Indian Institute of Science (IISc)

Centre for Continuing Education (CCE)

Career Advancement Program:



Training Program on

Design of Pipelines, Pumping Systems and Surge Analysis

Course Co-ordinator

Dr. P Raghuveer Rao

Principal Research Scientist,

Department of Civil Engineering ,IISc.

Course Fee per participant:

Rs. 21186 + 18% GST= Total : 25000

Course Schedule

03 to 05 December 2026

Course Mode: Offline, IISc





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More Detalis :

https://cce.iisc.ac.in/short-term/

Course Content: Design of pipelines, pumping systems, surge analysis and design of surge protection systems.

Detailed Curriculum: Lecture sessions will cover Estimation of friction losses; computation of pump head; system curve analysis; basic concepts of surge; effect of column separation; parameters influencing surge; interpretation of surge results; types of pipes; design criteria for surge protection; control of surge; surge protection devices; design of air vessel, one way surge tank, stand pipe; locating upsurge control devices like zero velocity valve, surge relief valve, air valve and air cushion valve; control of surge for gravity mains. Transient analysis for circulating water systems. Case studies in water transmission mains, lift irrigation schemes and CW systems. Computer sessions will cover usage of Surge Analysis Program Version 2 software developed at the Department of Civil Engineering, Indian Institute of Science, Bangalore for surge analysis, interpretation of results and design of surge protection systems with examples and data from projects. Software will be provided for the participants.

Accommodation:

Limited accommodation (non a/c single room with attached toilet) is available on campus at Rs. 1000/- + GST per night per person. No catering facility, but couple of restaurants are nearby. Details of hotels around IISc campus can be provided on request.

Contact Us

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