Student name : Umang Bhola
Dept : IT
Internship details : Worked as a **Software development Intern** with **Amadeus Labs, Bangalore** where he developed a prototype for **SAMOA,** an Android Application which caters to the business critical reporting of Travel Agencies. This was an experience where he learned & honed his technical skills along with exposure to professional work environment. It was a chance to develop communication, interpersonal skills and confidence. The profile actually helped to understand the power of SDLC and its critical importance in Software Industry and to the various stakeholders linked to Software Projects.

Student name : Sidhant Kalia
Dept : Materials & Metallurgy
Internship details : With first-hand experience of the functioning of investment banks for 6 months in J P Morgan , a Financial firm was a totally adifferent experience , spent lot of time in understanding the basic concepts of finance. Internship started with a 2-week training, in which all the interns were brought up to speed with the functioning of the bank. Projects at the internship are more of a demo of your work profile that you would get as a permanent employee . The entire development process was knowledge driven, which was a very powerful strategy indeed, as it ensured that student learn variety of topics of finance .

Student name : Himanshu Gulati
Dept : Materials & Metallurgy
Internship details : A student of Materials & Metallurgical engineering , having keen interest in Research, got an opportunity for a position of '**Research Assistant' at Karlsruher Institute of technology(KIT) Germany with scholarship for 6 months to work on Thin films Technology for sensor applications using synthesis of materials and characterizing them for various applications. He** got his two research papers published in Germany and a letter of recommendation for further Masters or Phd.

Student name : Shahzeb Hussain & Aishwarya
Dept : Civil
Internship details : At Ramboll India Pvt. Ltd.
P**roject name - Herning Holstebro**
This project included total of 14 bridges comprising of roads/railways overpass and underpass. They worked on Gedbovej and Lindholtvej bridges during their 6 months internship period. These bridges are located in **Denmark.**. The bridges structures were first modeled in 3-D shell elements in lusas to evaluate forces and moments acting on structures due to different loads and then the reinforcements were calculated and drawings were made.

Student name : Shrishti Nagpal
Dept : Civil
Internship details : It was a research in geotechnical engineering on **'Settlement Characteristics of Red Mud Slurries***'* which was affiliated with a MNC named 'Rio Tinto' and 'University of Queensland'. She got exposure regarding a variety of equipments used for conducting experiments also on all those projects which work in accordance with the EM plan (Protection of Environmental Value). Apart from working with intellectual minds, UQ advantage office also organised numerous workshops as well as conferences weekly on future goals/ Soft skills which gave us the opportunity to interact with people from diversified fields and countries.

Student name : Priyanka Garg

Dept : Electronics

Internship details : Done Six months of Internship at **SanDisk India Device Design Center Pvt. Ltd., Bengaluru**. As an intern under USB Systems Design Team, she worked on the project " **An Apparatus to Debug Resource Constraint Embedded Platform to Reduce the Debug Time"**. Making an USB drive realization is a combined work of many teams. A device functioning properly at the field can fail if the firmware is not downloaded and tested properly. Due to shrinking of technology and increasing demand of low cost and high speed storage devices, the need to enhance the debugging environment was felt. The project has derived an inspiration from this fact. The project was implemented in three phases:

I. Enhancing the present debugging environment of failure trace by integrating firmware debugger and USBP cap along with read write script using python to test the proper functioning of USB and determining the functions which cause the failure of the test.

II. Analysing the performance of USB during read and write and checking the number of unused logical sub partitions.

III. Reducing the firmware footprint to increase the speed during read and write and making an algorithm to use the unused logical sub partitions to improve the performance of USB 3.0.

Student name : Lakshay Khurana

Dept : Electronics

Internship details : Done at Raman Research Institute (RRI), Bengaluru.

RRI was founded by Nobel Laureate Sir C. V. Raman. Title of the project assigned was — "**Recognition of Actual and Intended Movement from Analysis of EEG Signals for the Direction Control of Robot"**. The work was a part of the ongoing activities of Brain Computer Interfaces at the Institute. The aim of the BCI project is to develop in-house an inexpensive and robust BCI system to provide it to the disabled persons to make their lives independent. Project included the analysis of EEG signals for actual and imagined movements, and control of output devices using the movements. Developed the signal-processing code to analyze the EEG signals and control the output. The code is written in MATLAB. The system consists of a training session and an online session. The system is first trained to adapt to the different kinds of signals for different classes of movements. Then, during the online session, the analysis is used to determine the class of movement being performed by the subject. BCI is interesting area to researchers because it can solve many problems which seem to be impossible. Many applications of BCI concerned on patients suffer from disorders of consciousness (DOC). These patients are unable to make communication with their around world. By using BCI, these patients can control some devices to perform basic and important jobs they need like moving with wheelchair, getting something for eating or drinking by using robotic legs or arms controlled by brain.

Student name :Priyanka

Dept : Electrical

Internship details : Done at Rolling Stock Department of ALSTOM Transport India Limited, Bangalore. It was an opportunity to work on a **Research and Development (R&D) Project**. The project was to develop an **User Interface for Functional Validation of Train Control and Monitoring System (TCMS) Control Build Application (**software analogous of MPU) using National Instruments Software **LabVIEW** i.e. ALSTOM Application which was embedded in to PLC acting as MPU which being the master controller of the embedded networks, controlling and monitoring each and every functioning present in TCMS as a part of **Automated Test Bench Development** that will validate the complete functioning of train virtually using **Virtual Instrumentation (VI)**. Also developed User Interface which provides improvement in the existing Functional Validation process in Alstom that will save lot of time and manual work reduced to much extent and reusable for multiple projects.

Student name :Shraiya mahajan

Dept : Electrical

Internship deatails: Done a**t General Electric, Energy Consulting Division, Bangalore**

Worked as a part of the Power Economics team to design rural electrification solutions for PNG and Bihar and perform a detailed techno- economic evaluation and analysis of the same. The PNG (Papua New Guinea, village near Australia with only 10% electrification rate) project was a live project, which GE had undertaken in coordination with the Australian government. Basis of any generation, planning and distribution system is the principle of supply and demand.In this projecto the demand of electricity was mapped and accordingly the generation sources were designed to develop a hybrid system comprising of Natural gas gensets, Solar PV panels, and Small Hydro and Storage solutions. Financial and economic analysis was done by calculating the net present costs and the LCOE of the system. The results were optimized and verified using HOMER software which performs simulations for 8760 hours of the year. Similar model was carried out for Bihar, India by developing Biogas based gensets, solar PV and storage solutions.

Student name :Utsav Gupta

Dept : Production

Internship details : Done at LnT Hazira, Surat and the Nuclear Department

Involved in the **ITER** (International Thermonuclear Experimental Reactor) project, the first initiative to produce energy using fusion reaction. Tasks allocated were to look after the manufacturing of Transportation Frame of the Cryostat(outermost shell of ITER), developing the manufacturing sequence and inspection plan of frame, analyzing the manufacturing specifications related to the type of joints ,welds and materials used in frame. Also kept the record of Cryostat Dimensions and analyzed their deviation from Tolerance and Specification limit and thus suggesting the optimum change to control the dimensions

Student name : Sumit Diwan

Dept : Production

Internship details : Done at TATA Motors Limited, Lucknow Plant

Worked on 2 projects. One was "**Productivity Improvement"**. Under this , the project included MOST Study, COMMWIP which focused on the elimination of 7 types of wastes from the shop floor. The sub assembly area was relayouted and productivity of the sub-assembly was improved by reducing its cycle time. The next project was "**Process Standardisation"**. The quality gate which dealt with the inspection of the cab was standardised. Recording of the inspection process was done and a new process design was made and implemented and it reduced the cycle time and increased productivity.

Student name : Agnit Mukhopadhyay

Dept : Aerospace

Internship details : The studies dealt with encoding a computer algorithm to approach **the heat flux problem of the Thermal Protection Systems (TPS) aboard space capsules** by a theoretical approach. Using finite difference methods, a C++ code was successfully augmented from scratch to include mesh files and give a material thermal property curve. The research was conducted in collaboration with the Langley Space Research Centre in Langley, Virginia, USA. The studies proved fruitful with results giving near perfect match with official results from NASA. Future studies include a CFD simulation of the same which is in process. A future publication about this work has been planned.