



# **Course Description**

The objective of this short course is to enlighten the participants about the most current and applied research available on Construction Industry and Environmental issues. Alternatives and solutions involving minimal cement usage and maximized use of industrial/agricultural recyclable materials in green construction will be discussed. The presentations will include salient technical, energy-related, environmental, and economical advantages of using those materials in construction applications. The course should be of interest to those associated with construction industry, including design and material engineers, architects, engineering technicians, engineers working in governmental agencies, industry and private practice, engineering faculty and students, as well as ready-mixed concrete producers, concrete product manufacturers, and contractors. The course will also provide valuable insight to people from utilities and other industries producing recyclable materials. Knowledgeable Professor engaged in using those materials will present state-of-the-art information. Handouts will be provided.

# **Topics Addressed**

- Concrete constituents and environmental impacts
- Concrete properties
- Causes of concrete deterioration
- Effective use of recyclable materials for sustainable construction industry to reduce cost, energy, natural resources and GHG emissions
- Surface repair materials for deteriorated concrete



### **Registration Fee:**

IEM members, RM300 Non IEM members, RM350 Students, RM150

Registration fee to be paid to CIMB BANK - (Account Number: 80-0605353-6)

BENDAHARI UNIVERSITI TEKNOLOGI MALAYSIA

Organized by: Construction Research Centre, Universiti Teknologi Malaysia (CRC-UTM)
The Institution of Engineers, Malaysia-Southern Branch (IEM)

#### Conference Recommended for

- Scientists, academics, research scholars, students, consultants, engineers, Contractors
- Ministries of environment, health, transportation, housing, Public works departments
- Cement manufacturers
- Industries involved in recycling waste materials

# **Speaker Information**



Dr. Jahangir Mirza, is a senior scientist from Research Institute of Hydro-Québec, Montreal, Canada. Presently, he is a Professor at UTM Construction Research Centre, Universiti Teknologi Malaysia, Johor Bahru, Malaysia. He is primarily involved in **APPLIED R & D** of materials and their application methods to repair, maintain and rehabilitate concrete structures, develop innovative ways of using natural, industrial and argo-

**Prof. Dr. Jahangir Mirza** -wastes to help decrease cost, energy and environmental problems of concrete industry.

Previously, Dr. Mirza also worked as an adjunct Prof. in the Civil Engineering and Applied Mechanics Department of McGill University, Montreal, Canada, for 8 years. He has authored and co-authored close to 180 technical reports and scientific publications and is a recipient of 16 national and international awards and honors from Canada, Malaysia, Pakistan, U.K. and USA. He is also a member of the Editorial and Advisory Boards of an international journal and conference respectively, as well as a former member of American Concrete Institute, International Concrete Repair Institute, Chemical Institute of Canada and Canadian Dam Safety Association. Dr. Mirza can communicate in 6 languages, namely, English, German, French, Hindi, Urdu and Punjabi.

# **Organizers**

Prof. Ir. Dr. Mahmood Md. Tahir, Director, CRC-UTM
All staff members of CRC-UTM



and
The Institution of Engineers, Malaysia
(Southern Branch)

