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## Guest Lecture organized by Civil Engineering Department 2019-2020

### A Guest Lecture on ‘Remote Sensing, GIS and DEM for Water Resources Assessment’, on 21<sup>st</sup> September, 2019

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A Guest Lecture on ‘Remote Sensing, GIS and DEM for Water Resources Assessment’ was organized by the Department of Civil Engineering, MVJCE, on 21<sup>st</sup> September 2019, at 10:00 am, in Dr. M V Jayaraman Auditorium. Around 150 students, faculty members and non-teaching staff of the Civil Engineering Department participated in this program. The objective of the session was to provide information about RS, GIS and DEM for Water Resources Assessment.

Water is one of the most important natural resources and physiological necessity for mankind. Fresh water is one of the basic necessities for sustenance of life. Use and development of water resources in a sustainable manner is very important in the modern age, due to the regular increase in water crises. Remote Sensing techniques have been used in sustainable management of water resources, which include runoff and hydrological modelling, flood management, watershed management, drought management and management of Irrigation Command Areas. Remote Sensing, coupled with Geographic Information System (GIS) and DEM, is a powerful tool for the monitoring of water quality and water pollution.

The Guest Lecture started with the arrival of the dignitaries on the dais. The dignitaries present were Dr. D Nagesh Kumar (Professor, Civil Engineering Department, IISc. Bengaluru), Dr. Nagaraj Sitaram (Principal, MVJCE) and Prof. Muralidhara R (Head of Civil Engineering Department, MVJCE). The Master of Ceremony was Prof. Apoorva Kiran (Assistant Professor, Department of Civil Engineering). Prof. Muralidhara R delivered the welcome address, welcoming the Chief Guest, Principal, dignitaries off the dais and the gathering. The opening remark was given by Principal, Dr. Nagaraj Sitaram.

The session was then taken over by the Guest Speaker Dr. D Nagesh Kumar. He started his Lecture with the applications of remote sensing and its characteristics, enumerating the

differences among the many live images captured. He focused on water quality assessment, and on creating hydrologic models which are helpful in rainfall estimation, runoff studies, and in control of soil salinity and erosion. He spoke about the use of GIS in various components of water resources assessment. He then presented the uses and applications of DEM for watershed management. He concluded by affirming that proper image processing of remotely sensed data, DEM and spatio-temporal analyses with GIS would be very effective for water resource assessment and management. The session culminated with a Q/A session, where students clarified their doubts with the learned Guest. Mallikarjuna A, a student of 7<sup>th</sup> semester, expressed his gratitude to Dr. D Nagesh Kumar for an enlightening session. Overall, the session was very informative and useful.

The vote of thanks was proposed by Prof. Apoorva Kiran, extending gratitude to the esteemed Chief Guest, to the Principal for his constant support and encouragement, and to Prof. Muralidhara R, Head of Civil Engineering Department, for his valuable suggestions and cooperation. She also thanked the faculty, non-teaching staff, technicians and participants.

### **Outcome of the Event**

The session was thought provoking, helping students to understand the applications of Remote Sensing, GIS and DEM, which provide a platform for handling, compiling and presenting large amount of data for water resources management, also giving an insight into future research in this field.



Engineering A Better Tomorrow

(An Autonomous Institute)

Guest Lecture on

## "Remote Sensing, GIS and DEM for Water Resources Assessment"

organised by

Department of Civil Engineering

Chief Guest

**Dr. D. Nagesh Kumar**

Professor, Department of Civil Engineering, IISc., Bangalore

Presided By

**Dr. Nagaraj Sitaram**

Principal, MVJCE

**Prof M. Brindha**

Vice Principal, MVJCE

Venue: Dr. M. V. Jayaraman Auditorium

Date: 21-09-2019 @ 10:00 AM



Participants at Guest Lecture on 'Remote Sensing, GIS and DEM for Water Resources Assessment' organized by the Department of Civil Engineering, MVJCE, on 21<sup>st</sup> September 2019.



Principal, Dr Nagaraj Sitaram and Head of the Civil Engineering Department, Prof Muralidhara R welcoming the Guest, Dr D Nagesh Kumar.



Principal Dr Nagaraj Sitaram addressing the gathering.



Guest Speaker Dr D Nagesh Kumar delivering his lecture on 'Remote Sensing, GIS and DEM for Water Resources Assessment'.