**Manav Rachna University**

**(Formerly Manav Rachna College of Engineering)**

**Faridabad**



**Minutes**

**OF FIRST MEETING**

**OF**

**BOARD OF FACULTY, ENGINEERING**

**Dated: 07.07.2021**

**MINUTES OF FIRST MEETING OF THE BOARD OF FACULTY OF ENGINEERING HELD ONLINE ON 07.07.2021 AT 11:00 AM USING GOOGLE MEET**

A meeting of the Board of faculty of Engineering was held on Wednesday 7thJuly 2021 at 11:00 AM to discuss the following academic matter. Following members attended the meeting:

1. Prof. (Dr.) Sangita Banga, Dean of Faculty/Chairman
2. Mr. Jaydeep Singh, CEO, EMPASS Learning/Member expert
3. Prof. (Dr.) Shruti Vashisht, HoD ECE & Dean Students Welfare
4. Prof. (Dr.) Sujata Nayak, HoD ME
5. Ms. Hanu Bhardwaj, HoD CST
6. Prof. (Dr.) Susmita Ray, CST
7. Prof. (Dr.) Jyoti Pruthi, CST
8. Dr. Hardeo Kr. Thakur, CST
9. Dr. Manpreet Kaur, CST
10. Dr. Sanjay Singh, CST
11. Dr. K Deepa, ECE
12. Dr. Charu Pathak, ECE
13. Mr. Sanjay Taneja, ME
14. Dr. Prashant Bhardwaj, ME
15. Mr. Ankur Aggarwal, CST

Prof. (Dr.) B D Pathak,Member expert, could not join the meeting, due to his other engagements

* 1. **Opening Remarks by the Chairman**

Dean of faculty greeted all the members to this first meeting of the board of faculty of Engineering and thanked Mr. Jaydeep, CEO EMPASS Learning for giving his consent for being there as an expert.

* 1. **Approval for the revised scheme and Syllabus for the course of B.Tech  Electronics and Communication  Engineering up to II year**

It was informed to all the members that, MRU Started offering B. Tech Degree in Electronics & Computers Engineering from 2018, but looking at the interest of students in Core stream during admissions, department requested for the change in nomenclature of Program to Electronics & Communication Engineering. University applied for nomenclature change while applying for the Extension of approval (EoA) for the current session to AICTE. MRU appeared for the scrutiny meeting with AICTE experts on 6th June 2021 and has been recommended for change in nomenclature as per Scrutiny Evaluation Report (**attached in annexure 1.1**). With this new nomenclature, department has proposed few changes in the existing B. Tech program structure and has therefore revised its scheme. At present Scheme and syllabus for the first two years of the program is submitting before the Board of Faculty for its approval after incorporating the suggestions of Board of Studies (Scheme and syllabus attached in **annexure 1.2**)

**Decision: Board of Faculty took the note of it and approved the scheme and syllabus for first two years for B.Tech Electronics & Communication Engineering**.

* 1. **Approval for the minor revisions in the course content of Wireless Sensor Network (Elective) Offered by B. Tech Electronics & Communication Engineering Department**

While reviewing the syllabus of Wireless Sensor Network, it was observed that many topics like Security requirements; Routing protocols, Power Energy-Management could be added. The list of practical’s is also redesigned as per the applications covered in the theory. The revised syllabus of theory and lab for WSN, approved by Board of Studies is attached in **annexure 1.3.**

Mr. Jaydeep appreciated the topics added in the revised syllabus, especially the Section D on ADHOC Networks & Routing Protocols, He also suggested that the delivery of the subject must take care of the application of this course in following three areas IoT, Big Data & Security looking at the industry requirements.

**Decision: Board of Faculty approved the revised course content of Wireless Sensors Networks with suggestions of incorporating the applications part of it in the area of IoT, Big Data & Security in its delivery.**

* 1. **Approval for the revisions in the course content of some of the Courses in B.Tech Computer Science and M.Tech Programme on the basis of Faculty, Alumni and Industry Feedback**.

It was informed to all the members that Department of Computer Science and Technology has proposed some revision in its course content for some of the courses for B.Tech & M.Tech Programme as per feedback received from Faculty members delivering the course, Alumni feedback obtained on curriculum and from Industry experts.

* **In M.Tech Computer Engineering** program structure it was suggested during the BoS that **Data Science should come in 2nd SEM and Machine Learning should come in 3rd SEM, therefore program structure was reoriented with minor changes in some of the topics.**
* **Knowledge Partner Xebia, suggested changes in curriculum for both the specializations Artificial Intelligence & Machine Learning and Cloud DevOps & Automation:**
* The course **DevOps & Test Automation** to be renamed as **Version Control & Automation** for CDA Specialization for Semester 5, with some revision in syllabus.
* The course **Internet of Things** to be replaced with **Continuous Integration and Continuous Delivery** for CDA Specialization for Semester 7, for which the syllabus has been framed by Xebia. IoT is already being offered as an Elective Workshop in Sem 6.
* **Course on Computer Vision & Data Visualization** already covers almost every topic of **Image Processing;** therefore the course on **Image Processing is being replaced with Computer Graphics & Multimedia** for AIML specialization in7th semester.
* **Based on Faculty Members Feedback, existing Curriculum of following courses for 2019 Batch onwards have been updated after discussion in the BoS and incorporating all the suggestions**
	+ - **Data Structures & Algorithms**: **Deleted Topics**: Euler graph, Hamiltonian graphs as already covered in Discrete Mathematics Course
		- **Course on Green Computing is revised majorly**: In **Section A,** **Online Content on the Carbon Footprint Calculator is added as it has** become an essential part of impact analysis of a product on the environment. Such a calculator is available at [www.footprintcalculator.com](http://www.footprintcalculator.com/). **In Section C,** topic on **Ethics of Green Computing in Daily Life is added to** understand the ethical and moral reason of why green computing is essential in today’s life. In Section D, **topics like, Green Computing in Ancient India, Balance of life in Indian villages with nature, use of biomass as fuel, no electricity; devices made of natural materials, absence of e-waste have been incorporated to** understand how ancient India and the people of India maintained a balance with nature in spite of using devices of various types. Also topics on **Applications of Green Computing: Energy Efficiency of algorithms, Green Networks, Green Cloud Computing, Green Internet of Things, Green Artificial Intelligence, Relevance to Industry 4.0 have been added to** understand where and how green computing can be applied in real life and its relevance to current and future industries.

These additions are discussed to some extent in the book named “Living in Balance with Nature” as mentioned in the online content section above.

* **Data Visualization using Tableau** course has been proposed in workshop mode in Semester 6. As shared by Dr. Manpreet that this course will be offered in collaboration with Tableau & AICTE and faculty will get proper training in Tableau from AICTE.

**Expert member suggested to look for proper certification in Tableau as industry has more demand for certified professionals in this.**

* **Department shared the existing curriculum with Alumni and asked for their feedback on the course content. Based on feedback received following courses have been introduced in elective basket:**
* Image Editing & Animation to be offered in workshop mode in 6th Semester
* Introduction to Blockchain Technology as a hard elective in 8th Sem for 2K18 batch and in 7th Sem for 2K19 batch onwards.
* Core Java and Advance Java course syllabi updated as per alumni suggestions.
* **Department has introduced new courses for 2019 Batch and onwards, in 7th semester Electives Basket based on the feedback of existing students obtained on the curriculum:**

(i) Digital Marketing

(ii) E-Commerce

(iii) Entrepreneurial Finance for Engineers

**Mr. Jaydeep, suggested to keep the course on Digital marketing more in project-based mode rather than delivering the theoretical concepts only.**

* Department of Computer Science also shared the List of MOOCs shortlisted for 5th & 7th Semester and to be offered in the elective basket of domain electives/allied electives in addition to existing courses.

Revised curriculum all the courses mentioned above and list of MOOCs to be offered in the coming semester are mentioned in **annexure 1.4**

**Decision: Board of Faculty approved all the proposed changes in course content and appreciated the efforts of the department for keeping the curriculum updated as per Industry requirements.**

* 1. **Assessment Parameters for introducing project-based learning**

It was informed by chairman to all the members of board that faculty of engineering is planning to offer few courses in Project Based Learning mode from the AY 2021-22. In this, every department under faculty of engineering would be advised to offer at least one course in every semester in PBL mode. For such courses there will be classroom delivery to cover the fundamental concepts related to course and students would be required to work on a project in a team comprising of 3-4 members. These projects would be based on the respective subject that is being offered in PBL mode and preferably on the current societal needs. While working on the project students are expected to apply the knowledge of all the subjects they have studied till now or studying during that semester.

Course with L-T-P structure of 3-1-2 or 3-0-2 can be offered in PBL mode. It was proposed to evaluate such courses in five stages as mentioned below:

|  |  |  |  |
| --- | --- | --- | --- |
| Stage | Timeline | Weightage | Rubrics |
| **Stage I: Ideation)** | After 2 weeks from the commencement of Semester | 10% | 1. Presentation (5%): Introducing Problem statement, Objectives of Project Activity & Identification of Team members responsibility.
2. MCQ/Quiz/Group Discussion/Class Test based on modules covered till date (5%)
 |
| Stage II: Analysis | During 5th to 6th Week | 15% | 1. Presentation (10%): Literature review, Technology & tool identified for solving the problem, Knowledge acquired related to project.
2. MCQ/Quiz/Group Discussion/Class Test/Home assignment based on modules covered till date (5%)
 |
| Stage III: Design | During 10th to 11th Week | 20% | 1. Presentation (15%): Review the progress in project till design stage and their performance in the question answer session.
2. MCQ/Quiz/Group Discussion/Class Test/Home assignment based on modules covered till date (5%)
 |
| Stage IV: Development | During 15th to 16th Week | 25% | 1. Presentation (20%): Review the progress in project till development stage as per problem statement and their performance in the question answer session.
2. MCQ/Quiz/Group Discussion/Class Test/Home assignment based on modules covered till date (5%)
 |
| Stage V: Testing & Integration | End of Semester (During PT3) | 30% | 1. Presentation (20%): Review the realization of project as per problem statement. Evaluate the performance through its testing and integration. Evaluate the documentation & report submitted. Assess based on quality of work, its timely completion and their performance in the question answer session.
2. MCQ/Quiz/Group Discussion/Class Test/Home assignment based on modules covered till date (10%)
 |
| **Total** | **100%** |  |

**Note:** No student shall be awarded excellent grade O until or unless a candidate has cumulative score of approximately 80% in the all the stages of project evaluation and his/her team has either filed provisional patent application or participated in national/ international project competition or participated in conference or the project covers the multidisciplinary aspect.

* Stage II onwards, every team member would be asked to evaluate the performance of co-team members based on their participation and attainment of project objectives as per pre allocated task.

**Decision: Board of faculty appreciated the efforts of the University for introducing project-based learning and approved the assessment parameters, which is more continuous instead of end term evaluation only. Expert Member Mr. Jaydeep suggested to replace the peer evaluation with 360° Feedback looking at the human behavior aspect of the teams and his experience from Industry.**

The meeting ended with vote of thanks to all.

 Prof. (Dr. Sangita Banga)

Dean, Faculty of Engineering

7/07/2021