

**ADD ON COURSE ON GEO-SPATIAL TECHNOLOGY AND ITS APPLICATION IN VARIOUS FIELDS.**

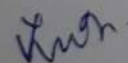
ORGANIZED BY: DEPARTMENT OF GEOGRAPHY,  
MANGALDAI COLLEGE

**DURATION: THREE MONTHS**  
25<sup>TH</sup> SEPTEMBER, 2022 TO 24<sup>TH</sup> DECEMBER, 2022

**SYLLABUS OF THE COURSE:**

<p><b><u>MODULE I</u></b> Concept of Geo-spatial Technology: Basics of Remote Sensing, Geographical Information System and Global Positioning System.</p>	<p><b><u>MODULE II</u></b> Concept of Remote Sensing, Principles of Remote Sensing, Components of Remote Sensing, Types of Remote Sensing, Satellite Remote Sensing, Sensors and platforms, visual and digital image processing</p>	<p><b><u>MODULE III</u></b> Introduction to GIS, Basic principles of GIS, Components of GIS, Concept of Data, GIS Data Types, Spatial data analysis, Digital Cartography and Fundamentals Global Positioning System. Open Source GIS.</p>
<p><b><u>MODULE IV</u></b> Concept of GPS, Components of GPS, GPS types, Working principle of GPS.</p>	<p><b><u>MODULE V: Practical</u></b> Geo-referencing, Radiometric corrections, Spectral and spatial enhancement of satellite image, Supervised and unsupervised classification, Accuracy assessment.</p>	<p><b><u>MODULE VI: Practical</u></b> Digital cartography; GIS data types: raster and vector preparation; Digitization of vector data; Attribute editing, Map composition. Global Positioning System: Use of handheld GPS, GPS data collection and processing.</p>
<p><b><u>MODULE VII</u></b> Application of Geo-spatial Technology in various fields.</p> <ul style="list-style-type: none"> <li>• Forest Management</li> <li>• Biodiversity Conservation.</li> <li>• Land use planning.</li> <li>• Wildlife habitat management and conservation</li> <li>• Urban environmental management.</li> <li>• Landscape ecological studies, etc.</li> </ul>	<p><b>STUDENTS WILL GET EXPOSURE TO REMOTE SENSING AND GIS SOFTWARES.</b></p> <ul style="list-style-type: none"> <li>• QGIS</li> <li>• ERDAS</li> <li>• ILWIS</li> <li>• ARC GIS</li> <li>• GOOGLE EARTH PRO</li> <li>• EASY GPS</li> <li>• GPS ESSENTIAL</li> <li>• DNR GARMIN</li> </ul>	

**COURSE FEES: Rs. 300/- (THREE HUNDRED ONLY) FOR MANGALDAI COLLEGE STUDENTS**

  
 Head of the Dept  
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