

CURRIUCULAM – VITAE

SELVADURAI LOHEESWARAN



Permanent Address

PUNNALAIKKADUVAN, SOUTH
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Postal Address

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1. Academic & Professional Qualifications

1.1. M.Phil in Physics, University of Jaffna, Sri Lanka
Research title: improving the performance of hybrid nanocrystalline Titanium dioxide / poly (hexylthiophene) solar cells by modifying the metal oxide-polymer interface.

1.2. **M.Sc (Atmospheric Physics)**, University of Colombo

Specialization subject – Atmospheric Physics, Cloud Physics, Atmospheric Electricity & Lightning Physics, Dynamic Meteorology, Meteorological Instrumentation & Measurement and Mathematical Analysis, Data Management and Special Topics.

Project title – “ Surface air temperature variability in Sri Lanka”

1.3. B.Sc (Second Class Upper Division) (Special in Physics), Faculty of Science, Eastern University of Sri Lanka
Subjects - Physics, Chemistry and Applied

1.4. **Professional in English**

- a) Successfully completed the Proficiency Test in English conducted by the English Language Teaching Unit, Eastern University, Sri Lanka
- b) IELTS 6.0 (2012)

1.5. **Secondary Education**

1981 – 1993 J/ Vasaviliyan Madhiya Maha Vidiyaliam
Applied **B**, Physics **C**, Pure **C** and Chemistry **S**

1.6. **Certificate Courses**

- a) Fundamentals of Computer Systems
- b) Word Processing and Desk-Top Publishing
- c) Presentation Communication and Multimedia Techniques

- d) Introduction to Program Design and Programming
- e) Introduction to Object Orientation & Database Design

2. Publications

- a) Controlling recombination kinetics of hybrid Poly-3-hexylthiophene (P3HT) / Titanium dioxide solar cells by self-assembled monolayers, S. Loheeswaran, M. Thanihaichelvan. P. Ravirajan and J. Nelson, Journal of Materials Science: Materials in Electronics, online edition, 2016.
- b) Controlling Recombination Kinetics of Hybrid Nanocrystalline Titanium Dioxide/Polymer Solar Cells by Inserting an Alumina Layer at the Interface, S Loheeswaran, K Balashangar, J Jevirshan, P Ravirajan, Journal of Nanoelectronics and Optoelectronics 8 (6), 484-488.
- c) Effect of Alumina coating in Hybrid nanocrystalline titanium dioxide / polymer solar cell, S.Loheeswaran, K.Balashanger,P.Ravirajan, First National Nanotechnology Conference, 2012, 36-39.
- d) Improving the photovoltaic properties of hybrid Polymer / Titanium Dioxide Solar cells by using self assembled monolayers at the interface, S Loheeswaran, K Balashangar, P.Ravirajan, Conference proceeding of the 2nd International Conference of the of the Solar energy materials, Solar cells and Solar energy applications (Solar Asia 2013), 161-166.
- e) Improving the Performance of Titanium Dioxide/Polymer Solar Cell by Introducing Monolayers at the Interface, S Loheeswaran, K Balashangar, P.Ravirajan, Conference proceeding of the Jaffna University International Research Conference (JUICE -2012), 187.

3. No. of presentations (Seminars / Conferences)

- a. Improving the Performance of Titanium Dioxide/Polymer Solar Cell by Introducing Monolayers at the Interface ,Jaffna University International Research Conference (JUICE -2012), 20-21, July 2012, University of Jaffna.
- b. Effect of Alumina coating in Hybrid nanocrystalline titanium dioxide / polymer solar cell, First National Nanotechnology Conference Nanoscience and Nanotechnology in Sri Lanka: from Science to commercialization, 24 -25 August, 2012 at Mount Lavinia Hotel, Colombo.
- c. Controlling recombination kinetics of hybrid nanocrystalline titanium dioxide / polymer solar cell by inserting ultra thin alumina layer at the interface, The 4th International Conference on New and Renewable energy 2013, March 28-30, Daegu, KNU, South Korea.
- d. Improving the photovoltaic properties of hybrid Polymer / Titanium Dioxide Solar cells by using self assembled monolayers at the interface, 2nd International Conference of the of the Solar energy materials, Solar cells and Solar energy applications (Solar Asia 2013), University of Malaya, Kuala Lumpur, Malaysia, August 22—24, 2013.

4. Career History -06 years

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|---|--------------------------|
| 4.1. Head/ Department of Physical Science | January 2016 to date |
| 4.2. Senior Lecturer Gr II in Physics | July 2014 to date |
| 4.3. Lecturer Probationary | April, 2009 to June 2014 |
1. Conducting lecturers and tutorial discussion for undergraduate students.
 2. Pepper setting and moderation for the undergraduate students.

3. Involved in laboratory demonstration for undergraduate students.
 4. In charge for third year undergraduate group projects.
 5. Actively involved Curriculum developing activity for the degree programme B.Sc in Applied Physics and Electronics
- 4.4. **Environmental Specialist(Contact basis)– NEHRP** June 2008 to April 2009
- 4.5. **Environmental Officer (Contact basis)– NEHRP** April 2006 –June 2008

NEHRP is a World Bank and EU funded housing reconstruction programme for the people affected by Conflict and tsunami. This is a seven years project, budgeted for US\$ 118Million, from IDA and 16.6 Million Euro.

I am the head of the Environmental desk of the Programme and have six Junior Environmental Consultants to Coordinate implementing for six districts.

The responsibilities are:

- Frequently discussion with Donors EU & IDA on Environmental issues suffering in the Implementing Villages.
- Preparation of Environmental Impact Assessment Report (EIA) for selected villages.
- Ensuring the environmentally sound and sustainable project implementation aligned with World Bank's Operational Policy and the Bank Procedure.
- Compensatory measures for adverse environmental impacts and enhancing positive impacts and include the process of mitigation and managing adverse environmental impacts through project implementation.
- Conduct environmental awareness programmes to beneficiaries and material suppliers.
- Continuous monitoring activity to ensure that the best environmental practice in place in the project implementation ..

- 4.6. **Assistant Lecturer in Physics – Department of Physics, Eastern University of Sri Lanka (4 years)** February 2002 to April 2006

The responsibilities were

- Conducting lectures and tutorial discussion for undergraduate students.
- Involved in laboratory demonstration for undergraduate students.
- In charge for third year undergraduate group projects.
- Lecturers in medium of instruction for undergraduate studies including course material preparations.
- Coordinator of seminars for the Advanced Level students.
- Involved in interfacing instruments with computer for selected undergraduate experiments in Physics.

4.7. Foreign Training

- 4.7.1. Attended six weeks overseas research training at nanoelectronic laboratory, Kyungpo National University (KNU), South Korea under the supervision of Prof. Youngkyoo K and Prof. P. Ravirajan.

Covered area

- a) Thin film making and thickness monitoring

- b) Familiarity with equipments and sample preparation with incorporating interface modification. Laboratory measurements using sophisticated equipments (SEM, M, AFM and XRD).

4.7.2. Attend the Environmental integration in EC development cooperation seminar Philippines.

Covered areas

- c) Concepts and definitions. Rationale for environmental and climate change integration in development co-operation
- d) Links with the various sectors of intervention
- e) Tools and methods for integrating the environment (including climate change aspects) in projects, sector policy support programmes and general budget support
- f) Integration tools include Country Environmental Profiles, the “green” logic framework, Environmental Impact Assessment, Strategic Environmental Assessment and Environmental Performance Review.

5. Personal Details

Age : 41
Sex : Male
Marital Status : Married
Spouse’s Name : Mrs.L.Kalaiarashi
Number of Children : 01 (female)
Date of Birth : 04.10.1974
National ID .No. : 742781453 V
Place of Birth : Jaffna
DS Division : Uduvil