<u>**Best Practice-I**</u>

1. **Title**   :   **To improve the innovation and incubating the incubation in the students minds though IDEA Lab (Idea Development, Evolution and Application) for skill development**

2. **Objective**   :
   - To establish a physical and virtual environment for the School / Undergraduates/Postgraduates students and faculties to create, develop and commercialize innovative ideas through relevant training, mentoring, and technology put at their disposal by following the entrepreneurial journey (start-ups) for the enhancement of innovativeness, generate advanced employment potential of graduates through collaboration between institutes and enterprise.

   - Jayamukhi Institute of Technological Sciences has well research laboratories, and background guides to establish initiatives and encourages of students to grow up as an entrepreneur. The quality and reputation of the institute result from the broad responsibility undertaken by it regarding merit in every aspect of its attempt, uncommonly reliable personnel, staff, students, and dynamic and imaginative educational modules. Also, the engineering, computing laboratories, and workshops are equipped with state-of-the-art equipment to meet all commercial and industrial standards and these facilities are available 24x7 hours for the faculties and students. This institute has recognized four interdisciplinary MODROBS laboratories in various departments to encourage Education programs, training programs for local industry, and consultancy work. All these available MODROBS laboratories will integrate with the proposed IDEA lab to achieve a better outcome.

3. **Context :**

   The proposed IDEA lab will produce the technological environment to design, develop and commercialize their ideas in two ways – entrepreneurial (pursuing their creative ideas) and collaborative (working on problems submitted by existing companies). Moreover, it will act as a common platform of students, researchers, entrepreneurs as a solution and service providers, and users into a co-creative environment, cross different perspectives, and deepen understanding about complex interactions between technologies and market; and thereby substantially increase the likelihood for both high potential start-ups and successful open innovations.
   - IDEA lab will have physical and virtual space where innovative products and services can be conceptualized and validated then spun out into new venture initiatives. It is expected that these mentioned concepts will enable the sustainability of the proposed IDEA lab beyond two years.

4. **The Practice** :

   The proposed IDEA lab will drive the industry, academic, market expectations, and standards through the addressed domains/topics and competencies in each assessment and certification. Besides, this IDEA lab will be based on relevant content standards and alignment with the National initiative standards by the Government of India for the Essential Knowledge and Skills
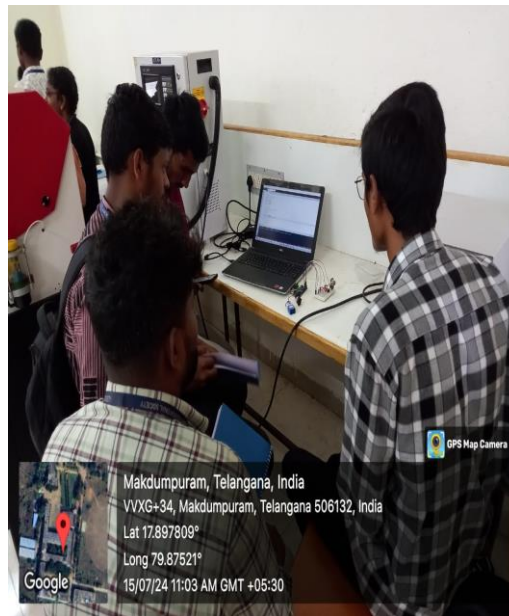
identified by the National Career Clusters Initiative. Our institution tries to provide a one-stop organization that needs to work with the MSME sector. Also, JITS can add immense value to the MSME sector and get recognition through this proposed IDEA lab by strengths and outreach for MSMEs. We can ensure that the interest of our MSMEs synergizes with the targeted outcomes, and we can facilitate their alignment in the global value chain. Moreover, this IDEA LAB ensures that the interest in aligning with S & T initiatives of major National Needs like Water, Energy, Environment, Transport, as well as Make in India, Startup India, Digital India. From ride-sharing apps, to voice searches on smartphones, AI service delivery is being used every day. Even from the perspective of the business landscape, India is making rapid strides in the SME and MSME sector concerning the adoption of digital technologies. While on one hand, these technologies offer you a great promise, they also manage to raise apprehension at the same time and only the concerted efforts of key stakeholders can create a framework that will capitalize on the technology landscape and be able to derive maximum benefits in the most pragmatic manner.

In Technology vision 2035, the electronic products have to meet the demands of the consumer electronics as well as the needs of industry will be two different but requisite needs. The semiconductor industry will itself go through various stages such as system-on-chip, additive technologies for the existing CMOS, MEMS/NEMS devices. For instance, improved device technology and new system structures are needed for improving the overall performance of electronic systems. This IDEA LAB will give the great achievement to design and develop the energy harvesting systems from renewable sources.
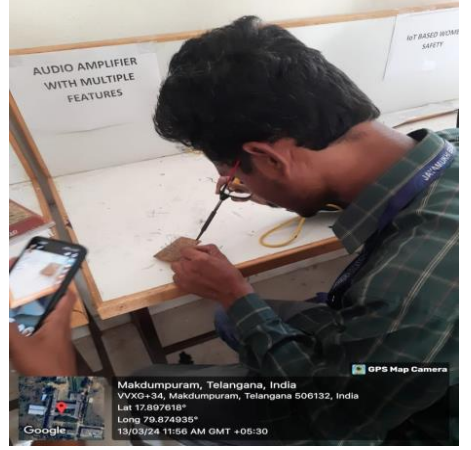
List of activity organized in the AICTE Sponsored IDEA Lab

	Events	Dates of the event	No.of Students/Faculty benefitted
1.	Skill Development Program on CNC Wood router Machine **(No.of Days = 2)**	2023-01-06 to 2023-01-07	118
2.	Awareness Program on IDEA lab and its facilities to Alumni Students **(No.of Days = 1)**	2023-2-25 to2023-02-25	19
3.	Skilling Program on Drone Technology **(No.of Days = 2)**	2023-03-05 to 2023-03-06	55
4.	Skill Development Program on 3D Printer, 3D Scanner and CNC Router for other Institute students **(No.of Days = 2)**	2023-03-26 to 2023-03-27	37
5.	Skilling Program on Aurdino for IoT applications **(No.of Days = 2)**	2023-03-31 to 2023-04-01	52
6.	Skill Development Program on 3D Modeling using CATIA **(No.of Days = 2)**	2023-04-03 to 2023 -04-04	24
7.	Electronic Circuit Design using ORCAD (No.of Days =1)	2023-05-05	43
8.	Project Exhibition **(No.of Days = 2)**	2023-06-19 to2023-06-20	32

9.	Skilling Program on Additive Manufacturing **(No.of Days = 2)**	2023-06-14 to2023-06-15	40
10.	Coding with Raspberry Pi **(No.of Days = 2)**	2023-06-15 to 2023-06-16	64
11.	Skilling Program on Advanced Manufacturing and PCB Design **(No.of Days = 3)**	2023-08-17 to 2023-08-19	55
12.	Workshop on Product Design **(No.of Days = 3)**	2023-09-11 to 2023-09-13	52
13.	Web Design using Java Script **(No.of Days = 2)**	2023-09-05 to 2023-09-06	14
14.	Internal Hackathon **(No.of Days = 2)**	2023-09-22 to 2023-09-23	43
15.	Faculty Development Program on 3D Printing Technology **(No. of Days = 6)**	2023-11-20 to 2023-11-25	20
16.	Ideathon workshop ANVESHAN **(No.of Days = 3)**	2023-12-19 to 2023-12-21	33
17.	Skilling Program on Microcontroller for Embedded System Design **(No.of Days = 3)**	2024-03-14 to2024-3-16	30
18.	Open day for School students	024-12-20	28
19.	Boot Camp	2024-9-18 to 2024-09-20	29

Some of the photographs of Idea Lab Events

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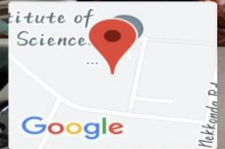Lat 17.897618°
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