**A PROJECT REPORT**

**ON**

**“**VOICE ENABLED USER INTERFACE FOR GEOSPATIAL MAP BASED WEB-APPLICATIONS**”**

**Submitted To**

### Shivaji University, Kolhapur

**In Partial Fulfillment of Bachelor of Technology in (Computer Science & Engineering)**

**Submitted By**

## Name of Students

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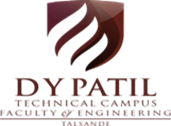
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**Under the Guidance of**

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### Computer Science & Engineering D.Y.Patil Technical Campus, Talsande, Kolhapur.

**2024-2025**



### Department of Computer Science & Engineering

*CERTIFICATE*

#### This is to certify that undersigned students of B.Tech. in (Computer Science & Engineering) has satisfactory completed Project work entitled **“**Voice enabled user interface for geospatial map based web-applications” towards the partial fulfillment of Bachelor of Technology in (Computer Science & Engineering) course as per the rules laid down by Shivaji University, Kolhapur, for year 2024 - 2025. This report represents the bonafied work carried out by the students.

**Guide HOD**

(Mr. U.A.Patil) (Mr. U.A.Patil)

**External Examiner Director**

**(** ) (Dr. S. R. Pawaskar)

# DECLARATION BY STUDENT

We hereby certify that the work which is being presented in the thesis entitled **“Voice enabled user interface for geospatial map based web-applications”** in partial fulfillment of requirements for the award of degree B.Tech. in (Computer Science & Engineering), Submitted in the Department of Computer Science & Engineering, D. Y. Patil Technical Campus Talsande, Kolhapur, Maharashtra; is an authenticate record of our own work carried out during period from 2024 to 2025 under the supervision of Ms. M.A.Patil.

The matter presented in this thesis has not been submitted in any other University/Institute for the award of B.Tech. degree.

**Place: Talsande Date:**

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4) Desai Hrutuja Sambhaji

# ACKNOWLEDGMENT

For a strong tree a strong root is a prime requirement. Similarly, for any project to be a great success a good guidance is required. We would like to express our deep gratitude towards our Guide & Head of the Department **Mr. U.A.Patil** for his valuable guidance and constant motivation.

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**ABSTRACT**

This work presents the first steps toward developing specific technology for voice user interfaces for geographic information systems. Despite having many general elements, such as voice recognition libraries, the current technology still lacks the ability to fully understand and process the semantics that real users apply to command geographic information systems. This paper presents the results of three connected experiments, following a mixed-methods approach. The first experiment focused on identifying the most common words used when working with maps in a web browser.

The second experiment developed an understanding of the chain of commands used for map management for a specific objective. Finally, the third experiment involved the development of a prototype to validate this understanding. Using data and fieldwork, we created a minimum corpus of terms in Spanish. In addition, we identified the particularities of use and user profiles to consider in a voice user interface for geographic information systems, involving the user’s proprioception concerning the world and technology.

These user profiles can be considered in future designs of human–technology interaction products. All the data collected and the source code of the prototype are provided as additional material, free to use and modify.

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