"शीलं परं भूषणम्"

MKSSS's

Cummins College of Engineering for Women, Pune

(An Autonomous Institute Affiliated to Savitribai Phule Pune University)

MKSSS's Cummins COLLEGE OF ENGINEERING FOR WOMEN

Action Taken Report
A.Y. 2024 - 25

The action taken report based on curriculum feedback from all stakeholders and respective action taken is mentioned below.

Students Feedback	
Recommendations	**Action Taken**
Workload Balance: Students suggested that the number of courses per semester sometimes limits time for self-study and extracurricular activities.	Minor curriculum adjustments are done to balance core and elective subjects to give students more time for self-learning.
Tutorials & Laboratory Sessions: Some students requested more structured tutorials and advanced lab exercises.	Faculty instructed to standardize tutorials and enhance lab manuals with advanced problem-solving tasks.
Internship Opportunities: Strong preference for 6-month internships.	The department strongly recommends continuation of a 6-month internship policy in line with NEP guidelines and industry expectations.
Economics and finance courses would be so useful if included in the curriculum.	In the BTech VIIth semester, a course 'Economics and Personal Finance' is included as Open Elective.
Subjects necessary for cracking internship/placement in the software domain to be included.	A Value Added course on "DSA with JAVA" and a workshop on DBMS was conducted which facilitated students for internship and placement opportunities.
There should be courses for developing communication skills, Interviews skills and Design Thinking	As per NEP framework, Design thinking course is part of curriculum. In addition, an Employment Enhancement Program is conducted at the institute level to support communication skill development and interview preparation.
Final year projects should be included to develop team work, project management type of qualities.	NEP curriculum will have internships as well as projects in the last year of graduation
Courses like Java and OOP's require more lectures.	One lecture and two lab turns are given compared to earlier two lab turns allocated

We should make the curriculum more practical and up to the latest industry trends.	Subjects like Java Fullstack, Cyber Security and Data Science are added.
Tutorials should be less as we can utilize that time in self study.	Tutorials are reduced from 8 to 6 compared to earlier cycle.
Real life applications and teaching methods should be on par with the current trends.	Subjects like ERP, Salesforce etc are added in the curriculum.
Give more time for students to do hands- on software development.	Lab hours are increased compared to earlier cycle.
It would be great if you could include a complete course on how one should start investing, banking , Provident fund etc.	Economics and Personal Finance course at B.tech level is added. A course on banking and insurance is proposed at T.Y, sem-II under Multi-disciplinary minor.
I would suggest keeping more projects and a research oriented curriculum.	Community Engagement projects at Second year and Final year projects/ internships are compulsory.
NPTEL courses should be included in the final year instead of open electives/program electives.	NPTEL courses are included at final year level.
Writing test cases (unit tests) should be taught as part of the assignments.	Test cases written are covered in laboratories such as the JFST lab.
Github was taught only theoretically but also can be used in laboratories.	An expert session on Github and its implementation was conducted previously and It will be conducted in future in DevOps,Cloud computing assignments.

Teachers Feedback	
Recommendations	**Action Taken**
Support for 6-month internship model as adequate for industry readiness.	Continuation of 6-month internship in the final year has been confirmed.
Include more hands-on in courses such as Blockchain, DevOps	Hands-on for Blockchain, DevOps included in the curriculum.
Core courses of Mechanical Engineering should have more practical exposure	Almost all core courses are having laboratory sessions as well as industrial visits can be arranged for more exposure.
Lab hours should be increased as hands-on gives a better experience to students than theory.	Lab hours in the current syllabus revision are increased.
A self learning component like NPTEL courses should be continued.	Self learning courses are continued for the current Final year syllabus revision.

Employers Feedback	
Recommendations	**Action Taken**
More alignment of students with latest technologies in Cloud Technologies	Modifications in the course contents in DevOps, and Cloud assimilated.
Improve skills of coding practices and logic development	Programming laboratories have been incorporated to strengthen problem-solving and algorithmic thinking among students.
Adopt online coding platforms (HackerRank, LeetCode) for practical assessments.	Starting from the next academic year, examinations of some programming related courses will be conducted on Hackerrank platform to provide real-time coding experience.
Strengthen foundational courses like Data Structures, DBMS, and Computer Networks	• Data structure and Computer networks have been already included in the E&TC curriculum. Additionally, a value added course on Data Structures with JAVA will be conducted during the summer vacations to enhance practical understanding. • DBMS, which was initially offered as an NPTEL online course. To further strengthen

	hands-on skills, a **DBMS workshop** was also organized for students during the A.Y. 2024 - 25. • In the revised curriculum DBMS will be included as a full classroom-taught course.
Organize real-life problem-solving contests to enhance practical skills and industry readiness.	Starting from the next academic year, hackathons and problem-solving contests will be conducted regularly under various events to provide students with hands-on experience in tackling real-world challenges.
Introduce more industry-relevant program elective for Mechanical Engineering	Industry relevant programme, elective sources such as Electronics Packaging and Manufacturing , IOT for Mechanical Engineering , EV : Architecture and Energy storage etc.
Lab assignments should be slightly more intensive and semester end projects should be declared at the start of the semester itself as it allow students to implement more features and explore technologies deeply	In several courses, open ended assignments are incorporated to encourage exploration. Additionally, assignments are designed in the form of micro projects, mini projects and capstone projects, enabling students to work throughout the semester and explore technologies in greater depth
Courses like AI, IoT, Cloud technologies should be included in the curriculum.	AI and Cloud computing are offered as core courses. An Honors programme in AIML is also offered. Currently 57 students have enrolled for the Honours programme. IoT is offered as an elective course at B.Tech level.
Python, Linux, Thinking and analytical skills need to be improved.	Students are encouraged to participate in on-campus coding competitions, as these events greatly help in developing their logical reasoning and problem-solving skills.
Technical approach to the problem, more focus of actual implementation is required.	The computer department has incorporated case studies in all the newly proposed syllabi to provide students with exposure to real-world scenarios.
Accuracy concepts - Calculate accuracy, model evaluation metrics. Applications of real life examples of theoretical concepts must be covered.	These aspects are incorporated in courses such as Machine learning and Design and analysis of algorithms.

Alumni Feedback	
Recommendations	**Action Taken**
Inclusion of more hands-on courses like Microservices, Full-stack projects, and System Design.	Project-based learning modules integrated in Full Stack Development and Cloud Computing labs.
Skill-based learning in DevOps pipelines and Cloud deployment.	DevOps course updated with CI/CD tools (GitHub Actions, Jenkins, Docker).
Guidance on career preparedness and placements through workshops.	The department is planning to organize expert sessions on Resume Building, Technical Interviews, and Industry Expectations.
Introduce more coding / programming courses	• Programming courses have already been included at multiple levels in the E&TC curriculum - C programming (first year), DSA and OOP (second year) and Advanced Java (third year). • Additionally, Python is also included at first year level in the revised curriculum.
More exposure should be given for programming related courses which would help in the placement as well as internship	• A value added course on DSA with JAVA was conducted during the summer vacation of the A.Y. 2024-25. • Programming hackathons will be organised to enhance problem-solving and coding skills. • Examinations of programming related courses will be conducted on Hackerrank platform to provide real-time coding experience.
Introduce more software related subjects that would help in placements and internships in software field e.g System Design, Computer Networks, DBMS with relevant portion.	• Computer networks course has been already included in the E&TC curriculum. • DBMS, which was initially offered as an NPTEL online course, is now included as a full classroom-taught course in the revised curriculum.
More interactive sessions with industry should be organised	• To increase the interaction with industry, field visits are regularly organised under various courses. • Apart from these, students are motivated to participate in various competitions or events organised on company campuses, ensuring better engagement with real-world practices.
A Cybersecurity course should be introduced.	In the revised curriculum, honors program in cybersecurity have been offered to provide in-depth learning in this area.

Power Electronics course should be introduced.	In the revised curriculum, Power Electronics has been offered as a program elective.
For Mechanical Engineering, More exposure should be given to students for software courses	Courses such as AI and ML are introduced as multi-disciplinary minor in curriculum
Incorporate Advance Excel and word course, power BI and AI tools for Instrumentation students	A laboratory course is incorporated in the second year as a Vocational and Skill Enhancement Course, which provides training in advanced Excel, Word, power BI. and AI tools.
Any software and hardware related hands on either for dcs, plc or safety systems normally a part of industrial automation	The instrumentation curriculum already includes a Laboratory component for industrial automation course. The department is equipped with a well established Process Instrumentation and Industrial Automation laboratory, where students gain hands on experience with PLC and DCS systems. In addition, workshops on PLC / structured text Programming are conducted by industry experts for students
Entrepreneurship, leadership development, environmental courses	Courses related to Entrepreneurship development, Environmental Instrumentation and Sustainability are already included in curriculum
Arrange more coding competitions for students.	The ACMW Student Chapter organizes coding competitions for FY, SY and TY students to enhance problem-solving and algorithmic thinking.
Include version control (git) in the curriculum.	The Third-Year curriculum of Computer Engineering includes a program elective on DevOps which covers version control.
Courses like Cloud Computing:Cloud services , Deployment, Serverless architecture, Containerization(docker) should be used in laboratory.	The Third Year curriculum includes a Cloud computing as core subject .This course and its lab covers all essential concepts like Services, docker containerization, serverless architecture etc.

Focus should be given on problem solving and project implementation.	Integrated project implementation and problem-solving as core parts of the curriculum. Collaborated with industry partners to provide real, industry- sponsored projects for students.
Internship must be compulsory.	The curriculum for Final Year students includes a provision for a dedicated six-month internship, allowing students to gain practical industry experience and apply their academic learning in real-world environments.

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