



Hydration, Porosity & Strength of Cementitious Materials

ABOUT THE COURSE:

Cement and concrete is the backbone of infrastructure development and it is important that engineers have a clear understanding of issues involved not only with cement, hydration and strength development, but also porosity, permeability and durability. With the basic framework using Ordinary Portland Cement, the course focuses on developing the subject in light of advances in chemical and mineral admixtures. Though the subject matter is approached from the point of view of the concrete science, the fact that paste made with OPC alone or in combination with other cementitious materials, is almost never used in the field is not light of. Illustrative examples from actual applications will be included to show the applications of the scientific principles.

COURSE LAYOUT:

- Week 1 :General
- Week 2 : Introduction
- Week 3 : Portland Cement Based Paste System
- Week 4 : Portland Cement Based Paste System (Contd.)
- Week 5 : Mineral Admixtures
- Week 6 : Mineral Admixtures (Contd.)
- Week 7 : Paste & Concrete
- Week 8 : Paste & Concrete (Contd.)