COURSE CODE	GIE-475
COURSE NAME	GEOSPATIAL PROJECT MANAGEMENT
CREDIT HOURS	Theory: 02
	Practical: 00
	Total: 02
CONTACT HOURS	Theory: 32
	Practical: 00
	Total: 32
PREREQUISITE	Nil

MODE OF TEACHING:

Instruction: Two hours of lecture per week 100%

COURSE DESCRIPTION:

This course takes a systematic approach to explore the management issues and methods necessary for developing a successful geospatial project.

COURSE OBJECTIVES:

This course targets the development of skills and concepts related to the geodetic parameters behind any GIS project. This course would also remove some of the mystery surrounding the subject and to show its clear link to the other Geo-Science disciplines.

RELEVANT PROGRAM LEARNING OUTCOMES (PLOs):

The course is designed so that students achieve following PLOs:

1 Engin	Engineering Knowledge:	7	Environment and	
I	ingineening knowledge.	1	Sustainability:	
2	Problem Analysis:	8	Ethics:	
2	Design/Development of	0	Individual and Toom Work:	
3	Solutions:	9		
4	Investigation:	10	Communication:	\checkmark

5 Modern Tool Usage:☑11 Project Management:☑6 The Engineer and Society:□12 Lifelong Learning:□

COURSE LEARNING OUTCOMES (CLOs):

Upon successful completion of the course, students will be able to:

S.No	CLO	Domain	Taxonomy Level	PLO
	Understand managerial skills and			
1	techniques suitable for successful	Cognitive	2	11
	geospatial projects.			
2	Utilize project plans demonstrating			
	management knowledge of geospatial	Cognitive	3	5
	projects using planning software.			
3	Adopt managerial skills effectively to			
	communicate and manage project	Affective	3	10
	resources and cost			

PRACTICAL APPLICATIONS:

This course will enable student to understand the basics and modern geodesy along with map projections and their usage in surveying and Geoinformatics engineering through usage of modern tools and techniques.

TOPICS COVERED:

Theory:

Week	Topics
1	Introduction to Geospatial Program Development
2	Role of planning and management in developing a successful geospatial
	technology-based projects
3	Governance and Coordination

4	Role of planning and development, organizational structures, leadership		
4	and governance, and communications in successful geospatial projects		
E	Role of project leadership, team building, capacity building (including		
5	opportunities for geospatial certification)		
6-7	Multi-organizational agreements (i.e., collaborations) in contributing to		
0-7	successful geospatial programs		
8	The financial aspects, such as funding, financial management,		
0	monitoring, and reporting		
	Risk management that contributes to successful geospatial programs		
9	and the completion of projects on time and on budget		
10	Legal issues influence the geospatial sector		
11	Ethical issues influence the geospatial sector		
	Role of technical design (system configuration, data, applications) and		
12	the development/maintenance of these technical components in		
	contributing to successful geospatial programs		
40	Role of the operational environment in helping to shape and sustain		
15	successful geospatial programs		
14	Modern tools and technologies in practice for successful geospatial		
14	project management		
15	Current and emerging trends, including the consequences of choosing		
	proprietary vs. open-source software solutions		
16	Modern Case Studies		
17-18	ESE		

TEXT AND MATERIAL:

Textbook (s):

a. Croswell, Peter L. 2011. The GIS Management Handbook. Des Plaines, IL, Kessey Dewitt Publications in association with URISA

References Material:

- a. Obermeyer, Nancy J. and Pinto, Jeffrey K. 2008. Managing Geographic Information Systems (Second Edition). New York, The Gilford Press
- b. Tomlinson, Roger 2013. Thinking about GIS: Geographic Information System Planning for Managers (Fifth Edition). Redlands, CA, Esri Press
- c. Hanebuth, Austin Smith 2015. Applications in Geospatial Project Management Student Manual. Digital Quest Incorporated
- Harder, Ormsby, and Balstrøm 2013. Understanding GIS: An ArcGIS Project Workbook. Esri Press

ASSESMENT SYSTEM:

1. CLOs Assessment

Cognitive	Psychomotor	Affective
Spreadsheet	-	Rubrics

2. Relative Grading

Theoretical/Instruction		100%
	Assignments10%	
	Quizzes10%	
	Mid Exams30%	
	End Semester Exam50%	
Total		100%