PROGRAMME

<u>April 25, 2018 (Wednesday)</u>

Event	Time (Hours)
Registration	09:00 - 09:30
Recitation from Holy Quran	09:30 - 09:35
Opening Remarks	09:35 - 09:45
Climate Change Science	09:45 - 10:30
Tea Break	10:30 - 10:50
Carbon Capture Fundamentals	10:50 - 11:30
Post Combustion Capture	11:30 – 12:30
Lunch and Prayer Break	12:30 - 13:30
Oxyfuel Combustion Capture	13:30 - 14:40
Gasification and Carbon Capture	14:40 - 15:50
1 st Day Closing Remarks	15:50 - 16:00

April 26, 2018 (Thursday)

Event	Time (Hours)
2 nd Day Opening Remarks	09:00 - 09:15
CO ₂ Physiochemical Properties	09:15 - 10:00
CO ₂ Transport	10:00 - 11:00
Tea Break	11:00 - 11:20
CO ₂ Storage	11:20 - 12:30
Lunch and Prayer Break	12:30 - 13:30
CO ₂ Utilization	13:30 - 14:30
CCSU Projects Worldwide	14:30 - 15:30
Closing/Certificate Distribution	15:30 - 16:00





University of Engineering & Technology Lahore

Continuing Engineering Education Centre

Two Days Workshop

Carbon Capture Storage and Utilization (CCSU)

On 25th-26th April 2018 at Seminar Hall No. 1 University Auditorium, UET Lahore

Resource Person Dr. Usman Ali

Assistant Professor, Department of Chemical Engineering, VET, Lahore C: 0092 314 4222 100 E: usmanali@uet.edu.pk



Purpose and Background

Climate change and global warming has driven interest to decrease the greenhouse gas emissions from the fossil-fuel based power plants as they are bigger emitter of CO_2 . Further, due to intermittent nature of renewable power supplies, economies cannot abandon the use of fossil fuels for power generation. Thus, a mechanism or processes to lock the CO_2 emissions from fossil-fired power plants need to be understood. Carbon capture storage and utilization is the mean through which CO_2 emissions from the power plants can be decreased.

This short course covers a comprehensive overview of carbon capture, transport, storage and utilization processes/technologies which can be applied to the CO_2 emission sources to mitigate their effect.

Who should attend?

- Engineers, technical managers, policy makers in the field of energy, power and environment.
- Individuals, companies, agencies or regulatory bodies, either public or private involved in climate change mitigation.
- Researchers and postgraduate students from science, engineering or policy programs from academic institutions.

Special Features

- ✤ A certificate will be awarded to the participants.
- As per the implemented CPD System by PEC, Credit Points will be awarded to the Registered/Professional Engineers who have attended the course.

Registration Process and Contact Info.

Application form dully filled with required documents and Fee in the form of Pay Order/ Bank Draft in favour of "PEB Coordinator" or online payment to Habib Bank Limited, UET Branch, **A/C No. 01287902267903** should reach on/or before 24-04-2018.

> For more information, **Contact:** Continuing Engineering Education Center, UET, Lahore. Phone: 042-99029138, 042-99250221 Cell No. 0300-4693613 Email: <u>directorceec@uet.edu.pk</u>

The related information can also be found on the website http://www.ceec.uet.edu.pk/ .

Course Benefits and Expected Outcomes

- Comprehensive understanding of various CO₂ capture technologies applicable to fossil-fuel based power plants along with their technical and technological advancements.
- Demonstrate a technical understanding of CO₂ transport, storage and utilization.
- Advances in the understanding of technological challenges and knowledge gaps will be examined along with benefits and limitations.
- Integral to course will be an insight from planned and developing projects around the world.

Course Fee:

Course fee is Rs. 3,000/- (per participant)

- 50% discount for faculty
- 66% discount for students
- Certificates will be awarded
- Includes meals and refreshments.

Venue:

Seminar Hall No. 1, University Auditorium, UET, Lahore.

Profile of Resource Person

Dr. Usman Ali received his Bachelor and Master in Chemical Engineering from the University of Engineering and Technology, Lahore, Pakistan. He has earned Doctorate degree from University of Sheffield, United Kingdom.

He is currently working as an Assistant Professor in the Department of Chemical Engineering, UET, Lahore. The focus of his PhD research was process modelling of postcombustion CO_2 capture system integrated with natural gas, coal and biomass -fired power plants. His work encompasses both micro/pilot scale facility and commercial scale one. Further, he is an author of various peer-reviewed impact factor journal publications and has a cumulative impact factor of more than 20.

Dr. Usman Ali is an energy sector enthusiast and educates people on the underlying principles and processes for power and heat generation using conventional and nonconventional means. Being an academic, he has a strong eye on the various aspects of the over whelming power sector of his home country.