German University in Cairo
Faculty of Engineering and Materials Science

Civil Engineering Program

EURO 2015

First Workshop on
The Eurocodes for Building Design
The German University in Cairo
5th to 7th of April, 2015
www.guc.edu.eg

Organizing Committee
Prof. Dr. Ibrahim El-Dimeery, Dean of Graduate Studies
Prof. Dr. Moustafa Baraka, Program Director
Prof. Dr. Nayer El-Esnawy, Head of Department
Dr. Mona Badr, Associate Professor
Dr. Amr Shaat, Associate Professor
Dr. Badr Abouzeid, Assistant Professor

Day 1, Sunday 5th of April
Topic: Design of Reinforced Concrete Structures
Prof. Dr. Balthasar Novak, The University of Stuttgart

Day 2, Monday 6th of April
Topic: Steel Design and Seismic Design
Prof. Dr. Ahmed Elghazouli, Imperial College London
Dr. Amr Shaat, The German University in Cairo

Day 3, Tuesday 7th of April
Topic: Geotechnical Engineering and Foundation Design
Dr. Khalid Abdel-Rahman Barakat, Leibniz University of Hannover
Civil Engineering Program
Euro2015 Workshop on
The Eurocodes for Building Design

Day 1, Sunday 5th of April

8:00 - 9:00  Registration

9:00 - 9:30  Opening Session
   Chair: Prof. Dr. Ibrahim El-Dimeery and Prof. Dr. Moustafa Baraka

9:30 - 10:00  Tea/Coffee Break

10:00 - 11:30  Session 1-1  Introduction to the Eurocodes
   - Basis of design
   - Limit states
   - Actions on structures
   Chair: Prof. Dr. Moustafa Baraka
   Lecturer: Prof. Dr. Balthasar Novak, The University of Stuttgart

11:30 - 11:45  Tea/Coffee Break

11:45 - 1:00  Session 1-2  Eurocode 2, Design of Concrete Structures
   - Material properties
   - Time dependent behaviour
   - Environment conditions, concrete cover
   - Ultimate limit state design, for bending, shear
   - Torsion, punching
   Chair: Prof. Dr. Nayer El-Esnawy
   Lecturer: Prof. Dr. Balthasar Novak, The University of Stuttgart

1:00 - 2:00  Lunch Break

2:00 - 3:30  Session 1-3  Eurocode 2, Design of Concrete Structures
   - Introduction to strut and tie models/important examples
   - Serviceability limit states
   - Detailing rules
   Chair: Dr. Mona Badr
   Lecturer: Prof. Dr. Balthasar Novak, The University of Stuttgart

3:30 - 3:45  Tea/Coffee Break

3:45 - 4:45  Session 1-4  Eurocode 2, Design of Concrete Structures
   - Prestressed concrete
   - Fatigue
   Chair: Dr. Badr Abouzeid
   Lecturer: Prof. Dr. Balthasar Novak, The University of Stuttgart
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Day 2, Monday 6th of April

10:15 - 12:00  Session 2-1  Eurocode 3, Steel Design
               - Overview and Axial Members
               - Design of Beams and Other Components
              Chair: Dr. Badr Abouzeid
              Lecturer: Dr. Amr Shaat, The German University in Cairo

12:00 - 1:00  Lunch Break

1:00 - 2:30  Session 2-2  Eurocode 8, Seismic Design – Overview and Seismic Actions
              Chair : Prof. Dr. Nayer El-Esnawy
              Lecturer: Prof. Dr. Ahmed Elghazouli, Imperial College London

2:30 - 2:45  Tea/Coffee Break

2:45 - 3:45  Session 2-3  Eurocode 8, Principles of Seismic Design for Buildings
              Chair : Dr. Amr Shaat
              Lecturer: Prof. Dr. Ahmed Elghazouli, Imperial College London
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Day 3, Tuesday 7th of April

10:15 - 12:00  Session 3-1  Eurocode 7, Introduction to Partial Factor of Safety Concept and an Overview of EC7 and its Application in Germany
Chair: Dr. Mona Badr
Lecturer: Dr. Khalid Abdel-Rahman Barakat, Leibniz University of Hannover

12:00 - 1:00  Lunch Break

1:00 - 2:30  Session 3-2  Eurocode 7, Design of Shallow and Deep Foundations
- Introduction
- Stability checks
- Behavior of piles under compressive and tensile forces
- Worked examples
Chair: Dr. Amr Shaat
Lecturer: Dr. Khalid Abdel-Rahman Barakat, Leibniz University of Hannover

2:30 - 2:45  Tea/Coffee Break

2:45 - 3:45  Session 3-3  Eurocode 7, Design of Retaining Walls
- Introduction
- Calculation of active and passive Earth pressure
- Stability Checks of Walls
- Worked examples
Chair: Dr. Mona Badr
Lecturer: Dr. Khalid Abdel-Rahman Barakat, Leibniz University of Hannover