**Identification:**

Our group had the opportunity to work on highly innovative domain which is proposed by a company that has a goal of smoothly integrate new technologies and allow the development of new services, optimize the resources (especially energy) for the facilities. To make it smart the facility should communicate by means of sensors and actuators in each relevant corner.

**Problem formulation:**

one of the problems with the current practices in the various domains of facility management is that each facility is managed by its stakeholder in isolation from the management of other similar facilities. However, with the advent of new technologies such as cloud computing and IoT, we have an opportunity to unify the management of multiple geographically dispersed facilities.

And make maintainers’ work efficient with the fast developing new technologies such as the internet of things, and cloud computing that is characterized by its high computing power, cheap cost of services, high performance, scalability, accessibility as well as availability, to process large number of data which is known nowadays as Big Data.

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