7.2.1 Describe at least two institutional best practices (as per NAAC Format) Response:

BEST PRACTICES-I

Title of the practice : **Project**

Based learning Objective

Project Based Learning (PBL) prepares students for academic, personal, and career success, and readies young people to rise to the challenges of their lives and the world they will inherit. The objectives of PBL are

- To improve the mathematical skills of the students
- To enhance the students to acquire deeper knowledge through active exploration of real world challenges and problems.

The context

Project-Based Learning (PBL) is an instructional methodology that encourages students to learn and apply knowledge and skills through an engaging experience. PBL presents opportunities for deeper learning in- context and for the development of important skills tied to college and career readiness. It is a style of active learning and inquiry-based learning.

The Practice

In Project Based Learning, teachers make learning come alive for students. Students work on a project over an extended period of time – from a week up to a semester – that engages them in solving a real-world problem or answering a complex question. They demonstrate their knowledge and skills by developing a public product or presentation for a real audience. As a result, students develop deep content knowledge as well as critical thinking, creativity, and communication skills in the context of doing an authentic, meaningful project. Project Based Learning unleashes a contagious, creative energy among students and teachers.

Evidence of success

Students from Computer Science and engineering developed a project named “Essentia”. It is a self learning app for children based on on Device Machine Learning. It can predict various objects and display materials based on the predicted object.

Students from Biotechnology and Biochemical Engineering developed a Mosquito repellent, Piyush Natura Herbal Tea, Bio-detergent etc.

Problems encountered and resources needed

Problem encountered during implementing Project based learning was less awareness among faculty members and students. This can be overcome by arranging proper training sessions to faculty members. Originality of the project is often lacking among the students. Sree Buddha College of Engineering takes steps to impart knowledge to the students to find solutions for socially relevant problems.

The resources needed for implementing the PBL is funding. The students are encouraged to take up socially relevant projects which can easily attract the funding from government agencies.

BEST PRACTICES-II

Title of the practice : Ideate Innovate Incubate (I3) @ Sree Buddha Incubation Centre

Objective

The objectives of I3 are

- Inculcate a culture of entrepreneurship through innovative student projects.
- Apply institutional mechanism to develop entrepreneurial culture among the students.
- Promote employment opportunities through innovation.

The context

Sree Buddha College of Engineering takes initiative in developing Entrepreneurial culture. Students are given platforms to showcase and present innovative ideas. The college has a dedicated space under IEDC named as Sree Buddha Incubation Centre (SBIC) for the students to work after college hours to develop innovative products. Potential entrepreneurs' ideas will be discovered, reviewed and the required support will be given for product development.

The practice

Motivated many students to participate in various innovation contests and has also bagged prizes in various events.
Students are given support for prototyping ideas through proper mentoring. Financial support is also given for developing the product.

Students are also given opportunity to exhibit their prototypes in exhibitions conducted in different colleges across the state.

Students' startups are always motivated by giving a pre-incubation space in the college and later help given in registering the company officially.

Students are also given chance to interact with various Entrepreneurs in the state.

Evidence of success

- Student's group participated in the innovative project competition conducted by IHRD College of Engineering Adoor on 10/02/ 2020 and secured first prize for the project IoT based Inverter Parameter monitoring

System

- Team Outliers with members Abhilash S. Nair, Dhiman Saha, Krishnakumar and Vishakh V presented the project “Project X: Human Character map generation using Machine Learning” and got selected to the final rounds of the Techathalon 2020 conducted by ICT Academy, Kerala.
- Idea of students Sivaprasad S, Mithun M, Ms. Jayalekshmi V.K, Midhula M, Arun Thampy titled “Mr. Saver : Railway GATE Assistive System” presented their prototype at the innovative project competition conducted by IHRD College of Engineering Adoor on 10/02/ 2020 and secured second prize.
- A group of 6 students were selected to the final round of Reboot Kerala Hackathon 2020 held during 28-02-2020 to 30-02-2020, 36 hors hackathon organized by the Department of Higher Education, Kerala for presenting an IoT Based Integrated Dam Monitoring System.
- Student’s group got selected to the final round of the technical contest named ICTAK Techathlon conducted by ICT Academy of Kerala on 05/03/20 and 06/03/20 for presenting the project 6 step VSI control of 3 phase solar water pump with INC-MPPT algorithm.
- Student’s group participated in 36-hour virtual tech innovation marathon conducted by the University of Maryland, Baltimore County and presented the project. Project of the team has won first prize in the health care category.
- Idea of students Ebin Babu Thomas, Akhil B and Hari Krishnan B S selected for the final round of Codefest- Vodafone Idea Limited on the theme AI Powered Solutions for Customer Engagements held during February 8-9, 2020.
- Students participated in the hackathon “Hacking Health” organized by Grapes Solutions and Kerala StartUp Mission during January 19-20, 2020.

Problems encountered and resources needed

Accounting and Business plan report creation for proper idea prototyping
Identifying investors for startups

BEST PRACTICES-III

Title of the practice : Cambridge English Language Assessment (BEC)

Objective

The objectives of BEC are

- To boost student's employability
- To make the recruitment easier
- To develop the English language skills of students
- To make the student's acceptable for taking admission in foreign universities.

The context

Cambridge English: BEC is a high-quality international English language exam that shows students have the work-focused English language skills for study and work success. This market-leading exam is developed by Cambridge English Language Assessment – a department of the University of Cambridge and world leader in language teaching and assessment. Sree Buddha College of Engineering has taken initiative in making students fit for employability by practicing BEC.

The practice

- Student's are offered with a communicative English program for 15 hours.
- Student's who have registered for BEC certification exam special training will be provided.
- Certification Exam will be conducted for registered students.

MoU

- Sree Buddha College of Engineering has signed an MoU with International Institute of Foreign Studies for practicing BEC.

Evidence of success

- A total of 150 students have registered for BEC.