# VIDEO SCRIPT

Dhanush : Good Morning everyone. We are team Connected Living Spaces. I am Dhanush.

Chirag : I’m Chirag

Sudheer : And I’m Sudheer

Dhanush : Our project has been guided and mentored by Prof H B Prasad and Assistant Prof BR Charanraj.We thank them for giving us a chance and in guiding and mentoring us.Our project encompasses a lot of domains but its primary domain is Cyber Physical Systems and Internet Of Things.We initially started it out as just an automatic smart access control system but we found that we could expand it to many other modules and that’s how our project transformed from an access control system to “Connected Living Spaces”.Whenever we speak about smart homes we often think about scenes in movies or videos of houses of billionaires where the user controls his house through his phone or voice .We often think that they buy “smart devices” more often it’s true,our intent is to widen that aspect and our aim is to make existing infrastructure smart.We focus on making existing things smart instead of creating smart devices.

Our project mainly consists of 8 modules-

Access Control System

Facial Recognition

Mood Detection

Automatic cooling system and temperature monitoring

Water Leakage Detection System

Gas Leakage Detection System

Lighting Control

Voice Based Control

Dhanush : Speaking of access control system we have developed a webapp which can be accessed through any device connected to the wifi like a mobile phone or a laptop or a computer and they can control access to various rooms which are representated as switches on the UI and can be toggled on and off.We have state of the art electromagnetic door locks and a robust software infrastructure to handle any number of users handling any number of doors.We can also view data regarding the number of times a particular door was locked and unlocked and the time it was locked and unlocked.We have also implemented this in the IoT lab in 11th Floor,B Block and in G-04 in B Block and has been running successfully for almost 2 months.

Chirag : Then we have the facial recognition module which can be used with the developed access control system or can be used separately as an additional layer of security. It detects the person’s face and lets the person in if he’s authorized or else it recognizes him/her as an intruder. A webcam is positioned and the user has to look at it from a close distance and the system welcomes him if he/she is an authorized user.The system has been tested on 5 different people with different clothes,different lighting conditions and has a superior success rate.

Chirag : The next are mood detection and Automatic cooling system with temperature monitoring.In mood detection we are detecting the mood of the user from their spotify accounts. The music a person listens to often tells us about the mood and the personality of the person. Spotify is one of the largest music streaming companies and almost everyone uses spotify to listen to music ,so we detect the mood using the songs the user has listened to previously and based on that we create a new playlist suitable for his current mood and add it to his library.In automatic cooling system with temperature monitoring we have divided the room to 4 zones and each zone has a temperature sensor ,temperature isbeing monitored continuously,the user is able to view the temperatures on the UI .When the temperature increases above the threshold the fans are switched on and as the temperature increases the speed of fans also increase to lower the overall room temperature and to bring it to ideal levels.The next is water leakage detection ,in it 2 water sensors are placed at different points in the water tank.One is at 30% of height of tank and the other is at 90% .Water starts getting pumped when the reading on sensor 1 is less than the threshold value and it stops when reading on sensor 2 is more than or equal to the threshold value.With this there would be no leakage and wastage of water whatsoever.

Dhanush : Speak about voice recognition and gas leakage detection

Sudheer : In conclusion the users are able to control access with the access control system,face recognition system and the voice commands with minimum delay,they can also access the data such as the number of times a door was locked and unlocked and the time the door was locked and unlocked.The users are also able to benefit from curated playlists by the mood detection system.The water leakage system and gas leakage system makes the lives more simpler and safe.The automatic cooling system continuously monitors the temperature and keeps the room cool everytime.Some of the enhancements which could be incorporated include building a RFID interface to register individual students,creation of a biometric security system for additional security ,marking the attendance of students with data from the biometric system,user registration can be made simpler by linking them to popular logins such as google .