Digital BharatInch: a Reliable, Robust and Cost-Effective Positioning Solution

Breif Background

The Digital India Land Records Modernization Programme necessitates a precise and efficient land surveying system to support critical sectors like urban planning, agriculture, and infrastructure development. The current systems are inadequate, leading to delays and inaccuracies in important projects. Hence, there is a necessity of precise positioning system for surveying and navigation.

Application Sectors

- Agriculture,
- Defence,
- Urban planning,
- Smart Cities,
- Mining

TRL  **4**

Tech/Prod. Summary

Digital BharatInch is an innovative technolgy aligns with India's land record modernization, aimed at ensuring a precise positioning for surveying and navigation. This is a combinational technology of uses the GPS and Real-Time Kinematics (RTK).

Tech/ Product Description

Digital BharatInch is a software platform uses an RTK system and GPS at centimeter level accuracy for precise positioning which is the major requirement fo rseveral applications. RTK is a satellite navigation technique that enhances GPS accuracy to centimeter level by using a fixed base station and a moving rover. The base station provides real-time correction data to the rover, eliminating signal errors from satellites and ensuring precise positioning for surveying and navigation.

Market Potential

High-precision RTK-based PNT market: $0.9 Billion → $10.2 Billion by 2035 (28.2% CAGR). RTK Machine market: Reach $10 Billion by 2033,

Impact - SDG:

SDG 11: Sustainable Cities and Communities
SDG 13: Climate Action

Value Proposition

1. A universal open source platform for inch-level accuracy
2. Extended range support as compared to the existing RTK based systems
3. Easy integration suite .