

J. H. S. K. Jayamaha

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Education

MSc.Energy Engineering & Management 2018, IST, University of Lisbon, Lisbon, Portugal.

MSc.RENE 2015, KTH, Royal Institute of Technology, Stockholm, Sweden.

M.Sc.Eng. (Product Design) - 2001 , University of Wolverhampton, United Kingdom.

Postgraduate Diploma in Computer Technology – 1996, Institute of Computer Technology (ICT), University of Colombo, Sri Lanka.

B.Sc. Eng (Mechanical & Chemical Engineering) -1983 , Faculty of Engineering, University of Peradeniya, Peradeniya, Sri Lanka.

Projects undertaken at KTH

1. Design of an Eco friendly City in Taihu New City Jiangsu Province China under 2 kW energy use and 2 tons of CO₂ emissions per capita.
2. Locating the best suitable position for a Vertical Axis Wind Turbine inside the premises of the Royal Institute of Technology, KTH using the available wind data and a computer simulation program.
3. Work as the work package team mate of the Design of an Emergency Energy Module at the Royal Institute of Technology, KTH using wind, solar, and biomass.

Projects undertaken at IST

1. The Importance of Life Cycle Analysis of Biofuels.
2. Preliminary design of hydraulic structures, hydraulic circuit and powerhouse of a hydroelectric scheme.
3. Lithium Ion Batteries and its applications.
4. Biofuels Production Technologies

Master Thesis at IST

Assessment of the possibility of using supported enzyme catalysts to produce biodiesel under mild reactions. In this work a set of zeolite-supported lipase catalysts have been prepared and characterized. These catalysts have been tested in the transesterification of triglycerides using olive oil with methanol.

Research Interests

Computer Aided design and Manufacturing, CAD/CAM Applications, Industrial Engineering, Renewable Energy, Biofuels, Biogas Technologies, Sustainable Energy Production

Professional Engagements

- **Demonstrator** - Department of Mechanical Engineering, Open University of Sri Lanka, Sri Lanka (1984-1985)
Conducting practical sessions for engineering undergraduates, in the area of Fluid Mechanics, Strength of Materials and Engineering Drawing.
- **Shift Engineer** - State Fertilizer Manufacturing Corporation, Urea Plant, Sapugaskande, Kelaniya, Sri Lanka (1985- 1986), Plant maintenance and Process control in the Urea Plant.

- **Co-ordinator/ Industrial Training program** - Faculty of Engineering, Open University of Sri Lanka (1986-1988)
Co-ordinating all activities of the Industrial Training program for engineering undergraduates, preparing manuals, conducting assessments and oral tests, preparing practical sessions, and supervision of students undergoing training in the Industry.
- **Engineering Teaching Assistant Gr. I** - Department of Mechanical Engineering, Open University of Sri Lanka (1988-1998)
Conducting lecture sessions & practical sessions for engineering undergraduates, preparation of lesson materials, preparation of assignments, setting final examination papers, supervision of final examinations, marking examination papers, marking assignments, counselling students, conducting workshops, arrangement of factory visit for students and, co-ordinating many courses in the department. My subject areas were Engineering Drawing, Heat & Fluids, Workshop Technology, Production Technology and Mechanics of Materials.
- **Senior Engineering Teaching Assistant** - Department of Mechanical Engineering, Open University of Sri Lanka (1998 -2006)
- **Lecturer** - Department of Mechanical Engineering, Open University of Sri Lanka (2006 - 2015)
I worked as the Program Coordinator of the Bachelor of Industrial Studies program, Postgraduate Diploma and Master of Technology in Industrial Engineering programs from October 2002- December 2011 and March 2015 to March 2019.
- **Assistant Facilitator** – from 2010 October- 2011 October, Department of Energy Technology, Royal Institute of Technology, KTH, Sweden representing The Open University of Sri Lanka as they conduct the Sustainable Energy Engineering MSc program at the Open University of Sri Lanka in distance mode.
- **Senior Lecturer** – Since 2015 October – Coordinating and conducting courses of Renewable Sources of Energy, Industrial Engineering and Energy & Environment for final year students in Bachelor of Technology Hons in Engineering program.

Previous Research

- Design of a Finite Element Model for radiated noise analysis with MSC/NASTRAN at the property & CAE Department (PD&E) of NedCar, Netherlands (for the Masters Degree) - 2001
- Design of a Wide Area Network for weather forecasting at the Department of Meteorology, Sri Lanka (for the PG Diploma) - 1993

Training/Professional Short Courses

- Postgraduate research study at PD&E Automotive B.V (NedCar) at Helmond, Netherlands from June 2000 till June 2001.
- Training course on Moulding Processes using CAD/CAM conducted by the Asian Productivity Organization and the National Productivity Council of India at Bangalore and Madras in India in December 1996.
- Attended the workshop conducted by the Commonwealth Science Council, University of Moratuwa and the Open University of Sri Lanka in relation with Computer Aided Manufacture in June, 1993.
- Followed the Short course in Tool Design and Sheet Metal forming at the CAD/CAM centre of the Faculty of Engineering University of Moratuwa, Sri Lanka from November, 1990 to February, 1991.

Computer Literacy

Finite Element Analysis : ANSYS 5.4, MSC/NASTRAN
 Solid Modelling : Microstation Modeller 7.1, HyperMesh, Star-CCM+
 Programming Languages : Pascal, Cobol
 Operating Systems : Windows95/98, Windows NT, XP, Vista, MS-DOS
 Application : MS Office (Word, Excel, Power Point)

Personal Information

Full Name : Jayamaha Hitihamillage Sisira Kumara Jayamaha
 Date of Birth : 14th August
 Gender : Male
 Marital Status : Married with two children

Personal Skills

- Effective planning & organizational skills.
- Possess effective presentation, verbal & written communicational skills.
- Proven capacity to approach problems effectively & creatively.
- Articulate and creative, offering innovative & practical solutions.
- Able to direct & lead others to produce desired results.
- An experienced team player, bringing enthusiasm and energy into group efforts.

Referees

Professor.Francisco Lemos

Institute of Biotechnology & Bioengineering (IBB)
Institute of Superior Tecnico (IST)
Av Rovisco pais, 1049-001
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Universitat Politecnica de Catalonia(UPC)
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I hereby certify that the above details furnished by me are true and accurate to the best of my knowledge.

Yours faithfully

J. H. S. K. Jayamaha

20/01/2020