

BIO DATA

Dr. N. NEELAKANDESWARI

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No: 1 Aye Gounder Street

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Academic pursuits

❖ Doctor of Philosophy in Chemistry

University : Bharathiar University, Coimbatore, Tamilnadu,
India.
Year of study : 2008 – 2011
Field of research : Nanochemistry
Title of the thesis : Nickel Incorporated Aluminosilicate and
Hydroxyapatite nanocomposites: Preparation,
Characterisation and Catalytic applications.

❖ Master of Philosophy in Chemistry

University : Bharathidasan University, Tiruchirappali,
Tamilnadu, India.
Field of research : Analytical Chemistry
Year of study : 2006 – 2008
% of marks : 83.4%

❖ Post Graduate Degree in Chemistry

Institution : P.S.G.R. Krishnammal College for women
University : Bharathiar University, Coimbatore, Tamilnadu,
India.
Year of study : 2004 – 2006
% of marks : 87.05 %

❖ Under Graduation Degree in Chemistry

Institution : NGM College, Pollachi, India.
University : Bharathiar University, Coimbatore, Tamilnadu,
India.
Year of study : 2001 – 2004
% of marks : 84.96%

Supporting Academic Activities

- ❖ Passed **PG Diploma in Nanoscience and Technology** with **89.31%** from the Department of Physics, Bharathiar University, Coimbatore, India during 2009-2010.
- ❖ Completed **NPTEL online certification** course on “**Chemical Applications of Symmetry and group Theory**” with 81% marks.
- ❖ Completed **NPTEL online certification** course on “**Chemistry I: Introduction to Quantum Chemistry and Molecular Spectroscopy**” with 87% marks.
- ❖ Completed **NPTEL online certification** course on “**Co-ordination Chemistry**” with 71% marks.
- ❖ Completed **NPTEL online certification** course on “**Medical Biomaterials**” with 67% marks.
- ❖ Completed **NPTEL online certification** course on “**Waste to Energy Conversion**” with 70% marks.
- ❖ Completed **BEC Preliminary Examination** with 144 Marks (out of 170), conducted by **Oxford University, London**.
- ❖ Completed **NPTEL online certification** course on “**Stress Management**” with 76% marks (**Silver Medal**).
- ❖ Completed **NPTEL online certification** course on “**Enhancing Softskills and Personality**” with 90% marks (**Top 5%, Gold Medal**).

Achievements

- ❖ **First Rank** holder in M. Sc Degree examination (P.S.G.R. Krishnammal College for women, Coimbatore)
- ❖ Awarded **Senior Research Fellowship (SRF)** by Department of Science and Technology, New Delhi, India under SERC scheme for three years from August 2008 to July 2011 (DST File No: SR/SI/IC-45/2007 dt. 02.04.08, Principal Investigator : Dr. N. Dharmaraj, Associate Professor, Department of Chemistry, Bharathiar University).

Industrial Experience

- ❖ Worked as a **Research Executive** at the Analytical Department of **Orchid Chemicals and Pharmaceuticals Private Limited**, R & D Centre, Chennai from **01.06.2006 to 25.07.2008**.

Teaching Experience

- ❖ Working as an **Associate Professor in Chemistry**, Sri Ramakrishna Engineering College, Coimbatore, from 01.12.2012 to till date.

- ❖ Worked as an **Assistant Professor in Chemistry**, Sri Ramakrishna Engineering College, Coimbatore, from 18.06.2012 to 30.11.2012.
- ❖ Worked as an **Assistant Professor in Chemistry**, P.A.College of Engineering and Technology, Pollachi, from 18.08.2011 to 13.06.2012.

Training/ Workshops Undergone

1. Completed NPTEL-FDP on “**Enhancing Soft skills and Personality**”, offered by SWAYAM during **Feb-April 2019**.
2. Completed NPTEL-FDP on “**Stress Management**”, offered by SWAYAM during **Aug-Sep 2018**.
3. Attended International workshop on “**Materials for Energy, Environment and Biological Applications**”, organized by Kongunadu Arts and Science College, Coimbatore, on **05.04.2018**.
4. Participated in the one day workshop on “**Behaviour Management and Psychometric Tools**”, organized by the department of Computer Science and Engineering & ISTE Chapter, Sri Ramakrishna Engineering College, Coimbatore, on **24.02.2018**
5. Attended Faculty Development Programme on “**Metallurgy for Non Metallurgist**” Organized by the department of Mechanical Engineering, Sri Ramakrishna Engineering College, Coimbatore during **03.07.2017 - 08.07.2017**.
6. Participated in the three days FDP on “**MATLAB FOR BEGINNERS**” organized by the Department of Electronics and Instrumentation, Sri Ramakrishna Engineering College, Coimbatore during **02.05.2017- 04.05.2017**.
7. Attended the “**National Symposium on Nano Science & Technology (NSNST-2016)**” conducted at the centre for Nano Science and Engineering, Indian Institute of Science, Bangalore from **29.06.2016 -30.06.2016**.
8. Participated in the one day work shop on “**Corrosion and its control**” conducted by Sri Ramakrishna Engineering College, Coimbatore, India on **21.03.2014**.
9. Participated in the three days “**Work shop & International conference on Nanomaterials for Frontier Applications and Indo-Novergien workshop on Solar cell applications**”, organized by the department of Physics, Coimbatore Institute of Technology, Coimbatore, India during **10.07.2013 – 12.07.2013**.
10. Participated in the one day work shop on “**Measuring techniques for Nanotechnology**”, conducted by PSG Institute of Advanced Studies, Coimbatore, India on **25.06.2013**
11. Attended the DST sponsored “**10th Orientation Programme in Catalysis**”, organized by National Centre for catalysis Research (NCCR), Indian Institute

- of Technology Madras (IITM), Chennai, India, during **28.11.2009 - 11.12.2009**.
12. Attended the “**International Workshop on Nanoscience and Technology**”, organized by the Department of Physics, Anna University, Chennai, India during **23.02.2009 – 29.03.2009**.
 13. Participated in the Workshop on “**Intellectual Property Rights (Natural Products)**”, conducted by Department of Botany, Bharathiar University, Coimbatore, India on **09.02.2009**.
 14. Participated in the state Level workshop on “**Organic Spectroscopy**”, organized by Gandhigram Rural Institute, Dindigul, India during **19.02.2006 – 21.02.2006**.
 15. Undergone three months project on the topic “**Synthesis & Characterization of Polyaniline using different dopants**” at Central Electrochemical Research Institute (CECRI), Karaikudi, India as a part of M. Sc curriculum, during June 2005 to August 2005.
 16. Attended training course on “**Instrumental Methods of Chemical Analysis**” conducted by South Indian Textile Research Association (SITRA), Coimbatore, India, during **13.02.2006 – 17.02.2006**.
 17. Participated in the workshop on “**Hands on Training on Instrumental & Basic techniques of Biotechnology**”, at the PG Department of Biotechnology, NGM College, Pollachi, India on **22.12.2003**.

Papers Published in International Journals

Cumulative Impact Factor :41.002		
Citation Details	Google Scholar	Scopus
Total Citations	161	137
h-Index	6	6

1. “New Heterojunction Solar Cells using Copper Oxide Ingrained MWCNT: Fabrication and Performance Analysis”, S. Sathiesh Kumar, S. Vairam, **N. Neelakandeswari**, S. Aruna, *Solar Energy*, In Press. (I.F: 3.541)
2. “Synthesis and Characterisation of SnO₂ nanostructures for Dye-sensitized solar cells”, R. Vasanthapriya, **N. Neelakandeswari**, N. Rajasekaran, K. Uthayarani, M. Chitra, S. Sathiesh Kumar, *Materials Letters*, 220, 218 (2018). (I.F: 2.579)
3. “Effect of metal oxide charge transfer layers on the photovoltaic performance of carbon nanotube heterojunction solar cells”, S. Sathiesh Kumar, S. Vairam, **N. Neelakandeswari**, S. Aruna, *Materials Letters*, 220, 249 (2018). (I.F: 2.579)
4. “Characterisation of Cr Doped CuO nanoparticle and its performance in solar cell”, K.V.Jayasree, **N. Neelakandeswari**, D.V.Ezhilarasi Gnana Kumari, *International Journal of Scientific Research and Modern Education*, I (II), 184 (2017). (I.F: 6.725)

5. "Enhanced Ethanol gas sensing performance of Zinc-Tin-Vanadium oxide nanocomposite at room temperature", M. Chitra, K. Uthayarani, N. Rajasekaran, **N. Neelakandeswari**, E.K. Girija, D. Pathinettam Padiyan, G.Mangamma, *RSC Advances*, **6**, 111526 (2016). (I.F:3.840)
6. "Flake like V_2O_5 nanoparticles for ethanol sensing at room temperature", M. Chitra, K. Uthayarani, N. Rajasekaran, **N. Neelakandeswari**, E. K. Girija, and D. Pathinettam Padiyan, *AIP Conference Proceedings*, **1731**, 050085 (2016).
7. "ZnO/SnO₂/Zn₂SnO₄ nanocomposite: preparation and characterization for gas sensing applications", M. Chitra, K. Uthayarani, N. Rajasekaran, **N. Neelakandeswari**, *Nanosystems: Physics, Chemistry, Mathematics*, **7** (4), 707–710 (2016). (I.F: 0.726)
8. "Effect of Surfactant on the morphology of ZnO/Al:ZnO nanostructures and their ethanol sensing applications at room temperature", M. Chitra, K. Uthayarani, N. Rajasekaran, **N. Neelakandeswari**, E. K. Girija, and D. Pathinettam Padiyan, *Surface Review and Letters*, **23**, 155009 (2016). (I.F. 0.435)
9. "Synthesis and Characterization of Zinc - Tin - Vanadium Oxide Nanocomposites for Oxygen Sensing Applications", M. Chitra, K. Uthayarani, N. Rajasekaran, **N. Neelakandeswari**, E. K. Girija & N. Dharmaraj, *Sensor Letters* **14** (2), 164-170 (2016). (I.F: 0.558)
10. "Aluminium Doped Zinc oxide Nanostructures: Preparation, Characterization and Ethanol Sensing Applications", M. Chitra, K. Uthayarani, N. Rajasekaran, **N. Neelakandeswari**, E. K. Girija and D. Pathinettam Padiyan, *International Journal of Applied Engineering Research (IJAER)*, **10**(2), 1714-1719 (2015). (I.F: 0.5)
11. "Rice Husk Templated Mesoporous ZnO Nanostructures for Ethanol Sensing at Room Temperature", M. Chitra, K. Uthayarani, N. Rajasekaran, **N. Neelakandeswari** and E.K. Girija, D. Pathinettam Padiyan, *Chinese Physics Letters*, **32**(7) 078101-078104 (2015). (I.F: 0.927)
12. "Growth of Nanostructured ZnO Thin Films Via Spin Coating Technique For Acetone Sensing Applications at Room Temperature", M. Chitra, K. Uthayarani, N. Rajasekaran, **N. Neelakandeswari** and E.K. Girija, *International Journal of Advanced Technology in Engineering and Science*, **3**(2), 401-405 (2015). (I.F: 1.012)
13. "Phytochemical Preparation, Characterization and Photocatalytic application of Ag - SiO₂ nanocatalyst", **N. Neelakandeswari**, N. Rajasekaran, and K. Uthayarani, *International Journal of Advance Research In Science And Engineering*, **4**(2), 417-421 (2015). (I.F: 1.142)
14. "Phytochemical Preparation, Characterisation and Photocatalytic applications of Ag-TiO₂ nanocatalyst", P. Yuvasree, K. Nithya, **N. Neelakandeswari**, N. Rajasekaran, K. Uthayarani, M. Chitra and S. Sathiesh kumar, *Advanced Materials Research*, **1086**, 1-6 (2015).

15. "Preparation and Characterization of Copper Oxide Nanoparticles", K Nithya, P Yuvasree, **N Neelakandeswari**, N Rajasekaran, K Uthayarani, M. Chitra, *International Journal of ChemTech Research*, **6(3)**, 2220-2222 (2014).
16. "Biosynthesis of silver nanoparticles from Aloe vera plant extract and its antimicrobial activity against multidrug resistant pathogens", P Yuvasree, K Nithya, **N Neelakandeswari**, *IEEE Explore*, **84-86**, 2014. (I.F: 0.042)
17. "Copper (II) Oxide on aluminosilicate mediated Heck Coupling of styrene with aryl halides in water", S. Ganesh Babu, **N. Neelakandeswari**, N. Dharmaraj, S. David Jackson and R. Karvembu, *RSC Advances*, **3(21)**, 7774-7781 (2013). (I.F:3.840)
18. "Mesoporous Nickel-Aluminosilicate Nanocomposite: A Solid Acid Catalyst for Ether Synthesis" **N. Neelakandeswari**, R. Karvembu and N. Dharmaraj, *Journal of Nanoscience and Nanotechnology*, **13**, 2853-2863 (2013). (I.F: 1.556)
19. "Role of organic template on the structural and optical properties of ZnO and Al loaded ZnO nanostructures", M. Chitra, K. Uthayarani, N. Rajasekaran, **N. Neelakandeswari** and E.K. Girija, *International Journal of Nanotechnology and Applications*, **6 (3)** 191 – 194 (2012). (I.F (JCC): 2.12)
20. "Mesoporous Nickel hydroxyapatite nanocomposites for Microwave-assisted Henry reaction" **N. Neelakandeswari**, G. Sangami, P.Emayavaramban, R. Karvembu, Hak Yong Kim and N. Dharmaraj, *Tetrahedron letters*, **23**, 2980-2984 (2012). (I.F: 2.379)
21. "Preparation and characterization of nickel aluminosilicate nanocomposites for transfer hydrogenation of carbonyl compounds" **N. Neelakandeswari**, G. Sangami, P.Emayavaramban, S. Ganesh Babu, R. Karvembu and N. Dharmaraj, *Journal of Molecular catalysis A-Chemical*, **356**, 90-99 (2012). (I.F: 3.615)
22. "Preparation and characterization of nanostructured Hydroxyapatite using a biomaterial" **N. Neelakandeswari**, G. Sangami and N. Dharmaraj, *Synthesis and reactivity in inorganic, metal organic and nano metal chemistry*, **41**, 1-4 (2011). (I.F: 0.533)
23. "Spectroscopic investigations on the photodegradation of Toluidine Blue dye using Cadmium sulphide nanoparticles prepared by a novel method" **N. Neelakandeswari**, G. Sangami, N. Dharmaraj, Nam Ki Taek and Hak Yong Kim, *Spectrochimica Acta Part A: Molecular and Biomolecular spectroscopy*, **78**, 1592–1598 (2011). (I.F: 2.353)

Papers presented in International/ National Conferences/Seminars

1. Preparation and characterisation of zirconia nanoparticles

G. Lingadharshini , V. Pavithra , M. Santhiya , G. Aishwarya laxmi, V.K. Mathivadhani, M.Chitra, K.Uthayarani, **N.Neelakandeswari**, N.Rajasekaran in the National Conference on "Recent Research in Simulation of crystal growth and its Device Applications in Industries" organised by the Department of Physics, P.A. College of Engineering and Technology during 04.04.2019 – 05.04.2019.

2. Preparation and characterization of silver nanoparticles using neem extract for antimicrobial action

J. Jose Maria , P. Christina Joycy, J.Chrisca, P.Akshaya, D.Deeptiha, M.Chitra, K.Uthayarani, **N.Neelakandeswari**, N.Rajasekaran in the National Conference on "Recent Research in Simulation of crystal growth and its Device Applications in Industries" organised by the Department of Physics, P.A. College of Engineering and Technology during 04.04.2019 – 05.04.2019.

3. Templated synthesis and characterization of copper oxide nanoparticles and testing of antimicrobial activity

M.Preethi, P.Vidhyalakshmi Bai, S.Bhuvaneswari, K.Oviya, M.Chitra, K.Uthayarani, **N.Neelakandeswari**, N.Rajasekaran in the National Conference on "Recent Research in Simulation of crystal growth and its Device Applications in Industries" organised by the Department of Physics, P.A. College of Engineering and Technology during 04.04.2019 – 05.04.2019.

4. Synthesis and characterization of silver nanoparticles using neem extract and testing of antimicrobial activity

J. Jose Maria , P. Christina Joycy, J.Chrisca, P.Akshaya, D.Deeptiha, M.Chitra, K.Uthayarani, **N.Neelakandeswari**, N.Rajasekaran in the National Conference of Nano- Biotechnology : Applications, Recent Developments, Future Prospectus and Challenges (NBARD - 2019) on 13.03.2019.

5. Synthesis and characterization of zinc oxide nanostructures as a template

R.Subasini, L.Harini, G.Niranchana, K.Ragavi, S.Susmitha, M.Chitra, K.Uthayarani, **N.Neelakandeswari** and N.Rajasekaran in the National Conference of Nano- Biotechnology : Applications, Recent Developments, Future Prospectus and Challenges (NBARD - 2019) on 13.03.2019.

6. Fabrication of Dye Sensitized Solar Cells using Zinc Stannate Nanostructures prepared by Sonochemical Method.

N. Neelakandeswari, R. Vasanthapriya, M. Chitra, N. Rajasekaran and K. Uthayarani in the 5th International Conference on Nanoscience and Technology organized by SRM Institute of Science and Technology, Chennai during 28.01.2019 to 30.01.2019.

7. DSSC performance of ternary nanocomposite using zinc-tin-vanadium oxide nanocomposite

M. Chitra, K. Uthayarani, N. Rajasekaran, **N. Neelakandeswari**, E.K. Girija and R. Vasanthapriya in the 5th International Conference on Nanoscience and Technology organized by SRM Institute of Science and Technology, Chennai during 28.01.2019 to 30.01.2019.

8. Investigations on the Electrical Properties of ZnO - V₂O₅ nanocomposite using Conducting Atomic Force Microscopy

M. Chitra, K. Uthayarani, N. Rajasekaran, **N. Neelakandeswari**, E.K. Girija , G. Mangamma in the **DAE-BRNS sponsored Interdisciplinary symposium on Materials Chemistry (ISMCI)** organised by Bhabha Atomic Research Center and Society for Materials Chemistry, Roorkee on 04.12.2018.

9. Fabrication of Natural Dye-Sensitized Solar cells using TiO₂ Nanorod

R. Vasanthapriya, **N. Neelakandeswari**, N. Rajasekaran, K. Uthayarani and M. Chitra in the **National Conference on Advances in materials Science and Engineering for Societal Applications (NMSE-2018)** organized by Sri Ramakrishna Engineering College, Coimbatore, Tamilnadu during 18.07.2018 – 20.07.2018.

10. Synthesis and Characterisation of CuO-MgO Nanocomposite for N-Arylation of Amines

N. Mohanapriya, **N. Neelakandeswari**, M. Kumaravel, B. Lalithamani and N. Rajasekaran in the **National Conference on Advances in materials Science and Engineering for Societal Applications (NMSE-2018)** organized by Sri Ramakrishna Engineering College, Coimbatore, Tamilnadu during 18.07.2018 – 20.07.2018.

11. Preparation and Characterisation of NiO-MgO Nanocomposite for N-Arylation of Aniline

N. Mohanapriya, **N. Neelakandeswari**, M. Kumaravel, B. Lalithamani and N. Rajasekaran in the **National Conference on Advances in materials Science and Engineering for Societal Applications (NMSE-2018)** organized by Sri Ramakrishna Engineering College, Coimbatore, Tamilnadu during 18.07.2018 – 20.07.2018.

12. Zirconium Oxide for Dental Implants

K. Gayathri, J. Teena, **N. Neelakandeswari**, N. Rajasekaran, M. Chitra and K. Uthayarani in the **National Conference on Advances in materials Science and Engineering for Societal Applications (NMSE-2018)** organized by Sri Ramakrishna Engineering College, Coimbatore, Tamilnadu during 18.07.2018 – 20.07.2018.

13. Physicochemical Characterisation and Biological studies of Ru(II) Polypyridyl Schiff base Complexes

C. Chelladurai, A. Manimaran and **N. Neelakandeswari** in the **National Conference on Advances in materials Science and Engineering for Societal Applications (NMSE-2018)** organized by Sri Ramakrishna Engineering College, Coimbatore, Tamilnadu during 18.07.2018 – 20.07.2018.

14. Biomaterial Alumina: Preparation and Characterisation

K. Divya, B. Mithra, V. Aishwarya, R. Srividhya, S. Lavanya, K. Gobika, A. Dharsini, S. Kirubha Gowri, M. Rakshana, **N. Neelakandeswari**, N. Rajasekaran, M. Chitra and K. Uthayarani in the **National Conference on Advances in materials Science and Engineering for Societal Applications (NMSE-2018)** organized by Sri Ramakrishna Engineering College, Coimbatore, Tamilnadu during 18.07.2018 – 20.07.2018.

15. Preparation and Characterisation of Hydroxyapatite using Egg Shell

- K. Arthe, C. Preethika, S. Karthiga, R. Poovizhi, **N. Neelakandeswari**, N. Rajasekaran, M. Chitra and K. Uthayarani in the **National Conference on “Molecules and Materials for sustainable Development (NCMM-18)”** organized by Karunya University, Coimbatore, Tamilnady during 06.04.2018.
- 16. Preparation and Characterisation of ZnO using Egg Shell Memberane**
M. Rahini, S.M. Abinaya, M. Deepika, S. Devayani, **N. Neelakandeswari**, N. Rajasekaran, M. Chitra and K. Uthayarani in the **National Conference on “Molecules and Materials for sustainable Development (NCMM-18)”** organized by Karunya University, Coimbatore, Tamilnadu, on 06.04.2018.
- 17. Mesoporous Zno Nanostructures for Sensing Volatile Vapours at Room Temperature**
M. Chitra, K. Uthayarani, N. Rajasekaran, **N. Neelakandeswari** and E.K. Girija, in the **National Conference on Emerging Materials and Methods for Advanced Applications (NCEMMAA-2018)** organized by Periyar University, Salem, India, during 01.03.2018 – 02.03.2018.
- 18. Solvothermal Synthesis and Characterisation of TiO₂ Nanorods**
R. Vasanthapriya, **N. Neelakandeswari**, N. Rajasekaran, K. Uthayarani and M. Chitra in the **National Conference on Emerging Materials and Methods for Advanced Applications (NCEMMAA-2018)** organized by Periyar University, Salem, India, during 01.03.2018 – 02.03.2018.
- 19. Sonochemical Preparation and Characterization of Zinc Stannate Nanostructures**
N. Neelakandeswari, N. Rajasekaran, R. Vasanthapriya, K. Uthayarani and M. Chitra in the **National Conference on Emerging Materials and Methods for Advanced Applications (NCEMMAA-2018)** organized by Periyar University, Salem, India, during 01.03.2018 – 02.03.2018.
- 20. Investigations on Nanostructured ZnO Based Gas sensors**
M. Chitra, K. Uthayarani, N. Rajasekaran, **N. Neelakandeswari**, E.K. Girija and D. Pathinettam Padiyan, **62nd DAE Solid State symposium**, Organised by Bhabha Atomic Research Centre, Mumbai, during 26.12.2017 – 30.12.2017.
- 21. Effect of surfactant on the morphology of nanostructured NiO**
N. Neelakandeswari, R. Vasanthapriya, M. Chitra, N. Rajasekaran, K. Uthayarani and S.Sathiesh Kumar, **International symposium on Nanomaterials for Clean Energy and Health applications-2017**, Organised by the Department of Physics, Coimbatore Institute of Technology, Coimbatore during 06.12.2017 – 08.12.2017.
- 22. Acetone Sensing property of mesoporous ZnO nanostructures**
M. Chitra, K. Uthayarani, N. Rajasekaran and **N. Neelakandeswari**, **International symposium on Nanomaterials for Clean Energy and Health applications-2017**, Organised by the Department of Physics, Coimbatore Institute of Technology, Coimbatore during 06.12.2017 – 08.12.2017.
- 23. Effect of metal oxide charge transfer layer on the photovoltaic performance of TiO₂-MWCNT Heterojunction solar cells**
S.Sathiesh Kumar, S. Vairam, **N. Neelakandeswari** and S. Aruna, **International symposium on Nanomaterials for Clean Energy and Health**

- applications-2017**, Organised by the Department of Physics, Coimbatore Institute of Technology, Coimbatore during 06.12.2017 – 08.12.2017.
- 24. Synthesis and Characterisation of SnO₂ nanostructures for Dye-Sensitized Solar cells**
R. Vasanthapriya, N. Neelakandeswari, N. Rajasekaran, K. Uthayarani, M. Chitra and S.Sathiesh Kumar, **International symposium on Nanomaterials for Clean Energy and Health applications-2017**, Organised by the Department of Physics, Coimbatore Institute of Technology, Coimbatore during 06.12.2017 – 08.12.2017.
- 25. XRD, UV and Morphological studies of Zin-Tin Vanadium oxide nanocomposites and their ethanol sensing property at room temperature**
K. Uthayarani, G. Mangamma, M. Chitra, N. Rajasekaran, N. Neelakandeswari and E. K. Girija, **International conference on Nanotechnology, Ideas, Innovations and Initiatives-2017**, Organised by IIT Roorkee during 06.12.2017 – 08.12.2017.
- 26. Raman Spectroscopic Studies on the Ethanol Sensing Property of Individual, Binary and Ternary Combinations of Zinc Oxide, Tin Oxide and Vanadium Oxide**
M. Chitra, G. Mangamma, K. Uthayarani, N. Rajasekaran, N. Neelakandeswari and E. K. Girija, **International conference on Nanotechnology, Ideas, Innovations and Initiatives-2017**, Organised by IIT Roorkee during 06.12.2017 – 08.12.2017.
- 27. Effect of Microwave Irradiation on the Characteristics of ZnO Nanostructures.**
N. Neelakandeswari, N. Rajasekaran, K. Uthayarani, M. Chitra, R. Vasanthapriya and S. Sathiesh Kumar, **International Conference on Advanced Materials Science and Technology (ICAMST-2017)**, organised by the Department of Physics, Bannari Amman Institute of Technology, Sathyamangalam, Erode during 17.08.2017 – 19.08.2017.
- 28. Room Temperature Ethanol Sensing Behaviour of SnO₂ Nanoparticles.**
M. Chitra, K. Uthayarani, N. Rajasekaran, N. Neelakandeswari and E.K. Girija, **International Conference on Advanced Materials Science and Technology (ICAMST-2017)**, organised by the Department of Physics, Bannari Amman Institute of Technology, Sathyamangalam, Erode during 17.08.2017 – 19.08.2017.
- 29. Enhanced Ethanol Sensing Behaviour Of Rough Surfaced Zinc Vanadate Nanorods at Room Temperature.**
M. Chitra, K. Uthayarani, N. Rajasekaran, N. Neelakandeswari, E.K. Girija and D. Pathinettam Padiyan, **International conference on Energy, Environment and Advanced Materials For A Sustainable Future (ICEEAMSF-2017)**, organized by the Departments of Physics and Chemistry, Kongu Engineering College, Perundhurai, Erode during 23-05-2017 and 24-05-2017.

30. Synthesis, Characterisation and Ethanol sensing applications of Zinc Vanadate nanorods.

M. Chitra, K. Uthayarani, N. Rajasekaran, N. Neelakandeswari and E.K. Girija

National Symposium on Recent Advances in Nanoscience and Nanotechnology (NSRANN- 2017), Conducted by the Department of Physics, Periyar University, Salem on 15.03.2017.

31. Effect of pH on the morphology of Nickel Oxide nanostructures.

R. Vasanthapriya, N. Neelakandeswari, M. Chitra, N. Rajasekaran and K. Uthayarani, **National Symposium on Recent Advances in Nanoscience and Nanotechnology (NSRANN- 2017)**, Conducted by the Department of Physics, Periyar University, Salem on 15.03.2017.

32. Nanocomposites for Catalytic Applications [Invited Lecture]

N. Neelakandeswari, **Fourth International Conference on Nanostructured Materials and Nanocomposites (ICNM – 2017)**, Organised by Mahatma Gandhi University, Kottayam, Kerala during 10.02.2017 – 12.02.2017.

33. Effect of the binary phase Zn_2SnO_4 along with ZnO and SnO_2 towards ethanol sensing applications at room temperature

M. Chitra, K. Uthayarani, N. Rajasekaran, N. Neelakandeswari, E. K. Girija and D. Pathinettam Padiyan, **International Conference on Materials Processing and Applications (ICMPA-2016)**, organized by the Centre for Crystal Growth, School of Advanced Sciences, VIT University, Vellore during 14.12.2016 -16.12.2016.

34. Preparation and characterisation of Nickel Oxide

R.Vasanthapriya, N.Neelakandeswari, N.Rajasekaran, K.Uthayarani and M.Chitra, **International Conference on Materials Processing and Applications (ICMPA-2016)**, organized by the Centre for Crystal Growth, School of Advanced Sciences, VIT University, Vellore during 14.12.2016 - 16.12.2016.

35. Microwave assisted synthesis and characterisation of ZnO nanostructures

N. Neelakandeswari, R. Vasanthapriya, M. Chitra, N. Rajasekaran and K.Uthayarani, **International Conference on Materials Processing and Applications (ICMPA-2016)**, organized by the Centre for Crystal Growth, School of Advanced Sciences, VIT University, Vellore during 14.12.2016 - 16.12.2016.

36. Solvent Free Acylation Reaction Using Nickel Aluminate Nanocomposite- A Solid Acid Catalyst

N. Neelakandeswari, N. Rajasekaran and K. Uthayarani, **National Symposium on Nano Science & Technology (NSNST-2016)**, conducted at the centre for Nano Science and Engineering, Indian Institute of Science, Bangalore from 29.06.2016 -30.06.2016.

37. Effect of pH on the properties of tin oxide nanoparticles

R. Vasanthapriya, N. Neelakandeswari, N. Rajasekaran, K. Uthayarani and M. Chitra, **National Symposium on Nano Science & Technology (NSNST-2016)**, conducted at the centre for Nano Science and Engineering, Indian Institute of Science, Bangalore from 29.06.2016 -30.06.2016.

38. Effect of concentration of Al on the ethanol sensing applications of ZnO nanorods at room temperature

M. Chitra, K. Uthayarani, N. Rajasekaran, **N. Neelakandeswari** and R. Vasanthapriya, **National Symposium on Nano Science & Technology (NSNST-2016)**, conducted at the centre for Nano Science and Engineering, Indian Institute of Science, Bangalore from 29.06.2016 -30.06.2016.

39. Preparation and Characterisation of tin oxide nanoparticles

R. Vasanthapriya, **N. Neelakandeswari**, N. Rajasekaran, K. Uthayarani and M. Chitra, **International Conference on Frontiers in Nanoscience and Technology (COCHIN NANO 2016)**, Organised by Cochin University of Science and Technology, Cochin during 22.02.2016 – 23.02.2016.

40. Zinc oxide nanorods: Preparation and Characterisation for ethanol sensing applications

M. Chitra, K. Uthayarani, N. Rajasekaran, **N. Neelakandeswari** and E. K. Girija

International Conference on Frontiers in Nanoscience and Technology (COCHIN NANO 2016), Organised by Cochin University of Science and Technology, Cochin during 22.02.2016 – 23.02.2016.

41. Flake like V₂O₅ nanoparticle for ethanol sensing application at room temperature.

M. Chitra, K. Uthayarani, N. Rajasekaran, **N. Neelakandeswari**, E. K. Girija and D. Pathinettampadiyan, **DAE- SSPS symposium** held at Amity University, Noida during 21.12.2015 – 25.12.2015 and awarded “**Best Poster**”.

42. Preparation and characterization of Nickel Aluminate – A solid acid catalyst

N. Neelakandeswari, N. Rajasekaran and K. Uthayarani, **International Conference on Nanomaterials and Nanotechnology - NANO 2015**, Organised by KSR Group of Institutions, Tiruchengode during 07.12.2015-10.12.2015.

43. ZnO/SnO₂/Zn₂SnO₄ Nano Composite: Preparation and Characterization for Gas sensing Applications

M. Chitra, K. Uthayarani, N. Rajasekaran, **N. Neelakandeswari** and E. K. Girija

International Conference on Nanomaterials and Nanotechnology - NANO 2015, Organised by KSR Group of Institutions, Tiruchengode during 07.12.2015 – 10.12.2015.

44. Preparation and characterization of Nano Structured NiO

N. Rajasekaran, R. Vasanthapriya, **N. Neelakandeswari**, K. Uthayarani and M. Chitra, **International Conference on Nanomaterials and Nanotechnology - NANO 2015**, Organised by KSR Group of Institutions, Tiruchengode during 07.12.2015 – 10.12.2015.

45. Preparation and Characterization of TiO₂ Nanoparticle

R. Vasanthapriya, **N. Neelakandeswari**, N. Rajasekaran, K. Uthayarani and M. Chitra, **International Conference on Nanomaterials and**

Nanotechnology - NANO 2015, Organised by KSR Group of Institutions, Tiruchengode during 07.12.2015 – 10.12.2015.

46. Surfactant Assisted Preparation and Characterisation of NiO Nanoparticles

R. Vasanthapriya, **N. Neelakandeswari**, N. Rajasekaran and K. Uthayarani, in the **Two-Day International Conference on Advances in Micro/Nanotechnologies for Biological Applications**, organized by PSG Institute of Advanced Studies, Coimbatore during 07.08.2015 – 08.08.2015.

47. Vanadium Oxide: Preparation and Characterisation for Gas Sensing Applications

M. Chitra, K. Uthayarani, N. Rajasekaran, **N. Neelakandeswari** and E.K. Girija, D. Pathinettam Padiyan, in the **Two-Day International Conference on Advances in Micro/Nanotechnologies for Biological Applications**, organized by PSG Institute of Advanced Studies, Coimbatore during 07.08.2015 – 08.08.2015.

48. Piezoelectric Power Generation using Cadmium Oxide based Nanocomposite

P. Yuvasree and **N. Neelakandeswari** in the **student Project Scheme Seminar cum exhibition**, organized by Tamilnadu State Council for Science and Technology at Thanthai Periyar Government college of Technology, Vellore during 23.06.2015 – 25.06.2015.

49. Phytochemical Preparation, Characterization and Photocatalytic application of Ag - SiO₂ nanocatalyst

N. Neelakandeswari, N. Rajasekaran and K. Uthayarani in **International conference on Technology and Management**, organized by AR Research Publication at YMCA, New Delhi during 01.02.2015– 02.02.2015.

50. Growth of Nanostructured ZnO Thin Films Via Spin Coating Technique For Acetone Sensing Applications at Room Temperature

M. Chitra, K. Uthayarani, N. Rajasekaran, **N. Neelakandeswari** and E.K. Girija in **International conference on Technology and Management**, organized by AR Research Publication at YMCA, New Delhi during 01.02.2015– 02.02.2015.

51. Surfactant assisted ZnO and ZnO/Al nanostructures for ethanol sensing applications at room temperature

M. Chitra, K. Uthayarani, N. Rajasekaran, **N. Neelakandeswari**, and E. K. Girija, in **International Conference on Sustainable Energy Technologies**, organised by PSG College of Technology, Coimbatore during 11.12.2014 – 13.12.2014.

52. ZnO and ZnO:Al nanostructures for ethanol sensing at room temperature

M. Chitra, K. Uthayarani, N. Rajasekaran, **N. Neelakandeswari**, and E. K. Girija, in the **UGC sponsored National Conference on Advanced**

Materials, organized by Sree Kerala Varma College, Thrissur, Kerala, during 16.10.2014 – 17.10.2014.

53. Preparation and Characterization of copper oxide Nanoparticles

K Nithya, P Yuvasree, **N Neelakandeswari**, N Rajasekaran, K Uthayarani, M. Chitra, in **International Conference on Materials and Characterization Techniques**, VIT University, Vellore during 10.03.2014 – 12.03.2014.

54. Ethanol sensing behavior of Al doped ZnO nanorods at room temperature

M. Chitra, K. Uthayarani, N. Rajasekaran, **N. Neelakandeswari**, and E. K. Girija, presented a paper in **Seminar on Materials for Advanced Technology** organized at Periyar University, Salem on 21.02. 2014.

55. Preparation and Characterisation of SnO₂ nanoparticles

P. Yuvasree, K. Nithya, **N. Neelakandeswari**, N. Rajasekaran, K. Uthayarani and M. Chitra, in **International Science Congress Association, 3rd International Science Congress** held at Karunya University, Coimbatore, during 08.12.2013 – 09.12.2013.

56. Green Chemical Preparation of Ag- SiO₂ nanocatalyst for the photodegradation of crystal violet

K. Nithya, P. Yuvasree, **N. Neelakandeswari**, N. Rajasekaran, K. Uthayarani, M. Chitra and S. Sathiesh kumar, in **International Conference on Nanomaterials for Frontier Applications and Indo Norwegian Workshop for Solar Cell applications and Indo Norwegian Workshop for Solar Cell Applications**, Organised by Coimbatore Institute of Technology, Coimbatore, during 10.07.2013 -12.07.2013.

57. Effect of Precursor on the Growth of ZnO Nanostructured thin films for Gas Sensing Applications

M. Chitra, K. Uthayarani, N. Rajasekaran, **N. Neelakandeswari**, N. Muthukumarasamy and E. K. Girija, in **International Conference on Nanomaterials for Frontier Applications and Indo Norwegian Workshop for Solar Cell applications and Indo Norwegian Workshop for Solar Cell Applications**, Organised by Coimbatore Institute of Technology, Coimbatore, during 10.07.2013 -12.07.2013.

58. Phytochemical Preparation, Characterization and Photocatalytic Applications of Ag-TiO₂ Nanocatalyst

P. Yuvasree, K. Nithya, **N. Neelakandeswari**, N. Rajasekaran, K. Uthayarani, M. Chitra and S. Sathiesh kumar, in **Third International Conference on Materials for energy and Nano Convergence - ICMENC 2013**, Organized by Centre for Excellence in Clean Energy and Nanoconvergence (CENCON), Hindustan University, Chennai, during 04.07.2013 – 06.07.2013.

59. Mesoporous Nickel-Aluminosilicate Nanocomposites for Ether synthesis: Preparation, Characterisation and Catalytic Activity

N. Neelakandeswari and N. Dharmaraj, presented a paper in the **National Conference on Recent Advances in Surface Science (RASS – 2013)**,

Organized by the department of chemistry, Gandhigram Rural Institute – Deemed University, Gandhigram, Dindigul, India, during 14.02.2013 - 15.02.2013.

60. Role of organic template on the structural and optical properties of ZnO and Al loaded ZnO nanostructures

M. Chitra, K. Uthayarani, N. Rajasekaran, **N. Neelakandeswari**, and E. K. Girija, in **National National Conference on Nanomaterials – 2012**, organized by Karunya University, Coimbatore during 03.12.2012 – 04.12.2012.

61. Biotemplate assisted synthesis of Zirconium doped Tin (IV) oxide nanoparticles for photodegradation of Rhodamine-B

G.Sangami, **N. Neelakandeswari** and N. Dharmaraj, presented a paper in the **International Symposium on Environmental Risk Assessment 2011**, organized by the department of Zoology, School of Life sciences, Bharathiar University, Coimbatore, India, during 17.10.2011 – 19.10.2011.

62. Nickel aluminosilicate nanocomposites: Preparation, characterization and catalytic application for transfer hydrogenation of carbonyl compounds

N. Neelakandeswari, G.Sangami and N. Dharmaraj, presented a paper in the **Third International Conference on Frontiers in Nanoscience and Technology** at Cochin University of Science and Technology, Kochi, India, during 15.08.2011 – 16.08.2011.

63. Biomaterial Assisted Preparation and Characterisation of Hydroxyapatite Nanograins

N. Neelakandeswari, G. Sangami, N. Dharmaraj, presented a paper in the **International Conference on Nanomaterials and Nanotechnology** at KS Rangasamy College of Technology, Tiruchengode, India, during 13.12.2010 -16.12.2010.

64. Preparation and Characterisation of Tin(IV) Oxide Nanopowders using ESM

G. Sangami, **N. Neelakandeswari**, N. Dharmaraj, paper presented in the **International Conference on Nanomaterials and Nanotechnology** at KS Rangasamy College of Technology, Tiruchengode, India, during 13.12.2010 - 16.12.2010.

65. Preparation and characterization of Nickel Encapsulated Aluminosilicates for selective transfer Hydrogenation

N. Neelakandeswari, G. Sangami, P. Emayavaramban, N. Dharmaraj, Paper presented in the **National Conference on Current trends in Chemistry**, organized by the Department of chemistry, Bharathiar University, India during 02.12.2010 – 03.12.2010.

66. Preparation and characterization of Tin(IV) oxide nanoparticles

G. Sangami, **N. Neelakandeswari**, P. Emayavaramban, N. Dharmaraj, Paper presented in the **National Conference on Current trends in Chemistry**, organized by the Department of chemistry, Bharathiar University, India during 02.12.2010 – 03.12.2010.

67. Growth of ZnO nanorods by chemical bath deposition assisted by sputtered seed layer

N. Neelakandeswari, Lavanya Saaraswathi, D. Nataraj, R.T. Rajendrakumar, D. Mangalaraj and N. Dharmaraj, presented a paper in the **National Conference on Multifunctional Nanomaterials and Nanocomposites (NCMNN 2010)** held at Bharathiar University, India during 04.02.2010 – 05.02.2010.

68. Synthesis and characterization of new Ruthenium (III) complexes containing O, O donor ligands

P. Sathyadevi, N. Neelakandeswari, K. Deepa and N. Dharmaraj, Presented a paper in the **International Conference on Coordination & Organometallic Chemistry (ICCOG 2009)** organized by the Department of Chemistry, Bharathiar University, Coimbatore, India during 19.03.2009 – 20.03.2009.

69. Synthesis Characterisation and applications of Conducting Polymers

N. Neelakandeswari, A. Neelima, R. Rajarajeshwari, G. Sowmiya, R. Subhapriyadharshini, K. Parameshwari and S. Chitra, presented a paper during the two day **National seminar on Recent Trends in Chemistry** at P. S. G. R. Krishnammal College for women, Coimbatore, during 16.02.2005 – 17.02. 2005.

MEMBERSHIP IN PROFESSIONAL BODIES

- **ISTE LIFE MEMBER** – REF: LM 91098
- **Recognised Research Supervisor** under **Anna University**, Chennai. REF: 21.07.30, Department – Science and Humanities and Specialisation – Inorganic Chemistry
- **BOS MEMBER** at NGM College Pollachi in the year 2013. REF: BOS/2013 dt: 25.04.2013
- **Editorial Board Member** in “**A R Research Publications and Conference World**” for the academic year 2015-16
- **Editor** of the “**Proceedings of National Conference on Advances in Materials Science and Engineering for Societal Applications**”

DETAILS OF BOOK CHAPTERS

- **Biomaterial Assisted Preparation and Characterisation of Hydroxyapatite Nanograins in “Biomedical Applications of Nanostructured Materials”** Edited by V. Rajendran, B. Hellibrands, P. Prabhu and K. E. Geckeler.
- **Preparation and Characterisation of Tin(IV) oxide nanopowders using ESM in “Biomedical Applications of Nanostructured Materials”** Edited by V. Rajendran, B. Hellibrands, P. Prabhu and K. E. Geckeler.

RESEARCH ACTIVITIES

Areas of Research: Nanocomposites, Heterogeneous catalysis, Gas sensors and Solar cells

- Guided Two M.Tech Projects during 2013-2014 academic year.
- Completed a student project funded by TNSCST, Tamilnadu. REF: TNSCST/SPS/AR/2013-14.(Piezoelectric power generation using CdO based nanocomposite)
- Supervising three Ph.D candidates under Anna University, Chennai and completed one Ph.D.
- Guided 4 M.Sc Projects from Kongu Arts and Science college, Erode during 2017-18.

CONFERENCES ORGANISED

- **Coordinator** for the National conference on “**Advances in Materials Science and Engineering for Societal Applications**” during 18th – 20th July, 2018, funded by DST-SERB and DRDO.

RESOURCE PERSON

- Delivered a **technical Lecture** on “**Applications of Nanomaterials and Nanotechnology in Engineering**” for I B.E/B.Tech Students on 14.10.2018 at Karpagam university, Coimbatore.
- Delivered **Invited Talk** and Chaired a session in the “**Fourth International Conference on Nanostructured materials and Nanotechnology (ICNM 2017)**”, Organised by the department of Chemistry, Mahatma Gandhi University, Kottayam, Kerala during 10.02.2017 – 12.02.2017.
- Acted as a **Resource person** for the Workshop on “**Synthesis and Characterisation of Nanomaterials**” organized by the Department of Chemistry, Sri GVG Vishalakshi College of Arts and Science for Women on 29.12.2017.
- Delivered **Invited Talk** and Chaired a session in the “**Third International Conference on Nanomaterials: Synthesis, Characterisation and Applications (ICN 2018)**”, Organised by the department of Chemistry, Mahatma Gandhi University, Kottayam, Kerala during 11.05.2018 – 13.05.2018.
- Acted as a **Resource person** for the Workshop on “**Ground Rules of Qualitative and Quantitative Chemical Analysis**” organized by the Department of Chemistry, Sri GVG Vishalakshi College of Arts and Science for Women on 16.02.2019.

PERSONAL MEMORANDUM

Name : N. Neelakandeswari
Date of Birth : 01.06.1984
Sex and Marital status : Female, Married
Husband's Name : Mr. S. Koteeswaran
Nationality : Indian
Languages Known : Tamil, English, & Telugu
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Coimbatore, India.
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REFERENCES

1. **Dr. N. R. Alamelu**
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2. **Dr. R. Karvembu M Sc., Ph D.**
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I hereby declare that the details provided above are true to the best of my knowledge.

(N. Neelakandeswari)