ADVANCED TOPICS IN THE SCIENCE AND TECHNOLOGY OF CONCRETE

CIVIL ENGINEERING

COURSE OUTLINE:

International experts on the science and technology of concrete will give brief lectures to highlight advanced topics based on their own research. This will introduce the student to new fields of research and give them an opportunity to learn more than what is usually covered in courses on concrete technology.

ABOUT INSTRUCTOR:

Prof. Ravindra Gettu is the Prof. V.S. Raju Chair Professor in the Department of Civil Engineering at IIT Madras, where he has worked since 2004. He has co-authored more than 400 scientific and technical publications in the areas of concrete technology, effective use of admixtures, self compacting concrete, sustainability and fibre reinforced concrete. He is the President of RILEM, the International Union of Laboratories and Experts in Construction Materials, Structures and Systems, based in France, and the past Chairman of the Indian Concrete Institute Chennai Centre.

Dr Manu Santhanam is a Professor in the Department of Civil Engineering at IIT Madras, where he has worked since October 2001. His primary research interests are in Cement Chemistry, Durability of Concrete and Non-Destructive Evaluation. He has published more than 75 refereed journal papers, and has guided 10 PhD theses, in addition to being lead investigator on several sponsored projects.

COURSE PLAN:

Week 01: Guest lecture on Calcium Sulphoaluminate Cement, by Prof. Piyush Chaunsali, IIT Madras. Guest lectures on Micro-structural characterisation of cementitious materials, Prof. Karen Scrivener, EPFL, Switzerland

Week 02: Closed-loop testing of concrete. Guest lectures on Performance of Fiber reinforced materials: Historic prospective and glance into the future, by Prof. Surendra P. Shah, Northwestern University

Week 03: Durability parameters of concrete. Sulphate attack. Guest lectures on Development and performance approach for durability and service life production for structures, by Prof. Mark Alexander, Univ. of Cape Town


TYPE OF COURSE: New| Elective | PG
INTENDED AUDIENCE: Research scholars and scientists working in the areas of concrete science and technology
COURSE DURATION: 4 weeks (28 Jan’19 - 22 Feb’19)
EXAM DATE: 31 March 2019
PRE-REQUISITES: Courses in Concrete Technology, and preferably Advanced Concrete Technology

INDUSTRIES APPLICABLE TO: Industry with R&D in the area of cement and concrete

PRE/-hyphen.capREQUISITES            :

COURSES IN CONCRETE TECHNOLOGY, AND PREFERABLY ADVANCED CONCRETE TECHNOLOGY

EXAM DATE: 31 March 2019

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