



MANGALORE UNIVERSITY
DEPARTMENT OF MARINE GEOLOGY
MSc GEOINFORMATICS

GIS 505: Applied Geoinformatics in urban & infrastructure development

Course Outcomes:

- CO1: The knowledge gained in the field of Geoinformatics can be effectively used to solve various earth related problems.
- CO2: Understand the various applications of RS and GIS in different sectors like Agriculture, Urbanization, Rural development etc.
- CO3: Explain the impacts of geospatial technologies on economic, social, institutional, and cultural practices locally and in the context of globalization.
- CO4: Explain how governments and private organizations collect geospatial information for various purposes (e.g., population census, analyses of consumer behaviour, agriculture census etc)

Unit 1	<p>Concepts- Urban, Urbanism, Urbanisation Regional Concept and Types</p> <p>Planning process, presentation and preparation</p> <p>Origin and Growth of Urbanisation in the World</p> <p>Urban Problems: Pollution, Slum, Housing, Social wellbeing</p>	08 hrs
Unit 2	<p>Globalisation, Regional spaces and Development</p> <p>Regional/Rural Development practices- India, Case Studies.</p> <p>Regional/Multilevel Planning and Vision 2020- case Studies.</p>	08 hrs
Unit 3	<p>Application of GIS,GPS and RS in Urban and Regional Planning</p> <p>Research Methods in Urban and Regional Studies</p>	08 hrs
Unit 4	<p>RS and GIS Applications for Agriculture and Rural Development</p> <p>Concept of Rural Development – Globalization and its impact on Agriculture and Rural Development Significance of agriculture – growth and development – types of agriculture Livestock (types of agriculture)</p>	08 hrs

Unit 5	<p>Use of RS and GIS technologies for Rural Development</p> <p>Use of RS and GIS for agriculture and watershed management</p> <p>Use of RS and GIS for Socio economic Information Analysis</p> <p>Agricultural Information System- Land Holdings – Irrigation, Land Use, Land Reforms</p>	08 hrs
Unit 6	<p>Application of RS and GIS in rural problem solving situation – Village Information System and planning.</p> <p>Planning in India – Development policies (Five Year Plans)</p> <p>Geo-informatics for Precision Farming- Importance and relevance to Indian Agriculture.</p>	08 hrs

References

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