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)** | Welcoming  Address  **(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 | | |

*Coordinator*: **Prof. Omar S. Baghabra Al-Amoudi**, Department of Civil & Environ. Engineering, KFUPM Box 5058, Dhahran 31261, Saudi Arabia

Mobile: +96650-575-8489; Tel: (013) 860-4700/2550; Fax: (013) 860-2879; e-mail: [amoudi@kfupm.edu.sa](mailto:amoudi@kfupm.edu.sa) & [cont@kfupm.edu.sa](mailto:cont@kfupm.edu.sa)