

DHIRUBHAI AMBANI INSTITUTE OF INFORMATION AND COMMUNICATION TECHNOLOGY, GANDHINAGAR

MINUTES OF THE THIRTY SIXTH MEETING OF THE ACADEMIC COUNCIL

The 36th meeting of the Academic Council was held on 11th April 2023. The following members were present:

1. Prof K.S. Dasgupta, Chairman
2. Shri Tapan Misra, Member
3. Prof Sanjay Srivastava, Member
4. Prof Binita Desai, Member
5. Prof Maniklal Das, Member
6. Prof Manjunath Joshi, Member
7. Prof Sunitha V, Member
8. Prof Ranendu Ghosh, Secretary

Online:

1. Prof Prabir Biswas, Member
2. Shri Pavitar Singh, Member

Prof Ranjan Bose could not attend the meeting.

Agenda:

1. Welcome by Chairman
2. To confirm the minutes of the 35th meeting held on 21st July 2022
3. Presentation on new B.Tech program on Electronics and VLSI Design (EVD) by Prof Biswajit Mishra
4. Any other matter with the permission of the Chair

Welcome by Chairman

Item No. 2

To confirm the minutes of the 35th meeting of the Council held on 21st July 2022

The Council confirmed the minutes of the 35th meeting of the Council held on 21st July 2022.

Item No. 3

To obtain the approval of Chairman and Members, Academic Council to implement new UG program on BTech in Electronics and VLSI Design (EVD)

Semiconductor integrated circuits (ICs) are the backbone of the current revolution in electronics and computing. The Indian government has recently launched India Semiconductor Mission with a vision to enable India's emergence as a global hub in electronics manufacturing and design. Given the increasing interest of nation in semiconductor manufacturing and R&D, both in India and worldwide, the sector is likely to witness a spike in demand for engineers with

semiconductor knowhow. The objective of the new B.Tech. in Electronics and VLSI Design (EVD) at DA-IICT is to create industry ready undergraduate manpower for the semiconductor industry and create a vibrant ecosystem.

The proposed B.Tech. in EVD degree is a cutting edge course, allowing the student to choose from a wide range of modules based on digital integrated circuit design and analogue integrated circuit design. This is an interdisciplinary program, allowing students to take various courses as part of the program. There are two pathways offered to the students where he / she can take various elective courses ranging from Circuits and Systems, Solid State Devices, VLSI Technology, Embedded Processors, Sensors and Systems, Real Time Operating Systems, IoT, Secure Devices, MEMS along with opportunity to take various discipline and free electives leading to specialization either in Electronic System Design or VLSI Design.

Presentation on B.Tech. in Electronics and VLSI Design program was made by Prof Biswajit Mishra. He presented the genesis, need, program structure and commitment and requirement of / from the instidute.

Key points of the new UG program B.Tech. in Electronics and VLSI Design:

1. First UG program dedicated to VLSI in Gujarat
2. Innovative and Industry relevant courses
3. Practice based curriculum
4. Student will be designing an Integrated Chip during their course duration in II year.
5. An entrepreneurship route if the student decides to venture out

Observations made by AC members are as follows

- The proposed curriculum is timely and innovative and will make students industry ready
- There are several pathways which gives flexibility to the student to explore in research, industry or entrepreneurship.
- The focused and practical and industry relevant aspects in the course is encouraging
- The industrial and research internship should be explored further so that the students are benefitted.

Some other points:

- Owing to the credit structure of the proposed course, institute may decide to offer this as an honours course or suggest a mechanism to bring all the UG programs to have equal number of credit structure.
- Exploratory Project should be introduced
- In the next review meeting, the coordinator should report the good practices and challenges and progress of the program
- The two programming course offered to the students during the first year may be looked at and ways to merge them into one, if required.
- Research internships MoU should be in place and to be treated as a priority.
- As the Math courses lay emphasis on the applications, these should be renamed to Engineering Maths.

After deliberations on the proposal of the program, the members expressed their satisfaction about the initiative of starting this new program.

Item No. 3

None

The meeting ended with a vote of thanks to the Chair.

April 24, 2023