

PROGRAMME

April 30, 2019

Event	Time (Hours)
Registration	0900-0930
Recitation from Holy Quran	0930-0940
Opening Remarks	0940-0950
Lecture-1	0950- 1100
Introduction to Earthquake and Bridge Engineering	
Tea Break	1100-1130
Lecture-2	1130 -1200
Codes and design requirements	
Lecture-3	1200-1300
Bridge failures in past earthquakes	
Lunch & Prayer Break	
Lecture-4	1300- 1400
Quantification of Resilience and case studies	1400- 1500
Q & A session	1500- 1530
Closing Remarks & Certificates	1600-1630



Pakistan Engineering Council Headquarters, Islamabad

Continuing Professional Development

Short Course Series

Seismic Failure of Bridges & Resilience

On

April 30, 2019

At

PEC HQ, Islamabad

Resource Person

Engr. Dr. Syed Muhammad Ali



Purpose and Background

All professionals including engineers require continuous updating of knowledge, state of the art skills and identification of new applications. Pakistan Engineering Council with its objective of introducing and ensuring Continuing Professional Development amongst its growing community of professional engineers has planned series of short courses in addition to many other academic and professional activities.

Bridges are considered as lifeline due to their importance for society. With the ever-increasing load of heavy vehicles superstructure of bridge undergo phenomenal stress. Large seismic events like October 2005 earthquake demonstrated damage to bridge super- & sub-structure. The floods of 2010 resulted in severe damage to bridges. With increasing inventory of bridges, the non-destructive testing of bridges is gaining importance for repair and rehabilitation on scientific grounds. The cost of construction may be far more than rehabilitation thus requiring government departments to undertake NDT for justified spending on bridges.

Learning Objectives & benefits:

The course is designed to educate professionals from construction industry, designers, engineers of line departments, government agencies, development organization and academia. Specifically, the course will emphasize on:

- Introduction to bridges
- Bridge failures and issues
- Mechanics of bridge engineering
- Concept of Resilience
- Case studies of bridge failures and quantification of resilience

Special Features

- ❖ A certificate will be awarded to the participants.
- ❖ As per the implemented Continuing Professional Development System by PEC, Credit Points will be awarded to the Registered/Professional Engineers who have attended the course and earned the certificate.

WHO SHOULD ATTEND?

- All Engineers registered with PEC.

COURSE DETAILS

Course Fee: *Rs.2000/- (Standing more than 5-years)*
 Rs.1000/- (Standing Less than 5-years)
 Rs.250/- (Full Time BSc Engg Students)

Course Date: 30th April 2019

Closing Date: 29th April 2019

Venue:

Pakistan Engineering Council, Islamabad

Requirements to attend the course?

- ❖ Provide the following information in writing along with Registration Fee latest by **April 29, 2019**:-
 - Name, Qualification, Organization
 - PEC Registration No (Mandatory)
 - Contact number (cell, phone, e-mail)
 - Address (department, business etc.)
 - **Registration Fee:** (Rs. 2000/- for Senior Engineers standing more than 5-years), Rs. 1000/- for Young Engineers REs Standing less than 5-Years), Rs. 250/- for Full time BSc Engineering Students (on submission of photocopy of university student card, **Submit fee only through Deposit Slip in MCB TBD A/c No.0685583041005497 in favour of "Pakistan Engineering Council Islamabad". Payment through Pay Order / Bank Draft/ Online/ ATM / Cash is not acceptable".**
- ❖ Deputy Registrar- CPD, Pakistan Engineering Council HQ, Ataturk Avenue (East), Sector G-5/2, Islamabad.
- ❖ Phone: 051-2870349, 2829311 Ext: 213, 267,
- ❖ Fax: 051-2871629
- ❖ Email: cpd@pec.org.pk

Short Course Instructor:

Prof. Dr. Syed Mohammad Ali is a Civil (Structural) Engineer and presently working as Professor of Civil Engineering and Director of Earthquake Engineering Center at UET, Peshawar which is the largest facility of Pakistan, due to which Pakistan is ranked 4th in the world. He was selected as Housner Fellow by World Bank (GFDRR) and EERI among three fellows from 145 developing countries in recognition of his services in field of earthquake engineering. He has an experience of more than 21 years in the field of teaching, research and consulting. His major research interests are earthquake engineering, bridge engineering, field and lab testing of structures, NDE, numerical modelling etc. He is the member of Pak. Electrical & Telecommunication Safety Code 2014 developed by Pakistan Engineering Council.

Dr. Ali has provided specialized expertise to mega projects of CPEC which include dynamic testing of four railways bridges on ML-1 and testing of five U-tub girders of Lahore Orange Line Metro Train Project.

Dr. Ali has also delivered highly specialized projects in energy sector involving seismic qualification testing of electrical systems. Recently Dr. Ali has published an article in Oxford Encyclopedia of Natural Disasters.