ABOUT THE FACILITATOR

DR. RICHARD CLARKE

Based on the creation of new analytical methods and structural systems for earthquake and hurricane resistant design, Richard Clarke has authored papers in leading international structural engineering journals and symposia in the areas of seismic retrofitting, hysteresis modeling, seismic nonlinear structural dynamics and seismic vulnerability analysis.

Dr. Clarke has also designed many notable buildings in Trinidad and Tobago and is the current **Head of the Department** of Civil and Environmental Engineering of The University of the West Indies, St. Augustine where he lecturers in earthquake resistant structural design, structural engineering, performance-based seismic design and allied topics.

He is also the present **Chairman of the Structures Codes Committee** of the Trinidad and Tobago Bureau of Standards (TTBS) / Board of Engineering of Trinidad and Tobago (BOETT).

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ENGINEERING INSTITUTE
Faculty of Engineering
The University of the West Indies
St. Augustine

THE SEISMIC DESIGN OF BUILDING STRUCTURES

A Course for Practising Engineers

September 7th, 2011 - April 25th, 2012
Wednesdays - 1.30pm - 4.30pm
U.W.I.

SEISMIC DESIGN OF BUILDING STRUCTURES- A COURSE FOR PRACTISING ENGINEERS

This comprehensive and practical course will cover the conceptual, preliminary and final design of frames and walls of concrete, steel and masonry.

LEARNING OBJECTIVES

- Emphasis on design (i.e. system typology selection, member materials and section selection, and reinforcement provisioning), including conceptual and preliminary design for the most prevalent forms of regional construction.
- Comprehensive review of the calculation of seismic loads and design actions including the effects of irregularity and the selection of the analysis method.
- Comprehensive review of MDOF Structural Dynamics (2D shear beam building model).
- Review of the non-seismic design of structural steel moment frames.
- Design of the structural systems indicated in Table 1, and in compliance with ASCE 7-05, ACI 318-05, AISC 341-10, AISC 358-10, AISC 360-10, ACI 530-02.
- Design methods are with respect to the ultimate strength design philosophy and for special ductile systems only.
- Advice on Specifications development, design calculations packaging and drawings management.

TARGET AUDIENCE

Practising civil engineers (though building inspectors/technicians may also be interested) .

PRE-REQUISITE

B.Sc. in Civil Engineering or equivalent, preferably with experience in building design.

COURSE OUTLINE

- RC Moment Frames
- Connections in RC Moment Frames
- RC Diaphragms
- Steel Moment Frames
- Connections in Steel Moment Frames
- RC Shear Walls with Openings
- RC Walls in Out-of-Plane Bending
- RM Shear Walls with Openings
- RM Walls in Out-of-Plane Bending
- Steel Concentric Braced Frames
- Steel Eccentric Braced Frames
- Dual Frame Systems
- Building Frame Systems
- Piled Foundations

COST: TT$5,800.00 (US$967.00)

Early bird and/or group discounts can be made available upon registration /payment.

PACKAGE INCLUDES

Seminar Workbook/Handouts

CD-ROM containing eight (8) spreadsheet programs for seismic design of various structural elements.

Supplementary public domain material

Certificate of Participation

To register and for further information, please contact:

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