ABOUT THE FACILITATOR

DR. ABRAHAMS MWASHA

Dr. Abrahams P. Mwasha is currently a lecturer in the Department of Civil and Environmental Engineering, Faculty of Engineering, The University of the West Indies, St. Augustine. He has taught courses in Construction Materials, Structural Design and Environmental Science in Buildings.

Dr. Mwasha is a past recipient of the prestigious Trinidad and Tobago Government Research Grant for his work in sustainable construction materials. He has published in several reputable journals, in addition to the fact that he is a reviewer of several journals.

Dr. Mwasha has been resident engineer at the Ministry of Education, Tanzania, where he was involved in several major projects. He was also the first prize winner of the BIZCOM social enterprise award, organized by the MERCIA Institute of Enterprise for the idea of "NOVEL AND SUSTAINABLE TECHNOLOGY".

Dr. Mwasha obtained his PhD from The University of Wolverhampton, England and his M.Sc. in Civil and Industrial Construction from KIIKC, Ukraine. He also holds a Certificate in Advanced Construction Planning and Organization from KICI, Russia and a Certificate in Construction Management from The Institute for Housing and Urban Development Studies, Rotterdam, The Netherlands.

His research interests include, building services, problematic soils (expansive, collapsible, soft soils), ground reinforcement, vegetable fibres, slope stability and waste management.

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ENGINEERING INSTITUTE

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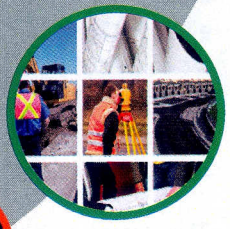

OPTIMISING ENERGY EFFICIENCY AND HUMAN COMFORT THROUGH BUILDING ENGINEERING & DESIGN

23rd - 26th March, 2010
Lecture Theatre 3, 2nd Floor
Block 13
Faculty of Engineering,
The University of the West Indies,
St. Augustine, Trinidad

Building Engineering Services

Recently, energy efficiency has taken on a long term and more urgent tone. We are all too well aware of the implications of upsetting the natural balance of carbon dioxide (CO_2) in the atmosphere, with predicted (and some may say current) Global Warming being one of the consequences.

The aim of this course is to introduce a new concept of energy efficiency within the building environment and at the same time, link this efficiency to human comfort and Health and Safety (H.S.).

Legislatively, numerous Acts and Regulations have been introduced to increase energy efficiency and provide minimum standards for conservation of fuel and power. These Acts and Building Regulations are aimed at domestic and non-domestic buildings (both new and refurbished).

This course is designed to bridge the gap between the participants' current knowledge, understanding and level of skills on human comfort and those required by Health and Safety legislations.

The module also incorporates knowledge of design techniques and issues relating to the internal 'indoor' environment.

LEARNING OBJECTIVES

Successful completion of the course shall allow participants to show knowledge and understanding of:

- The process of moderating the effects of current and future, global and local environmental conditions on the occupants of buildings.
- Optimum design techniques to ensure human comfort within the indoor environment according to existing Health and Safety legislations.
- Energy conservation and cost savings within the building environment

TARGET AUDIENCE

- Real Estate Managers
- Architects
- Surveyors
- Valuation Officers
- Landlords
- Tenants
- Civil Engineers
- Technicians
- Community Development Officers

Day	Session	Unit/Course Content
1	AM	• Introduction to global environmental issues and the construction industry
	PM	• Light: Basic concept
2	AM	• Artificial and natural light. • Designing and units
	PM	• *Tutorial Session 1: light*
3	AM	• Heat: basic concepts and units • Heat transfer: Thermal performance of the building envelope • General concepts & human thermal comfort in the indoor environment
	PM	• Condensation and an introduction to psychrometry • *Tutorial Sessions 2: heat*
4	AM	• Sound: basic concepts, units and noise rating • Sound insulation
	PM	• *Exam and feedback*

SPECIALIST RESOURCES

Laboratory equipment for the demonstration of basic principles of thermodynamics, light and sound equipment (in-class laboratory practical, **no student purchases required**)

PACKAGE INCLUDES

Seminar Workbook/Handouts
Stationery including graph paper
Lunch and refreshments
Certificate of Participation or Competence (based on end of course exam)

N.B. Please bring ruler and calculator (not provided)

COST

TT $ 3,500.00 (US $583.00)

5% Early Bird discount for participants / companies paying or submitting a Purchase Order before 15 March, 2010

OR

10% Group discount for companies registering three or more persons

BOTH DISCOUNTS WILL NOT BE APPLIED SIMULTANEOUSLY

To register and for further information, please go to:
http://www.eng.uwi.tt/depts/ei/
or contact:

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