

## CURRICULUM VITAE

**Mr. L. C. NEHRU**

**HOME ADDRESS:**

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Sivagangai (DT), Tamilnadu, INDIA

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**SUMMARY:** Expertise in materials research & device development with emphasis in nano-scale science & engineering. Strength in reduced complexity design & fabrication of semiconductor electronic devices. Specific interest in development of novel electronic devices based on semiconductor nano-materials.

### 1. PERSONAL INFORMATION:

Name	:	L. C. Nehru
Date of birth	:	29-03-1975
Father's name	:	Mr. L. Chellappan
Education	:	M.Sc (Physics), Ph.D in Physics (Thesis submitted on December 2010).
Present position	:	Research Associate, Department of Physics, Mother Teresa Women's University, Kodaikanal- 624 101, Tamilnadu, INDIA.
Title of Ph.D thesis	:	“Preparation and characterization of metal oxide nanopowders by microwave-assisted combustion method for gas sensing devices”
Ph.D Supervisor	:	<b>Prof. C. Sanjeeviraja,</b> Chairperson and Head, School of Physics, Alagappa University, Karaikudi – 630 003, Tamilnadu, INDIA.

### 2. AREA OF SPECIALIZATION:

- The preparation and properties of wide-band-gap semiconductor metal oxides nanoparticles and thin films are very important and useful because of its application in the formation of battery, low cost solar cells, photo-voltaic devices and in some other opto-electronic devices,
- Nanomaterial synthesis and characterization for devices and atmospheric trace gas sensor and nanosized powders for energy conversion applications via capping method, sol-gel, co-precipitation, solvothermal, solution combustion technique and microwave-assisted combustion method etc.,
- Designed and fabricated thin film deposition of PVD & CVD techniques.
- My Ph.D thesis can be used in Solar cells, Photoconductor, gas sensor and so many smart device applications.

- Written and verbal presentation of research results.
- Publication track record in nanoparticle preparation and characterization.

### 3. RESEARCH EXPERIENCE :

From	To	Name and address of organization	Position Held	Nature of Duties
Feb 2011	Till Data	Department of Physics, Mother Teresa Women's University, Kodaikanal- 624 101, Tamilnadu, INDIA.	Research Associate	R&D work activities, Preparation and characterization of colloidal metal nanoparticles for Biological applications.
October 2006	December 2010	School of Physics, Alagappa University, Karaikudi – 630 003, Tamilnadu, INDIA.	Ph.D Research scholar	Preparation and characterization of metal oxide nanopowders by microwave-assisted combustion method for gas sensing devices.
June 2003	September 2006	Central Electrochemical Research Institute, Karaikudi - 630 006, Tamilnadu, INDIA	Project Assistant	R&D work activities, Preparation of TCO materials by spin coating techniques and study the electrical and optical properties etc.,. A field trials of the films samples of XRD, SEM, TEM, XPS, AFM, UV-Vis-NIR, FTIR, PL and Laser Raman.
May 2001	May 2003	Central Electrochemical Research Institute, Karaikudi - 630 006, Tamilnadu, INDIA	Project Assistant	R&D work activities, Preparation of nano samples through self combustion method, sol-gel routes with field trials of XRD, SEM, TEM, Raman, TG/DTA, UV-Vis-NIR, FTIR and PL.
July 1999	April 2001	Central Electrochemical Research Institute, Karaikudi - 630 006, Tamilnadu, INDIA	Project Assistant	R&D work activities, synthesized and characterized of phosphor and luminescent samples with field trials of XRD, UV-Vis-NIR, FTIR, PL, SEM and TEM. Then development the image plates using the phosphor sample.
June 1998	June 1999	Central Electrochemical Research Institute, Karaikudi - 630 006, Tamilnadu, INDIA	Project Trainee	R&D work activities, Testing the corrosion materials like Galvanic current, Efficiency, Impressed current and soil resistivity measurements.

### 4. CURRENT RESEARCH INTERESTS:

- ❖ Nanotechnology: functionalization - characterization – application,
- ❖ Shape- and finite-size effects in electronic and magnetic nanomaterials,
- ❖ Interface between physical, chemical and life sciences,

- ❖ Non-vacuum synthesis and interpretation of novel inorganic-organic high band gap semiconductor nanostructures and non-toxic thin films for renewable energy sources and sensor applications (junctions, contacts, range of operation, etc.),
- ❖ Nanotechnology for next generation solar cells.

## 5. ANALYTICAL AND INSTRUMENTAL SKILLS:

About 10 years of my research experience has provided me with plenty of experience. I am expertise in design, fabrication, optimization, analysis of semiconductor metal oxides and hands-on testing/characterization of various sophisticated instrument like operations, maintenance and analytical knowledge is listed below:

- Excellent synthesis and characterization lab skills
- PVD & CVD techniques like e-beam evaporation, thermal evaporation, Pulsed Laser deposition, RF/AC/DC magnetron sputtering in a high vacuum system and spin-coating, dip-coating, spray deposition, wet chemical bath deposition etc., to fabricate multi-layers thin films of TCO semiconductor materials
- Synthesis of metal oxide nanoparticles preparation by sol-gel, co-precipitation, solution combustion method and microwave-assisted combustion method etc.,
- Powder X-ray Diffraction for phase identification and structure refinement by Rietveld method,
- Particle specific surface area analysis (BET method),
- Scanning Electron Microscope (SEM),
- Transmission Electron Microscope (TEM),
- Atomic force microscopy (AFM),
- X-ray Photoelectron spectrometer (XPS),
- Energy Dispersive X-ray analysis (EDAX),
- Laser-Raman Spectrometer,
- Photoluminescence with low temperature measurements,
- Fourier Transforms Infrared Spectrophotometer (FT-IR),
- Thermal analysis of TGA/DTA and DSC,
- Diffused Reflectance and UV-VIS Spectrophotometer,
- Electrochemical measurement (Cyclic Voltametry, Impedance Spectroscopy),
- Electrical properties measurements by four point probe resistivity measurements and hall measurements,
- Current Voltage measurement (I-V),
- Atmospheric trace gas sensor measurement,
- Operating and accessory installing/repairing of vacuum coating unit including leak detection etc.,
- Extensive experience in managing new material & new process development,
- Solar PV & thermal product development.

## 6. LIST OF PUBLICATIONS:

### a) Papers Published in International Journals:

1. Nanomaterial preparations by microwave-assisted solution combustion method and material properties of SnO<sub>2</sub> powder —A status review.  
**L. C. Nehru**, V. Swaminathan, M. Jayachandran and C. Sanjeeviraja  
Materials Science Forum 671 (2011) 69-120.
2. Optoelectronic properties of nanocrystalline F-doped SnO<sub>2</sub> (FTO) films prepared by sol-gel spin coating technique.  
N. Sankarasubramanian, K. Santhakumari, VS. Vidhya, **L. C. Nehru**, B. Subramanian, A. Thayumanavan, S. Ramamurthy, C. Sanjeeviraja, M. Jayachandran  
Journal of Optoelectronics and Advanced Materials – 1 (2007) 417-424.
3. Spray pyrolysis deposition and characterization of highly (100) oriented magnesium oxide thin films.  
A. Moses Ezhil Raj, **L. C. Nehru**, M. Jayachandran, C. Sanjeeviraja  
Crystal Research Technology – 42 (2007) 867-875.
4. Synthesis and materials properties of transparent conducting In<sub>2</sub>O<sub>3</sub> films prepared by sol-gel-spin coating technique.  
E. Savarimuthu, K.C. Lalithambika, A. Moses Ezhil Raj, **L. C. Nehru**, S. Ramamurthy, K. Thayumanavan, C. Sanjeeviraja, M. Jayachandran  
Journal of Physics and Chemistry of Solids – 68 (2007) 1380-1389.
5. Apatites and britholites are they akin – as probed by Eu<sup>2+</sup> luminescence?  
K. Marimuthu, **L. C. Nehru**, A. Mani, R. Ramesh, G. Muralidharan and R. Jagannathan  
Journal of Physics: Condensed Matter 13 (2001) 537-547.
6. Ce<sup>3+</sup> doped stillwellites: a new luminescence system with strong ion lattice coupling.  
**L. C. Nehru**, K. Marimuthu, M. Jayachandran, Chung-Hsin Lu and R. Jagannathan  
Journal of Physics D: Applied Physics 34 (2001) 2599-2605.
7. Synergistic interaction of indium and gallium in the activation of aluminum alloy in aqueous chloride solution.  
J. Mathiyarasu, **L. C. Nehru**, P. Subramanian, N. Palaniswamy and N. S. Rengaswamy  
Journal of Anti-corrosion Methods & Materials, Vol. 48, No. 5, (2001) 324-329.

### b) Papers Under Review

1. Studies on structural, optical and electrical properties of ZnO films prepared by the spray pyrolysis method  
**L. C. Nehru**, M. Umadevi, C. Sanjeeviraja  
in “International Journal of Materials Engineering”.
2. Microwave-assisted combustion synthesis of nanocrystalline ZnO powders using zinc nitrate and various organic fuels as reactants: influence of reactant parameters- A status review.  
**L. C. Nehru**, V. Swaminathan, C. Sanjeeviraja  
in “Combustion and Flame”.

3. Photoluminescence studies on nanocrystalline tin oxide powder for optoelectronic devices.  
**L. C. Nehru**, V. Swaminathan, C. Sanjeeviraja  
in "American Journal of Materials Science".
4. Rapid synthesis of nanocrystalline ZnO by a microwave-assisted combustion method.  
**L. C. Nehru**, V. Swaminathan, C. Sanjeeviraja  
in "Powder Technology".
5. ZnO nanoparticles by citric acid assisted microwave solution combustion method  
**L. C. Nehru**, V. Swaminathan and C. Sanjeeviraja  
Colloids and Surfaces A: Physicochemical and Engineering Aspects

**c) Communicated Papers**

1. A review of Silver nanoparticles.  
**L. C. Nehru**, M. Umadevi, C. Sanjeeviraja  
in "Physical Chemistry"
2. The synthesis of ZnSnO<sub>3</sub> and Zn<sub>2</sub>SnO<sub>4</sub> nanopowder by a microwave-assisted combustion method and its structural, optical and electrical properties.  
**L. C. Nehru**, V. Swaminathan, C. Sanjeeviraja  
in "Adv. Nat. Sci.: Nanosci. Nanotechnology"
3. Studies on structural, optical and electrical properties of Cu-doped ZnO thin films by spray pyrolysis techniques.  
**L.C. Nehru**, M. Umadevi and C. Sanjeeviraja  
in "Crystal Research and Technology"

**d) Papers presented in International Conferences/Seminars:**

1. Thermal studies on nanocrystalline tin oxide.  
**L. C. Nehru**, A. Ayesha Mariam, Velumani Subramaniam, M. Jayachandran and C. Sanjeeviraja  
From 16-21, August 2009, organized by the XVIII International Materials Research Congress (IMRC -2009), Cancun, Mexico.
2. Preparation of zinc doped tin oxide (SnO<sub>2</sub>:Zn) nanocrystalline materials by coprecipitation method.  
**L. C. Nehru**, M. Jayachandran and C. Sanjeeviraja  
From 15-17, April 2009, organized by the 6<sup>th</sup> International Symposium on Transparent Oxide Thin films for Electronics and Optics, Tokyo, Japan.
3. Nanocrystalline properties of zinc doped tin oxide (SnO<sub>2</sub>:Zn) powder prepared by sol-gel method for spintronic application.  
**L. C. Nehru**, A. Ayesha Mariam, V. Swaminathan, M. Jayachandran and C. Sanjeeviraja  
AsianNano 2008, Biopolis, Singapore, November 3-7, 2008 organized by the MRS & IMRE, Singapore.

4. Raman and Photoluminescence studies on porous silicon (PS) and SnO<sub>2</sub>/PS structures for light emitting devices.  
M. Jayachandran, **L. C. Nehru**, VS. Vidhya and C. Sanjeeviraja  
10<sup>th</sup> International conference on Advanced materials (IUMRS-ICAM 2007) held at Bangalore during 8-13, October 2007.
5. Preparation of nano structured SnO<sub>2</sub>:F by sol-gel spin coating technique.  
K. C. Lalithambika, K. Shanthakumari, **L. C. Nehru**, S. Vincent, K. Thayumanavan, M. Jayachandran and C. Sanjeeviraja  
International Conference on Nanomaterial & its Applications (ICNA-2007), February 4-6, 2007, National Institute of Technology, Tiruchirappalli-620 015, India.
6. Optoelectronic properties of nanocrystalline Indium Tin oxide films prepared by chemical spray technique.  
K. C. Lalithambika, **L. C. Nehru**, J. Joseph Prince, B. Subramanian, G. Rajagopal, K. Thayumanavan, C. Sanjeeviraja, M. Jayachandran  
International Conference on Nanomaterial & its Applications (ICNA-2007), February 4-6, 2007, National Institute of Technology, Tiruchirappalli-620 015, India.
7. Atomic force microscopic (AFM) studies of electron beam evaporated WO<sub>3</sub> films.  
K. Shanthakumari, **L. C. Nehru**, B. Subramanian, K. Thayumanavan, M. Jayachandran and C. Sanjeeviraja  
International Conference on Nanomaterial & its Applications (ICNA-2007), February 4-6, 2007, National Institute of Technology, Tiruchirappalli-620 015, India.
8. Nano SnO<sub>2</sub>/Porous Silicon hetrostructure useful for sensor and solar devices.  
M Jayachandran, **L. C. Nehru**, N.Sankara Subramanian, C.Sanjeeviraja, K.R.Murali, D.C.Trivedi  
Eight International Conference on Nanostructured Materials (NANO – 2006), August 20-25, 2006, Indian Institute of Science , Bangalore – 560 012, India.
9. Combustion synthesis and luminescent properties of nanocrystalline Sr<sub>0.98</sub>Al<sub>2</sub>O<sub>4</sub>:Ce<sub>0.02</sub> power for luminescent devices.  
**L. C. Nehru** and M. Jayachandran  
International Conference on Nano Science & Technology, March 16-18, 2006, India Habitat Center, New Delhi, India.
10. Studies on nanocrystalline porous silicon structures formed by electrochemical etching technique.  
M Jayachandran, **L. C. Nehru**, N.Sankara Subramanian, C.Sanjeeviraja, K.R.Murali, D.C.Trivedi  
Indo-Singapore Symposium on “Advanced Functional Materials (AFMS-06)” on 24-26<sup>th</sup> February 2006, IIT Bombay, Mumbai, India.
11. Preparation and characterization of wide band gap Magnesium tin oxide (MgSnO<sub>3</sub>) films for solar cells.  
K. Ashok, B. Anuradha, V. Senthilkumar, **L. C. Nehru**, C. Sanjeeviraja  
International Conference on Electrochemical Power Systems (ICEPS – 2), 20-21 December 2004, Hyderabad, India.

12. Photoluminescence study of  $\text{SrAl}_4\text{O}_7: \text{Eu}^{2+}$  films prepared by electron beam evaporation technique.  
M. Jayachandran, **L. C. Nehru**, B. Anuradha, C. Sanjeeviraja, D. C. Trivedi  
International Conference on LUMINESCENCE AND ITS APPLICATIONS (ICLA -2004), 9-12 February, 2004, Mumbai, India.
13. Synthesis and characterization of doped strontium aluminate ( $\text{SrAl}_4\text{O}_7: \text{Eu}^{2+} \& \text{Dy}^{3+}$ ) phosphor powders.  
M. Jayachandran, **L. C. Nehru**, M. Sugantha priya, M. Paramasivam, N. Sankarasubramanian, R. Jagannathan and D. C. Trivedi  
International symposium on RECENT ADVANCES IN INORGANIC MATERIALS RAIM – 2002, 11-13 December, 2002, Indian Institute of Technology, Mumbai, India.
14. Photoluminescence studies on  $\text{ZnS}:x\text{Mn}^{2+}$  nanocrystalline powders.  
M. Jayachandran, **L. C. Nehru**, R. Meerabanu, M. Paramasivam, N. Sankarasubramanian, R. Jagannathan and D. C. Trivedi  
International symposium on RECENT ADVANCES IN INORGANIC MATERIALS RAIM – 2002, 11-13 December, 2002, Indian Institute of Technology, Mumbai, India.

**e) Papers presented in National Conferences/Seminars:**

1. Physical and optical properties of tin oxide nanoparticles synthesized by sol-gel method and its sensing property.  
**L. C. Nehru**, A. Ayesha Mariam, M. Jayachandran and C. Sanjeeviraja  
National conference on Recent Advances on Surface Engineering (NAL50: RASE 09) to be held in February 26-27, 2009, National Aerospace Laboratories, Bangalore-560 017, INDIA.
2. Synthesis and studies on structure and photoluminescence of  $\text{ZnSnO}_3$  material.  
**L. C. Nehru**, M. Jayachandran and C. Sanjeeviraja  
Workshop on Solid State Physics to material Science, 19-21 August 2009, Department of Physics, Pondicherry University, Puducherry-605 014, INDIA.
3. Physical and optical properties of tin oxide nanopowders.  
**L. C. Nehru**, A. Ayesha Mariam, M. Jayachandran and C. Sanjeeviraja  
Nanomaterials for energy conversion and conservation, 26<sup>th</sup> March 2009 organized by PG Department of Physics, Bishop Heber College, Tiruchirappalli-620 017, INDIA.
4. Microwave-assisted combustion synthesis of nanocrystalline ZnO powder.  
**L. C. Nehru**, M. Jayachandran and C. Sanjeeviraja  
Recent Advances in textile and Electrochemical Sciences (RATES-2009) 4<sup>th</sup> December 2009, organized by School of Chemistry, Alagappa University, Karaikudi-630 003, INDIA.
5. Thermal and optical studies on nanocrystalline tin oxide.  
**L. C. Nehru**, M. Jayachandran and C. Sanjeeviraja  
National seminar on Nanotechnology for Energy and Environmental Applications-2009 (NTEEA-09), 9<sup>th</sup> April 2009, organized by Department of Chemistry and Centre for nanotechnology, Kalasalingam University, Virudhunagar-626 190, INDIA.

6. Physical and optical properties of tin oxide (SnO<sub>2</sub>) nanoparticles synthesized by sol-gel method.  
**L. C. Nehru**, A. Ayesha Mariam, M. Jayachandran and C. Sanjeeviraja  
National conference on NANO MATERIALS, october 17-18<sup>th</sup> 2008, organized by Department of Physics, School of Science & Humanities, Karunya University, Coimbatore-641 114, INDIA.
7. Properties of Indium tin oxide (ITO) prepared by combustion method.  
A. Ayesha Mariam, **L. C. Nehru**, M. Jayachandran and C. Sanjeeviraja  
National conference on NANO MATERIALS, october 17-18<sup>th</sup> 2008, organized by Department of Physics, School of Science & Humanities, Karunya University, Coimbatore-641 114, INDIA.
8. Nano-sized tin oxide (SnO<sub>2</sub>) powder prepared by sol-gel method.  
**L. C. Nehru**, VS. Vidhya, B. Subramanian, M. Jayachandran, C. Sanjeeviraja  
National Conference on Nano Materials – Preparation, Characterization and Devices, 14<sup>th</sup> March 2008 held at Bishop Heber College, Tiruchirappalli-620 017, INDIA.
9. Nano-sized tin oxide (SnO<sub>2</sub>) powder prepared by sol-gel method.  
**L. C. Nehru**, VS. Vidhya, B. Subramanian, M. Jayachandran, C. Sanjeeviraja  
National Conference on Nano Materials – Preparation, Characterization and Devices, 14<sup>th</sup> March 2008, held at Bishop Heber College, Tiruchirappalli-620 017, INDIA.
10. Structural properties of transparent and conducting indium tin oxide (ITO) films prepared by spin coating technique.  
K. C. Lalithambika, B. Subramanian, **L. C. Nehru**, K. Thayumanavan, M. Jayachandran, C. Sanjeeviraja  
National conference on smart materials and recent technologies, February 22-23, 2007, Sri Venkateswara University, Tirupati-517 502, INDIA.
11. A comparative study on WO<sub>3</sub> films prepared by electron beam evaporation and electrodeposition.  
K. Shanthakumari, B. Subramanian, **L. C. Nehru**, K. Thayumanavan, M. Jayachandran, C. Sanjeeviraja  
National conference on smart materials and recent technologies, February 22-23, 2007, Sri Venkateswara University, Tirupati-517 502, INDIA.
12. Preparation and characterization of spray pyrolysed MgO thin films.  
A. Moses Ezhil Raj, **L. C. Nehru**, M. Jayachandran, C. Sanjeeviraja  
Third All India Conference of Scott Research Forum (SRF), Scott Christian College (autonomous), Nagercoil-629 003, March 4, 2006, INDIA.
13. Substrate temperature dependent structural and optical properties of spray pyrolysed magnesium oxide thin films.  
A. Moses Ezhil Raj, **L. C. Nehru**, M. Jayachandran, C. Sanjeeviraja  
National Seminar on Advances in Materials Science (NSAMS-2006), Manonmaniam Sundaranar University, Tirunelveli-627 012, March 27 - 28, 2006, INDIA.
14. Combustion Synthesis and optical properties of Nanocrystalline Mn and Ce doped SrAl<sub>2</sub>O<sub>4</sub> phosphor powder.  
M. Josphin @ Merina, B. Anuradha, **L. C. Nehru**, M. Jayachandran and D.C. Trivedi  
Twelfth National Convention of Electrochemists (NCE-12), 18-19 February 2005, Thiagarajar College of Engineering, Tamilnadu, India.



15. Synthesis and characterization of Nanocrystalline Tin Oxide ( $\text{SnO}_2$ ) powder.  
M. Sabeena banu, Manjusri, **L. C. Nehru**, M. Jayachandran and D.C. Trivedi  
Twelfth National Convention of Electrochemists (NCE-12), 18-19 February 2005, Thiagarajar College of Engineering, Tamilnadu, India.
16. Preparation and characterization of porous silicon.  
SP. Mangalam, C. Gayathri, **L. C. Nehru**, M. Jayachandran and D.C. Trivedi  
Twelfth National Convention of Electrochemists (NCE-12), 18-19 February 2005, Thiagarajar College of Engineering, Tamilnadu, India.
17. Structure and optical properties of  $\text{MgSnO}_3$  nano particles prepared by gel-combustion method.  
M. Corsica Nancy, P. Jaya Mani, **L. C. Nehru**, M. Jayachandran and D.C. Trivedi  
Twelfth National Convention of Electrochemists (NCE-12), 18-19 February 2005, Thiagarajar College of Engineering, Tamilnadu, India.
18. Discuss the output parameters of solar cells.  
T. Balakrishnan, P. Gershom Jebaraj, **L. C. Nehru**, M. Jayachandran and D.C. Trivedi  
Twelfth National Convention of Electrochemists (NCE-12), 18-19 February 2005, Thiagarajar College of Engineering, Tamilnadu, India.
19. Synthesis and characterization of sol-gel derived nanocrystalline Tin oxide ( $\text{SnO}_2$ ).  
E. Carol Christy, C. Ravidhas, **L. C. Nehru**, M. Jayachandran and D. C. Trivedi  
Twelfth National Convention of Electrochemists (NCE-12), 18-19 February 2005, Thiagarajar College of Engineering, Tamilnadu, India.
20. Synthesis and characterization of magnesium indium oxide ( $\text{MgIn}_2\text{O}_4$ ) films using electron beam evaporation technique.  
J. Jaya Murugan, C. Ravidhas, **L. C. Nehru**, M. Jayachandran and D. C. Trivedi  
Twelfth National Convention of Electrochemists (NCE-12), 18-19 February 2005, Thiagarajar College of Engineering, Tamilnadu, India.
21. A study of long after glow  $\text{Eu}^{2+}$  and  $\text{Dy}^{3+}$  doped  $\text{SrAl}_4\text{O}_7$  film prepared by electron beam evaporation (EBE) technique.  
M. Rethna Ganesh, C. Ravidhas, **L. C. Nehru**, M. Jayachandran and D. C. Trivedi  
Twelfth National Convention of Electrochemists (NCE-12), 18-19 February 2005, Thiagarajar College of Engineering, Tamilnadu, India.
22. Structural and optical studies of nanosized magnesium tin composite oxide films ( $\text{MgSnO}_3$  and  $\text{Mg}_2\text{SnO}_4$ ) prepared by pulsed laser deposition technique.  
C. Ravidhas, V. Senthilkumar, M. Joseph, P. Manoravi, **L. C. Nehru**, M. Jayachandran and C. Sanjeeviraja  
Twelfth National Convention of Electrochemists (NCE-12), 18-19 February 2005, Thiagarajar College of Engineering, Tamilnadu, India.
23. Photoluminescence and materials properties of  $\text{Eu}^{2+}$  in  $\text{ZnS}:\text{Eu}$  nanoparticles.  
M. Jayachandran, **L. C. Nehru** and D.C. Trivedi  
ELEVENTH NATIONAL CONVENTION OF ELECTROCHEMISTS (NCE-11),  
26-27 December, 2003, Bishop Heber College, Tiruchirappalli, Tamilnadu, India.

24. A photoluminescence study of SrAl<sub>4</sub>O<sub>7</sub>: Eu<sup>2+</sup> films for LED devices.  
M. Jayachandran, **L. C. Nehru**, B. Anuradha, C. Sanjeeviraja and D. C. Trivedi  
ELEVENTH NATIONAL CONVENTION OF ELECTROCHEMISTS (NCE-11), 26-27  
December, 2003, Bishop Heber College, Tiruchirappalli, Tamilnadu, India.
25. Studies on porous silicon structures.  
M. Jayachandran, **L. C. Nehru**, C. Ravidhas and D.C. Trivedi  
ELEVENTH NATIONAL CONVENTION OF ELECTROCHEMISTS (NCE-11), 26-27  
December, 2003, Bishop Heber College, Tiruchirappalli, Tamilnadu, India.
26. A comparative study of SrAl<sub>4</sub>O<sub>7</sub>: Eu<sup>2+</sup> powder and films for photoluminescence devices.  
M. Jayachandran, **L. C. Nehru**, B. Anuradha, C. Sanjeeviraja, R. Jagannathan and D. C. Trivedi  
National seminar on “ FUTURISTIC ASPECTS OF ELECTROCHEMICAL SCIENCE &  
TECHNOLOGY ” (FAEST – 2003), 23-24 July, 2003, CECRI, Karaikudi, Tamilnadu, India.
27. Luminescent properties of nanocrystalline SrAl<sub>4</sub>O<sub>7</sub>: Eu<sup>2+</sup> & Dy<sup>3+</sup> (SAO) films for  
electroluminescent (EL) devices.  
M. Jayachandran, **L. C. Nehru**, B. Anuradha, C. Sanjeeviraja, R. Jagannathan and  
D. C. Trivedi  
Ninth National seminar on CRYSTAL GROWTH, 24-26 February, 2003, Anna University,  
Chennai, Tamilnadu, India.

## 7. HONOURS, AWARDS AND FELLOWSHIPS:

- **UGC Research Fellowships:** a prestigious five-year fellowship award of UGC Research Fellowships in Sciences for Meritorious Students (RFSMS) in the School of Physics, Alagappa University by UGC, Delhi, India for pursuing research work leading to Ph.D,
- Received Best paper award **first prize** in Eleventh National convention of Electrochemists (NCE – 11), held at Bishop Heber College, Tiruchirappalli, Tamilnadu, India, during December 26 – 27, 2003,
- Received Best paper award **second prizes** in Twelfth National Convention of Electrochemists (NCE-12), held at Thiagarajar College of Engineering, Tamilnadu, India, during February 18-19, 2005,
- Received Best paper awards **second prizes** in Twelfth National Convention of Electrochemists (NCE-12), held at Thiagarajar College of Engineering, Tamilnadu, India, during February 18-19, 2005,
- Received Best paper award **third prizes** in Twelfth National Convention of Electrochemists (NCE-12), held at Thiagarajar College of Engineering, Tamilnadu, India, during February 18-19, 2005.

## 8. COMPUTER SKILLS:

I have basic knowledge of computers,

1. Installing and using windows operating system, packages and drivers,
2. Scientific research software packages such as power point, Excel and origin

## 9. REFERENCES:

- i) **Prof. C. Sanjeeviraja**  
Chairperson and Head,  
School of Physics,  
Alagappa University, Karaikudi – 630 003, INDIA  
Phone : (91)4565 230251 (D)  
Fax : (91)4565 225202 (O)  
E-mail : sanjeeviraja@rediffmail.com
  
- ii) **Dr. N. Palaniswamy**  
Deputy Director  
Head - Corrosion Protection,  
Central Electrochemical Research Institute, Karaikudi – 630 006, INDIA  
Phone : (91)4565 227550 to 227559  
Fax : (91)4565 227779, 227713, 227204, 227205, 227206  
E-mail : swamy23@rediffmail.com
  
- iii) **Dr. P. Subramanian**  
Deputy Director  
Dean (Administration) - Centre for Education,  
Central Electrochemical Research Institute, Karaikudi – 630 006, INDIA  
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## DECLARATION

I do hereby declare that all the statement made in this application are true and correct to the best of my knowledge and belief.

**L. C. NEHRU**