PROBLEM STATEMENT

TEAM ID	PNT2022TMID15698
PROJECT NAME	Smart waste management system for metropolitan cities

A growing population and economy, which means increased volumes of waste is generated. This puts pressure on waste management facilities, which are already in short supply.Hence IOT Based smart net bins can be used to overcome this problem.

Garbage Management and Collection in Cities, Town and Villages is a major concern and emerging problem in Smart City paradigm. Also lack of proper resource distribution in the process of Garbage collection is great risk to sanitation, cleanliness and health. Theme: Internet of Things Technologies: LoRa, Smart Mesh, RF, WiFi.

In today's world there is no proper management and control system for proper garbage collection. Humans have a tendency to avoid their duty. People in the societies use to throw garbage in filled garbage containers and garbage authorities also do not collect the garbage timely. Hence it leads to various types of pollution and many serious health issues.

The current process of waste management starts with the waste being created by people in the cities and disposed in trash bins near its creation point. The disposed trash is collected by municipality or private company trucks at the predefined times and transferred to temporary collection centers. The trash at the collection centers is then sent for recycling.

This process in current city setting solves the waste problem partially while it creates other problems such as;

Some trash bins are overfilled while others are underfilled by the trash collection time, overfilled trash bins create unhygienic conditions,
unoptimized truck routes result in excessive fuel usage and environmental pollution and
all collected trash is combined which complicates sorting at the recycling facility.
Some of these problems can be mitigated by implementing smart waste management systems.