

Curriculum vitae

SAMANS Senanayake

1. Name	<i>In full</i>	Senanayake Amarasinghe Mohotti Appuhamillage Nihal Srikantha Senanayake
	<i>With initials</i>	S A M A N S Senanayake
2. Date of birth		03 December 1961
3. Gender		Male
4. Marital Status		married
5. Present Occupation		Professor in Mechanical Engineering
6. Address	<i>Official</i>	Department of Mechanical Engineering Faculty of Engineering Technology The Open University of Sri Lanka Nawala, Nugegoda
		Tele: 011 2881314 (Office) 011 2925510 (Res.), Mobile: 0776645977 Email: nssen@ou.ac.lk , nssen2010@gmail.com
	<i>Residence</i>	No. 136/9A, First Lane, Mahabodhi Road Mahara, Kadawatha
7. Nationality		Sri Lankan

8. Education	<i>Secondary</i>	GCE(A/L) Sri Lanka, 1980 Central Collage, Veyangoda
	<i>Higher</i>	PhD, 1996 School of Agriculture, Food and Environment Cranfield University, United Kingdom Thesis: Development of a Specialized Food Extruder and Optimization of Extrusion Parameters for Novel Foods M Sc (Agricultural Engineering)-Agricultural Machinery Engineering option, 1992 Faculty of Agricultural Engineering, food Production and Rural Land Use, Cranfield University, United Kingdom B Sc (Engineering)(Honors), 1985 University of Moratuwa Specialization: Mechanical Engineering

9. Professional Qualifications/Experience		Professor in Mechanical Engineering (August 2016 - to-date) Department of Mechanical Engineering The Open University of Sri Lanka Senior Lecturer Grade I (April 2008 – August 2016) Department of Mechanical Engineering The Open University of Sri Lanka Senior Lecturer Grade I (December 2002 – April 2008) Department of Agricultural and Plantation Engineering The Open University of Sri Lanka
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Senior Lecturer Grade II (December 1996 – December 2002)
Department of Agricultural and Plantation Engineering
The Open University of Sri Lanka

Lecturer (March 1990 – December 1996)
Department of Agricultural and Plantation Engineering
The Open University of Sri Lanka

Assistant Lecturer (February 1986 – March 1990)
Department of Mechanical Engineering
The Open University of Sri Lanka

10. Positions held

Director (Internal Quality Assurance Unit), The Open University of Sri Lanka:
December 1, 2018 - to-date)

Programme Facilitator at the Open University of Sri Lanka, Online M Sc
programme in Sustainable Energy Engineering conducted by the Royal
Institute of Technology, Sweden: Oct 15, 2010 – Oct 15, 2014).

Assistant Programme Facilitator at the Open University of Sri Lanka, Online M
Sc programme in Sustainable Energy Engineering conducted by the Royal
Institute of Technology, Sweden: Oct 15, 2009 – Oct 15, 2010.

Head of the Department of Agricultural and Plantation Engineering:
December 01, 2005 - December 01, 2006

Acting Head of the Department of Agricultural and Plantation Engineering:
Oct 15 – 23, 2003

Head of the Department of Agricultural and Plantation Engineering:
September 03, 1999 - September 03, 2002

Acting Head, Department of agricultural and plantation engineering, Open
University-Three months from 19-03-1999.

**11.
Workshops/Training
Programs attended**

Awarded the Certificate of Performance as an Online Tutor and Mentor,
Distance Education Partnership Programme of the Distance Education
Modernization Project, Ministry of Higher Education, July 2007

Review Workshop on Livelihoods Skills Activities of the Commonwealth of
Learning (COL) in South Asia, Chennai, India, 26 – 28 February, 2007

Training workshop on Benefit Monitoring and Evaluation-organized by
Ministry of Science and Technology, Science and Technology Personnel
Development Project, April 30, 2001, The Open University of Sri Lanka

Workshop on Integration of Media in Developing Lesson materials for
Distance Education, January 29 – February 02, 2001, The Open University of
Sri Lanka

Workshop on Development Training Guide/Syllabi and Training Materials-
Organized by NAITA and World University Service, February 1995

Familiarization program in farm machinery at Farm Mechanization Training
Center, Anuradhapura, Sri Lanka, January 29 – February 02, 1990

Course of training in grain post harvest Technology at Rice Processing
Research and Development Center, Anuradhapura, Sri Lanka, January 22 –
26, 1990

12. Publications

1. U. G. Kithsiri, **N. S. Senanayake**, Ruchira Abeyweera (2018). Frequency Control Operation of a Combined Cycle Power Plant and Impact on Heat Recovery Steam Generator – A Case Study, *International Journal of Energy Engineering* 2018, 8(4): 89
2. Jeevan Jayasuriya, Archishman Bose, Kiran Raj Rajan, Ruchira Abeyweera, Janaka Rathnakumara, **N.S. Senanayake**, Tharanga Wicramarathna (2017). Sustainable Power for Carbon Neutral Operation: A Feasibility Study for Printing Industry in Sri Lanka, *SLEMA Journal*, Sri Lanka Energy Managers Association, 20(1), 12
3. P. N. R. J. Amunugoda, **N. S. Senanayake**, K. D. G. Kulatunga (2017). Solar rack dryer with supplementary heat storage and evaluation of dried food quality, *International Journal of Scientific and Research Publications*, Volume 7, Issue 7, July 2017
4. Kamal Edirisinghe, Ruchira Abeyweera and **Nihal S. Senanayake** (2106). Evaluation of Effectiveness of LED Lighting in Buildings, *SLEMA Journal*, Vol. 19, No. 2, 8-15.
5. U. G. Kithsiri, S. K. A. Fernando, Lalith Srilal, P. D. S. H. Gunawardana, T. S. N. Wimalasiri, D. S. Jayawardena, Ruchira Abeyweera and **N. S. Senanayake** (2016). Feasibility of Power Generation from MSW by Plasma Gasification Technology: A Case Study in Sri Lanka. *SLEMA Journal*, Vol. 19, No. 1, 14-22.
6. U. G. Kithsiri, **N. S. Senanayake**, Ruchira Abeyweera, Jeevan Jayasuriya (2016). A Model for Estimation of De-rating in Diesel Engines used for Power Generation, *International Journal of Energy Engineering*, Vol.6(2), 36 - 42.
7. P. T. S. Peiris, R. P. Vitharanage, Ruchira Abeyweera, **N. S. Senanayake** and Jeevan Jayasuriya (2016). Feasibility of Utilizing Boiler Blowdown Waste Heat for Operating an Absorption Refrigeration Chiller, *International Journal of Scientific and Research Publications (IJSRP)*, Volume 6, Issue 5, May 2016.
8. Malkanthi Thenabadu, Ruchira Abeyweera, Jeevan Jayasuriya and **Nihal S. Senanayake** (2015). Anaerobic Digestion of Food and Market Waste; Waste characterisation and Bio-methane Potential: A Case study in Sri Lanka, *SLEMA Journal*, Vol. 18, No. 2, 29-33.
9. J. A. C. K. J. Bandara, Ruchira Abeyweera and **N. S. Senanayake** (2015). Minimizing Energy Loss by Optimizing Pipe Diameter and Insulation Thickness in Steam Distribution Pipelines, *SLEMA Journal*, Vol. 18, No. 1, 19-27.
10. J.A. K. J. Bandara, **N. S. Senanayake** and Ruchira Abeyweera (2015). A Renewable Energy based Power Supply System for Water Pumping and Lighting in a Rural Village, *SLEMA Journal*, Vol. 18, No. 1, 1-11.
11. K. N. Amarawardhana, **N. S. Senanayake**, Ruchira Abeyweera (2015). Modeling of Energy Utilization of Tourism Industry of Sri Lanka and Prediction of Future Energy Demand, *International Journal of Energy Engineering*, Vol. 5, Issue 5, 87 - 94.

12. Daham Shyamalee, A.D.U.S. Amarasinghe, **N.S. Senanayake** (2015). Evaluation of different binding materials in forming biomass briquettes with saw dust , *International Journal of Scientific and Research Publications (IJSRP)*, Volume 5, Issue 3, March 2015
13. Sylva, K. K. K., Kithsiri, U. G., Bogahawatta, S., **Senanayake, N. S.**, Abeyweera, R. (2014). Dendro Power Generation in Sri Lanka – Successes, Failures and Policies, *Sri Lanka Energy Managers Association Journal*, Vol. 17, No. 2, September 2014, 20 – 26.
14. Kodituwakku, D. R., **Senanayake, N. S.**, and Abeyweera, R. (2014). Effect of Cooling Charge Air on Gas Turbine Performance and the Feasibility of Using Absorption Refrigeration, *Sri Lanka Energy Managers Association Journal*, Vol. 17, No. 2, September 2014, 11 – 19.
15. Priyadarshana Weerasisri, U., **Senanayake, N. S.**, and Ruchira Abeyweera (2014). Analysis of Waste Heat Recovery Steam Generator (HRSG) for a Medium Speed Diesel Generator, *Sri Lanka Energy Managers Association Journal*, Vol. 17, No. 1, March 2014, 19 – 24.
16. **Senanayake, N. S.**, Jatunarachchi, T. S. S. and Kahandagamage, G. A. (2014). Performance and Emissions Analysis of Intercooled Direct Injection Diesel Engines Used for Power Generation during Day and Night Times Operation – A Case Study, *International Journal of Energy Engineering*, Vol. 4 , No. 1, 2014, 16 – 20.
17. Kahandagamage, G. A., **Senanayake, N. S.** and Jatunarachchi, T. S. S. (2013). Effect of Charge Air Temperature on Specific Fuel Consumption in Intercooled Direct Injection Diesel Engines used for Power Generation, *International Review of Mechanical Engineering*, Vol. 7, No. 6, September 2013.
18. Priyadarshana, P.G.S., **Senanayake, N. S.**, and Ruchira Abeyweera (2013). Assessment of Energy losses in mini hydro power plants in Sri Lanka, *Sri Lanka Energy Managers Association Journal*, Vol. 16, No. 2, September 2013, 1 – 5.
19. Gunarathne, D., Jatunarachchi, S.S., **Senanayake, N. S.**, Bo Wei (2013). The Effect of Throat Diameter on the Performance of a Downdraft Biomass Gasifier, *International Journal of Energy Engineering*, Vol. 3 , No. 3, 2013, 172 – 175.
20. Amunugoda, P. N. R. J., **Senanayake, N. S.**, Wilson Wijeratnam, R. S., Kulatunga, K. D. G. (2013). Quality Enhancement of Dehydrated Products through the Modification of Solar Tunnel Dryer for Continuous Operation in Rural Communities, *International Journal of Energy Engineering*, Vol. 3, No. 1, January 2013, 7 – 14
21. **Senanayake, N.S.** (2012). Efficiency Improvement of Domestic Refrigerators by Condenser Modification, *International Review of Mechanical Engineering*, Vol. 6 , No. 6, September 2012, 1356-1360.
22. Dadigamuwa P R and **Senanayake S. A M A N S** (2012). Motivating Factors that Affect Enrolment and Student Performance in an ODL Engineering Program. *The International Review of Research in Open and Distance Learning*, Vol. 13, No. 1, March 2012.

23. **Senanayake, N.S.** , and Dissanayake, D.M.K.K.(2011). Activated Carbon for Drying Compressed Air for Low Pressure Applications. *International Review of Mechanical Engineering*, Vol. 5, No. 5, July 2011, 818 – 822.
24. **Senanayake S A M A N S**, Liyanage K N H P and Dadigamuwa P R (2005). Factors Affecting on Student Unsuccessfulness in Engineering Programmes in Distance Education. *International Journal of Instructional Technology and Distance Learning*, Vol. 2, No.6, June 2005.
25. **Senanayake S A M A N S** (2002). Pin Transducer for General Force Measurement in Agricultural Tractors. *Journal of Scientific and Technical Studies*, Vol. 6, No.1, Nepal Engineering Collage, Nepal
26. **Senanayake S A M A N S** and Clarke B (1999). A simplified twin screw co-rotating food extruder: Design, fabrication and testing. *Journal of Food Engineering*, 40(1999), 129 – 137, Elsevier
27. **Senanayake S A M A N S** (1997). Food extrusion technology. *Engineer: Journal of the Institution of Engineers, Sri Lanka*, vol.xxv, June 1997.

Conferences proceedings:

1. Ruchira Abeyweera, **Nihal S. Senanayake**, Jeevan Jayasuriya, Torsten H. Fransson (2018). A Remote Mode High Quality International Master Degree Program in Environmental Pathways for Sustainable Energy Systems (SELECT) –Pilot Program Experiences During First Year of Studies, IEEE Global Engineering Education Conference (EDUCON), 17-20 April, 2018, Santa Cruz de Tenerife, Canary Islands, Spain.
2. Ruchira Abeyweera, **Nihal S. Senanayake**, Chamindie Senaratne, Jeevan Jayasuriya (2016). Capacity Building Through a Web Based Master Degree Programme in Sustainable Energy Engineering, IEEE EDUCON 2016, Globala Engineering Education Conference, 25 – 28 April 2017, Athens Greece.
3. L. Madaluwage, D. M. Prasad, **N. S. Senanayake** and T. S. S. Jatunarachchi (2015). Technical feasibility of operating Organic Rankine Cycle with waste heat, Proceedings of the 71st Annual Sessions – 2015 Part I, Sri Lanka Association for the Advancement of Science
4. Amunugoda, P. N. R. J. ,Silva, A. M. C. U., Wijeratnam, R. S. W., Kulatunga, K. D. G., **Senanayake, N. S.**, and Prasantha, B. D. R. (2014). Solar Dehydration of Whole Mushroom (*Pleurotus ostreatus*) using Modified Solar Tunnel Dryer, SLCARP International Agricultural Research Symposium 2014, Sri Lanka Council for Agricultural Research Policy, 11 – 12 August, Colombo, Sri Lanka.
5. Amunugoda, P. N. R. J, Wijeratnam, R.S.W., **Senanayake, N. S.**,and Kulatunga, K. D. G. (2013). Evaluation of solar tunnel dryer developed by University of Hohenheim under Sri Lankan environmental conditions, In Proceedings of the 69th Annual Sessions, SLAAS 2013, Sri Lanka.
6. Amunugoda, P. N. R. J., **Senanayake, N. S.** and Kulatunga, K. D. G. (2013). Performance evaluation of solar rack dryer equipped with supplementary heat storage, In Proceedings of the 69th Annual Sessions, SLAAS 2013, Sri Lanka.

7. De Silva, K. B. S., Senanayake, N. S. and Jatunarachchi, T. S. S. (2013). Cooling effect caused by magneto-caloric materials, In Proceedings of the 69th Annual Sessions, SLAAS 2013, Sri Lanka.
8. Somasundara, D. H.G.S.R., Abeywardana, A. M. A. J., **Senanayake, N.S.** and Atthanayake, I. U. (2013). Problems associated with mini hydro power plants for successful operation – a case study in Sri Lanka, In: Abstracts, Second Sri Lankan Round Table on Sustainable Consumption and Production, Organized by the National Cleaner Production Center, 21-22 February, 2013, Galadari hotel, Sri Lanka
9. Amunugoda, P. N. R. J, Wijeratnam, R.S.W., **Senanayake S. A. M. A. N. S.**, and Kulatunga, K. D. G. (2011). Solar Energy- based Drying Technology for Perishable Commodities in Sri Lanka, In: YSF Symposium 2011, Hector Kobbekaduwa Agrarian Research Institute, Sri Lanka.
10. **Senanayake, N. S.**, Jatunarachchi, T.S.S, and Pathiraja, Y. (2011). Situation Analysis in the Construction and Operation of Biogas Plant: a Case Study at the Open university of Sri Lanka. In: The International Conference & Utility Exhibition 2011 on Power and Energy Systems: Issues and Prospects for Asia (ICUE2011), 28 – 30 September 2011, Pattaya City, Thailand.
11. Amunugoda, P. N. R. J. and **Senanayake, N. S.** (2011). Quality Enhancement of Dehydrated Products through the Modification of Solar Tunnel Dryer for Continuous Operation in Rural Communities. In: The International Conference & Utility Exhibition 2011 on Power and Energy Systems: Issues and Prospects for Asia (ICUE2011), 28 – 30 September 2011, Pattaya City, Thailand.
12. Sudasinghe, M. J., Jatunarachchi, S.S. and **Senanayake, N. S.** (2011). Implementation problems in waste management through an anaerobic digestion process: a case study at the Open University of Sri Lanka. In Proceedings of the 67th Annual Sessions, SLAAS, 5 – 9 December, 2011, Sri Lanka.

13. Assignments

Member of the consultancy team for conducting Technical Due Diligence for 12 Mini hydro Power Plants in Sri Lanka, for Charisma Energy Services Ltd, Singapore, November, 2017

Consultant for the Development of Engineering Degree Curriculum for the Faculty of Engineering, University of Sri Jayewardenepura, 2015-2016.

Team member for conducting Technical Due Diligence on four mini hydro power plants for WKV Hydro Technics (Pvt) Ltd, No 12. Don Carolis Road, Colombo-05, Sri Lanka - 2016

Resource person for the Training Programme for Academic Staff of the Collages Technology, conducted by the Skills International (pvt) Ltd under Technical Education Modernization Project, Ministry of Youth Affairs and Skills Development. February 21 – 23, 2011.

Subject area covered: Curriculum Innovation and Part Time Learning.

Resource person for the Programme of Academic Support Staff Training for the Staff of the University of Vocational Technology conducted by the Skills International (pvt) Ltd under Technical Education Modernization Project, Ministry of Youth Affairs and Skills Development. November 25, 2010.

Subject area covered: Issues related to academic counseling and how to provide effective counseling.

Technology Specialist (Refrigeration and Air Conditioning), Technical Education Development Project, Ministry of Vocational and Technical Training, May 2008 – January 2009.

Task completed: NVQ Levels 5 and 6 Units of Competencies and Curriculum for the Refrigeration and Air Conditioning Technology area, Training of staff of the Colleges of Technology on preparation of lesson plans

Chairperson of the sub-committee on Hard Technology Grade 12 of G C E (A/L) for Curriculum Development, National Institute of Education, Sri Lanka, 1998.

Task completed: Detailed curriculum was developed for Grade 12 Hard Technology subject

Chairperson of the sub-committee on Mechanical Technology Grade 12 of G C E (A/L) for Curriculum Development, National Institute of Education, Sri Lanka, 1998.

Task completed: Detailed curriculum was developed for Grade 13 Mechanical Technology subject

14. Other activities

Secretary, Section C of Sri Lanka Association for the Advancement of Science, year 2011 and 2014.

Visiting Lecturer for Thermodynamics and Fluid Mechanics course, IESL Collage of Engineering, 2012, 2013, 2014, 2015.

Visiting Lecturer for Applied Thermodynamics, Part II - IESL, 2013

Setting and marking examiner for the Course Management for Engineers, City and Guilds, 2012, 2013, 2014, 2015.

Setting and marking examiner for the Course Hydraulics and Hydraulic Machines, City and Guilds, 2015, 2016.

Visiting Lecturer, Department of Food Technology, Wayamba Campus, Rajarata University, Sri Lanka. January – December 1999.

Visiting Lecturer in Mechanics, Diploma in Technology and B Sc Degree Programme, Academy of Aeronautical Engineering, Asian Aviation Center, Colombo, 1997.

Member of University Internal Quality Assurance Unit – 2012 – 2014

Member of the Editorial Board of the Journal of the Agricultural Engineering Society of Sri Lanka - 2005

Editor-in- Chief of the Journal of Engineering and Technology of the Open University of Sri Lanka, 2014 and 2015.

Editorial Board member of the Journal of Engineering and Technology of the Open University of Sri Lanka, 2012 and 2013.

Representative of the Faculty of Engineering Technology to the Senate of the OUSL-2013 - 2015

Coordinator of Engineering Research Unit in the Faculty of Engineering Technology-03-02-1998 to 03-02-1999.

Chairperson, Faculty Guide Book Committee-1999, 2000, 2001, 2002

Faculty representative to the University Course Development Committee, 2000/11

Member, Faculty curriculum restructuring committee-1999-2001

Member Faculty Guide book Committee – 2003, 2004

Convener, Faculty Qualification Evaluation Committee, from 2002 to 2010

Chairperson, Heat and Fluids Course Team 1999-2001

Member, Faculty course development monitoring committee, 1999-2001

Treasure, University Student Union - 2003

Served as a member of the Advisory Committee on G.C.E (Advanced Level) Technology Stream, National Institute of Education, 1998.

Faculty representative to the Internal Quality Assurance Unit, OUSL, 2012 – 2014.

Chairperson – Student Academic Conference 2014, Faculty of Engineering Technology

Member Organizing Committee - Student Academic Conference 2015, Faculty of Engineering Technology



S A M A N S Senanayake

Date: January 6, 2019