# Project Charter

**Project Title**: Research and Application of Urban Land Use Change Detection in the Yangtze River Delta Based on Spatiotemporal Fusion of Multi-Source Remote Sensing Data  
**Date of Authorization**: March 8, 2025  
**Project Start Date**: March 24, 2025  
**Projected Finish Date:** June 15, 2025

**Key Schedule Milestones:**

Complete data collection and integration by June 1, 2025

Develop initial machine learning models for urban livability assessment by September 1, 2025

Complete final version of decision support system and visualization tools by December 31, 2025

**Budget Information:**

May need to use a server and LLM API, which costs less than 100￥

**Project Manager:**

Peng Zhixin, (86) 15882009823, 914489891@qq.com

**Project Objectives:**

The project aims to develop an advanced urban land use change detection and livability assessment system by integrating multi-source remote sensing and social media data. Using machine learning techniques,the system will provide policymakers with data-driven insights for urban planning and environmental sustainability.

**Main Project Success Criteria:**

* The system must integrate and analyze multiple data sources effectively.
* The machine learning models should achieve high accuracy (>80%) in urban livability assessment.
* Decision-support tools should be user-friendly and provide actionable insights for city managers.
* The project must be completed within the allocated budget and timeline.

**Approach:**

1. Develop a clear work breakdown structure and detailed Gantt chart within the first month.
2. Secure necessary data source and acquire datasets within two months.
3. Conduct iterative testing and validation of machine learning models.
4. Hold bi-weekly progress review meetings with the project team and stakeholders.
5. Conduct extensive testing and refinement before final deployment.

**Roles and Responsibilities:**

| **Name** | **Role** | **Position** | **Contact Information** |
| --- | --- | --- | --- |
| Zhu Hongming | Sponsor | Director | [zhu\_hongming@t](mailto:zhuhm@urbananalysis.com)ongji.edu.cn |
| Peng Zhixin | Project Manager | Manager | 914489891@qq.com |
| Xu Yangyang | Team Member | Programmer | 2784892686@qq.com |
| Liu Yang | Team Member | Programmer | 2253407@[t](mailto:zhuhm@urbananalysis.com)ongji.edu.cn |
| Wu Honglin | Team Member | Programmer | 2253542@tongji.edu.cn |

**Sign-off:**

Zhu Hongming  
Peng Zhixin  
Xu Yangyang  
Liu Yang  
Wu Honglin

**Comments:**

"This project is vital for understanding urban development patterns and improving policy decisions. I expect full commitment from the team." — Zhu Hongming

"The initial test results are promising, and I am confident we can meet our objectives." — Peng Zhixin