How to Select the Final Year Projects?

Project work is completely new to some of graduates and is a clean slate to start from. It is unstructured and a blank canvas. Earlier they have been used to theory and lab courses. Theory courses came with a prescribed text books and lab works are described as term works to be carried out in the lab. Compared to them project work is a completely different, the theory courses and lab works may not helpful here. It was a common goal and a particular approach or strategy. Unexpectedly project work is a determination of common goal and group approach.

Every year, many engineering scholars need to plan themselves for their major/final year projects. The final year project plays an extraordinary role in demonstrating the effectiveness of studying results of modules that the students have taken throughout their studies.

##### **When the time comes, thousands of queries go out:**

* What sort of project would it be a good idea for me to do?
* What steps would it be advisable for me to take?
* In what capacity might it be advisable for me to prepare the project report?
* By what technique would it be advisable for me to present my project?
* Would that project helpful for my career or not?

To overcome these questions, here we give basic ideas to select the final year projects for ECE, EIE and EEE students.

##### **What kind of project must I do?**

Always select the project that has the value addition. Don’t ever pick just any project that your advisor gave over it to you or your friend suggested it to you. As a graduate you should select a project which is either advantageous to a lot of people or enhance your technical skills and managerial both. Your project must play its role towards a positive growth/development in that specific field. So, do a need assessment of your project which will you know the need and value of the project.

##### **Focus on your area of interest:**

Many of graduates/engineers select their project without looking at their interest and select it blindly. This is not right way to selecting the project. Throughout the selection/finalizing of project, first of all know the basic things of the project, scope of the project and then select one of them which you will feel better for you.

If you are a electronics student, then there are four areas to do the project work, they are given below:

* Digital signal processing (DSP)
* VLSI
* Communication
* Embedded systems

One has to choose the project topic dependent upon the personal interest in subject, availability of resources and cost during the project design. An engineering project usually comprises of the design and implementation of the system.

If you choose the**Digital Signal Processing (DSP)** as your major project, DSP based projects allows the students to know the processing of the digital and audio signals. This projects mainly consists only simulation process using the MATLAB software, there is no hardware implementation in signal processing. The DSP projects are not only for Electronics students even EEE and EIE students may also choose.

If you choose **VLSI Projects** as your final year project, VLSI based projects allows the students to know VLSI system design and involves design of new ICs. VLSI projects are implemented from different vendors like Altera and Xilinx. The VLSI projects are not only for ECE students even EEE students may also choose. The ECE projects in VLSI can be using in communication technologies. Similarly EEE projects in VLSI can be on machine control, electrical communication etc.

Even with the extension of digital technology and remote transmission has never been more essential. Transmitters, wireless internet and bluetooth technology are changing day by day, how people communicate and transmit information. These all technologies depend on communication only. If you choose the Communication as your major project, then there are many Communications Projects using DTMF, GSM, PC, XBEE, RF, RFID and Smart Card.

* **DTMF**: DTMF is a new signaling technique, which is a identifying the keys or the number on a push button, using a combination of two frequencies high and low to identify the dialed numbers or a signal. There are many DTMF based projects developed for engineering students. For idea we are giving some DTMF Projects, please follow the links:
  + [Cell phone controlled robotic vehicle](http://www.edgefxkits.in/cell-phone-controlled-robotic-vehicle)
  + [Automatic dialing to any telephone using 12c protocol on detecting burglary](http://www.edgefxkits.in/automatic-dialing-to-any-telephone-using-i2c-protocol-on-detecting-burglary)
* **RF:**Radio Frequency (RF) is based on the behavior of electromagnetic energy waves. The range of frequency about 3 kHz to 300 GHz. In baby monitors, wireless Internet routers and automatic garage doors are operates based on RF concepts. For idea we are giving some RF Projects, please follow the links:
  + [Automatic wireless health monitoring system in hospitals for patients](http://www.edgefxkits.in/automatic-wireless-health-monitoring-system-in-hospitals-for-patients)
  + [Wireless power transfer](http://www.edgefxkits.in/wireless-power-transfer)
* **RFID:**RFID is a technology used to identify track and trace objects using radio waves, which consist barcodes and smart cards. There are many reasons to choose RFID projects, multiple memory maps stored in the open RFID tag and No battery required. For idea we are giving some RFID Projects, please follow the links:
  + [RFID based passport details](http://www.edgefxkits.in/rfid-based-passport-details)
  + [RFID based attendance system](http://www.edgefxkits.in/rfid-based-attendance-system)
* **Smart Card:**Smart card contains an embedded microchip or microprocessor type that stores and transacts data used for cash payment, phone calling and many other applications. For idea we are giving some Smart card Project, please follow the link:
  + [Security system using smart card technology](http://www.edgefxkits.in/security-system-using-smart-card-technology).
* **XBee:** The XBee is a series of modular products that make deploying wireless technology easy and cost-efficient. The XBee module can communicate up to 100 feet indoors or 300 feet outdoors. They ideal for low power and low cost applications. For idea we are giving some XBee Projects, please follow the link:
  + [Wireless message communicaiton between two computers](http://www.edgefxkits.in/wireless-message-communication-between-two-computers)
* **GSM:**GSM systems widely used mobile communication system in the world. It is used in transaction terminals, supply chain management, safety/security applications and weather stations. For idea we are giving some GSM Projects, please follow the links:
  + [RFID based device control and authentication using pic microcontroller](http://www.edgefxkits.in/rfid-based-device-control-and-authentication-using-pic-microcontroller)
  + [Theft intimation of the vehicle over sms to owner who can stop the engine remotely](http://www.edgefxkits.in/theft-intimation-of-the-vehicle-over-sms-to-owner-who-can-stop-the-engine-remotely)
* **Embedded**: If you choose embedded projects as your final year project, the embedded system based projects allows the students to know the real time applications. There are many reasons to choose the embedded systems projects, because of ease of demonstration, cost efficient, easy to understand and explain etc. There are many microcontrollers to develop the embedded systems like 8051, AVR and PIC. The large number of embedded systems uses the 8051 microcontroller for doing the projects. Because, the 8051 board we can quickly and easily learn the 8051 programming. By using 8051 microcontroller we can programmed and reprogrammed. For idea we are giving some embedded projects, please follow the links:
  + [Networking of multiple microcontrollers](http://www.edgefxkits.in/networking-of-multiple-microcontrollers)
  + [Detecting power grid synchronization failure on sensing frequency or voltage beyond acceptable range](http://www.edgefxkits.in/detecting-power-grid-synchronisation-failure-on-sensing-frequency-or-voltage-beyond-acceptable-range)

##### **Importance of Final year/Major Project:**

No matter what sort of project you select, make sure that you take time to consider all the pertinent factors. There many reasons to say final year projects are important:

* The major project is the greatest single piece of work we will do throughout our graduation.
* That allows us to specialize in a subject we are delight in.
* It allows us to show off an extensive variety of the skills and knowledge studied during our graduation.
* It empowers integration of material learned in the course.
* In the interview point view, the employees will most likely ask questions about the project.