GUJARAT TECHNOLOGICAL UNIVERSITY

M.E Semester: 1

Water Resources Management

Subject Name Remote Sensing And Application

Sr.No	Course content
1	Definition, Components of Remote Sensing
2	Active and Passive Remote Sensing, Platforms, Electro Magnetic Radiation
3	EMR spectrum, Scattering of EMR, EMR interaction with Earth Surface Materials, Spectral Signature, spectral characteristics
4	Satellites, Satellite Sensors, Resolution, Description of Multi Spectral Scanning, Interpretation of Satellite Images, Characteristics of Digital Satellite Image
5	Image enhancement, Filtering, Classification, Integration of GIS and Remote Sensing, Environmental Monitoring Techniques from remote sensing images, Applications of Remote Sensing in Civil Engineering, Water resources, Urban Analysis, Watershed Management, Environmental management, Construction Management, Resources Information Systems

List of Tutorials:

1. Various Component parts of Remote Sensing
2. Type of Remote Sensing
3. Study of EMR Spectrum
4. Ground truth Study
5. Type of Satellite Sensors
6. Images and its interpretation
7. Application of Remote Sensing in civil Engineering

Reference Books:

1. Gibson P.J. and Power C.H., Introductory Remote Sensing, Rotledge London, 2000
2. Jensen, J.R., Remote sensing of the environment, Prentice Hall, 2000
3. Lillesand T.M. and Kiefer R.W., "Remote Sensing and Image Interpretation
4. John Wiley and Sons, Inc, New York, 1987