



THE SINGAPORE CERTIFIED ENERGY MANAGER (SCEM) TRAINING PROGRAMME AT PROFESSIONAL LEVEL

INFORMATION ON TRAINERS

1. Dr. Lal Jayamaha

Dr. Lal Jayamaha is the author of the book "Energy Efficient Building Systems" published by McGraw-Hill, USA and the founder of LJ Energy Pte Ltd which is one of the leading ESCOs (Energy Service Companies) in Singapore. He graduated from Queen Mary College, University of London with a First Class Honours degree in Mechanical Engineering in 1982. Thereafter he worked for 8 years in Industry including 5 years for multi-national Unilever. In 1990 he was awarded a Research Scholarship by the National University of Singapore to undertake a research leading to a MEng degree. After completing his Masters degree in 1993 he continued his research in heat transfer relating to building heat gain and building energy performance and was awarded a PhD. degree in 1997. After completing his PhD, he specialised in the area of Energy Management and has been the team leader for many major energy audits and energy retrofits carried out in Singapore and the region. He is a Professional Engineer (PE - Singapore), a Chartered Engineer (UK) and a Key Qualified Person (KQP) for conducting Energy Audits. He is also a member of the Institution of Mechanical Engineers, UK and the American Society for Heating, Refrigerating and Air-conditioning Engineers (ASHRAE).

2. Dr. Jahangeer K. Abdul Halim

Dr. Jahangeer K. Abdul Halim graduated from College of Engineering Trivandrum (University of Kerala, India) with a First Class degree in Mechanical Engineering in 1991. Thereafter, he worked for about 5 years as an Air-conditioning Design Engineer in United Arab Emirates. From1996 to 1999, he worked as a Project Engineer with Schindler Lifts (S) Pte Ltd. He graduated with a Master of Science (M.Sc.) in Mechanical Engineering from National University of Singapore in 1998. He was awarded a Research Scholarship by the National University of Singapore (NUS) in 1999 to undertake a research project on solar energy and was awarded a Master of Engineering (M.Eng.) degree in 2002. After completing his M.Eng. degree, he continued with research and teaching at NUS and his research on evaporatively-cooled condensers of air-conditioning systems led to the award of a PhD. degree in 2013. Dr. Jahangeer's areas of specialization include: evaporative cooling of air-conditioners, solar thermal systems, heat pump systems, building energy simulation and energy optimization. He has also authored chapters in a number of technical books and research papers in international peer-reviewed journals. He is an SCEM (Singapore Certified Energy Manager). He is also a member of Institute of Engineers Singapore (IES) and American Society of Heating, Refrigerating Engineers (ASHRAE) since 1999.

3. Er. Lee Keh Sai

Er. Lee Keh Sai graduated from Faraday House Engineering College in London in Electrical Power Engineering in 1963. Thereafter he worked as a Deputy Head of Electrical Department in Shell Refinery for 3 years. In 1970, he was the founder and principal of K.S. Lee & Associates. He has more than 40 years of industrial experience in electrical power and energy systems, design optimisation and methods to conserve energy and power quality solutions. He is a Registered Professional Electrical Engineer (P Eng), a Chartered Engineer (UK), Chairman of the Professional Interviewing Panel in the Professional Engineers Board, Singapore and an accredited Arbitrator in Institution of Engineers, Singapore. Er. Lee has been working as an Principal Technical Consultant at Schneider Electric S.E. Asia (HQ) Pte Ltd since 2008.





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4. Mr. Ng Teck Eng

Mr. Ng Teck Eng graduated from National University of Singapore with a First Class Honours Bachelor of Technology in Electronic Engineering in 2003. And in 2008 he graduated from National University of Singapore with a Master of Science, Automation and Control in Electrical Engineering. He has more than 20 years of technical experiences with Otis Elevator. With his years of experience, he is currently working in Building and Construction Authority as a Senior Engineer.

5. Mr. Krishnaswamy Seshadri

Mr Krishnaswamy Seshadri (SESH) is chairman of JK Lighting (SEA & Middle East). He contributes as chairman of SPRING Technical Committee for Lamps and Related equipment and Secretary-general of the Lighting Association of Singapore. The latter represents the International Commission on Illumination (CIE) for Singapore. He is also ex-VP of Philips Lighting Asia Pacific. Sesh is part-time lecturer at NUS (Department of Building, School of Design & Environment) teaching the M.Sc. program (Building Performance & Sustainability) and Adjunct Lecturer at BCA Academy for Green Mark Manager, Green Mark Professional and Certified Energy Manager programs. He is also invited as speaker at regional and international forums on Lighting technology, energy-efficiency and sustainability. Sesh has about 50 years of operational and teaching experience in the lighting field.

6. Mr. Kan Poh Lum, Kelvin

Mr Kan Poh Lum, Kelvin is a Chartered Architect in the UK (RIBA) and Singapore (MSIA) Graduated from University of Dundee in 1987, he worked in London for Lifschutz Davidson Design Architects and Richard Rogers + Partners and obtained his MSc Construction in Management from Kingston University

(UK) before coming to Singapore in 1993. Through his passion and hands-on approach in architectural details, followed by stints in the glass and facade industries, Kelvin has developed a unique capability that enables him to integrate different façade systems and "A"rchitectural elements to meet a wide range of challenging designs.

7. Mr. Cheong Thean Hsu, Alvin

Mr Cheong Thean Hsu, Alvin has 10 years' experience as an ESD, acoustic and vibration engineer, providing designing and prediction consultancy as well as troubleshooting services to various industries. He has worked with clients in industries such as Green Mark consultancy, building services, heavy industries, petrochemicals and marine. In addition to acoustics and vibration control, Alvin has also developed skills in simulation softwares which assist in these designs, in particular Finite Element Analysis(FEA), Statistical Energy Analysis (SEA), Computation Fluid Dynamics (CFD) as well as Pipe Stress Analysis. Alvin has also developed keen interest in sustainability design, with particular interest in passive design and renewable technologies. Alvin's final year project in the Mechanical Engineering Degree involved the use of CFD to determine optimum performance of 2 phase gaseous flow as well as the study of cavitation within pipe flows.





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8. Dr. G.P. Rangaiah

Dr. G.P. Rangaiah has been with the National University of Singapore (NUS) since 1982, and is currently Professor and Deputy Head for student and academic affairs in the Dept. of Chemical & Biomolecular Engineering. He received bachelor's, master's and doctoral degrees in chemical engineering, from Andhra University, IIT Kanpur and Monash University, respectively. Prof. Rangaiah worked at Engineers India Ltd. for 2 years before his doctoral study. His teaching interests are in process design and optimization. Dr. Rangaiah has extensive experience in teaching pinch analysis for heat integration as part of a technical elective for chemical engineering students. He received several teaching awards, including the Annual Teaching Excellence Awards from NUS for 4 consecutive years. Dr. Rangaiah's research interests are in modeling, optimization and control of chemical, petrochemical and related processes. He has supervised ten research fellows and 35 graduate theses in these areas, and his publications include 3 books, about 150 journal papers and more than 110 conference papers.

9. Mr. Andrew Morrison

Mr. Andrew Morrison joined KBC Advanced Technology Pte Ltd in January 2009 as a Senior Engineer in the Energy Services group based in Walton-on-Thames, UK. He graduated from the University of Waikato (New Zealand) in 2005 and continued into postgraduate studies focused on practical methods to improve industrial energy efficiency. Andrew has previously carried out engineering consulting work in New Zealand encompassing energy related projects throughout the dairy, pulp and paper, and chemical sectors. He is currently based in the KBC Singapore office.