Departmental Advisory Board (DAB)meeting

31-01-2021

HOD MESSAGE

- Welcome to the Department of Mechanical Engineering at Carmel College of engineering and technology Alappuzha.
- The Department of Mechanical Engineering started in 2014.
- We have a well-structured undergraduate program in mechanical engineering with an intake of 60 students. The Under graduate program is affiliated with Dr APJ Abdul Kalam Technological university of Kerala.

DEPARTMENTAL ADVISORY BOARD (DAB)

- The Departmental Advisory Board (DAB) has been framed with the objective of remaining up to date with the latest requirements of the industry and incorporating necessary components in the curriculum as much as possible.
- The DAB is composed of members from eminent institutions as well as members from industry, alumni and members of faculty of the department

Roles and Responsibilities

- The Department Advisory Committee interacts and maintains liaison with key stakeholders.
- The committee develops and recommends new or revised goals and objectives of the program, by suitable changes in Vision Mission, PSO's an PEO's.
- The advisory committee may evaluate the performance of a program, provide feedback to the organization from the community, provide technical expertise, and assist staff in determining important activities.

INSTITUTE-VISION

- Moulding Engineers par Excellence with Integrity, commitment and human values, who are competent to meet the global standards in business, industry and research and would act as catalysts for the transformation of the society.

Institute-Mission

- We seek to develop this institution into a centre of academic excellence creating an atmosphere of intellectual excitement and scientific inquisitiveness and transforming the students into wholesome personalities and competent technical professionals with sound engineering knowledge, good managerial skills, high moral values and capable of assuming leadership in the society for the betterment of the nation.

Vision and Mission of the Mechanical Engineering Department

- **VISION**
- To excel in molding future engineers with social commitment by equipping them to meet dynamic and global demands

MISSION

- Impart quality education to undergraduates
- Empower students through technologically advanced and intellectually inspiring environment of learning
- Instill moral and ethical values in students for sustainable development
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Program Outcomes (POs)
Engineering

- **Engineering Graduates will be able to:**

1. **Engineering knowledge**: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
2. **Problem analysis**: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
3. **Design/development of solutions**: Design solutions for complex engineering problems and design system components or processes that meetthe specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

4. **Conduct investigations of complex problems**: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
5. **Modern tool usage**: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
6. **The engineer and society**: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

7. **Environment and sustainability**: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
8. **Ethics**: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
9. **Individual and team work**: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
10. **Communication**: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

11. **Project management and finance**: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
12. **Life-long learning**: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

PSO’S

1. Gather knowledge about industrial practices and culture of industry
2. Understand the needs of local community, and to develop technologies apt for them.

PEO's

1. Graduates will pursue successful professional careers with capability to analyze the Mechanical Engineering related problems, excel in soft skills, managerial skills, leadership qualities
2. Graduates will contribute to the sustainable development of the local community.
3. Graduates incur moral and ethical values and engage themselves in active learning for a successful professional career.

Result analysis -2019-20

Sl no	Semester	Number of students	Pass percentage
1	B.Tech S8 (R) Exam May 2020 (S8 Result)	51	94.12
2	B.Tech S7 (2016-20 batch)	51	54.9
2	B.Tech (2016-20 batch) overall result	21/51	41.17
3	S6(2017-21 batch)	58	84.48
4	S5 (2017-21 batch)	59	54.24
5	S4 (2018-22 batch)	66	68.18
6	S3(2018-22 batch)	67	28.3 6
7	S1(2019-23 batch)	35	71.43

Achievments

- Project of S6 students got 2nd prize in KTU Techfest held at Thrissur
- Amal S of final year Mechanical student secured 10 out of 10 CGPA in S5 university examinations (2018 DECEMBER)
- Amal S of 2016-20 Batch secured 9th Rank in KTU examinations for Mechanical Engineering Branch.
- 2 students from 2016-20 batch were p;aced in Federal bank

MOU’s signed

- MoU with HMT MACHINE TOOLS LTD, Kalamassery
- MoU with KELTRAC, Aroor, Alappuzha
- Mou with Keltron controls, Aroor
- MoU with ROVERZ MOTORS, Kayamkulam
- MoU with AUTONEXT
- Letter of consent with AUTOKAST LTD, Cherthala, Alappuzha for internship and project

Professional activities

- **Departmental Association: MAXCET**
- Training programmes
- A workshop was conducted based on 'Automobile Basics Advanced System Study' was conducted by AUTONEXT on 5th& 6th April 2019
- A training programme related to 'Vehicle Diagnostics' was conducted by BOSCH on 6th& 7th May 2019
- A workshop was conducted based on different Non-destructive testing methods on 5th October 2019
- Webinar on career opportunities for ME students was conducted