ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ

University of Mysore
(Estd.1916)

Ph. D. in GEOGRAPHICAL INFORMATION SYSTEM

Programme Details

UNIVERSITY OF MYSORE

Centre for Geoinformatics Technology
Department of Studies in Geography
Manasagangotri, Mysuru-570006

Regulations and Syllabus

Ph. D. in GEOGRAPHICAL INFORMATION SYSTEM (GIS)

UNIVERSITY OF MYSORE

GUIDELINES AND REGULATIONS
LEADING TO

Ph.D. in GEOGRAPHICAL INFORMATION SYSTEM (GIS)

Programme Details

Name of the Center	:	Centre for Geoinformatics Technology
Name of the Department	:	Department of Studies in Geography
Subject	:	Geographical Information Systems (GIS)
Faculty	:	Science and Technology
Name of the Programme	:	Ph.D in Geographical Information System (GIS)
Duration of the Programme	:	Min. 3 years and Max. 5 years

Ph. D. Programme in Geographical Information System (GIS)

Programme Outcome

Based on the research methodology and review of literature in Ph.D. in GIS programme, the scholars gain the core competence in advanced technologies adopted in the programme. At, the end scholars are smart enough to fulfill the global requirements in tackling of geographical problems which is necessary for the sustainable development of the nation. Scholars gain the knowledge through review of literature and form a report about objectives, key method, methodology, workflows, and formation of chapters to bring the result in the form of thesis. The methods and methodology includes the advanced technologies like GIS, GPS, CAD, BIM, Remote Sensing, LiDAR, Photogrammetry, Drone Technologies, R Statistical Package, SPSS Packages to analyses the geographical data to bring the meaningful inference from the various data inputs and algorithms. Once the thesis been submitted and is reviewed by the external examiners. Once examined and accepted then open vivo voce is conducted in the presence of invited guests and doctoral degree been awarded to the scholar. Once, awarded the scholar can continue his/her studies through Post-Doctoral Programme or can employ in various research organisation based on the specialisation and some of them are;

1. Agricultural Department	25. Karnataka Forest Department
2. Agriculture	26. KSRSAC,
3. Archaeological Survey of India	27. KSUWS&DB, Mysore
4. BBMP	28. Mines and Geology
5. BBMP	29. NABARD
6. BMRCL	30. National and State Disaster Monitoring and Management Cells
7. BMRDA	
8. CADA	31. National Institute of Epidemiology
9. CGWB,	32. National Institute of Oceanography,
10. Corporation Offices	33. NBSS and LUP, Bangalore
11. Department of Mines and Geology	34. NIO
12. Fishery Department	35. NRDMS
13. Geological Survey of India	36. Planning Department
14. ICAR	37. Pollution Control Board
15. ICRISAT	38. Revenue Department
16. IIRS	39. SAC
17. IISc	40. Soil Survey of India
18. IIST	41. University of Agricultural Science, Dharwad
19. IIT	
20. INCOIS	42. Urban Development Authorities,
21. Indian Institute of Science	43. Urban Planning Authority
22. Indian Meteorological Department,	44. Utility Management Department
23. Irrigation Department	45. Water Supply unit
24. ISRO	46. Watershed Management Board

COURSE – I: ADVANCED RESEARCH METHODOLOGY

Course outcome

- Scholars takes the course work to meet the requirement of UGC norms.
- Scholars gains the concepts of research and research methodology.
- Scholars learns how to identify the key problems of research
- Scholars gains deep insight in research problem and creates objectives of research.
- Scholars acquires knowledge about the data requirement through review of literature to address the identified problem.

Pedagogy

Course work cum teaching aid is through the Power Point Presentation, Illustrated Charts and group discussion within the scholars to build a base block on research and research methodology. Scholars are encourages to adopt the GIS and Remote sensing concepts and tools to solve the research problems.

COURSE CONTENT

As per the Ph.D regulations of University of Mysore and UGC norms.

References:

1. **Research Methodology Methods and Techniques.** 2nd Edition, New Age International Publishers, New Delhi. - References - Scientific Research Publishing- Kothari, C.R. (2004)
2. **Research Design: Qualitative, Quantitative, and Mixed Methods Approaches** by John W. Creswell and J. David Creswell (2018)
3. **Research Methodology: A Step-by-Step Guide for Beginners** by Dr. Ranjit Kumar (2014)
4. **Applied Statistics for Environmental Science With R;** First Edition(2019)- Abbas F. M. Alkarkhi and Wasin A. A. Alqaraghuli,
5. **Data analysis and statistics for Geography, Environmental Science, and Engineering, First Edition(2013)-** Miguel F. Acevedo,
6. **Applied Spatial Data Analysis with R;** First Edition(2008)- Roger S. Bivand, Edzer J. Pebesma, Virgilio Gómez-Rubio
7. **Spatial Modeling in GIS and R for Earth and Environmental Sciences;** First Edition(2019) - Hamid Reza Pourghasemi, Candan Gokceoglu
8. **Using R and RStudio for Data Management, Statistical Analysis and Graphics;** First edition(2015)- Nicholas J. Horton, Ken Kleinman

COURSE – II: REVIEW OF LITERATURE

Course outcome

- Scholars tries to refer the various books, thesis, journals to identify the tools, techniques, methods of problem solving been used by previous scholars.
- Scholars summaries the literatures for specific problems and produces them in the form of reports.
- Scholars identifies the gaps in research based on the literatures to solve the problems

Pedagogy

Course work cum teaching aid is through the Power Point Presentation, Illustrated Charts, case studies though books, magazines, reports, thesis, and journals. Software to arrange the literatures, the formation, phrasing and narration of literature been taught to the scholars.

At, the end, Scholars prepares the research outcome in the form of thesis and learns how to prepare and publishes them in notable journals as an evidence of research.

COURSE CONTENT
As per the Ph.D regulations of University of Mysore and UGC norms.