

Please fax or email the registration form to:

**Sustainable Energy Development Authority Malaysia, Galeria PjH, Aras 9, Jalan P4W,
Persiaran Perdana, Presint 4, 62100 Putrajaya
No. Tel: 03-88705850/03-8870 5849 No. Fax: 88705900
Email : rosliza@seda.gov.my / hambali@seda.gov.my**

Full Name (as in IC/Passport): _____

IC/Passport No.: _____ Nationality: _____

Gender: _____ Company Address: _____

Postcode: _____ City: _____ State: _____

Phone No.: _____ Fax No.: _____ H/P No.: _____

Email: _____

Discipline / Major _____

I hereby confirm that the information provided is true and correct and understand the terms and condition below.

Signature _____

Name : _____

TERMS AND CONDITIONS

- 1) The registration fee is not refundable and no cancellation is allowed except for replacement.
- 2) A replacement can only made latest by two weeks before the event.
- 3) Each participant **MUST** send the registration form together with the payment slip (for electronics fund transfer – EFT) or photocopy of cheque (together with the bank-in slip) as proof of payment.
- 4) Registration of participant does not warrant confirmation of seat until payment has been made. The seat will only be allocated once payment is received by SEDA Malaysia.
- 5) The training is limited to 30 participants only.
- 6) Payment can be made by cheque or electronics fund transfer (EFT) via Cimbclicks only to:

Bank account number and bank details :

Account Owner : Sustainable Energy Development Authority Malaysia

Account No. : 8600308067

Bank Name & address : CIMB Bank Berhad

Swift Code : CIBBMYKL



ENERGY EFFICIENCY MANAGEMENT

Principles and Applications in Compliance to Malaysian Standard MS1525: Code of Practice on Energy Efficiency and use of Renewable Energy in Non-Residential Building



**SEDA
MALAYSIA**

Eligible for 8 hours credit of CDP for Registered Electrical Energy Manager (REEM)

PROGRAM OUTLINE DAY 1

INTRODUCTION

Principle and Application to Comply MS1525 Code of Practice training module is developed to support capacity building in sustainable energy in Malaysia.

MS1525 is important guideline is sustainable building design and operation that will give positive and direct impact to the sustainable energy and energy security.

Participant of this training will be exposed theoretically in details on the features present in the Code of Practice and how they can apply it in building design and operation. Participant will learn on how to do calculation of critical features for comparison between business as usual adaptation and/or implementation with compliances to energy efficient requirements using examples of case studies.

Time	Topic	Duration
8.30 a.m	Participants Registration	30 mins
9.00 a.m.	Introduction & Overview of the Training Program	15 mins
9.15 a.m.	Chapter 1: Background and Introduction to MS1525 <ul style="list-style-type: none">• Global & Local Trends• Standard and Labelling• Policies & Legistion	1 hr
10.15 a.m.	Break	15 mins
10.30 a.m.	Chapter 2: Architectural And Passive Design Strategy <ul style="list-style-type: none">• Sustainable Design Approach• Passive design strategy• Site planning and orientation• Daylighting• Daylight distribution (calculation)• Façade design• Natural ventilation• Strategic landscaping• Future considerations for sustainable design	1 hr 10 mins
11.40 a.m	Chapter 3: Building Envelope <ul style="list-style-type: none">• General Requirements• Concept of Overall Thermal Transfer Value (OTTV)• Shading coefficient• Daylighting• Roofs• Daylight credit• Submission procedures• Air leakage	1 hr 10 mins
1.00 p.m.	Lunch Break	1 hr 15 mins
2.15 p.m.	Chapter 4: Lighting <ul style="list-style-type: none">• General principles of efficient lighting practices• Maximum allowable power for illumination systems• Exterior building lighting power requirements• Lighting controls• Operation and maintenance (O & M) manual and as built drawings	50 mins
3.15 p.m.	Tea break	15 mins

PROGRAM OUTLINE DAY 2

3.30 p.m.	Chapter 5: Electric Power and Distribution <ul style="list-style-type: none"> • Alternating current (AC) Electric motors • Cabling Motors and rives • Transformers • Inverters • Power factor correction capacitors • Sub metering 	1 hr
4.30 p.m.	Chapter 6: Air Conditioning and Mechanical Ventilation (ACMV) Systems <ul style="list-style-type: none"> • Load calculations • Indoor design conditions • Systems and equipment sizing • Separate air distribution systems • Controls • Piping insulation • Air handling duct system insulation • Duct construction • Balancing • ACMV systems, equipment and components • System testing and commissioning • Operation and maintenance (O & M) • Preventive maintenance 	1 hr
6.00 p.m.	End of Day 1	

Time	Topic	Duration
9.00 a.m.	Chapter 6: Air Conditioning and Mechanical Ventilation (ACMV) Systems (...cont.) <ul style="list-style-type: none"> • Load calculations • Indoor design conditions • Systems and equipment sizing • Separate air distribution systems • Controls • Piping insulation • Air handling duct system insulation • Duct construction • Balancing • ACMV systems, equipment and components • System testing and commissioning • Operation and maintenance (O & M) • Preventive maintenance 	1 hr 30 mins
10.30 a.m.	Break	15 mins
10.45	Chapter 6: Air Conditioning and Mechanical Ventilation (ACMV) Systems (...cont.) <ul style="list-style-type: none"> • Load calculations • Indoor design conditions • Systems and equipment sizing • Separate air distribution systems • Controls • Piping insulation • Air handling duct system insulation • Duct construction • Balancing • ACMV systems, equipment and components • System testing and commissioning • Operation and maintenance (O & M) • Preventive maintenance 	30 mins
11.15 a.m.	Chapter 7: Energy Management Control System <ul style="list-style-type: none"> • Energy Management System (EMS) • Control equipment • Monitoring equipment • Integration of equipment subsystems • Energy consuming areas • Application of an EMS to the ACMV system 	1 hr

	<ul style="list-style-type: none"> • Application of an EMS to the lighting system • Application of an EMS to the Energy Audit • Characteristic of EMS 	
1.00 p.m.	Lunch Break	1 hr 15 mins
2.15 p.m.	Chapter 8: Building Energy Simulation Method <ul style="list-style-type: none"> • Scope of Building Energy Simulation Method • Simulation Program • Compliance • Exceptional Compliance 	1 hr
3.15 p.m.	Tea break	15 mins
3.30 p.m.	Group Case Discussion and Presentation <ul style="list-style-type: none"> • Understanding of the course (no test) 	1 hr 30 mins
5.00 p.m.	End of Training	

OBJECTIVE

1. To foster interest and build awareness level among the building designers, builders, contractors and building operators and climate change, energy and environmental issues that should encourage to a more serious adoption of MS1525 Code of Practice in building design and operation;
2. To provide understanding on how to apply effectively recommended features set in the code of Practice; and
3. To provide sufficient information on policies and legislation that support and encourage energy efficient and renewable energy designs and operation adoption in new and existing buildings.

TRAINERS

Andrea D'Rozario

Years of Experience: Over 10 years in energy efficiency and management, and design of sustainable buildings

Qualification: CEM Certified Energy Manager, Energy Commission Malaysia, 2001, BEng (Hons) Degree in Electrical and Electronic Engineering, University of Hertfordshire, 1996, BTec Higher National Diploma in Electrical and Electronic Engineering Nottingham Trent University, Kuala Lumpur, 1993, Certificate of Technology in Electronic Engineering, Tunku Abdul Rahman College (TARC), Kuala Lumpur, 1991, GCE/GCEV (Vocational) in Mechanical Engineering, Technical Institute Kuala Lumpur, 1989.

Andrea D'Rozario is Director of E Phase Energy Consultancy and Training and received her Bachelor's Degree with Honours in Electrical and Electronics Engineering from the University of Hertfordshire, UK in 1996. Her main focus is to encourage efficient operation and maintenance of buildings via energy audits & investigations and implementation of energy management systems, a vital component in the Low Carbon Cities Framework (LCCF). She is an appointed professional trainer with the Malaysia Green Technology Corporation (MGTC) to lower energy and water consumption in government buildings in Putrajaya and Cyberjaya.

She is also involved in certification and commissioning efforts of commercial and industrial buildings under LEED and GBI. Her expertise and knowledge in the field of energy efficiency and management, and design of sustainable buildings was developed over the past 10 years. She is a Certified Energy Manager and is experienced in conducting energy audits for commercial and industrial buildings in the government and private sectors.

She was also actively involved in the building integrated photovoltaic project and fine tuning process for energy efficiency for the Malaysian Green Technology Centre (formerly the Green Energy Office, Malaysia Energy Centre) and also assisted in Off-Grid Photovoltaic systems for rural electrification projects for Tenaga Nasional Berhad.

She developed her career as an Energy Consultant in energy management and auditing with ECO Energy Sdn. Bhd. and then worked with SFG Technology Sdn. Bhd. as a Senior Systems Engineer on renewable energy projects. She went on further to work with IEN Consultants Sdn Bhd to assist in projects for sustainable buildings. She commenced her engineering career as an Electrical Engineer in Plant Maintenance for 3 years with Sime Rengo Packaging (M) Sdn. Bhd. and worked as a Business Development Executive in Innovation Labs Sdn. Bhd. dealing with Security Access & Control, CCTV and Building Management Systems.

**TRAINING MATERIALS
IS PROVIDED!!!**