IMPACT OF MOU

Electronics & Telecommunication Engineering
Departmental Newsletter (July 2020 - June 2021)

Inside this issue
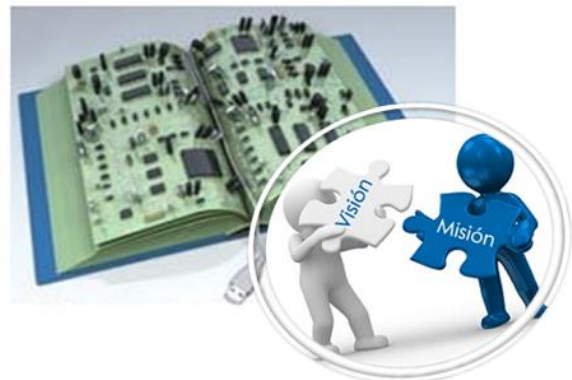
➢ **MoUs Signed**

- Autotech Builds Automation, Mapusa, Goa and DBCE
- Eduvance, Educational arm of Vanmat Technologies Pvt. Ltd., Santacruz (East), Mumbai and DBCE
- Enviro Guru (OPC) Pvt. Ltd.
- InfiCorridor Solutions Private Limited
- SUN360
- Mrinq Technologies LLP

➢ **Trainings/Workshops/ FDPs/Expert Talk conducted**

- Expert talk- Pipelining
- MRINQ: Internship
- Project- Enviro Guru (OPC) Pvt. Ltd.

VISION

To evolve into a Holistic Learning Hub that moulds technologically proficient engineers in the field of Electronics and Telecommunication; contributing to the global industry and society with Integrity, Ethics and Professionalism as envisaged by Don Bosco.

MISSION

- To impart education abreast with the fundamentals and advances in technology and transform students into globally accepted professionals.
- To foster networking with all stakeholders for promoting technical innovation, research and entrepreneurship.
- To encourage various skill enhancing activities and extra-curricular activities to instil high levels of work ethics and responsibility for a better society.

Memorandum if Understanding (MoU)

MoU with Autotech Builds Automation, Mapusa, Goa

A bipartite agreement in the form MoU was signed between Don Bosco College of Engineering, Fatorda, Goa and Autotech Builds Automation, Mapusa, Goa on 5th July 2018 in the Don Bosco Engineering College (DBCE) Campus.

Rev. Fr. Kinley D'Cruz (Director, DBCE) and Mr. Subodh Mone (Autotech, Mapusa, Goa) signed the MoU in the presence of Dr. Neena Panandikar (Principal, DBCE), Prof. Michelle Araujo (HOD, DBCE) and Prof. Flavia Leitao (Asst. Professor, DBCE).

After signing the MoU, Mr. Subodh Mone discussed the scope and objectives of the MoU, by stating that the MoU will:

- Provide Training and Internship as well as Placements at their organization or Placement Assistance at other organizations to the students of Don Bosco Engineering College.
- Conduct workshops, Training sessions, Guest lecturers and Technical model competitions at either organization as per the need and availability of the required resources.
- Conduct Field Visits at their organization or other organizations that are in collaboration with Autotech, Mapusa.

Impact of MoU, ETC Engineering Department, DBCE Goa

MoU with Eduvance, Vanmat Technologies Pvt. Ltd., Santacruz (East), Mumbai

Don Bosco College of Engineering, Fatorda, Goa has signed Memorandum of Understanding (MoU) with Eduvance, the educational arm of Vanmat Technologies Pvt. Ltd., Santacruz (East), Mumbai on 28th Sept. 2018.

Rev. Fr. Kinley D'Cruz (Director, DBCE) and Dr. Johnathan Joshi (CEO-Eduvance) signed the MoU in the presence of Dr. Neena Panandikar (Principal, DBCE),Dilip Balasubramanian (Training manager- Eduvance), Asst. Prof. Trima P. Fernandes e Fizardo (In-charge HOD, DBCE), Prof. Varsha Turkar and Asst. Prof. Flavia Leitao.

After signing the MoU, Mr. Dilip Subramanian discussed the scope and objectives of the MoU, by stating that the MoU will:

- Set up an "Embedded Systems Lab" at the Electronics and Telecommunication Engineering Department with hardware (PSoC-4 ARM Cortex kits) and licensed PSoC creator software donated by Cypress Semiconductors.
- Offers value added courses in collaboration with Cypress University Alliance (CUA) and courses created by Eduvance.

Prof. Flavia Leitao is identified as the SPOC (Single Point of Contact) for all Eduvance related activities.

Impact of MoU, ETC Engineering Department, DBCE Goa

MoU with Enviro Guru (OPC) Pvt. Ltd., InfiCorridor Solutions Private Limited, SUN360 and Mrinq Technologies LLP

There is always a talk about the gap between academia and industry. To bridge the gap, Don Bosco College of Engineering signed 23 MoUs on 15th October 2019 at the Taleigao Community hall under the auspices of the inaugural of the Centre for Excellence for Employability Enhancement (CEEE) in the presence of Hon. Chief Minister – Dr Pramod Sawant.

Out of the 23 MoUs Signed, 4 were with the Industries in the Electronic Domain, which are as follows: Enviro Guru (OPC) Pvt. Ltd., InfiCorridor Solutions Private Limited, SUN360 and Mrinq Technologies LLP.

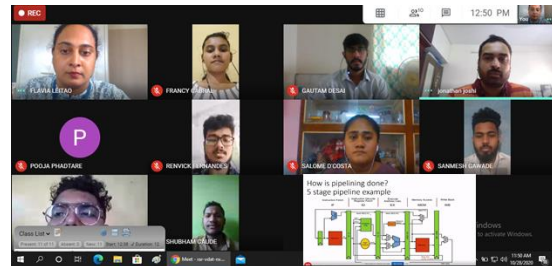The Objectives and scope of the MoU was to:

- To identify domains with mutual interest, and to further collaborate for capacity-building, research and development.
- To provide mentoring to selected students by the industry-counterpart in the form of internship and guidance for academic projects.
- To organise lecture series for students from industry experts.
- To aid learning process with hands-on in the form of guided mini projects.
- To enable interaction of college teaching staff with industry professionals for research and development.

Academic Year 2020-21

EDUVANCE: Talk on Pipelining in Computer Architecture

Under Partial completion of syllabus by Industry experts, the ETC Department conducted its first online class, in the subject Introduction to ARM architecture for the FE ETC Students, on 28th Oct. 2020. The class was on Pipelining in Computer Architecture, by Dr. Jonathan Joshi, C.E.O of Eduvance.
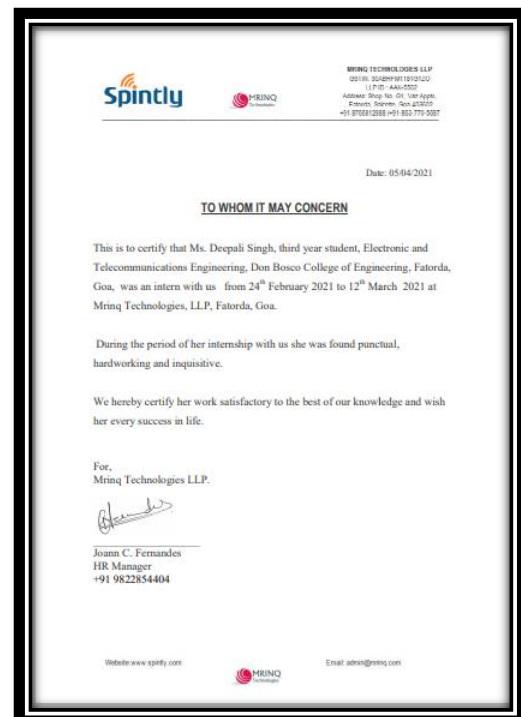

The main objective of this lecture was to make students aware of the concept of Pipelining and how it's used in computer architecture. Prof. Flavia Leitao welcomed everyone for the session and introduced Dr. Joshi to the audience. Initially, Dr. Joshi spoke on the importance of pipelining. Then, he explained the different stages of pipelining in 5-stage pipelining, with the help of ARM instructions. While explaining this he stated the funda, "You carry your own baggage" which should always be remembered while pipelining. On covering all the required details in pipelining he came to the Hazards of pipelining. Dr. Joshi ended the lecture by providing solutions on how hazards in pipelining can be minimized using stalling, forwarding and flushing.

The Expert talk was arranged by Prof. Flavia Leitao

MRINQ: Internship

Ms. Deepali Singh joined Mrinq Technology for an internship program in the capacity of a hardware assistant, from 24th Feb. to 12th March 2021. While the central focus was on learning about the hardware components and their working, she also worked on Arduino programming, product build, etc.

Every day they were given a list of duties to accomplish. They began with basic Arduino programming, product testing and firmware uploading. Later on, they learned about reverse engineering and were assigned circuits to work on soldering on PCB boards, uploading data of products, oscilloscope testing, and assisting the team with product development. In addition, they also helped the team with packing and arranging the things. The interns had a good time working together as a team.

Enviro Guru Project - Water Pollution Monitoring and Decision Support System (2020-21)

Brief Idea of project: In the proposed idea, these parameters are used to predict the water quality and spread of water pollution in industrial areas. The data collected from these sensors is stored in database through cloud platforms. Various Machine Learning algorithms are applied for analysis and prediction of water quality. Further on, water dispersion models are used to predict the dispersion of pollutants in the water body.

Project Members:
- Mr. Abhishek Dhumvad
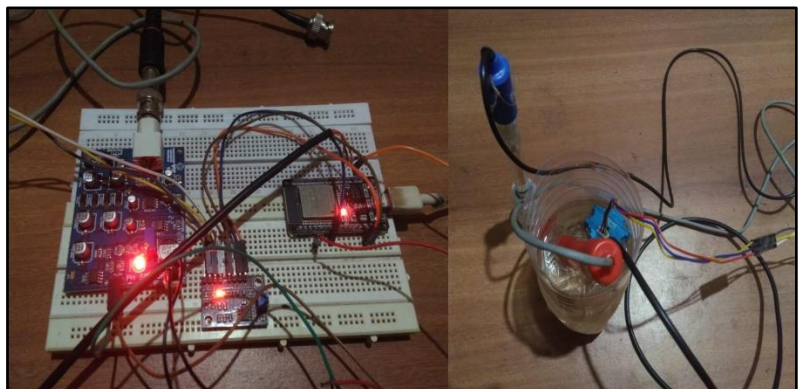- Mr. Saurabh Prabhu
- Mr. Stanford Da'Silva

Project Guides:
- Dr. Shreyas Simu
- Asst. Prof. Priyanka Padiyar

External Project Guides:

- Mr. Vassant Salgaonkar (Founder- Enviro Guru (OPC) Pvt. Ltd, FiiRE)

Applications:
- Check the efficiency of waste water treatment plants, water purifiers, water quality of tanks installed in schools and colleges
- Can be used in Agriculture and Aquaculture fields.

Awards and Participation:

Second place in TECHNIX 2021- National Level Project Competition (Software Category)