Nagar Yuwak Shikshan Sanstha's
Yeshwantrao Chavan College of Engineering
(An Empowered Autonomous Institution affiliated to Rashtrasant Tukadoji Maharaj Nagpur University)
Hingna Road, Wanadongri, Nagpur - 441 110
NAAC A++
Ph.: 07104-237919, 234623, 329249, 329250 Fax: 07104-232376, Website: www.ycce.edu

Department of Computer Science & Engineering (IOT)

Vision of the Department

To be a well-known centre for pursuing computer education through innovative pedagogy, value-based education and industry collaboration.

Mission of the Department

To establish learning ambience for ushering in computer engineering professionals in core and multidisciplinary area by developing Problem-solving skills through emerging technologies.

Session 2025-2026

Vision: Dream of where you want.	**Mission:** Means to achieve Vision

Program Educational Objectives of the program (PEO): (broad statements that describe the professional and career accomplishments)

PEO1	**Preparation**	**P: Preparation**	**Pep-CL abbreviation pronounce as Pep-si-lL easy to recall**
PEO2	**Core Competence**	**E: Environment (Learning Environment)**	
PEO3	**Breadth**	**P: Professionalism**	
PEO4	**Professionalism**	**C: Core Competence**	
PEO5	**Learning Environment**	**L: Breadth (Learning in diverse areas)**	

Program Outcomes (PO): (statements that describe what a student should be able to do and know by the end of a program)

Keywords of POs:
Engineering knowledge, Problem analysis, Design/development of solutions, Conduct Investigations of Complex Problems, Engineering Tool Usage, The Engineer and The World, Ethics, Individual and Collaborative Team work, Communication, Project Management and Finance, Life-Long Learning

PSO Keywords: Cutting edge technologies, Research

"I am an engineer, and I know how to apply engineering knowledge to investigate, analyse and design solutions to complex problems using tools for entire world following all ethics in a collaborative way with proper management skills throughout my life." *to contribute to the development of cutting-edge technologies and Research*.

Integrity: I will adhere to the Laboratory Code of Conduct and ethics in its entirety.

Name and Signature of Student and Date
Bhushan Tayade
02-09-2025

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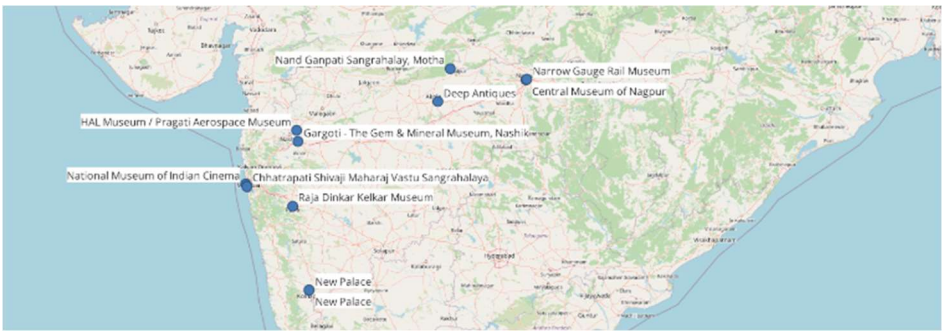
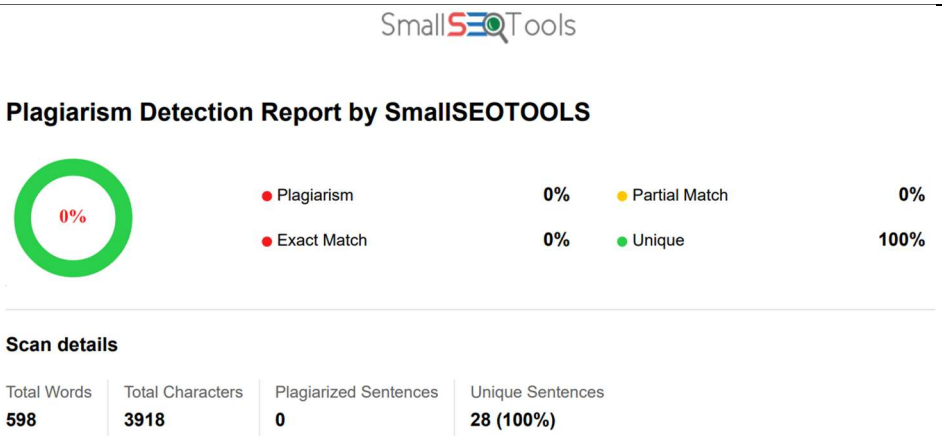
Session	**2025-26 (ODD)**	**Course Name**	**PE-I - Geo-Intelligence for Smart IoT Devices Lab**
Semester	**5**	**Course Code**	**23IOT1523**
Roll No	**035**	**Name of Student**	**Bhushan V. Tayade**

Practical Number	5
Course Outcome	Apply and demonstrate the use of proprietary and open-source GIS tools (e.g., QGIS) for creating, visualizing, and managing spatial datasets.
Aim	Collect real time coordinates (5–10 points) using Google Earth and import into QGIS.
Problem Definition	Collect any real time coordinates (5–10 points) based on theme of your choice using Google Earth and import into QGIS.
Theory (100 words)	List of the top 10 museums in Maharashtra: The top ten museums of Maharashtra reflect the state's deep cultural roots and historical evolution across different regions: 1. Chhatrapati Shivaji Maharaj Vastu Sangrahalaya, Mumbai • Established in 1922, it stands near the Gateway of India and represents India's ancient art and colonial past. 2. Dr. Bhau Daji Lad Museum, Mumbai • The city's oldest museum, founded in 1855, showcasing Mumbai's cultural and industrial heritage. 3. Raja Dinkar Kelkar Museum, Pune • Created by Dr. D.G. Kelkar, it preserves artifacts from the 18th and 19th centuries. 4. Pune Tribal Museum, Pune • Dedicated to Maharashtra's tribal communities, highlighting their rural lifestyle and traditions.

	5. Nagpur Central Museum, Nagpur • Also called Ajab Bangla, built in 1863, featuring regional archaeology and fossils. 6. Gargoti Mineral Museum, Sinnar • A unique museum near Nashik, housing India's finest natural mineral specimens. 7. Cavalry Tank Museum, Ahmednagar • Asia's only tank museum, exhibiting war tanks used during major historical battles. 8. Banjara Virasat Museum, Washim • Celebrates the nomadic Banjara tribe's rich history, art, and craftsmanship. 9. Mahatma Phule Museum, Pune • Established in 1890, it documents India's early progress in science and industry. 10. Museums in Aurangabad • Including the Chhatrapati Shivaji Maharaj Museum, highlighting Maratha and Mughal heritage of the region.
Procedure and Execution (100 Words)	Implementation Steps: Steps to Get the Data 1. Open Google Earth: Launch Google Earth on your computer to begin the process of collecting location data. 2. Create and Save a Project: Identify the locations (e.g., top museums of Maharashtra) and mark them using the Placemark tool. Add each point to your project for easy organization. 3. Export the Project as a KML File: Once all locations are marked, save or export the project in KML format, which stores the coordinates and place names. 4. Open QGIS: Launch QGIS software on your system to visualize and analyze the collected data.

	5. Add the OpenStreetMap Layer: Go to the Browser Panel in QGIS and load the OpenStreetMap (OSM) base map to provide background geographic context. 6. Import the Vector Data: Use the Add Vector Layer option to import the saved KML file into QGIS. 7. View the Data on the Map: The imported coordinates will now appear as point features on the OpenStreetMap layer, displaying the exact locations of the selected sites.
	Stepwise Screenshots with steps: 
Output Analysis	A total of five to ten location points representing the selected theme (top museums of Maharashtra) were collected using Google Earth and saved in KML format. The file was then successfully imported into QGIS, where each coordinate point appeared accurately on the map canvas over the OpenStreetMap base layer. The data was further refined and customized by assigning suitable symbols, labels, and colors to enhance visualization. Using QGIS tools, spatial relationships and distances between different museums were analyzed to understand their geographic distribution across the state. The finalized map layout was then saved and exported for use in presentations, academic documentation, or regional planning purposes, demonstrating the effective integration of Google Earth and QGIS for real-world spatial mapping.
Link of student GitHub profile where lab assignment has been uploaded	"https://github.com/Bhushan-Tayade/YCCN-23071391.git"

Conclusion	The task of collecting real-time coordinates from Google Earth and importing them into QGIS was successfully performed. A set of five to ten location points was accurately marked, saved as a KML file, and seamlessly integrated into the QGIS environment. The imported data was visualized on a base map, symbolized, and labeled appropriately to represent the selected locations clearly. This practical demonstrated the effective use of Google Earth for data collection and QGIS for spatial visualization and analysis, highlighting how both tools can be combined for real-world mapping, geographic interpretation, and presentation purposes.
Plag Report (Similarity index <= 12%)	
Date	02-09-2025