

GIE 508: GEOINFORMATIS OF COASTAL ENVIRONMENTS (Open Elective)		
Unit 1	Introduction: Concepts of Geoinformatics. Outlines of Remote Sensing, Air Photo Interpretation, and Geographic Information System. Aerial photos and remote sensing of coastal environment.	6 hrs
Unit 2	Outlines of Indian Satellites: Indian space Program, Scientific Pay loads from India and abroad, Bhuvan: Description of 3D Satellite Mapping. IRS-P4, Ocean Sat-II: Description and Payloads. IRS-IC/D.A brief note on Hyper spectral Remote Sensing. Resource sat, Cartosat - I & II etc.	6 hrs
Unit 3	Data and Data products: List of Data and Data Models. Digital Data Products, Topographic Sheets and Theme Analysis, Hydrographic Sheets, Outlines of the I.H.O. Bathymetric measurements and outlines of Echo-sounders and Multibeam unit.	6 hrs
Unit 4	Coastal Environments: Geomorphology of Coasts. Classification of Coastal Environments. Relevance Geology and Geotectonic to the genesis of coasts.	6 hrs
Unit 5	Spatial Analysis of Coastal Environments: Collection of Spatial Data from Coastal Environments. Data Interpretation and use of GIS in modeling studies.	6 hrs
Unit 6	Coastal Regulations and Zones: Outlines of CRZ-I, CRZ-II, CRZ-III and CRZ-IV. Amendments to the CRZ norms.	6 hrs
Unit 7	Coastal Development: Definition and Description of Ports and Harbours. Application of EIA and CRZ to development Ports and Harbours. EIA Norms and Criteria for Recreation and Water sports.	6 hrs
Unit 8	Coastal Information System: Concepts of a Coastal Information System. Use of GIS in developing a Coastal Information System. Use of RS and GIS in developing coastal information system.	6 hrs

BIBLIOGRAPHY

1. Áine Ryall 2009. Effective Judicial Protection and the Environmental Impact Assessment Directive in Ireland. Hbk, 1-332.
2. Aradhana, A. 2006. Special Economic Zones: Revisiting the Policy Debate. Economic and Political Weekly, Vol. XLI Nos. 43 and 44, 4-10
3. Aradhana, A. 2009. Genesis, Evolution, and the Changing Role of SEZs in Asia: A Comparative Analysis of Taiwan. Korea and India, Mimeo, Korean Institute of Economic Policy (KIEP) 2-12.
4. Berling, G.L. and Roy, W.W.1989. Application of Aerial Photographs and Remote sensing Imagery in Urban research and studies. Monticell, 6-33.
5. Bonham- Carter G.F., 1994. Geographic Information System for Geoscientists, Pergamon Press, Tarrytown, New York, 6-9.
6. Brench, M. C., 1971. City Planning and Aerial information. Harvard Uni., Cambridge.12-45.
7. Burough, P. A., 1986. Principles of Geographic Information systems for Land Resources Assessment, Clarendon Press, Oxford, 1-194.
8. Land, T. G. 1999. ArcView-3D Analyst. ESRI press. 6-23.
9. Michael Zeiler 1999. The ESRI Guide to GIS Analysis, vol. I. ESRI press.4-16.
10. Michael Zeiler, Modeling Our World: The ESRI Guide to Geodatabase Design. ESRI press.3-7.
11. Prabha Shastri Ranade, 2009. *Special Economic Zones: Global and Indian Experiences*, ISBN: 8131411559, Publ: ICFAI, 324pp.
12. Sabine Latteman, 2010. Development of an Environmental Impact Assessment and Decision Support System. 12-23.
13. Wood, C., 1995. Environmental Impact Assessment – A comparative Review. 1-337.