



## Training Course Program

### BUILDINGS ENVELOPES AND THEIR ROLE IN SAVING ENERGY

Training course Cost. 1500 LE

First Day: 28-5-2023

10:00 AM: 12:00 AM

#### Building envelope

- Building envelope definition
- weathering data file
- climate regions.
- Building envelopment requirements
- Building envelopment opaque parts
- Physical properties of building envelopment
- Thermal conductivity coefficient calculations and measurements
- Thermal resistance estimation methods

Dr. Mahmoud Abd El-Razik

- Façade openings and shading calculations

**12:00 AM: 1:30 pM**

**Building Acoustics.**

**Visiting acoustic laboratory.**

**Professor Huda Soliman - acoustic department HBRC**

**Labs. visit**

- Optical properties tests of glass
- Leakage and penetration tests of widows
- Thermal conductivity test.

**Second Day:29-5-2024**

**10:00 AM: 12:00 AM**

**Studying the physical and optical properties of glass**

- Optical properties

Dr. Mohamed Mahmoud

- Instrumental assessment of optical properties
- Solar heat gain coefficient calculations
- Highly efficient glass produced from recycled materials
- Solar reflection coefficient
- Exploring the Physical and optical properties reports

**12:30 PM: 2:30 PM**

### **Evaluating the building façade performance**

- Air leakage
- Water penetration
- Structural Performance
- Comparison between standard test methods
- Acceptance and rejection criteria

Dr. Mahmoud Mokhtar

Dr. Mohamed Morsy