**Embedded Systems major Projects for ECE (electronics and communication engineering) students**

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| 1 | Drowsiness Detection System using Eye Aspect Ratio Technique |
| 2 | Energy-efficient Face Recognition Authentication System Using Human Detection IoT Modules |
| 3 | Smart Agriculture Using Internet of Things with Raspberry Pi |
| 4 | Real-Time Smart Home Surveillance System of Based on Raspberry Pi |
| 5 | Real Time Application of Vehicle Anti-Theft Detection and Protection with Shock Using Facial Recognition and IoT Notification |
| 6 | Development of a Hand held device for Automatic License Plate Recognition |
| 7 | Smart Attendance System using QR Code |
| 8 | Raspberry Pi Based Smart Wearable Device for Women Safety using GPS and GSM Technology |
| 9 | Security Experiences in IoT based applications for Building and Factory Automation |
| 10 | Design and implementation of an embedded system for data transfer in a car using CAN protocol |
| 11 | An Efficient Car Parking Management System using raspberry-pi |
| 12 | Internet of Things (IoT) for Bank Locker Security System |
| 13 | Design of Raspberry Pi Web-based Energy Monitoring System for Residential Electricity Consumption |
| 14 | A Design of Intelligent Wearable Health Monitoring System Based on IoT |
| 15 | Statistical Time-based Intrusion Detection in Embedded Systems |
| 16 | IoT Assisted MQTT for segregation and monitoring of waste for smart cities |
| 17 | Real-time video monitoring of vehicular traffic and adaptive signal change using Raspberry Pi |
| 18 | Traffic Management by Monitoring Weather Parameters and Pollutants Remotely using Raspberry Pi |
| 19 | Secure Home Entry Using Raspberry Pi with Notification via Telegram |
| 20 | Low-Cost Industrial Controller based on the Raspberry Pi Platform |
| 21 | Design and Implementation of IoT based Energy Management System with Data Acquisition |
| 22 | Prototype Of Aquaculture Using Iot Technologies |
| 23 | Road Sign Recognition System for Autonomous Vehicle using Raspberry Pi |
| 24 | Design and Development of a Vehicle Safety Detection and Alarm System |

Work in small groups (3 or 4). Choose two of the following points and develop a discussion on the value of developing such technologies.

In your conversation, use:

1. **the following linking words:**

* **Although/even though**
* **In spite of/despite**
* **Therefore**
* **However**
* **As a result**
* **But**
* **Though**
* **Nevertheless/nonetheless**
* **Thus**
* **So that**
* **Whatever/whenever/wherever**
* **Whereas/while**
* **Unlike**
* **Besides**

1. **Phrasal verbs:**

* **Get ahead**
  + Definitions:
    - To make progress
    - To become more successful

(I’d love to enjoy the long weekend but I have to make sure I get this project done on time. Maybe I’ll stay at work late tonight to get ahead.

To get ahead in this industry, you really need to be well-connected. It isn’t what you know, it’s who you know.)

* **Burn out**
  + Definition:
    - To cause to fail, wear out, or become exhausted due to overwork

(Did you hear Sara quit her job? I guess she was just really burnt out after working 12-hour days every day. I can’t blame her. That’s just too much!)

* **Zero in on (something)**
  + Definitions:
    - To discover; pinpoint
    - To direct all of one’s attention to someone or something

(I think I’ve zeroed in on the problem. It took quite a bit of work but I found the issue.

Okay, let’s zero in on this project. We’re running out of time and this is the most important for our long-term success.)

* **Put off (something)**
  + Definition:
    - To postpone; to hold off

(Do you put off unpleasant tasks until the last minute at the end of the day? Some successful entrepreneurs say it’s been to get those unpleasant tasks finished first thing in the morning so the rest of the day feels more positive.)

* **Spell (something) out**
  + Definitions:
    - To make something plain or simple
    - To explain something in a detailed way so it is clear or easy to understand

(Lara, thanks for coming in to talk more about this. We’re interested in your proposal but we’d like to have you spell a few things out for us.)

* **Think through**
  + Definition:
    - To think carefully about; to think about all the different parts or aspects of something to fully understand it

(You’ve certainly given us something to think through. Rebranding our company will require a lot of time, energy, and investment. We will consider this proposal carefully and get back to you in a few days.)

* **Roll out (something)**
  + Definition:
    - To introduce

(Due to restructuring, the company will begin rolling out some new Human Resources policies this summer. We’ll be sure to keep everyone up-to-date.)

* **Go after (someone/something)**
  + Definition:
    - To try to get someone or something; to work to get something

(My best advice is to do everything you can to go after the job you want.

Let’s do what we can to go after this potential client. This would be a fantastic contract for our company.)

* **Go over (something)**
  + Definition:
    - To review

(Let’s go over the agenda for today’s meeting. I want to make sure we don’t forget anything important as we have a lot to discuss today.)

* **Call off (something)**
  + Definition:
    - To cancel

(The boss called off the meeting today. Sounds like there is some emergency that came up – I hope everything is okay.)