



Pan Arab "Certified Energy Management Professional" Program

Cairo-Egypt - Venue: RCREEE Premises

Agenda

From	TO	DAY # 1 - Sunday	
8:00	8:30	Registration and Introduction	
8:30	10:30	Section 1	Energy Basics Overview
		1.1.	Sources, World Energy Balance
		1.2	Energy Measuring Units
		1.3	Fuels Heating Values
		1.4	Basic Energy Calculations
		Section 2	Energy Conversion and Efficiency
		2.1	Energy Efficiency
		2.2	Energy Sustainability
	2.3	Energy Efficiency Economics	
10:30	10:45	BREAK	
10:45	12:30	2.4	Energy Efficiency Building Codes
		Section 3	Energy Management
		3.1	Definition and Benefits of Energy Management
		3.2	Energy Management Barriers
		3.3	Energy Management Systems (EnMs)
		3.4	Establishing EnMs
	3.5	Energy Management Outsourcing	
12:30	13:30	LUNCH BREAK	
13:30	15:30	Section 4	Electrical Energy Management
		4.1	Fundamentals of Electricity
		4.2	Electric Motors
		4.3	Fans
		4.4	Pumps
15:30	15:45	BREAK	
15:45	16:15	4.5	Compressed Air System
		4.6	Lighting System
16:15	17:00	Review and Discussion	



From	TO	DAY # 2 - Monday	
8:30	10:30	Section 5	Thermal Energy Management
		5.1	Energy Flows
		5.2	Heat Transfer and Thermal Envelope
		5.3	HVAC System
10:30	10:45	BREAK	
10:45	12:30	5.4	Boilers and Steam System
		5.5	Waste Heat Recovery
		5.6	Automation System
		Section 6	Renewable Energy Systems
		6.1	RE Systems Implementation Process
		6.2	Renewable Energy Technologies
		6.3	Solar Photovoltaic
		6.4	Wind Energy System
6.5	Hydroelectric Systems		
12:30	13:30	LUNCH BREAK	
13:30	15:30	Section 7	Commercial, Institutional and Industrial Facilities
		7.1	Barriers and Drivers for Energy Efficiency
		7.2	Industrial Performance
		7.3	Laundry Facilities
		7.4	Dining and Food Services
		7.5	Water Treatment
		7.6	Textile Processing
		7.7	Cement Manufacturing
		Section 8	Energy Auditing - ISO 50002
		8.1	Introduction
8.2	Types and Uses of Energy Audits		
15:30	15:45	BREAK	
15:45	16:15	Section 8	Energy Auditing - ISO 50002 (Cont')
		8.3	Energy Auditing Steps
16:15	17:00	Review and Discussion	



From	TO	DAY # 3 - Tuesday	
8:30	10:30	Section 8	Energy Auditing - ISO 50002 (Cont')
		8.3	Energy Auditing Steps - (Cont')
10:30	10:45	BREAK	
10:45	12:30	8.3	Energy Auditing Steps - (Cont')
		8.4	Project Packaging and Reporting
		Section 9	Instruments and Tools for Energy Auditing
		9.1	Toolkits and Guides
		9.2	Measuring Instruments
	9.3	Software	
12:30	13:30	LUNCH BREAK	
13:30	15:30	Section 10	Economic Analysis and Project's Financing
		10.1	Time Value of Money
		10.2	Risk Analysis
		10.3	Financing Energy Efficiency Projects
15:30	15:45	BREAK	
15:45	17:00	Review and Discussion- Examples Solving	
From	TO	DAY # 4 - Wednesday	
8:30	10:30	Section 11	Measurement and Verification (M&V)
		11.1	Fundamentals of M&V
		11.2	M&V frame work and Options
		11.3	Baseline Development
		11.4	Determination of Savings
10:30	10:45	BREAK	
10:45	12:30	Section 12	Demand Side Load Managements Programs
		12.1	Overview
		12.2	Preliminary Potential Evaluation
		12.3	Strategic Planning and Program Design
		12.4	Program Development and Evaluation
12:30	13:30	LUNCH BREAK	
13:30	14:30	Appendix A	National Policies, Legal and Framework
		Appendix B	Egypt - Energy Policies
14:30	15:00	BREAK	
15:00	17:00	Review and Discussion- Examples Solving	
From	TO	DAY # 5 - Thursday	
08:30	11:30	Final revision	
11:30	12:00	BREAK	
13:00	16:00	PA-CEMP Exam	