# **Research Proposal**

### **Proposed Title**

**Local Problem Solver: A Web-Based Application for Community Issue Reporting and Resolution**

### **Introduction / Background**

Communities often face small but impactful problems such as broken streetlights, uncollected trash, potholes, or lack of communication about local events. These issues frequently go unreported or unresolved due to a lack of proper reporting mechanisms and coordination between residents, volunteers, and local authorities.  
 The increasing accessibility of web technologies provides an opportunity to create digital platforms that empower communities to report issues, track their resolution, and engage in local problem-solving.

### **Problem Statement**

There is currently no unified platform in many local communities where residents can easily report civic issues and ensure accountability in their resolution. Without such a system, small problems accumulate into larger ones, reducing quality of life and community trust in governance.

### **Objectives**

1. To design and develop a **website** where residents can post local community problems.
2. To implement a **map-based interface** for accurate geolocation of issues.
3. To provide **status tracking** for each reported issue (Pending, In Progress, Resolved).
4. To allow **community voting** on reported problems to help prioritize them.
5. To create an **admin/authority dashboard** for local bodies or volunteers to track and address issues.

### **Methodology**

* **Frontend Development:** React.js with Tailwind CSS for a responsive user interface.
* **Backend Development:** Node.js with Express.js for RESTful API services.
* **Database:** MongoDB for storing user data, issue reports, and status updates.
* **Authentication:** JWT-based authentication for secure user login and role-based access (residents, volunteers, authorities).
* **Mapping Feature:** Integration of Google Maps API or Leaflet.js to allow map-based issue reporting.
* **Deployment:** Application hosted on cloud platforms such as Render, Heroku, or AWS.

### **Expected Outcomes**

* A functional **web application** that allows residents to report, track, and prioritize community issues.
* Enhanced **civic engagement** through voting and transparent progress tracking.
* A platform that **empowers local authorities** and volunteers to resolve issues more efficiently.
* Improvement in **community living standards** through collective problem-solving.

### **Significance of Study**

This project will bridge the communication gap between citizens and authorities, foster civic responsibility, and provide an innovative digital solution to everyday problems. By implementing a practical and scalable system, it can serve as a model for smart community management.

### **References (Sample)**

* Wimmer, M., & Scholl, H. (2020). *Smart Governance and Civic Engagement in the Digital Age.* Springer.
* United Nations E-Government Survey (2022). *Digital Government in the Decade of Action for Sustainable Development.*