

RESEARCH INTERESTS

1. Membrane Technology
2. Integrated Solid Waste Management
3. Water and Wastewater Treatment
4. Cleaner production / Sustainable Production and Consumption
5. Industrial Environment Management

TEACHING

1. Corporate Environmental Management
2. Industrial Waste Abatement and Management
3. Industrial Hazardous Waste Management
4. Membrane Technology
5. Principles of Cleaner Production
6. Environmental Science for Decision Makers
7. Physico-chemical Processes - Water Treatment Processes
8. Urbanization and Environment
9. Solid Waste Management

SELECTED PUBLICATIONS

1. **C. Visvanathan** and A. Abeynayaka, "Development and future potentials of anaerobic membrane bioreactors" J. Membrane Water Treatment, Vol: 3, No: 1, pp: 1-23, 2012.
2. S. Jamal Khan, **C. Visvanathan** and V. Jegatheesan, Effect of powdered activated carbon (PAC) and cationic polymer on biofouling mitigation in hybrid MBRs, J. Bioresource Technology, 113, 165-168, 2012.
3. S. Jamal Khan, Z-Ur Rehman, **C. Visvanathan** and V. Jegatheesan, "Influence of Biofilm Carriers on Membrane Fouling Propensity in Moving Biofilm Membrane Bioreactors" J. Bioresource Technology, 113, 161-164, 2012

4. N.P. Dan, L.V. Khoa, B.X. Thanh, P.T. Nga and **C. Visvanathan**, "Potential of Wastewater Reclamation to Reduce Fresh Water Stress in Ho Chi Mind City - Vietnam", Journal of Water Sustainability, 1, 3, 21-29, 2011.
5. A. Abeynayaka and **C. Visvanathan**, " Performance comparison of mesophilic and thermophilic aerobic side stream MBR treating high strength wastewaters" J of Bioresource Technology , 102, 5345-5352, 2011.
6. A. Abeynayaka and **C. Visvanathan**, " Mesophilic and thermophilic aerobic batch biodegradation, utilization of carbon and nitrogen sources in high strength wastewater, J of Bioresource Technology , 102, 2358-2366, 2011.
7. R. Rattanaoudom and **C. Visvanathan**, "Removal of PFOA by Hybrid Membrane Filtration using PAC and Hydrotalcite" J. Desalination and Water Treatment, 32, 262-270, 2011 .
8. **C. Visvanathan**, "Business and Employment Opportunities in Waste Management and Recycling in Asia" editorial note, , J. Waste Management, 31, 1083-1084, 2011
9. K.C. Wijekoon, **C. Visvanathan** and A. Abeynayaka, " Effect of organic loading rate on VFA Production, organic matter removal and microbial activity of a two stage thermophilic anaerobic membrane bioreactor" J of Bioresource Technology ,102, 5353-5360, 2011
10. J. Nithikul, O.P.Karthikeyan and **C. Visvanathan**, "Reject management from a mechanical biological treatment plant in Bangkok, Thailand", J. Resources, Conservation and Recycling, 55, 417-422, 2011.
11. S. Jamal Khan,, Shazia Ilyas, Sadaf Javid, **C. Visvanathan** and V. Jegatheesan, "Performance of Suspended and Attached Growth MBR Systems in Treating High Strength Synthetic Wastewater", J. Bioresource Technology, 5331-5336, 2011
12. A. Abeynayaka and **C. Visvanathan**, "Mesophilic and thermophilic aerobic batch biodegradation, utilization of carbon and nitrogen sources in high-strength wastewater" J. of Bioresource Technology, 102, 2358-2366, 2011

ONGOING AND COMPLETED PROJECTS

Ongoing

1. [Development of a Membrane Based Treatment of TEG for Gas Separation Plant's Wastewater.](#)
2. [Review of Plastic Recycling Technologies, Products and Market funded by Mitsubishi Research Institute, Japan](#)
3. [3R Knowledge Hub Second Phase \(3RKH II\) funded by Asian Development Bank](#)

Completed

1. [Pilot Scale Study on Filter Backwash Water Treatment Using Hybrid Ceramic Membrane Filtration System funded by University of Tokyo, Japan](#)
2. [Sustainable Water Management in Urban Fringe Areas through Industrial Wastewater Reuse funded by French Ministry of Foreign and European Affairs](#)
3. [Database of 3R Good Practices Related to Medical Waste Management Funded by Mitsubishi Research Institute, Japan](#)
4. [Pilot Scale Study on Surface Water Treatment Using Hybrid Ceramic Membrane Filtration System funded by University of Tokyo, Japan](#)
5. [Policy Study on 3R Technology Transfer \(POSTT\) funded by Institute for Global Environmental Strategies, Japan :Link](#)
6. Present Status of Sewage Dissemination in Thailand and the Applicability of UASB - DHS (Upflow Anaerobic Sludge Blanket Down- Flow Hanging Bed Spongel Technology to Thailand funded by University of Tohoku, Japan
7. [Integrated Sustainable Solid Waste Management in Asia funded by European Commission : Link](#)
8. [Pilot scale field testing of ceramic microfiltration system for highly turbid surface water treatment funded by University of Tokyo, Japan](#)
9. [Database of 3R Good Practices related to Organic Waste funded by Mitsubishi Research Institute, Japan](#)
10. [Sida Project on Sustainable Solid Waste Management in Asia](#) funded by Swedish International Development Cooperation Agency (SIDA)
11. [3R Knowledge Hub](#) funded by Asian Development Bank
12. [Small and Medium scale Industries](#), SMI in Asia.
13. [HealthCare Waste in Asia](#)
14. [A Gap Analysis in Selected Asian Counties](#)
15. [Corporate Initiatives in 3R](#)
16. [Development of an International Long Distance Internet - Based Master Course on Environmental Technology and Management](#)
17. [Performance Evaluation of Mechanical - Biological Pre - treatment at Phisanulok Landfill Site](#)

18. [SWOP Analysis of Eco - Industrial Cluster](#)
19. [SWOP Analysis of Eco - Industrial Cluster](#)
20. [Industrial Wastewater Reuse Reclamation](#)
21. [Assessment and Development of Design Standards For Lao PDR's Healthcare Waste Management System](#)
22. [Membrane Hybrid System for Removal of PFOS and PFOA in Industrial Wastewater Application of Conventional Adsorbents and Nano Practices](#)
23. [MIRI - AIT Inventory Profiling on 3R Good Practice](#)
24. [MIRI - AIT Inventory Profiling on 3R Good Practice](#)
25. [Feasibility Study on Refuse Derived Fuel Potentials in Municipal Solid Waste in Thailand for Co-Processing in Cement Kilns](#)
26. [Development of Toxic Industrial Wastewater Treatment Technology Based on Advanced Oxidation Processes and Membrane Bioreactor](#)
27. [Sustainable Solid Waste Landfill Management under ARRPET -I](#)
28. [Sustainable Solid Waste Landfill Management under ARRPET -II](#)
29. [Small & Medium Industrial in Asia : Energy , Environmental and Climate Interaction](#)
30. [Industrial Environmental Management at a Dye Manufacturing Company](#)
31. [Development of Teaching and Training Modules for Higher Education in the Waste Management Sector](#)
32. [Safe and Sustainable Management of MSW in Bangladesh through Practical Application of Waste Safe Proposal](#)
33. [AsiaLink TUHH](#)
34. [AsiaLink BUW](#)
35. [Small and Medium Scale Industries in Asia: "Energy &Environment"](#)
36. Treatment of high-strength organic wastewater using thermophilic-aerobic membrane bioreactor to investigate the feasibility of effluent reuse and Decentralized wastewater treatment and reclamation using membrane bioreactors - sponsored by SACWET (Southeast Asian Center for Water Environmental Technology).
37. Development of Toxic Industrial Wastewater Treatment Technology based on: advanced

oxidation processes & membrane bioreactor - sponsored by Royal Thai Government.

38. [Feasibility Study of Eco-Industrial Clusters Located in Urban Rural Fringe Areas of India, Thailand and Vietnam funded by Institute for Global Environmental Strategies, Japan.](#)
39. [Rehabilitation of Sai Noi dumpsite \(Thailand\) and its potential for refuse derived fuel recovery](#) - funded by CIDA-AIT Southeast Asia Urban Environmental Management Applications (SEA-UEMA).
40. An integrated study on treatment of shrimp aquaculture wastewater based on membrane bioreactor and development of a membrane technology curriculum - sponsored by Royal Thai Government.
41. Feasibility study on refuse derived fuel potentials in municipal solid waste in Thailand for co-processing in cement kilns - sponsored by Blackwood Ventures (Thailand) Co., Ltd.
42. The Fourth International Symposium on Southeast Asian Water Environment 4th SACWET Symposium, 6th - 8th December, 2006 - sponsored by The University of Tokyo Japan.
43. SWOP Analysis of Eco-Industrial Clusters in India, Japan, Thailand and Vietnam funded by Institute for Global Environmental Strategies, Japan.
44. Industrial Environmental Management at Thai Ambica Chemicals Co. Ltd, Samutprakarn
45. Feasibility Study of Eco-Industrial Clusters Located in Urban Rural Fringe Areas of China, Indonesia and Sri Lanka funded by Institute for Global Environmental Strategies, Japan.
46. UNIDO Consultant, developed a Training Program on Curriculum Development in Cleaner Production for the National Universities, National Cleaner Production Centre Colombo, Sri Lanka (5-9 June 2006).
47. Cleaner Production Expert on the Role of Academic Institutions in Industrial Chemical Management: Cases of Asean Nation, UNIDO (December 2005).
48. Cleaner Production Expert, helped in the compilation of status report on the existing Multilateral Environmental Agreements and their links to Cleaner Production, Centre in Ethiopia, UNIDO (June 2004).
49. Environment Assessment Specialist on Environmental and Social Safeguards: Capacity Building Assessment and Strategy for the Mekong Region Countries, funded by World Bank (September 2002).
50. Waste Management and Cleaner Process Expert for UNIDO, Vienna, Austria, provided technical assistance for report writing on Municipal Solid Waste Management in Asia and Africa: A Comparative Analysis (November 2001).

51. Cleaner Production Curricula Expert for UNIDO, provided assistance to Vietnam Cleaner Production Centre at Hanoi, incorporating cleaner production as part of the university curriculum (March 2000).
52. Preparation of Cleaner Production Technology Fact Sheets for Pulp and Paper Industries, UNEP (January 1998 - December 1998).
53. Organized a Training Program on Environmental Appraisal of Industrial Projects for Officers of Sri Lankan Financial Institutions, AIT, Bangkok, Thailand, funded by KfW and National Development Bank of Sri Lanka (June 1998).
54. Preparation of Environmental Audit and Toxic Sludge Management Plan for THAINOX, Thailand (September 1997 - September 1998).
55. Electroplating Sector Cleaner Production Expert Consultant for the Danish Cooperation for Environment and Development (DANCED) on the project Promotion of Cleaner Technology in Thai Industry, TEI (June 1997 – December 1997).
56. Treatment and Disposal of Mercury Contaminated Waste, TOTAL Exploration Thailand Ltd. (January 1997 - September 1997).
57. Development of Training Resource Package on Cleaner Production in Food Processing Industry - Poultry Slaughter House for UNEP Working Group in Food Processing (1997).
58. Development of Energy Efficient and Environmentally Sound Industrial Technologies in Asia, SAREC--Sida (1996 – 1997).
59. Organized a Training Program on Water Supply and Sewerage Master Plan, Part I: Water Supply for Bhutan Government, AIT, Bangkok, Thailand, funded by DANIDA and Carl Bro Int. - Denmark (April 1996).
60. Spent Caustic Recovery Potential using Membrane Technology, Coca-Cola Factory, Bangkok, Thailand (January 1996 - August 1996).
61. Water Quality Expert on the Royal Initiative Project on Water Resources Development for Metropolitan Water Authority, Bangkok, Thailand (May 1995 - April 1996).
62. Demonstration Factory Project on Identifying Waste Minimization Options in Bangkok, Thailand, Asian Productivity Organization's (APO)(September 1995 - September 1996).
63. Organized a Training Program on Environmental Appraisal of Industrial Projects for Officers of Sri Lankan Financial Institutions, AIT, Bangkok, Thailand, funded by World Bank and National Development Bank of Sri Lanka (April 1995).
64. Waste Auditing in an Ice Cream Factory - Lever Brothers, Thailand (September 1993 - April

1994).

65. Associate Visiting Consultant for Colombo Metropolitan Environmental Improvement Program, funded by World Bank (October 1993 - March 1994).
66. Waste Auditing in a Small Scale Dyeing Industry and Recovery of Dyes, CDG (May 1993 - November 1994).
67. Feasibility Study for the Establishment of a Joint Wastewater Treatment Plant for Industrial Estate/Industries in Ekala and Ja-Ela, Metropolitan Environmental Improvement Program, Colombo, Sri Lanka, funded by World Bank and Soil and Water Ltd., Finland December 1993).
68. Strategy Guidelines and Institutional Strengthening for Industrial Pollution Management, Metropolitan Environmental Improvement Program, Colombo, Sri Lanka, funded by World Bank and ERM London (August 1993).
69. Setting-up of a Data Bank on Hazardous Waste Management for Asean and South Asian Countries, funded by the French Agency for Energy & Environment (ADEME)(September 1992).
70. Selection of Appropriate Wastewater Treatment System for a Small Village on the Chao Phraya River Bank, funded by UNEP and CIDA (September 1992).

AWARDS AND HONORS

1. Government of France, Ministry of External Affairs Scholarship to take PhD program in France.
2. Government of Switzerland Scholarship to take Masters Program in AIT.
3. Best Teaching Award - 2005 for the course ED78:20 Industrial Waste Abatement and Management.
4. External Curriculum Reviewer for the School of Chemical Engineering, Universiti Sains Malaysia, Pinang, Malaysia, From 2009 to 2010
5. Invited as Visiting Scholar of the EU- Joint European Master Program in Environmental Studies (JEMES), from May- August, 2008, at the Institute of Wastewater Management and Water Protection, Technical University of Hamburg – Harburg, Germany.

6. Invited to serve as a Visiting Professor, Faculty of Environment, HCMC University of Technology, Vietnam for 3 years from 1 December, 2010
7. Visiting Professor, from June- July 2012, Japan Society for Promotion of Science, University of Tokyo, Japan
8. Among the list of 50 leading researchers of Thailand based on number of Research Publications from 1 January 2008 to 31 December 2008.

PROFESSIONAL AFFILIATIONS

1. Visiting Professor at the Institute for Environmental Science and Technology, Hanoi University of Technology, Hanoi, Vietnam.
2. Member of Asian Society of Environmental Protection (ASEP)
3. Member of International Water Association (IWA)
4. Member of UNEP-IEO working group on Metal Finishing
5. Member of Global Environmental Technology Network (GETNET), WHO Geneva
6. Technical Advisor, Scientific Editor of Energy & Environment Newsletter - AIT

RESEARCH KEYWORDS

Integrated Solid Waste Management , Reduce Reuse Recycle (3R), Membrane Technology, Wastewater Treatment, Cleaner Production, Corporate Environmental Management,