King Fahd University of Petroleum & Minerals

### DEPARTMENT OF CIVIL AND ENVIRONMENT ENGINEERING

#### Assessment and Repair of Reinforced Concrete Structures: Principles and Applications

## March 3 – 7, 2024 (Shaaban 22 – 26, 1445H)

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| **COURSE SCHEDULE** |

 **Date of Announcement:** August 20th, 2024

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|  **Time** **Day** |  | **8:00-9:00 am** | **9:05-10:05 am** |  | **10:30-11:30 am** |  | **12:20-1:20 pm** | **1:25-2:25 pm** |  | **2:45-3:45 pm** |
| **Sunday**March 3rd, 2024 |  ***Morning Coffee & Gathering* (7:30 – 8:00)** | WelcomingAddress**(Course Coordinator****& Chairman)** | Cement Chemistry and Cement Types(Al-Amoudi) |  ***Break for Refreshment*** | Deterioration of Concrete: A Review(Maslehuddin) | ***Prayer + Lunch Break***  | Characteristics of Blended Cements with Emphasis on SF(Al-Amoudi) | Corrosion Mechanisms of Reinforcement(Al-Amoudi) | ***Prayer Break* (2:25 – 2:45)** | Types of Cracks in Concrete (Shamsad) |
| **Monday**March 4th, 2024 | Introduction to Sustainability and Assessment of Concrete Structures(Mohamad Nagi) | NDT & Semi-NDT Testing Techniques in Concrete **(Rami Yaghi)** | Inspection Methodology and Assessment Guidelines(Shamsad) | Assessment of Concrete Using LASER Technique(Gondal) | Assessment of RC Structures in Marine Envs.: A Case Study **(Al-Rabiah)** | **Open Discussion****(Al-Rabiah, Maslehuddin, &****Al-Amoudi)** |
| **Tuesday**March 5th, 2024 | Cathodic Protection for Concrete(Al-Mahrous) | Bridge Rehabilitation Method: A Overview(Al-Anazi) | Assessment & Repair of Bridge Expansion Joints **(Al-Anazi)** | Introduction to Repair Methods and Strategies**(Maslehuddin)** | Durability of RC in the Saudi Building Code**(Al-Amoudi)** | Repair and Rehabilitation of RC Structures Using CFRP: Case Studies and Challenges**(Aiban)** |
| **Wednesday**March 6th, 2024 | Repair of Cracks**(Shamsad)** | Strengthening/Repair using CFRP(Kalimur-Rahman) | Case Studies on Assessment and Repair from Saudi ARAMCO: Part 1**(Abu Aishah)** | Case Studies on Assessment and Repair from Jubail Industrial City(Al-Mutlaq) | Case Studies on Assessment and Repair from Saudi ARAMCO: Part 2**(Abu Aishah)** | **Open Discussion****(Abu Aishah,** **Al-Mutalq, &** **Al-Amoudi)** |
| **Thursday**March 7th, 2024 | Damage and Repair due to Earthquakes**(Kalimur-Rahman)** | Case Study on Damage of RC Structures due to Fire (Kalimur-Rahman) | **Open Discussion****(Kalimur-Rahman &****Al-Amoudi)** | Evaluation of the Course and Distribution of Certificates(Al-Amoudi) | **Field Visit**Planning to Arrange with Saudi ARAMCO and/or the Royal Commission  |

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