INSTITUTE OF INFRASTRUCTURE, TECHNOLOGY, RESEARCH AND MANAGEMENT

INVITED TALK (2017-18)

Speaker: Mr. Vivek P. Kapadia, Chief Engineer, Water Resources Department, Government of Gujarat

Title: Qualities of an Engineer

Date: 27/09/17

Bio-sketch of Mr. Vivek P. Kapadia

Mr. Vivek P. Kapadia is presently Chief Engineer in the Water Resources Department, Government of Gujarat. He has obtained Master of Engineering, Master of Law, Post-graduation in Business Administration and Computer Application. He has been actively involved in design, execution and policy making in the field of Water Resources Engineering. He has been one of the pioneers of the participatory water conservation movement ushered in Gujarat. He has been instrumental in designing and restoration of many large structures of irrigation projects by using innovative techniques. He has actively explored the application of geosynthetics in canals and hydraulic structures. He has more than 100 papers in national and international forums/journals.

Abstract of the Invited Talk

Engineers' need to develop various qualities for successful implementation of various projects. Engineer should give proper attention to working in modules with a holistic view. Complex tasks can be divided in modules of proper size and shape, however their position and sequence is equally important. Every module has a common thread to interact with other modules, which is important to integrate the whole task. This ensures that functionality of the task is achieved. Engineers' should focus on module without losing attention to the overall objective, viz., divide and unify approach. Further, engineers' should learn to apply the principles of science and technology for solving real problems. Engineers' should also learn to focus on minute aspects of any project, as they are important for success of the project. Engineers' should also improve their compatibility in various situations. Individual excellence and be-fittingness as a good team member are equally important. An engineer should be aware how to change roles to support the team as per need. Engineers' should develop generic understanding of various areas beyond their specialization also. This helps in developing them as a more effective team leader. Creativity is also an important attribute which engineers' should work on, to find solutions for unconventional problems. Engineers' should also try to improve their knowledge base and develop wisdom based on logical thinking and experience gained. Engineers' should work on improving understanding and intuitive abilities, strength of judgement, computational abilities, diagnostic skills and discerning abilities, etc. Moreover, the value based approach is also very important which includes qualities such as vibrantness as well as ethics/principles.