SMART HOME AUTOMATION APPLIANCE

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WHY WE HAVE CHOOSEN THE SMART HOME AUTOMATION :

Home is a safe haven and confort zone to live freely and joyfully with our family. A place where we can truly just be ourself. What if this normal unsecured and unsafe home become like a smart home fully technology with high secure and safe protection completely environmentally friendly and freely.

Having smart tech in the house makes life easier and simple because normally smart home is like provides homeowners security ,protection,remainders,energy efficitency on corntrolling with remote or mobile phone,network devices.

Having a lot of the changes in the technology this is the best way to ensure the safety in the home. This technology is used to make all electronic devices to act smart and perfectly

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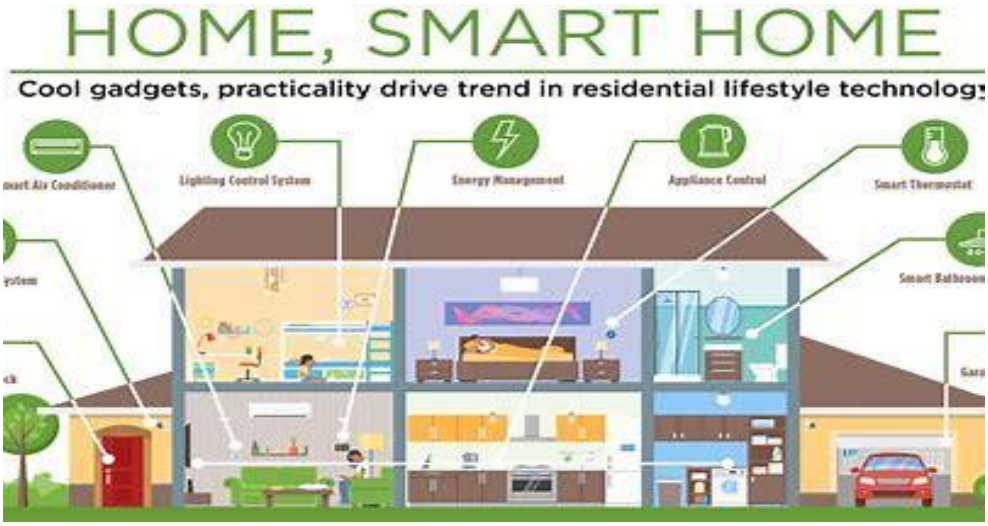
INTRODUCTION:

A smart home enhanced user life quality with their security, living in a comfortable atmosphere, and helps to manage lighting, temperature, entertainments are remotely controlled from different location via the internet or the smartphone. It is convenient, intelligent, and easy to use. As smart homes are connected through network whereby most of the appliances is wireless when setting up a smart home system.

Smart home is a collaboration of the technology and services through a network for the better quality living



having a lot of electrical devices and smart automatic features devices make the complete meaning of the smart home like smart lock,auto bulb,smart function ect.

It is one of the special practicality drive trend in residential lifestyle technology

WHAT IS A SMART HOME AUTOMATION?

A smart home means your home has a smart that connects with your appliances to automate specific task and its typically remotely controlled. you can use a smart home system to program your sprinklers,set and monitor your home security system and cameras,or control apploances like your resfrigerator or air conditioning and heating

HOW SMART HOME WORKS

A smart home's devices are connected with each other and can be accessed through one central point—a smartphone, tablet, laptop, or game console. Door locks, televisions, thermostats, home monitors, cameras, lights, and even appliances such as the refrigerator can be controlled through one home automation system. The system is installed on a mobile or other networked device, and the user can create time schedules for certain changes to take effect.

Smart home appliances come with self-learning skills so they can learn the homeowner's schedules and make adjustments as needed. Smart homes enabled with lighting control allow homeowners to reduce electricity use and benefit from energy-related cost savings. Some home automation systems alert the homeowner if any motion is detected in the home when they're away, while others can call the authorities—police or the fire department—in case of imminent situations.

SMART HOME SYSTEM

Smart homes can feature either wireless or hardwired systems—or both. Wireless systems are easier to install. Putting in a wireless home automation system with features such as smart lighting, climate control, and security can cost several thousand dollars, making it very cost-friendly.

There is a drawback—it's fairly expensive. Installing a luxury and hardwired smart system can cost homeowners tens of thousands of dollars. In addition, you must have space for network hardware equipment including ethernet cables

APPLIANCES IN SMART HOME:

➢ SMART LIGHT BULBS:

Often with the use of a mobile phone, table, or custom remote specific to a product, lighting products now enhance the capabilities of homeowners. Lights can be switched on and off, placed on a schedule, or set to change based on sunrise or sunset times. Like some more traditional products, lights can often set to change based on motion. Smart bulbs can communicate over Wi-Fi and display statistics or metrics to your phone.

This lighting category may also contain smart home products that control or prevent light. Automatic blinds may be installed and set to close based on sunrise schedules. Alternatively, electronic curtains allow users to manage their blinds using a handheld device.

➢ SMART LOCK:

A **smart lock** is an electromechanical lock that is designed to perform locking and unlocking operations on a door when it receives when it receives a prompt via an electronic keypad, biometric sensor, access card, Bluetooth, or Wi-FI from a registered mobile device. These locks are called smart locks because they use advanced technology and Internet communication to enable easier access for users and enhanced security from intruders. The main components of a smart lock include the physical lock, the key (which can be electronic, digitally encrypted, or a virtual key to provide keyless entry), a secure Bluetooth or Wi-Fi connection, and a management mobile app. Smart locks may also monitor access and send alerts in response to the different events it monitors as well as other critical events related to the status of the device. Smart locks can be considered part of a smart home.

Electronic Keypad Lock

➢ SMART LOCK:

Smart home security cameras are inexpensive and can come in quite handy if you want a convenient security solution at home. These are tiny cameras that can be placed anywhere but offer a wide 360-degree view of your surroundings. The best smart home security cameras feature Full HD video recording, night vision, built-in alarms, and motion detection. You can also keep a check on your house when you're outdoors which makes these devices quite helpful and also helpful to maintain or record the area through safety purpose.

➢ SECURITY:

One of the most reasonable aspects of a smart home is the enhanced security capabilities. Many products now have camera capabilities that track motion, capture video, or allow for live video feeds. This may be installed to sync with a ringing doorbell or set to display on certain areas of your property. These videos may allow for video-calling with the individual at your door, including audio capabilities.

Many smart homes are also refit with modern security kits. This includes motion sensor detectors when individuals should not be home, home monitoring, notifications and alerts of suspicious behavior, and the ability to lock doors or windows remotely using a phone.

SATETY SENSOR(8):

1.FIRE/CO DETECTION:

Fire is far and away the number one cause of property damage. through that it can easily ensure the safe and accident technically

2.WINDOW&DOOR OPEN AND CLOSE SENSOR:

Door and window sensors let you know when people are entering and leaving your house and can even turn lights on and off as doors are opened and closed.

3.VIDEO DOORBELL:

The video doorbell is also a theft deterrent sensor. This cool device allows you to see who is at your door from your smart phone.

4.MOTION SENSORS:

A motion sensor does what you think it does – it detects motion and movement in an area.

➢ CLEANING ROBOT:

Smart Home Vacuum Cleaner

A **robotic vacuum cleaner**, sometimes called a **robovac** or a **roomba** as a generic trademark, is an autonomous robotic vacuum cleaner which has a limited vacuum floor cleaning system combined with sensors and robotic drives with programmable controllers and cleaning routines. Early designs included manual operation via remote control and a "self-drive" mode which allowed the machine to clean autonomously without human control. Some designs use spinning brushes to reach tight corners, and some include a number of cleaning features along with the vacuuming feature (mopping, UV sterilization, etc.).More recent models use artificial intelligence and deep learning for better mapping, object identification and event-based cleaning.

➢ SINGLE CUE/SHUTTER:

A **sensory cue** is a statistic or signal that can be extracted from the sensory input by a perceiver, that indicates the state of some property of the world that the perceiver is interested in perceiving.

A cue is some organization of the data present in the signal which allows for meaningful extrapolation. For example, sensory cues include visual cues, auditory cues, haptic cues, olfactory cues and environmental cues. Sensory cues are a fundamental part of theories of perception, especially theories of appearance (how things look).

❖ADVANTAGES:

1. Easy&Interconnectivity
2. Remote Monitoring & Check-In
3. Customizedpreference& Settings
4. Incresed Safety&Real-Time Surveillance
5. Engergy & Utilities Management
6. Leak Detection & Sensors
7. Video Analytics Technologies
8. Appliance Safety & Automatic Shutoffs

CASE STUDY:

When I am on my way back home after the office**,** I want to switch on the AC with my smartphone, so that the room temperature is already stable before I enter the room.

• When I am using washing machine on weekends**,** I want my washing machine to send me a prior notification on my phone about any damage(if at all), So that I can connect to the LG store for any assistant or get any handy tips to fix it on my own.

• when I forget to change batteries of fire alarm**,** I want a reminder on my phone, so that it can work in case of emergency

CONCLUSION:

Without a doubt, home automation can significantly improve our quality of life and make our homes safer places.

The cost could still be a barrier to entry for most Indian middle-class families. The wider adoption of the tech leading to economies of scale would reduce this barrier further. eGlu has devised affordable packages for the home user to onboard the smart home experience.

The other dependability is a strong home wi-fi network. You need to have a good broadband connection in your home to fully utilize the smart home IoT life.

THANK YOU