiS₂PC Chromophore,
Z. Anorg.Allg.Chem., **2005**, 631, 187.
 DOI: 10.1002/zaac.200400245,
Impact Factor: 1.163

- A.Manohar, K.Ramalingam, **R.Thiruneelakandan**, G.Bocelli, L.Righi, N-(2-Hydroxyethyl)-N-methyldithiocarbamate Complexes of Nickel(II) with Phosphorus Donor Ligands,
Z Anorg.Allg.Chem., **2006**, 632,461.
 DOI: 10.1002/zaac.200500282,
Impact Factor: 1.163

- R.Baskaran, K.Ramalingam, **R.Thiruneelakandan**, B.A.Prakasam, G.Bocelli, A.Cantoni, Trans influences of Cl⁻, NCO⁻ and NCS⁻ donors on planar NiS₂PN(CO), NiS₂PN(CS), NiS₂PCI and NiS₂P₂chromophores: Synthesis, NMR spectral and single crystal X-ray structural studies,
J.Coord.Chem., **2009**, Vol.62 (7), pp.1076 - 1085.
 DOI:10.1080/00958970802483624,
Impact Factor: 1.801

- K.Ramalingam, **R.Thiruneelakandan**,G.Bocelli and L.Righi, Steric distortion of planar NiP₂N₂chromophores: a spectral, cyclic voltammetric and single crystal X-ray structural study,
Transit. Metal Chem., **2012**, 37(3), 265-270,
 DOI:10.1007/s11243-012-9584-5,
Impact Factor: 1.184

- K.Ramalingam, **R.Thiruneelakandan**, G.Bocelli and L.Righi, Trans influence of triphenylphosphines and pseudohalogens on Ni-S bonds: Synthesis, spectral and single crystal X-ray structural studies on NiS₂PN and NiS₂PC chromophores,
Cent.Eur.J.Chem., **2012**, 10(4), 1199-1207,
 DOI: 10.2478/s11532-012-0041-2,
Impact Factor: 1.167

- C.Surendra Dilip, G.Senguttuvan, V.Sivakumar, K.Manikandan, **R.Thiruneelakandan**, Synthesis, spectral Investigation, Reinforced Bio-potential Enhancement and Structure Property Correlation of Mixed Ligand Pyridine-4-carbaldehyde Metal Complexes,
Asian J.Chem., **2013**, 25(Supplementary Issue), pp. S73-S75,
Impact Factor: 0.253

- C.Surendradilip, K.Manikandan, D.Rajalaxmi(a)Subahashini and **R.Thiruneelakandan**, Synthesis, Spectroscopic Characterisation, and Biopotential and DNA Cleavage Applications of Mixed Ligand 4-N,N-Dimethylaminopyridine Metal Complexes, **Journal of Chemistry**, **2013**, Vol.2013, Article ID 195074, 16 pages.
<http://dx.doi.org/10.1155/2013/195074>, **Impact Factor: 0.484**
- S.GaneshBabu, S.Krishnamoorthi, **R.Thiruneelakandan** and R.Karvembu, V₂O₅ Anchored RuO₂: An Efficient Nanocatalyst for Aerial Oxidation of Alcohols, **Catal.Lett.**, July **2014**, Vol.144, No.7, pp.1245 –1252,
[DOI 10.1007/s10562-014-1262-0](https://doi.org/10.1007/s10562-014-1262-0), **Impact Factor: 2.244**
- **R.Thiruneelakandan**, G.Subbulakshmi, Escalating Rice Invention Through System of Rice Intensification using Organic Manure, **International Journal of Agricultural and Food Science**, **2014**, 4(2):43-50.
- G.Subbulakshmi, **R.Thiruneelakandan**, 'Renovation of Horticultural Waste into Organic Fertilizer by Vermicomposting Technology: Approach for Solid Waste Management', **International Journal of Environment and Sustainable Development**, **2017**, (In Press).

(ii) National Journals:

- N.Rajendiran, **R.Thiruneelakandan**, K.Ramalingam, Synthesis and reactivity of some mixed ligand complexes of Ni(II) involving dithiocarbamates and hard bases, **Indian J. Chem.**, **2001**, 40A, 1103. **Impact Factor: 0.920**
- **R.Thiruneelakandan**,G.Subbulakshmi, SRI is the answer for food security and mitigation of water irrigation, **J.Bio.Innov.**, **2014**, 3(3),pp:176-181.
- **R.Thiruneelakandan** and **G.Subbulakshmi**, Recuperating Waste into Valuable Organic Manure Using "Environment's Plowman", **Biosci. Biotech. Res. Asia**, **2014**, 11(2), 1019-1023.
- **R.Thiruneelakandan** and G.Subbulakshmi, Vermiculturing Can Boost Agricultural Production without Agrochemicals, **JECET**, 2014; Vol.3.No.1, 088-095.

(iii) International Conferences

- P.A. Sumod, **R. Thiruneelakandan**, K. Ramalingam Layered MnO₂ in Organic Matrices, 36th Annual Convention of Chemists, International Conferences, Calcutta, Dec. **1999**.
- M.Abdul Wahab Johny, S.C.G.Kiruba Daniel, **R.Thiruneelakandan**, M.Sivakumar, Cu Doped ZnO Quantum dots for the fabrication of Quantum Dot Sensitized Solar Cell (QDSSC), **International Conference on Nanomaterials for Frontier Applications (ICNFA)**, CIT, Coimbatore, Tamil Nadu, 10-12 July **2013**.

- G.Subbulakshmi, **R.Thiruneelakandan**, Management of cashew apple waste by vermicomposting using Earthworm *Eiseniafoetida* in cuddalore district, Tamilnadu, *International Conference on Green Technology for Environmental Pollution Prevention and Control (ICGTEPC-2014)*, held at NIT, Tiruchirappalli on 27th to 29th September **2014**.
- G.Subbulakshmi,**R.Thiruneelakandan**, Pollution Status of Waste (Heavy metals) in the Sediments of Uppanar River of Cuddalore District, Tamilnadu, India, *2nd International Conference on Engineering Technology and Science*, Muthayammal College og Engineering, Rasipuram, Tamilnadu, 5th& 6th March, **2015**.

(iv) National Conferences

- **R.Thiruneelakandan**, P.A.Sumod, K.Ramalingam, Synthesis and Characterization of some simple and mixed ligand complexes involving Thioguanine, 6-Thioguanosine, divalent Copper, Nickel and Dithiocarbamate, *Recent Research in Coordination Chemistry*, REC, Tiruchy-15, Mar. 2-3, **1999**.
- P.A.Sumod, **R.Thiruneelakandan**, V.Venkatachalam, K.Ramalingam, G.Bocelli, A.Cantoni, Synthesis, Single Crystal X-ray structure, VBS calculation and Spectral studies on Tris(methylethanoldithiocarbamato)Cobalt(III) and related compounds, *Recent Trends in structure, function, analysis of molecules and applications*, Mysore University, Mysore, Oct-28-30, **1999**.
- **R.Thiruneelakandan**, A.Manohar, K.Ramalingam, Synthesis, spectral and single crystal X- ray studies on [1,3-Bis(diphenylphosphino)propane](piperidinecarbodithioato)nickel(II) perchlorate, *Indian Council of Chemists*, XIX Conference, Shimoga, Karnataka, **2000**.
- **R.Thiruneelakandan**, P.A.Sumod, K.Ramalingam, Synthesis and characterization of some mixed ligand complexes of divalent nickel involving thiocyanate and substituted phosphine, *Indian Council of Chemists*, XIX Conference, Shimoga, Karnataka, **2000**.
- **R.Thiruneelakandan**, M.Saravanan, K.Ramalingam, G.Bocelli, L.Righi, Synthesis, spectral and single crystal X-ray studies on [1,3-bis(diphenylphosphino)propane]-(dimethyldithiocarbamato)nickel(II) perchlorate, *National Conference and Symposium on solid state Chemistry and Allied Areas*, IIT, Kanpur, Dec. 6-8, **2001**.
- M.Saravanan, **R.Thiruneelakandan**, K.Ramalingam, G.Bocelli, L.Righi, Synthesis, spectral and single crystal X-ray studies on [Isothiocyanato)(triphenylphosphine)(dibenzylthio-carbamato)nickel(II), *National Conference and Symposium on solid state Chemistry and Allied Areas*, IIT, Kanpur, Dec. 6-8, **2001**.
- **R.Thiruneelakandan**, M.Saravanan, K.Ramalingam, G.Bocelli, LRighi, Synthesis, spectral and single crystal X-ray studies on [1,4-bis(diphenylphosphino)butane](dimethyldithio-

carbamato)nickel(II)tetraphenylborate, *Indian Council of Chemists*, XX Conference, Mysore, Karnataka, **2001**.

- M.Saravanan, **R.Thiruneelakandan**, K.Ramalingam, G.Bocelli, L.Righi, Synthesis, spectral and single crystal X-ray studies on [Bis(triphenylphosphine)(pyrolidinedithioato)-nickel(II)tetraphenylborate, *Indian Council of Chemists*, XX Conference, Mysore, Karnataka, **2001**.
- K.Ramalingam, **R.Thiruneelakandan**, Synthesis, spectral and single crystal X-ray studies on [1,4-bis(diphenylphosphino)butane](piperidinedithioato)nickel(II) perchlorate, *38th Annual Convention of Chemists, National Conference*, Jodhpur, Dec. 26-29, **2001**.
- **R. Thiruneelakandan**, K. Ramalingam, Synthesis, spectral and single crystal X-ray studies on Bis(tri(4-methylphenyl)phosphine)(dimethyldithiocarbamato)nickel(II) perchlorate, *38th Annual Convention of Chemists, National Conference*, Jodhpur, Dec. 26-29, **2001**.
- **R.Thiruneelakandan**, K.Ramalingam, G.Bocelli, A.Yurii Chumakov, Synthesis, spectral and single crystal X-ray studies on [Bis(triphenylphosphine)(dimethyldithiocarbamato)nickel(II)perchlorate, *Indian Council of Chemists*, XXI Conference, Jabalpur, Madhya Pradesh, **2002**.
- **R.Thiruneelakandan**, K.Ramalingam, G. Bocelli, A. Yurii Chumakov, Synthesis, spectral and X-ray structural studies on [(Cyano)(triphenylphosphine)(dimethyldithiocarbamato)-nickel(II)], *Indian Council of Chemists*, XXII Conference, IIT, Roorkee, Uttaranchal, 17-19 October, **2003**.
- **R.Thiruneelakandan**, K.Ramalingam, R.Bhaskaran, G.Bocelli, A.Yurii Chumakov, Synthesis, spectral and single crystal X-ray structural studies on [(Isothiocyanato)(triphenylphosphine)(benzylethanoldithiocarbamato)nickel(II)], *Indian Council of Chemists*, XXII Conference, IIT, Roorkee, Uttaranchal, 17-19 October, **2003**.
- **R.Thiruneelakandan**, K.Ramalingam, V.Jeyaram, X-ray Photoelectron Spectral Studies on some Planar Complexes containing NiS₄, NiS₂P₂, NiS₂PN and NiS₂PC Chromophores, *National Conference on Science and Technology of Advanced Materials*, Department of Physics, Pondicherry Engineering College, Pondicherry, July-27-29, **2005**.
- R.Radhakrishnan, **R.Tiruneelakandan**, Carbon dioxide an ecofriendly solvent, National Seminar on Current Trends in Green Chemistry, Department of Chemistry, SRM Institute of Science and Technology, Deemed University, Kattankulathur, Tamil Nadu, April 6th and 7th, **2006**.
- **R.Thiruneelakandan**, K.Ramalingam, Synthesis, spectral and single crystal X-ray studies on [bis(diphenylphosphino)ethane(diethanoldithiocarbamato)nickel(II)perchlorate, *National*

Conference on Emerging Trends in chemical Research, Department of Chemistry, Annamalai University, Tamil Nadu, October 17th and 18th October, **2008**.

- **R.Thiruneelakandan**, G.Subbulakshmi, Vermicomposting which is efficacy in viable agriculture conversion of waste material into valuable fertilizer, *National Conference on Advances in Material Science*, Department of Physics, Annamalai University, Tamil Nadu, 1st and 2nd March **2012**.

CONFERENCES/WORKSHOPS/SEMINAR/SHORT TERM REFRESHER COURSE ATTENDED

- **UGC Sponsored Orientation Course** at UGC-Academic Staff College, Bharathidasan University, Tiruchirappalli-24, from 30.04.2005 to 27.05.2005.
- **UGC Sponsored State Level Seminar on NMR Applications and Energy Materials** organized by PG and Research Department of Chemistry, Rajah Serfoji Government College (Autonomous), Thanjavur, Tamil Nadu, 21st Feb' **2011**.
- **Awareness programme for Teachers on Heuristic Approach in Teaching**, Anna University of Technology, Trichy, 29th March **2011**.
- TEQIP II Sponsored **Faculty Development Programme on Teaching Learning Methodologies** organized by the Teaching Learning Centre, CEE, IIT, Madras from 16th to 18th October **2013**.
- TEQIP II Sponsored one day **Workshop to share experiences and good practices on improving transition rate of students** at Government College of Technology, Coimbatore on 28th January **2014**.
- TEQIP II Sponsored **Academic Leadership Programme**, conducted by Indian Institute of Management Tiruchirappalli (IIM-T), Chennai Centre, held from 9th to 13th February, **2015**.
- TEQIP II Sponsored two weeks **Faculty Development Programme on Nano Technology Applications in Engineering and Technology (NAET'15)** conducted by Department of Petrochemical Technology, Anna University, BIT Campus, Trichy held from 06th May 2015 to 19th May **2015**.
- TEQIP II Sponsored two weeks **Faculty Development Programme on Advanced Research in Materials for Engineering and Technological Applications (ARMETA-2015)** conducted by Department of Physics, Anna University, BIT Campus, Trichy held from 17th July 2015 to 31th July **2015**.
- TEQIP II Sponsored two weeks **Faculty Development Programme on Advances in Nanotechnology and Analytical Instrumentation in Health Sciences** conducted by the Department of Pharmaceutical Technology, Bharathidasan Institute of Technology, Anna University, Tiruchirappalli - 620 024, held during 24th June - 7th July, **2016**.

CONFERENCES/WORKSHOPS/SEMINAR ORGANISED

- Two days **Career Guidance Programme for first year UG students** at Anna University, BIT Campus, Tiruchirappalli during 12.11.2013 & 13.11.2013.
- TEQIP II Sponsored **Faculty Development Programme on Recent Advances and Developments in Chemistry (RADIC'13)** held at Department of Chemistry, Anna University, BIT Campus, Tiruchirappalli from 28.11.2013 to 04.12.2013.
- TEQIP II Sponsored **Two week Pedagogical Training Programme to the faculty members of BIT**, Anna University, Tiruchirappalli in collaboration with NITTR, Chennai held at Anna University, BIT Campus, Tiruchirappalli from 09.12.2013 to 23.12.2013.
- TEQIP II Sponsored **Soft Skill Training Programme to the First year UG Students of BIT Campus** held at Anna University, BIT Campus, Tiruchirappalli from 04.03.2014 to 07.03.2014.
- One day **Young Mind Awareness programme for the celebration of International Day for the Preservation of the Ozone day-2014** held at Anna University, BIT Campus, Tiruchirappalli on 16.09.2014.
- TEQIP II Sponsored two day **Student Training Programme on "Waste Management – Trash to Treasure"** held at Anna University, BIT Campus, Tiruchirappalli on 10.11.2014 & 11.11.2014.
- TEQIP II Sponsored two days **International Conference on Chemistry and Materials (ICCM 2014)** held at Department of Chemistry, Anna University, BIT Campus, Tiruchirappalli on 14.11.2014 & 15.11.2014.
- TEQIP II Sponsored **Two weeks Faculty Development Programme on Frontiers Research in Applied Sciences (FRAS 2015)** held at Department of Chemistry, Anna University, BIT Campus, Tiruchirappalli from 03.06.2015 to 16.06.2015.
- TEQIP II Sponsored **two days Lecture Workshop on Chemistry for Sustainable Green Environment (CHES GREEN'16)** held at Department of Chemistry, Anna University, BIT Campus, Tiruchirappalli from on 11.03.2016 & 12.03.2016.
- TEQIP-II Sponsored **Two Weeks Faculty Development Programme on Multi-disciplinary Approaches on Chemical Sciences (MACS'16)** held at Department of Chemistry, Anna University, BIT Campus, Tiruchirappalli from 18.07.2016 to 31.07.2016.

- TEQIP II Sponsored **International Conference on Advances in Biological, Chemical and Physical Sciences (ABCPS-2017)** held at BIT Campus, Anna University, Tiruchirappalli 13.03.2017 to 15.03.2017.

Other contribution (if any)

- Deputy Controller of Examinations, Bharathidasan Institute of Technology (Autonomous) Examinations, Bharathidasan University, 2006-2007.
- First Year Coordinator, Bharathidasan Institute of Technology, Anna University, Tiruchirappalli from 2012 onwards.
- Member for Certificate Verification of Temporary Non-Teaching staff and Refix the Wages July 2013.
- Member for Hostel Purchase Committee 11.12.2013 to 10.12.2014.
- Chief Superintendent for Anna University Theory Examinations from Nov/Dec 2016 & Apr/May 2017.
