**INTRODUCTION AND BACKGROUND STUDY SMART HOME SYSTEM**

Ubiquitous nature of communication technologies like Wi-Fi, 4G and more recently 5G ,coupled with advancements in fields like IOT and Machine Learning, have garnered significant interest in commercializing Smart Home solutions. It generally refers to an interconnected network of some smart home devices installed within a home that enables users to automate most of their day to day mundane or otherwise time consuming household activities.

Based on our background study in this domain we could realise that there is no single solution that suits the needs of every home and its residents in general. We therefore came up with a small set of questions attached below to better understand the needs of our end users. The questionnaire was prepared keeping in mind the provided project description by the solution owners, which primarily focussed on 6 dimensions: **Accessibility (highly desired)**, **Environmental considerations**, **Energy Efficiency**, **Security**, **Media/Entertainment** and **Automation** of routine tasks [1].

The questionnaire was designed to be as unbiased as possible by providing some commonly accepted choice of technologies used in smart home solutions and at the same time providing end users a freedom to specify any out of the box technology of their preference. Questionnaire helped us in gaining better insights on the living lifestyle of our end users and thereby provide a solution which aligns well with their needs.

While keeping our focus on the above mentioned 6 dimensions we attempted to factor out the commonalities among various existing smart home solutions in the market and come up with following set of basic needs and technologies in each dimension:

**Accessibility: with references**

**Environmental considerations: with references**

**Energy Efficiency: with references**

**Security: with references**

**Media/Entertainment: with references**