

# **NALAIYA THIRAN**

**Project Title:** Smart Solutions for Railways

Team ID: PNT2022TMID16062

Team Size: 4

Team Leader: Kotti Sai Sri Harsha

Team member: Koushik Pulivarthi

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Team member: Karna Govardan Manikanta Reddy

Category: Internet of Things

**Skills Required:** Python, IBM Cloud, Node- RED, IBM IoT Platform, MIT App Inventor, IBM Cloudant DB

## **LITERATURE SURVEY**

1. <https://www.researchgate.net/publication/333344979> QR code based Railway e-Ticket
2. <https://www.ukessays.com/essays/engineering/gpsgsm-based-rail-signaling-tracking-5494.php>

**Problem Statement:**

1. People wait for long duration at the ticketing queues to purchase a train ticket
2. Ticket collector goes through different documents to verify the ticket of an individual, this could be a time-consuming process.
3. People are unaware of the train running status, if they were early or missed it.

**Solution:**

1. A Web page is designed for the public where they can book tickets by seeing the available seats. After booking the train, the person will get a QR code which has to be shown to the Ticket Collector while boarding the train.
1. The ticket collectors can scan the QR code to identify the personal details.
2. A GPS module is present in the train to track it. The live status of the journey is updated in the Web app continuously making it easier for people to locate it