

## CURRICULUM VITAE

1. **Full name:** Nirmal Srinada Weerasekara
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**Permanent** - Lourd's Carmal , Church Road, Marawila, Sri Lanka.
4. **Age:** 29
5. **Nationality:** Srilankan
6. **Civil status:** Married
7. **Educational qualifications:**  
 (see Annexure #1 for detail results)

### Secondary Education:

- G.C.E. (O/L) 1990, December
- G.C.E. (A/L) 1993, August

### Tertiary Education:

- **PhD** (Writing up stage), **Department of Mechanical Engineering, Imperial College of London, South Kensington, London, UK.(2001 – to date)**
- **BScEng. (Hons.) with Second Class Honours Upper Division(2.1) in Mechanical Engineering, University of Peradeniya, Sri Lanka. 2000**
- Diploma in Computer System Design with Distinction, National Institute of Business Management, Sri Lanka. 1994

### 8. Work Experience:

- August 2000 – April 2001

Assistant Lecturer in Mechanical Engineering, Department of Mechanical Engineering, University of Peradeniya, Sri Lanka.

- Conducting lectures and tutorial classes
- Supervision of laboratory work

- March 1997 – April 2001

Part-time Computer Programmer for an Ecological research project to monitor Sinharaja forest dynamics, a primeval lowland rain forest in Sri Lanka, carried out at the Department of Botany, University of Peradeniya, in collaboration with the Centre for Tropical Forest Science of the Smithsonian Institution, USA, under supervision of Professor I.A.U.N. Gunatilleke and Professor (Mrs) C.V.S. Gunatilleke.

- Developing data entry programs.
- Maintaining 25ha tree database.
- Programming for statistical and other data analysis calculation.
- Hardware Installation for a Windows workgroups network.

- March 1999 – August 1999

Engineering Undergraduate trainee at Loadstar (Pvt) Ltd, Jinasena Group Ltd, Jinasena Industrial Park, Minuwangoda Road, Eakla, Ja-Ela, Sri Lanka.

- Carried out a project on automated mould handling system.
  - Developed a mechanical device for generating water waves to obtain illumination effects from the reflection on the water surface, to enhance attractiveness at the surrounding of the Temple of tooth.
- Jan 1995 – Jun 1996  
Analyst Programmer at National Institute of Business Management, 120/7, Wijerama (Vidya) Mawatha, Colombo 7, Sri Lanka.
    - Teaching Assistant to Lecturer in charge of Computer Technology.
    - Administrator, Hardware Lab.
    - Administrator, IBM ES 9373 Mainframe.
    - Administering and Hardware Trouble Shooter, Novel 3.11 network.

## 9. Projects:

- Mathematical Modelling and simulation of the formation of fouling type deposits and heat transfer, Work package 4 of European Community project 'Biomass/Waste FBC with Inorganics Control' (BIFIC), Contract No. ENK5-CT-2000-00335, Project No. NNE5-2000-00446 (2004).
- Mathematical Modelling and Simulation of Bio-desulfuration and Combustion emission, Work package 8 of European Community project Advanced Demineralisation of High Sulphur Coal by Bioleaching and Bioflotation, Contract No. 7220-PR-098 (2004).
- Estimate of the Chimney Maximum Temperature and Flow Rate During the Pile 1 Fire, Windscale October 1957, Collaborative project with BFNL and Metoffice. Supervisor: Prof. F. C. Lockwood, Department of Mechanical Engineering, Imperial College London (2004).
- Mathematical Modelling of Surface Fouling And Corrosion, Work package 6 of European Community project 'Fireside Corrosion In Coal-Fired Utility Boilers' (CORROSION), Framework 5 Contract No. ENK5-1999-00002 (2003).
- Development of a software for the purpose of wiring installation calculations according to the IEE Wiring Regulations (C/C++ and AutoCAD). Supervisor: Dr. Janaka Ekanayake, Faculty of Engineering, University of Peradeniya (2000).
- Walk-through energy audit at the Kiriya Milk Industries (Pvt) Ltd., Digana. Supervisor: Dr. T.N. Siyambalaptiya (April 2000).
- Assisted in developing a Sinhala/Tamil Word Processing Software package using Assembler. Supervisor by Dr. N. W. N. Jayasiri, Director, Management Information Systems, National Institute of Business Management (NIBM), Sri Lanka (1995).
- Development of a software package using Clipper 5.2 for the Urban Local Government of Sri Lanka, a project given to NIBM, to record and calculate tax rates efficiently (member of team). Training of accountants and other officers to use the software, and supported in installing at 13 Municipal Councils around the country (1995).

## 10. Membership in professional bodies:

- Student Member, The Institute of Electrical Engineers (IEE).
- Student Member, Sri Lanka Association for the Advanced of Science (SLAAS).
- Student Member, Computer Society of Sri Lanka (CSSL).

## 11. Research Publications:

- Ethugala A. U. K., **Weerasekara N. S.**, Gunatilleke I. A. U. N., Gunatilleke C. V. S. (1997) **Performance of five endemic Euphorbiaceae species across a micro-elivational gradient in Sinharaja Forest Dynamics Plot.** Proceedings of the 53<sup>rd</sup> Annual Session of Sri Lanka Association for the advancement of Science. P 208.
- Gunatilleke C. V. S., Gunatilleke I. A. U. N., Ethugala A. U. K., **Weerasekara N. S.**, Ashton P. S., Ashton P. M. S. and Wijesundara D. S. (1998). **Community Ecology of the Sinharaja Forest Dynamics Plot in Sri Lanka.** Proceedings of the Symposium on “Forest Diversity and Dynamism: Results from a global network of large scale demographic plots”, at the Smithsonian Institute, Washington D.C., July-August 1998, organized by the Centre for Tropical Forest Science, Smithsonian Tropical Research Institute, USA.
- **Weerasekara N. S.** (2000), **Automated Mould Handling System Based on a Time-Study,** Proceedings of the Engineering Jubilee Congress, at the Faculty of Engineering, University of Peradeniya., Vol 2. (in print)
- Samaranyake B.G.L.T, Ranasingha I.C, **Weerasekara N.S,** Wettimuny R.S (2000), **Electrical Installation Software Complying with IEE 16th edition Wiring Regulation,** Proceedings of the IEE Younger members session 2000, at the Faculty of Engineering, University of Moratuwa. (in print)
- Stacy, E. A., Harischandra S., Ethugala A. U. K., **Weerasekara N. S.**, Gunatilleke I. A. U. N., Gunatilleke C. V. S. **Demographic effects of logging on Sri Lanka’s major timber species.** (in preparation)

## 12. Other Activities:

### University:

- **President**, Mechanical Engineering Society (MES), University of Peradeniya (1999 - 2000).
  - Assisted the Mechanical Engineering Society, University of Peradeniya in organising and hosting the MES Day 1998 on 3<sup>rd</sup> December 1998. A Colloquium on ‘Mechanical Engineer in the Industry’ was the highlight of the day.
  - Organized an “Awareness Program on IMechE”, on behalf of MES in collaboration with IMechE members.

### School:

- **Senior Prefect**, Joseph Vaz College, Wennappuwa (1991 - 1992).
- Represented the school at the **Chemistry Day 1992**, Ananda Collage, Colombo, 3<sup>rd</sup> February 1993.
- Represented the school at the **Prefect’s Day 1992**, St. Peter’s College, Negombo, 31<sup>st</sup> May 1992.

## 13. Awards and certificates:

- **Channa Lalith Maddumaga Prize for Best Performance in Mechanical Engineering,** Convocation 2000, University of Peradeniya.
- **Prof. W. P. Jayasekara Prize for the Best Student project in Electrical & Electronic Engineering,** Convocation 2000, University of Peradeniya.
- Certificate: All Island Poster Competition held by Sri Lanka Anti Narcotics Association. 3<sup>rd</sup> May 1991

- All Island 5<sup>th</sup> place in the Art Competition held by the Ministry of Buddhism and Cultural affairs, 26<sup>th</sup> September 1990.
- Silver Medal: 5<sup>th</sup> **Kanagawa Biennial World's Children's Art Exhibition**, 19<sup>th</sup> March 1989.

#### 14. Computer Literacy:

##### Languages

Assembler (PC 386, IBM 370), C/C++, Pascal, Dbase III+, Clipper, FoxPro, Cobol, FORTRAN.

##### Network environments

Novel 3.11, Windows NT, Windows workgroups, Linux (User level).

##### Multi-user environments

AS 400, IBM 9373 Mainframe, WANG VS, RISC 6000.

##### Other software packages

AutoCAD, MATLAB

#### 15. References:

Prof. Fred Lockwood

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Imperial College London SW7 2AZ

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Prof. S. Sivasegaram

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I am currently registered as a PhD student at Imperial College of London, University of London and carrying out my research work in the field of Mechanical Engineering. My research work is mainly in the areas of Computational Fluid Dynamics and combustion, and the thesis is focused on mathematical modelling of slagging, fouling and corrosion on utility boilers. At present, I am in the process of writing my theses.

I hereby certify that the above particulars are correct.

N.S. Weerasekara.

Date: 02.03.2004