POORNIMA

INSTITUTE OF ENGINEERING & TECHNOLOGY

Affiliated to RTU, Kota • Approved by AICTE & UGC under 2(f) • Accredited by NAAC and NBA

PIETAICTE IDEA LAB ACADEMIC MANUAL

Index

ABOUT PIET

Established in the academic year 2007 and affiliated with Rajasthan Technical University, Poornima Institute of Engineering & Technology (PIET), Jaipur is a renowned institution in Engineering Education, accredited by AICTE, and recognised under UGC 2(f). The Poornima Institute of Engineering & Technology is diligently utilising all of its capabilities to produce academic excellence and the holistic development of its students. With 1300 students enrolled, it serves as a home for learning and is dedicated to delivering the highest calibre technical skills to students through its six undergraduate engineering specialisations: B.Tech in CSE, AI & DS, CS(R), CS (AI), CS (DS), and CS (IoT).

"Success is not a destination, it's a journey"

is the philosophy that PIET is using to guide its incredible adventure.

With commitment, tenacity, and devotion, PIET has accomplished remarkable things in the field of engineering education in less than 20 years, breaking numerous records and setting new standards. World-class technical and scientific education from PIET has helped students in all spheres of life to develop professional perspectives.

Poornima Institute of Engineering & Technology, Jaipur has successfully achieved few wonderful milestones by constant hard work and sincere dedication towards preparing the absolute trained Engineers in different streams such as being ranked 3rd in annual QIV ranking (Consistently 3rd for last 04 years) by Rajasthan Technical University, being the 1st Institution across India to offer B. Tech CSE in Regional language under NEP 2020, it has been accredited by National Assessment and Accreditation Council (NAAC) since 2019, and is accreditation by National Board of Accreditation for B. Tech (Computer Engineering) program for the last 06 years and for B.Tech (Civil Engineering) program in 2019-20 and was 1st across Rajasthan to achieve the same. PIET is also rated PLATINUM by AICTE-CII Survey for strong Industry Linked Technical Institutes, establishment and has established of the first and only IDEA Lab in Rajasthan funded by AICTE and is having many industry and government funded labs like Neural Network & Deep Learning Lab under AICTE-MODROB, REDHAT Lab, ORACLE Lab and many more. PIET has been awarded center of excellence for Advanced Digital Manufacturing by its affiliating University that facilitates Skill development, hands on learning and innovation. In last 05 years PIET has published more than 300 papers in reputed journals, out of them more than 120 are SCI & Scopus Indexed, total research grants received till date amount to Rs. 1.47 crores in last five years and with help of dedicated IPR cell our students and faculty members have more 60 patents published and 10 patents granted in last 05 years. Every year we place more than 90% students with top reputed Industries with an average package of Rs. 4.5 lakh per annum. Poornima Business Incubation Cell (PBIC) is a dedicated unit that encourages and supports work towards entrepreneurship and till now more than 25 incubations have been nurtured out of which 12 are registered with Government bodies too.

CHAPTER - 1

INTRODUCTION

VISION

IDEA Lab will be dedicated for up-gradation of the science & engineering education among students, faculty, Industry & its workforce, with the latest industry trends and practices, rendering the requirements of the rural population & upgrading skill-based learning of faculty, engineering students, schools in above said domains.

MISSION

- To have Industry oriented Training & skill development and creativity.
- To increase more Innovative practices and creative research trends in all domains to generate more entrepreneurs from the Institution.
- To render Consultancies to Industry and develop this lab as a small Manufacturing unit for the industries.
- To facilitate Research and Social projects with the industries & government agencies.

ABOUT AICTE IDEA LAB

More and more AICTE-IDEA (Idea, Development, and Evaluation & Application) Labs are being set up nationwide to support students in applying STEM (science, technology, engineering, and mathematics) principles to improve hands-on learning, experiential learning, and even product visualisation. In addition to providing foundational instruction in 21st-century skills like critical thinking, problem solving, design thinking, collaboration, communication, and lifelong learning, the IDEA Lab, a shared facility integrated into the university, will help engineering graduates become more imaginative and creative. In order to meet the needs of new age learning, IDEA Lab can enable teachers and students to "engage, explore, experience, express and excel". IDEA Lab would provide the framework necessary for academics to embrace and advance interdisciplinary teaching and research.

IDEA Lab will offer all the resources needed to turn an idea into a prototype under one roof. The emphasis would be on graduating engineers working with their hands and utilising equipment, tools, and consumables (listed in the Scheme Document); new ideas are not always necessary, though they will always be encouraged. With these facilities on campus available around-the-clock, more instructors and students will be inspired to engage in creative work and, in the process, receive training in areas like collaboration, problem solving, and creative thinking—areas that traditional labs do not prioritise. The emphasis will be on preparing students to enter the workforce as imaginative and creative individuals and to maintain that level of creativity. The ultimate goal of having a lab like this in every college is to revolutionise engineering education. To achieve this, they need to actively introduce the IDEA Lab to every student, host training sessions for students who are interested, support projects, and offer online learning resources.

ABOUT AICTE IDEA LAB @PIET

The All-India Council for Technical Education (AICTE) has launched the IDEA (Innovation, Development, Entrepreneurship, and Advancement) Lab to promote innovation and entrepreneurship among students in technical education institutions. The IDEA Lab is designed to provide a platform for students to conceptualise and develop their ideas into sustainable projects and startups.

Objective:

The main objective of the PIET AICTE IDEA Lab is to foster a culture of innovation and entrepreneurship among students in technical education institutions. The lab aims to create an environment that is conducive to the development of new ideas and the creation of new ventures. Additionally, the PIET AICTE IDEA Lab will provide students with the resources and support they need to turn their ideas into successful projects and startups.

Execution:

The PIET AICTE IDEA Lab will be set up in technical education institutions across the country. It will be equipped with state-of-the-art facilities and resources to support the development of student ideas and projects. The lab will also provide students with access to mentors, experts, and industry leaders who can provide guidance and support throughout the development process.

The PIET AICTE IDEA lab will be a place for students and researchers to engage in experimentation, collaboration, and co-creation, it will enable them to design, develop, test, and validate new products, services, and business models that lead to innovation and entrepreneurship.

The PIET AICTE IDEA Lab will organise various programs and events throughout the year, including workshops, hackathons, and incubation programs, to encourage students to participate in innovation and entrepreneurship activities. Additionally, the IDEA Lab will offer funding and resources for students to turn their ideas into prototypes and test them in the market.

BENEFITS TO STUDENTS AND STAFF

Benefits to students:

- IDEA Lab is a place where students get encouraged to think outside the box and provide a place where they can explore new ideas and experiment with different concepts.
- Students can apply whatever they have learned in class to real-world projects and can gain practical experience, thereby, bridging the gap between theory and practice.
- Students can work on real-life problems and can enhance their problem-solving skills.
- IDEA Lab provides a hub for students to enhance their networking skills and connect with entrepreneurs, mentors, and industry professionals.
- By participating in the Hackathon, students can apply and improve their programming, problem-solving, and teamwork skills in a real-world environment.
- While working at the IDEA Lab, students can gain insight into the latest industry trends, technologies, and challenges, thereby contributing to their overall education.
- By participating in a hackathon, students receive a concrete project that they can add to their portfolio, thereby differentiating themselves from potential employers.

- IDEA Lab provides materials and equipment to the students for the project development.
- Students can develop interpersonal skills that are crucial in professional environments.
- IDEA Lab bears all the expenses of the students travelling for the hackathons.

Benefits to staff:

- IDEA Lab serves as an extension for the classroom where staff can integrate practical experience with their classroom.
- IDEA Lab can facilitate the staff to adopt innovative teaching methods which will help to keep their courses relevant and engaging.
- Staff can use IDEA Lab to establish connections with industry professionals and experts.
- IDEA Lab can also facilitate research collaborations between staff members.
- By attending conferences and workshops, staff can stay up-to-date on the latest trends, research, and best practices in their field. This continuous learning contributes to their professional development and expertise.
- Faculty members may be motivated to implement novel teaching strategies and techniques in their courses by being exposed to cutting-edge concepts and technologies in idea labs, which will enhance student engagement and create a more dynamic learning environment.
- IDEA labs can produce publications from successful projects and research outcomes, which can raise faculty members' and the institution's academic profile.
- Participation in IDEA labs by faculty members can open doors to leadership positions, giving them the ability to direct and mould creative endeavours.
- IDEA labs can help with internal collaboration as well as external collaboration with research groups, industry partners, and other educational institutions.
- IDEA labs frequently concentrate on emerging technologies and market trends. Participation from faculty members guarantees that the institution's academic offerings stay current and in line with the changing demands of the labour market.

CHAPTER - 2

Organisation Of Idea Lab Team

Faculties Involved

POST	NAME
CHIEF MENTOR	DR. DINESH GOYAL
HoD & COORDINATOR	MR. UDIT MAMODIYA
TECHNICAL GURU	DR. BHANU PRATAP
TECHNICAL GURU	NITIN MUKESH MATHUR
TECHNICAL GURU	RAJENDRA SINGH
ASSISTANT PROFESSOR	ANIVA SHARMA
TECHNICAL GURU	ASHISH LADDHA
TECHNICAL OFFICER	LAXMAN SINGH CHAUHAN
TECHNICAL ASSISTANT	SANJEEV RISHI
TECHNICAL ASSISTANT	DIVYA RASHTOGI
TECHNICAL ASSISTANT	SUMIT LUNIA
TECHNICAL ASSISTANT	SURENDRA KUMAR SHARMA

STUDENT COMMITTEE

PIET AICTE IDEA LAB STUDENT COMMITTEE		
Post	**Name**	**Registration Number**
Advisor	Kunal Sharma	PIET21CS096
Secretary	Himani Jangid	PIET22CS068
Joint-Secretary	Aditya Pareek	PIET22CA037
Idea Lab Coordinator	Vishal Kumar Jangid	PIET22CS182
Idea Lab Co-Coordinator	Mayank Saini	PIET22CS105
Ambassador	Prashant Jalther	PIET23AD044
Ambassador	Naitik Sharma	PIET23AD039
Ambassador	Abhay Kumar Mittal	PIET22AD003
Ambassador	Sangita Biswas	PIET22CA049
Ambassador	Kartik Mehta	PIET22CA029
Mentoring Committee	Anurag Dadhich	PIET22CS025
Mentoring Committee	Ansh Kumawat	PIET23CS019
Mentoring Committee	Manish Vaishnav	PIET22CS100
Mentoring Committee	Anushka Nag	PIET22CS026
Mentoring Committee	Srishty Goyal	PIET22CA055
Managing Committee	Tanishka Jain	PIET23AD055
Managing Committee	Hardik Jain	PIET23CS060
Managing Committee	Kuldeep Soni	PIET23CR035
Managing Committee	Shubham Sharma	PIET23CA057
Managing Committee	Shreya Pareek	PIET23CA064
Managing Committee	Panini Kashyap	PIET23CS119

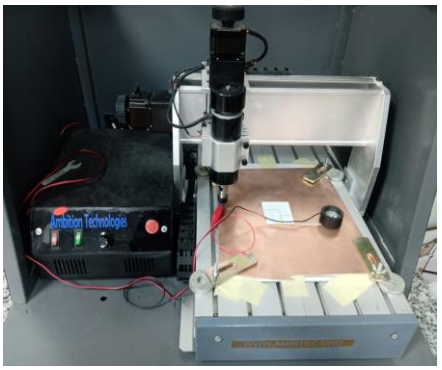
ROLES & RESPONSIBILITIES OF IDEA LAB STUDENT COMMITTEE

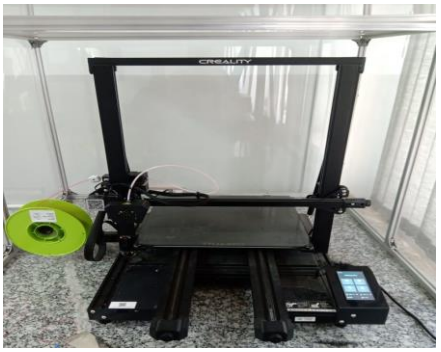
The roles and responsibilities of the IDEA Lab student committee depends on the objectives and focus of the IDEA Lab as well as on the needs and goals of the students. The roles of the committee members are:

1. **Leadership**: Student members are responsible for providing guidance and leadership to other students which will set the vision and direction for the activities in IDEA Lab.
2. **Organise events and workshops**: To plan and organise various events and workshops, and seminars that will promote innovation and entrepreneurship among students.
3. **Mentorship**: To provide mentorship and guidance to fellow students who have innovative ideas and want to take it further.
4. **Promote collaboration**: Promoting collaboration among students and faculties to create a conducive learning environment for interdisciplinary projects and ideas.
5. **Resource Management**: To manage the usage of resources and allocation of components.
6. **Bridging the gap**: To bridge the communication gap between the students and IDEA Lab management conveying the reviews and feedback of the students.
7. **Networking**: To develop and build connections with the alumni and industry professionals, creating networking opportunities for students.
8. **Documentation**: To maintain the records and documentations of the events organised under IDEA Lab.
9. **Learning and Development**: Promoting the personal and professional development of the student members through various training programs and exposure giving real-world entrepreneurial experience.
10. **Evaluation and assessment**: Evaluation of the impact and effectiveness of the programs conducted under IDEA Lab, to seek the ways to improve and refine the offerings.

CHAPTER - 3

FACILITIES AT IDEA LAB
LIST OF AVAILABLE MACHINES

1	3D Scanner	
2	Laser Cutter	
3	Vinyl Cutter	
4	CNC Router	

5	PCB Milling Machine	
6	Smart Board	
7	3D Printer (FDM)	
8	3D Printer (SLA)	

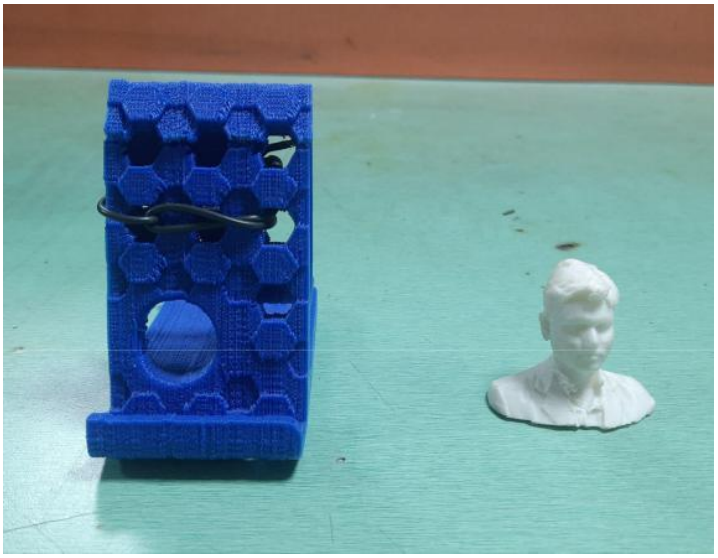
9	3D Printer (Pratham 5.0)	
10	Reflow Oven	
11	AR - VR Setup	

S. NO.	NAME OF EQUIPMENT
1	PCB Power Drilling Machine
2	Plotter-Printer
3	Desktop
4	Belt and disc Sanding Machine
5	Scroll Saw Machine
6	Bench Grinding Machine
7	Centrifugal Blower
8	Hacksaw
9	Micro Chisel Set
10	Pliers
11	Cordless Drilling Machines
12	Jigsaw Machines
13	Power Circular Saw
14	Files Set
15	Files Handles
16	Needles Files
17	Pipe Vice
18	Mini Hacksaw
19	Ball Pin Hammer
20	Steel Shaft Claw Hammer
21	Nylon Mallet
22	Rubber Mallet
23	Allen Key Set
24	Dremel Multi Tool Kit
25	Double Ended Spanner Kits
26	12 Piece Open Ended Spanner Kit
27	Tool Wall covering Perforator
28	Dremel Moto Saw
29	Power Return Measuring Tape
30	Tri Square 8"
31	Stainless Steel Rule
32	Digital Vernier Caliper
33	Dremel Cordless Rotary Tool
34	Spirit Level
35	GPIO Power Router
36	Hot Air Blower with soldering iron
37	Tin Cutter with Spring
38	Screwdriver Sets
39	Cutting Mats
40	Vacuum Cleaner
41	Hot Air Gun
42	Micrometer
43	Glue gun
44	Air compressor

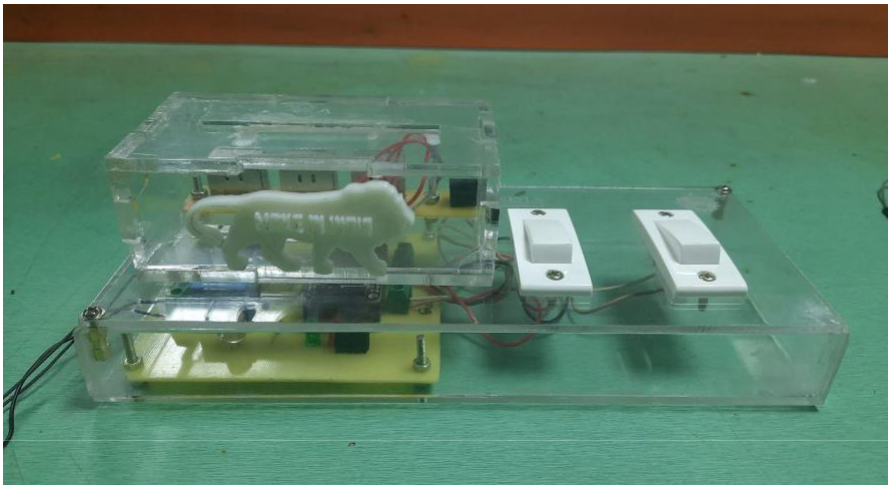
45	Allen Set Wrench
46	Tongue and groove pliers
47	Non-contact voltage tester
48	Wire Stripper
49	Fish Tape
50	Flashlights
51	DC Regulated Power Supply
52	Solder Wick
53	Filament Dehydrator
54	Glass Cutter
55	Gypsum
56	Digital Multimeter
57	Clothes iron
58	Oscilloscope
59	C-Clamp
60	Ratchet clamp 8 inches/200mm
61	Baby vice 60mm
62	Bench Vices
63	Anvil
64	Mini Desktop Lathe Cum Milling
65	Reflow Oven

Projects made using 3D scanner:

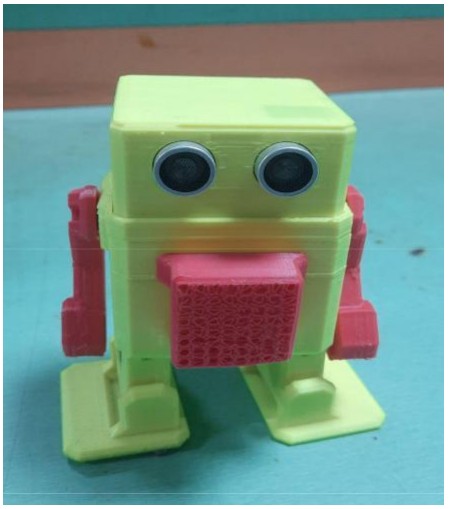
Phone holder and face of a teacher were scanned with the help of a 3D scanner and then printed with the help of a 3D printer.



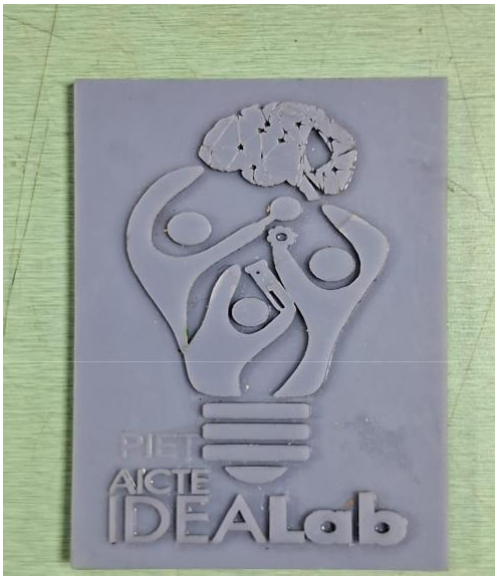
Projects made using Laser Cutter:



Projects made using 3D printer:



IDEA Lab logo printed using SLA 3D Printer:



AVAILABLE SOFTWARES AT IDEA LAB

At IDEA Lab, various software's is available for the usage of these machines.

SR. NO.	SOFTWARE NAME
1	Arduino IDE
2	Eagle CAD
3	KiCad
4	EinScan Pro
5	Ultimaker Cura
6	TinkerCAD
7	RD Works
8	Auto CAD
9	MATLAB
10	Sketchup
11	V-Ray
12	SolidWorks
13	Flexi
14	Blender
15	Blynk IoT
16	MQTT
17	Postman API
18	Canva
19	CorelDRAW

CHAPTER - 4

Norms and Guidelines of Idea Lab

Norms And Guidelines for Piet AICTE Idea Lab

- Keep the store tidy. Scrap metal needs to go in the scrap bin. Keep projects and raw materials stored. Nothing can be left on the floor or tables, including materials or tools.
- Understand the material's safety requirements.
- Remain mindful. Never allow anyone to divert your attention. No earbuds, headphones, or cell phones.
- Understand what to do if there is a fire. Recognise where the fire exits are located.
- Notify your instructor or the Lab personnel of any injuries. Kits for first aid are available in the lab.
- To counteract applied forces from a tool, always use a clamp to hold material firmly in place.
- Keep food and beverages closed.
- No external tools.

Essential Safety Gear

- Wearing safety glasses is required at all times. accessible at the entrance to the machine shop.
- No baggy or loose-fitting clothes.
- When using rotating machinery, avoid wearing watches or hanging jewellery.
- Put long trousers on. Nothing in kilts, dresses, skirts, or shorts.
- Before using a desired machine or tool, users must undergo safety training and receive approval.
- Before taking any measurements or cleaning the chips, STOP the machine.
- Never try to use your hand to stop a spinning or moving part.
- Know where the lever controls or stop/E-stop switch on the machine are located.
- The only person who should use the controls is you.

INTELLECTUAL PROPERTY AND CONFIDENTIALITY POLICIES

The intellectual property and confidentiality policies usually set forth the rules and regulations pertaining to the creation, use, and preservation of intellectual property as well as the privacy of specific data. These regulations are essential for promoting innovation, protecting the institution's interests, and guaranteeing adherence to moral and legal requirements. The following are some important topics that the policy frequently addresses:

1. Ownership of Intellectual Property (IP):

- Ownership Rights: When it comes to intellectual property created by staff members and students, the College claims ownership rights.
- Creator Rights: Individual artists are entitled to certain rights over their intellectual property, especially faculty members and students. However, if the creation is the product of significant institutional resources or fits into one of the special categories outlined in this policy, the College may claim ownership.

2. Patents and Inventions:

- Disclosure: Students and faculties are required to notify the IPR Cell as soon as they have an invention or a discovery that is patentable.

- Patent Filing: The College retains the right to submit patent applications for creations that come from its research. These patents' ownership and licensing will be decided in compliance with the College's regulations.

3. Inheritance and Creative Content:

- Course Material Ownership: Unless otherwise stated in contractual agreements, the copyright to couposes, faculty members are expected to follow fair use guidelines and course materials, textbooks, and other educational content written by faculty members normally belongs to the individual creator.
- Utilising Copyrighted Content: When using materials protected by copyright for instructional copyright laws.

4. Protecting privacy:

- Information and Study: When dealing with sensitive information or when research data and results are covered by non-disclosure agreements, researchers must take the necessary precautions to protect the confidentiality of such information.
- Information about Students and Employees: Everyone who is a part of the College community must respect privacy laws and keep student and employee information private.

5. Joint Research and Collaborations:

- Collaborative Agreements: The conditions specified in collaborative agreements will govern the management and sharing of intellectual property arising from joint research with outside partners.
- Contractual Agreements: Contractual agreements with external entities should include intellectual property considerations as a fundamental element, outlining the rights and responsibilities of each party.

6. Technology Commercialization and Transfer:

- Licensing: Under the terms and conditions specified in licencing agreements, the College may grant licences for the commercialization of intellectual property to outside parties.
- Revenue Sharing: The College's revenue-sharing policy will determine how the proceeds from the commercialization of intellectual property are distributed, and this may include funding for additional research and development.

7. Compliance and Enforcement:

- Compliance Obligations: In addition to adhering to applicable laws and regulations, all members of the College community are required to follow these policies regarding intellectual property and confidentiality.
- Repercussions for Violations: If the policy is violated then it may result in disciplinary actions such as, reprimand, suspension, termination, or legal action.

It is important to periodically review and update these policies to consider modifications to laws, institutional practices, and technology. Effective communication of the policies to all pertinent parties within the college community is also crucial.

Confidentiality Policy: If an inventor wants to protect an invention they have produced while working at PIET AICTE IDEA Lab, they must notify the IPR cell as soon as possible by submitting an invention disclosure form (IDF) to the IPR cell. A delicate step in the IP protection process is the disclosure of inventions in the parent institution's IPR cell, which formally records the inventors' claims, the invention's date, and other information. The rights to the disclosed invention must be assigned by the

inventor(s) to IDEA Lab. The inventor(s) shall maintain the confidentiality of all IP related information pertaining to the specific invention, including rights assigned to IDEA Lab or rights remaining with IDEA Lab personnel, even after submitting the IDF to the IPR cell.

CHAPTER - 5

Our Industry & Academia Partners
Collaborations with Various Industries

The primary objective of the Industry Policy is to cultivate a dynamic research environment within the PIET AICTE IDEA LAB, involving both faculty and students. This policy functions as a comprehensive framework under which internships, conferences, and professional development workshops can be conducted. PIET has meticulously developed this policy and accompanying guidelines to ensure the execution of these activities is characterised by ethical conduct, with due consideration for the well-being, environmental safety, and privacy of all stakeholders involved. The present Industry policy is designed to support PIET AICTE IDEA LAB and its faculty in the pursuit of excellence and their collective contribution to the ethos of the IDEA LAB and society at large. The objectives of the policy are as follows:

- To investigate and pinpoint shared avenues for engagement with the industrial sector.
- To create collaboration with industry and corporate partners to offer real-time exposure to cutting-edge technologies.
- To foster a range of research initiatives conducted by both faculty members and students.
- To forge connections and convergence with industrial and research entities across diverse domains through Memoranda of Understanding (MOUs) as a mode of interaction.

Activities Conducted with Various Industries

S.NO.	EVENT NAME	NO. OF EVENTS PERFORMED
1	FDP on PCB Design, Soldering, Assembly and Enclosure Development Using A PCB Milling Machine, Laser Cutter And 3D Printer	Conducted at PIET: 5 Required as per Scheme Document: 4
2	FDP on IoT Based Product Development (Using	
	Advanced Digital Manufacturing Equipment's, Tools and Resources	
3	FDP on Reverse Engineering for Product Design Using CAD	
4	FDP on Future Scope of Additive Manufacturing	
5	FDP Program (PCB Design with Pick and Place Machine)	
6	Students Skilling Program	Conducted at PIET: 20 According to Scheme Document: 6
7	Students Skilling Program on 3D Printing	
8	Student Skilling Program On 3D Scanner and CO2 Laser Cutter	

9	Student Skilling Program on Laser Cutter Machine	
10	Student Skilling Program on Eagle Cad Software	
11	Student Skilling Program on PCB Milling Machine	
12	Student Skilling Program on Laser Cutting and Engraving Machine	
13	Skilling Development Program on AutoCAD Software	
14	Skilling Development Program on Solid Works Software	
15	Skill Development Program on Electronic System Design Using PCB Prototyping	
16	Skill Development Program on Fusion 360	
17	Three Days Student Skilling Program on Advanced PCB Design on Eagle CAD	
18	Skilling Development Program on Product Design and Prototyping Using Sensors	
19	Skilling Program on Smart Manufacturing	
20	Skilling Program on Smart Manufacturing and Prototyping	
21	Skilling Program on Design Thinking and Advanced Manufacturing	
22	Student Skilling Program on Design Thinking and Product Development	
23	6 Days Skilling Program on CNC Router, Laser Cutter and 3D Printer	
24	Skilling Program on PCB Designing and Digital Manufacturing for Product Development	
25	Skilling Program on 3D Printing and Laser Engraving	
26	Boot Camp on Innovative Teaching Strategies and Technology Integration	Conducted at PIET: 5 According to Scheme Document:4
27	Bootcamp on Data-Driven Instruction and Assessment	

28	Bootcamp on Design Thinking for Education	
29	IDE Bootcamp	
30	Bootcamp on Immersive Learning in IoT and Robotics Technology	
31	Ideation Workshop for Students	Conducted at PIET: 12 According to Scheme Document: 8
32	Ideation Workshop on Integrated Manufacturing Techniques	
33	Ideation Workshop on PCB Milling Machine	
34	Ideation Workshop on Arduino C	
35	Ideation Workshop on Recent Trends on CAD Software for Engineering Students	
36	Ideation Workshop on 3D Printing in Industry 4.0	
37	An Ideation Workshop on Digital Manufacturing on Industry 4.0	
38	Arduino IDE Ideation Workshop	
39	3D Printing Ideation Workshop	
40	Student Ideation Workshop on Experiential Learning in IoT	
41	3 Days Ideation Workshop on IoT for Industrial Automation	
42	Synergizing IoT And 3D Printing: An Ideation Workshop for The Future	
43	Awareness Workshop for Industry Person	Conducted at PIET: 11 According to Scheme Document: 8
44	Awareness Workshop for Industry Person	
45	Awareness Workshop for Industry	
46	Awareness Workshop for Industry	
47	Awareness Workshop for Industry Persons	
48	Awareness Workshop for Industry Persons on Robotics in Indian Industry-Future Trends	
49	Awareness Workshop for Industry Persons on Design Thinking	
50	One Day Awareness Workshop for Industry Persons on Arduino	

51	Awareness Workshop for Industry Persons on Introduction To 3D Scanning	
52	Awareness Workshop for Industry Persons on IoT from Idea to Prototype: Rapid Prototyping Techniques	
53	Awareness Workshop for Industry Persons Transforming Research into Publication, Patent, Project and Product Development	
54	Summer Internship Program on IoT Based Product Development (Using Advanced Digital Manufacturing Equipment, Tools and Resources	Conducted at PIET: 2 According to Scheme Document: 2
55	Summer Internship Program on IoT based Product Development with Data Analytics (using Advanced Digital Manufacturing Equipment, Tools and Resources) for 1st Year students	
56	Professional Skilling Program	Conducted at PIET: 11 According to Scheme Document: 6
57	Professional Skilling Program	
58	Professional Skilling Program on IoT Product Development Using Advanced Machineries	
59	Professional Skilling Program on Lightburn to Operate Laser Cutter Machine	
60	Professional Skilling Programs on IoT Protocols and Communication Standards	
61	Professional Skilling Program on IoT and AR Applications	
62	Professional Skilling Program on Exploring Eco-Friendly 3D Printing Materials in IoT Applications	
63	Professional Skilling Program in Reverse Engineering Using 3D Scanner	
64	Professional Skilling Program on Innovations at The Intersection: Exploring Synergies Between IoT And 3D Printing in The Digital Era	
65	Professional Skilling Program on AutoCAD	

66	Professional Skilling Program on Designing the Future: Navigating the World of PCBs With Cutting-Edge Software Solutions	
67	School Teachers Awareness Program	Conducted at PIET: 4 According to Scheme Document: 4
68	Unlocking Creativity: Introducing The IDEA Lab to School Faculty	
69	School Teachers Awareness Program on Basics of Arduino and Its Application	
70	School Teachers Awareness Program on Integration of IoT with PCB Challenges and Solution	
71	One Day Session for Deaf & Dumb School Students	Conducted at PIET: 6 According to Scheme Document: 2
72	Open Day for School Students	
73	School Visit (Banasthali)	
74	School Visit Mahatma Gandhi Sr. Sec School Jaipur	
75	School Visit (Tagore Public School)	
76	Unveiling The Idea Lab Experience for School Innovators	
77	Outside Participation	Conducted at PIET:5 According to Scheme Document: 2
78	BVPS Hackathon, Delhi	
79	A National Level Project Exhibition 2k22 (Outside Participation)	
80	ABES IDEA Lab Student Ambassador Regional Innovation Challenge	
81	National Innovation Challenge at Piet, Panipat	
82	1st International Conference on Innovations and Intellectual Property for Sustainable Development	Conducted at PIET: 4 According to Scheme Document: 2
83	National Level Project Exhibition "Udbhav 2022"	
84	National Level Project Exhibition "Udbhav 2023"	
85	Smart India Hackathon 2023 (Software Edition)	

MoUs

PIET AICTE IDEA LAB, a hub of innovation and creativity, is proud to announce its strategic collaborations with several leading companies from diverse industries. By forging meaningful Memorandums of Understanding (MOUs), the lab aims to foster an ecosystem of cutting-edge research, development, and entrepreneurship. These partnerships will enable students and faculty to work closely with industry experts, access state-of-the-art resources, and co-create innovative solutions that address real-world challenges. Together, we are shaping a brighter future and empowering the next generation of visionary leaders.

EXELIQ SOLUTIONS	Geekster
AIESEC	CELEBAL TECHNOLOGIES
rapidops	Helios Web Services
GG NATION	MACHIN AUTOMATION


Hitesh Lahoti & Associates
R.C.C. & STRUCTURAL CONSULTANTS
Ground Floor Parijat Building, Opp. SNDT College Near Lagu Bandhu
Karve Road, Pune - 411004. Phone No.: +91 - 8793013303
E-mail : hiteshlahotiassociates@gmail.com
KaryTeck
ROBOFI
Young Indians
WE CAN WE WILL
SINCGRID
MGUMST
LEARNING
SERVING
HEALING
SYNORIQ
Elektrolites
Where Innovation Is Life.
VMK
DIGITAL
JOHNS
HOME AUTOMATION
CLUB FIRST
PMAS
Process & Machines

COLLABORATIONS WITH VARIOUS ACADEMIA

Collaborations within the framework of the PIET AICTE IDEA LAB are integral to fostering innovation, promoting entrepreneurship, and enriching the educational experience. Here are some key reasons why these collaborations are essential:

- Innovation Catalyst: The purpose of the PIET AICTE IDEA LAB is to act as a centre for creative ideas. Working together with other educational establishments gives academics and students a place to develop, hone, and prototype their original ideas. The creative spark can be kindled in this cooperative setting.
- Hands-on Learning: There are plenty of group projects and activities in the PIET AICTE IDEA LAB that provide practical learning opportunities. Students can engage on real-world projects to develop their practical skills and comprehension of their profession. This real-world experience is invaluable in helping them become ready for their future employment.
- Interdisciplinary Collaboration: Students from different fields work together to address complex problems in the PIET AICTE IDEA LAB, which frequently fosters interdisciplinary collaboration. This is similar to the situation that occurs in real life when experts from many fields work together on challenging tasks.
- Professional Networking: Interacting with representatives and students from different universities broadens one's network of professional contacts. Academic and professional prospects may arise from the relationships formed during cooperative activity.
- Cultural Diversity and Tolerance: Working together encourages communication with people from various cultural backgrounds. In today's globalized society, exposure to many cultures fosters tolerance and understanding between people from different backgrounds.
- Research and Industry Partnerships: Research and industry ties are common components of collaborative ventures. By enabling students to work on ideas with practical applications and engage with professionals in the field.
- Inspirational Environment: Students are encouraged to explore their entrepreneurial spirit in the PIET AICTE IDEA LAB because of its creative and inventive environment. It's a place where students may see the larger-scale effects of their ideas and where unconventional thinking is encouraged.

ACTIVITIES CONDUCTED FOR VARIOUS COLLEGES & INDUSTRIES

S. No.	VISITS FROM VARIOUS COLLEGES AND SCHOOLS
1	Bright Central Academy Jaipur
2	Neerja Modi School Jaipur
3	Redix School
4	SITM Guwahati
5	JIET Jaipur
6	Khaitan Polytechnic College Jaipur
UDBHAV PARTICIPATION FROM VARIOUS COLLEGES AND SCHOOLS	
8	JECRC University Jaipur
9	Poornima University Jaipur
10	Poornima College Of Engineering Jaipur
11	Anand College Of Engineering Jaipur
12	Arya College Of Engineering And Research Centre Jaipur
13	JNIT Jaipur
14	Chandigarh University Chandigarh
15	Vivekananda Global University Jaipur
16	Hansraj Colleg Delhi University
17	Subodh Public School Jaipur
18	Neerja Modi World School Jaipur
POORNIMA HACKATHON 2023 PARTICIPATING INSTITUTES	
19	Chandigarh University
20	Bannari Amman Institute of Technology
21	Jecrc College
22	Teerthanker Mahaveer University - Faculty of Engineering
23	Baderia Global Institute of Engineering and Management
24	Madhuben And Bhanubhai Patel Institute of Technology
25	Jaipur Engineering College
26	Maharishi Markandeshwar University
27	Institute Of Engineering and Science, Ips Academy, Indore
28	Poornima College Of Engineering
29	Jiet
30	Loyola-Icam College of Engineering and Technology
31	Shree Rayeshwar Institute of Engineering and Information Technology
32	St.Joseph'S College of Engineering
33	Poornima Group of Institutions
34	Swami Keshvanand Institute of Technology, Management and Gramothan
35	Vellore Institute of Technology, Andhra Pradesh
36	Jspm'S Jayawantrao Sawant College of Engineering
37	Neerja Modi School
38	Cmr College Of Engineering and Technology

39	Kalinga University
40	Government Engineering College Bharatpur
41	St. Edmunds, Jawahar Nagar, Jaipur
42	Chaitanya Engineering College
43	Vishwakarma Government Engineering College,Ahmedabad
44	Sanskrithi School Of Engineering
45	Raja Balwant Singh Engineering Technical Campus
46	Amity University Raipur
47	Jspm Jaywantrao Sawant College Of Engineering,Hadapsar, Pune
48	Oriental Institute of Science and Technology
49	Poornima University
50	Bk Birla Institute of Engineering and Technology
51	Shri Guru Gobind Singhji Institute of Engineering and Technology
52	Mmdu Ambala
53	Vivekananda Global University
54	Sri Ramakrishna Engineering College,Vattamalaipalayam
55	R C Patel Institute of Technology
56	Gulzar Group of Institute
57	Sri Krishna College of Engineering and Technology
58	Graphic Era University
59	The Northcap University
60	Kcg College Of Technology
61	Gvk Chinmaya Vidyalaya
62	Dattajirao Kadam Textile and Engineering Institute Ichalkaranji
63	Annasaheb Dange College of Engineering and Technology Ashta
64	Dkte Society'S Textile And Engineering Institute,Ichalkaranji
65	Prathyusha Engineering College
66	Jerusalem College Of Engineering
67	Rajasthan University
68	Mit Adt University
69	Geetanjali Institute of Technical Studies
70	Gec Gandhinagar
71	Sri Venkateswara College of Engineering and Technology Chittoor
72	Panimalar Institute of Technology
73	Arya Institute of Engineering and Technology
74	Vision Institute of Technology
75	Pda College of Engineering
76	Rathinam College of Arts and Science
77	Ims Engineering College
78	Mahatma Gandhi College of Pharmaceutical Sciences
79	Sharda University
80	Gla University, Mathura

81	Bit Mesra
82	Rathinam College of Arts and Science
83	University Institute of Engineering and Technology
84	Gits,Udaipur
85	Sri Sivasubramaniya Nadar College of Engineering

CHAPTER - 6

Reputed Academicians & Industry Visitors of Idea Lab

Industry Persons and Delegates Visit to Idea Lab

PIET AICTE IDEA LAB collaborates with multiple industries, and industry delegates visit the lab. These interactions facilitate knowledge exchange, mentorship, networking, project collaborations, incubation support, and insights into industry challenges, benefiting students, startups, and the local economy.

Company Name	Delegates name
IT Stacks Technology Ltd	Mr. Yogesh Patel
Upflair Pvt Ltd	Mr. Siddharth Singh, Founder & Director
DelveX Innovation Pvt Ltd	Mr. Harshvardhan Kataria, Co-Founder
Zeetron Networks Pvt Ltd	Mr. Harshwardhan Singh Chouhan, Data Analyst
Zeetron Networks Pvt. Ltd	Ms. Ranu Gaur, HR Manager
Prime Vision	Mr. Sunil Kumar
Grass solution Pvt. Ltd.	Ms. Nidhi Sharma
Ecosystem enabler, R&D and innovation	Mr. Mukesh Kestwal
SINCGRID	Mr. Arun Kumar
Cyber security expert	Mr. Jaideep Sharma
SDE/SDET/Automation	Mr. Yash Chauhan
Business Analyst in Tokenization	Mr. Kushagra Sharma
To the new	Mr. Khushal Gupta
Accenture	Mr. Mayanak Laxkar
Exeliq Tech	Mr. Rahul Gautam
Postman	Mr. Ali Mustufa-Shaikh
HMI Developer	Mr. Rohan Mujoo
ASO Consultant	Mr. Abhishek Rathore
IBM India Pvt Ltd	Mr. Shailendra Moyal
Ex Publicis Sapient	Mr. Arun Paliwal

AICTE	Dr. Neetu Bhagat, Deputy Director
Neerja Modi School	Mr. Saurabh Modi, Chairman
AICTE	Dr. Neeraj Saxena, Advisor
NSUT	Dr. Dhananjay Gadre, Associate Professor
IIT Indore	Dr. Ram Bilas Pachori, Professor, Dept. of Electrical Engineering

Photographs

CHAPTER - 7

Academic Contribution of Idea Lab
Skill Development Program

A skill development program is a planned and coordinated endeavour that assists people in gaining, enhancing, or upgrading their abilities in particular fields. Enhancing a person's employability, personal development, and general competency in a variety of professions are the goals of these programs. There are many different institutions and organisations that can provide skill development programs, including government agencies, educational institutions, non-profit groups, and commercial businesses. These programs can cover a wide range of skills, including professional growth, soft skills, and technical and vocational abilities. The benefits of skill development programs are:

- Increased productivity: Individuals who participate in skill development programs enhance their employability by gaining current, relevant abilities that increase their employability.
- Personal growth and confidence: Individuals who participate in skill development programs enhance their employability by gaining current, relevant abilities that increase their employability.
- Adaptability: Participating in skill development programs helps people stay current with changes in the business, which increases their adaptability and responsiveness to changing employment requirements.
- Entrepreneurship opportunities: People can use the skills they have learned to launch their own companies or work as freelancers, which helps them become financially independent.
- Lifelong learning culture: By fostering a mindset of perpetual learning, skill development programs help people keep relevance in the workplace and foster a culture of continuous self-improvement.
- Research Output: High-impact research publications, patents, and other scholarly outputs can be produced by IDEA labs due to their inventive and collaborative character. This enhances the institution's and the participating scholars' standing in academia.
- Educational Programs: To assist researchers and students in gaining knowledge and abilities in the areas of innovation, design thinking, and entrepreneurship.

Skill development programs organised by PIET AICTE IDEA LAB are:

S.NO.	EVENT NAME	NO. OF EVENTS PERFORMED
1	FDP on PCB Design, Soldering, Assembly and Enclosure Development Using A PCB Milling Machine, Laser Cutter And 3D Printer	Conducted at PIET: 5 Required as per Scheme Document: 4
2	FDP on IoT Based Product Development (Using	
	Advanced Digital Manufacturing Equipment’s, Tools and Resources	

3	FDP on Reverse Engineering for Product Design Using CAD	
4	FDP on Future Scope of Additive Manufacturing	
5	FDP Program (PCB Design with Pick and Place Machine)	
6	Students Skilling Program	Conducted at PIET: 20 According to Scheme Document: 6
7	Students Skilling Program on 3D Printing	
8	Student Skilling Program On 3D Scanner and CO2 Laser Cutter	
9	Student Skilling Program on Laser Cutter Machine	
10	Student Skilling Program on Eagle Cad Software	
11	Student Skilling Program on PCB Milling Machine	
12	Student Skilling Program on Laser Cutting and Engraving Machine	
13	Skilling Development Program on AutoCAD Software	
14	Skilling Development Program on Solid Works Software	
15	Skill Development Program on Electronic System Design Using PCB Prototyping	
16	Skill Development Program on Fusion 360	
17	Three Days Student Skilling Program on Advanced PCB Design on Eagle CAD	
18	Skilling Development Program on Product Design and Prototyping Using Sensors	
19	Skilling Program on Smart Manufacturing	
20	Skilling Program on Smart Manufacturing and Prototyping	
21	Skilling Program on Design Thinking and Advanced Manufacturing	
22	Student Skilling Program on Design Thinking and Product Development	

23	6 Days Skilling Program on CNC Router, Laser Cutter and 3D Printer	
24	Skilling Program on PCB Designing and Digital Manufacturing for Product Development	
25	Skilling Program on 3D Printing and Laser Engraving	
26	Boot Camp on Innovative Teaching Strategies and Technology Integration	Conducted at PIET: 5 According to Scheme Document:4
27	Bootcamp on Data-Driven Instruction and Assessment	
28	Bootcamp on Design Thinking for Education	
29	IDE Bootcamp	
30	Bootcamp on Immersive Learning in IoT and Robotics Technology	
31	Ideation Workshop for Students	Conducted at PIET: 12 According to Scheme Document: 8
32	Ideation Workshop on Integrated Manufacturing Techniques	
33	Ideation Workshop on PCB Milling Machine	
34	Ideation Workshop on Arduino C	
35	Ideation Workshop on Recent Trends on CAD Software for Engineering Students	
36	Ideation Workshop on 3D Printing in Industry 4.0	
37	An Ideation Workshop on Digital Manufacturing on Industry 4.0	
38	Arduino IDE Ideation Workshop	
39	3D Printing Ideation Workshop	
40	Student Ideation Workshop on Experiential Learning in IoT	
41	3 Days Ideation Workshop on IoT for Industrial Automation	
42	Synergizing IoT And 3D Printing: An Ideation Workshop for The Future	
43	Awareness Workshop for Industry Person	Conducted at PIET: 11 According to Scheme Document: 8
44	Awareness Workshop for Industry Person	
45	Awareness Workshop for Industry	

46	Awareness Workshop for Industry	
47	Awareness Workshop for Industry Persons	
48	Awareness Workshop for Industry Persons on Robotics in Indian Industry-Future Trends	
49	Awareness Workshop for Industry Persons on Design Thinking	
50	One Day Awareness Workshop for Industry Persons on Arduino	
51	Awareness Workshop for Industry Persons on Introduction To 3D Scanning	
52	Awareness Workshop for Industry Persons on IoT from Idea to Prototype: Rapid Prototyping Techniques	
53	Awareness Workshop for Industry Persons Transforming Research into Publication, Patent, Project and Product Development	
54	Summer Internship Program on IoT Based Product Development (Using Advanced Digital Manufacturing Equipment, Tools and Resources	Conducted at PIET: 2 According to Scheme Document: 2
55	Summer Internship Program on IoT based Product Development with Data Analytics (using Advanced Digital Manufacturing Equipment, Tools and Resources) for 1st Year students	
56	Professional Skilling Program	Conducted at PIET: 11 According to Scheme Document: 6
57	Professional Skilling Program	
58	Professional Skilling Program on IoT Product Development Using Advanced Machineries	
59	Professional Skilling Program on Lightburn to Operate Laser Cutter Machine	
60	Professional Skilling Programs on IoT Protocols and Communication Standards	
61	Professional Skilling Program on IoT and AR Applications	

62	Professional Skilling Program on Exploring Eco-Friendly 3D Printing Materials in IoT Applications	
63	Professional Skilling Program in Reverse Engineering Using 3D Scanner	
64	Professional Skilling Program on Innovations at The Intersection: Exploring Synergies Between IoT And 3D Printing in The Digital Era	
65	Professional Skilling Program on AutoCAD	
66	Professional Skilling Program on Designing the Future: Navigating the World of PCBs With Cutting-Edge Software Solutions	
67	School Teachers Awareness Program	Conducted at PIET: 4 According to Scheme Document: 4
68	Unlocking Creativity: Introducing The IDEA Lab to School Faculty	
69	School Teachers Awareness Program on Basics of Arduino and Its Application	
70	School Teachers Awareness Program on Integration of IoT with PCB Challenges and Solution	
71	One Day Session for Deaf & Dumb School Students	Conducted at PIET: 6 According to Scheme Document: 2
72	Open Day for School Students	
73	School Visit (Banasthali)	
74	School Visit Mahatma Gandhi Sr. Sec School Jaipur	
75	School Visit (Tagore Public School)	
76	Unveiling The Idea Lab Experience for School Innovators	
77	Outside Participation	Conducted at PIET:5 According to Scheme Document: 2
78	BVPS Hackathon, Delhi	
79	A National Level Project Exhibition 2k22 (Outside Participation)	
80	ABES IDEA Lab Student Ambassador Regional Innovation Challenge	
81	National Innovation Challenge at Piet, Panipat	

82	1st International Conference on Innovations and Intellectual Property for Sustainable Development	Conducted at PIET: 4 According to Scheme Document: 2
83	National Level Project Exhibition "Udbhav 2022"	
84	National Level Project Exhibition "Udbhav 2023"	
85	Smart India Hackathon 2023 (Software Edition)	

Photographs

Faculty Development Program

"IDEA Lab, standing for Innovation, Development, Evaluation & Application Laboratory, is a dynamic platform within educational institutions aimed at cultivating innovation and facilitating faculty development programs (FDPs). FDPs within IDEA Labs are meticulously designed initiatives dedicated to empowering faculty members. These programs offer a tailored approach, providing educators with opportunities to elevate their skills, expand their knowledge base, and refine teaching capabilities. By fostering an environment of continuous learning, IDEA Labs contribute to the professional growth of faculty, ensuring they stay abreast of emerging trends, pedagogical advancements, and innovative teaching methodologies, ultimately enhancing the overall educational experience within the institution.

Student Training Program

An organised educational endeavour known as a student training program gives students hands-on training and experience in a certain discipline, frequently in an actual or professional context. The purpose of these programs is usually to supplement academic learning by giving students the chance to apply theory, obtain practical experience, and build skills that will be useful in their future jobs.

The benefits of student training programs are:

- Practical experience: By gaining practical experience, students are better equipped for the workforce by bridging the knowledge gap between theory and practice.
- Networking opportunities: Students participating in student training programs have a very good chance to build their network by connecting with various industry personnel and other students.
- Increased confidence: Real world experience boosts students' self-confidence and self-assurance, which helps them in future.
- Personal development: Students frequently acquire soft skills that support personal development and maturity, such as communication, teamwork, and time management.

Various student training programs conducted by PIET AICTE IDEA LAB are:

Sr.No.	EVENTS	START DATE	END DATE	PARTICIPANTS
1	Students Skilling Program	28/09/2022	3/10/2022	29
2	Students Skilling Program	6/10/2022	11/10/2022	43
3	Students Skilling Program	11/11/2022	16/11/2022	53
4	Students Skilling Program	9/11/2022	16/11/2022	52
5	Students Skilling Program On 3d Printing	30/11/2022	30/11/2022	53
6	Student Skilling Program On Laser Cutting & Engraving Process	1/12/2022	1/12/2022	48
7	Student Skilling Program on 3D Scanner	5/12/2022	5/12/2022	54
8	Students Skilling Program On Laser Cutter Machine	7/12/2022	7/12/2022	54
9	Student Skilling Program on EAGLE CAD Software	8/12/2022	8/12/2022	54
10	Student skilling Program on PCB Milling Machine	9/12/2022	9/12/2022	46
11	Students Training Program on CNC Router	19/12/2022	20/12/2022	52
12	Three Days Student Training Program on IDEA Lab Machinery.	17/04/2023	19/04/2023	30
13	Student Training Program on Arduino	14/04/2023	15/04/2023	51

Photographs

CHAPTER - 8

Projects & Consultancies Under Idea Lab
Guidance On Developing Innovative Projects

An esteemed organisation, the PIET AICTE IDEA Lab supports students and entrepreneurs in their quest for originality and inventiveness. With the help of an extensive program that blends resources, coaching, and a helpful ecology, it provides advice on creating creative initiatives. Here is some information regarding the guidance provided in PIET AICTE IDEA LAB:

- Project ideation workshops: IDEA Lab regularly conducts workshops to help students generate and refine their project ideas.
- Access to cutting edge technologies: Modern equipment in the lab includes 3D printers, tools for prototyping, and resources for hardware development. With the help of these resources, participants can realise their creative ideas and produce prototypes for testing and presentation.
- Intellectual Property Rights (IPR) Support: IDEA LAB provides advice on safeguarding the trademarks, copyrights, and patents that are connected to creative endeavours. Participants also receive education on the value of intellectual property rights as well as legal project navigation.

MENTORSHIP AND SUPPORT AVAILABLE FOR STUDENTS

PIET AICTE IDEA LAB understands the value of mentoring in fostering creative endeavours. IDEA LAB facilitates the connection between project teams and seasoned industry professionals, entrepreneurs, and subject matter experts who offer invaluable guidance. Packed with industry insights, knowledge, and experience, expert mentors assist participants in navigating complex challenges and arriving at well-informed decisions. Apart from professional mentors, the IDEA LAB fosters a peer-mentoring culture in which faculty members and seasoned students serve as mentors to those in need of advice. Senior students who have finished projects successfully in the past are urged to help out the less experienced participants by sharing their experiences. Academic mentorship and technical assistance are crucially provided by faculty members with diverse areas of competence.

PROJECT PROPOSAL SUBMISSION AND EVALUATION PROCESS

An IDEA Lab's project proposal submission and review process is a structured process that starts when innovators, entrepreneurs, or startups express interest in using the lab's resources and support. Students working in an IDEA Lab complete an NSP (Non-Syllabus Project) project that adheres to a structured process that fits the project's particular needs and goals. Students start the journey by conceiving the idea for their project, concentrating on defining the precise objectives, difficulties, or improvements they hope to solve within the NSP. Following a clear definition of the project concept, students usually proceed to create an extensive project proposal. This proposal, which outlines the goals, parameters, characteristics, and possible effects of the project, acts as its blueprint. The project is then started by assembling the components on the PCB.

In the project evaluation phase, the faculty reviews the projects made by the students and its relevance to the problem statements for which the project has been made and accordingly the marks are given.

NSP PROJECTS

Non-syllabus projects are self-initiated endeavours undertaken by students or individuals outside the formal academic curriculum. They are also known as extracurricular or independent projects. These projects are motivated by the participants' passions and personal interests as well as their desire to learn or gain new experiences outside of the classroom. Non-syllabus projects are beautiful because they are diverse and flexible, allowing people to explore and express their own interests and abilities. They can cover a wide range of topics and activities. Non-syllabus projects are self-initiated projects that go beyond traditional academic coursework and are carried out in IDEA Lab. These projects, which can include community service, entrepreneurship, research, and various creative endeavours, are motivated by personal interests. IDEA Lab encourages creativity and personal development by offering tools, guidance, and support to people working on such projects.

CHAPTER - 9

TRAINING, WORKSHOPS & ACTIVITIES ORGANISED UNDER IDEA LAB
TRAINING SESSIONS, WORKSHOPS, AND ACTIVITIES ORGANISED UNDER IDEA LAB

IDEA Lab will be dedicated for up-gradation of the science & engineering education among students, faculty, Industry & its workforce, with the latest industry trends and practices, rendering the requirements of the rural population & upgrading skill-based learning of faculty, engineering students, schools in above said domains.

S. No.	EVENTS	START DATE	END DATE	PARTICIPANTS
1	FDP on "PCB Design, Soldering, Assembly, and Enclosure Development Using a PCB Milling Machine, Laser Cutter, and 3D Printer".	19/04/2022	21/04/2022	25
2	Robotics in Indian Industry- Future Trends	27/05/2022	27/05/2022	18
3	School Visit	08/06/2022	08/06/2022	23
4	FDP on IoT based Product Development (using Advanced Digital Manufacturing Equipment, Tools and Resources)	13/07/2022	15/07/2022	50
5	Summer Internship Program on IoT based Product Development, using Advanced Digital Manufacturing Equipment, Tools and Resources	18/07/2022	18/07/2022	146
6	National level project exhibition "UDBHAV" 2022	22/08/2022	22/08/2022	610
7	FDP on “Reverse Engineering for Product Design using CAD”	01/09/2022	07/09/2022	40
8	Inter Collage Student Awareness Program	09/09/2022	09/09/2022	17
9	Awareness Workshop for Industry Person	12/09/2022	12/09/2022	11
10	Awareness Workshop for Industry Person	14/09/2022	14/09/2022	11
11	A National Level Project Exhibition 2k22 (Outside Participation)	15/09/2022	15/09/2022	20
12	Ideation Workshop For Students	21/09/2022	23/09/2022	35
13	School Teachers Awareness Program	23/09/2022	28/09/2022	14
14	Open Day for School Students	23/09/2022	23/09/2022	37
15	Students Skilling Program	28/09/2022	03/10/2022	29
16	Students Skilling Program	06/10/2022	11/10/2022	43
17	Outside Participation	14/10/2022	16/10/2022	10

18	Awareness Workshop For Industry	18/10/2022	19/10/2022	14
19	Professional Skilling Program	18/10/2022	22/10/2022	43
20	Students Skilling Program	11/11/2022	16/11/2022	53
21	Students Skilling Program	09/11/2022	16/11/2022	52
22	ABES Aicte IDEA Lab Student Ambassador Regional Innovation Challenge	18/11/2022	19/11/2022	11
23	A Session on Design Thinking	18/11/2022	18/11/2022	49
24	One Day Session for Deaf & Dumb School Students	26/11/2022	26/11/2022	53
25	Students Skilling Program On 3d Printing	30/11/2022	30/11/2022	53
26	Student Skilling Program On Laser Cutting & Engraving Process	01/12/2022	01/12/2022	48
27	Student Skilling Program on 3D Scanner	05/12/2022	05/12/2022	54
28	Students Skilling Program On Laser Cutter Machine	07/12/2022	07/12/2022	54
29	Student Skilling Program on EAGLE CAD Software	08/12/2022	08/12/2022	54
30	Student skilling Program on PCB Milling Machine	09/12/2022	09/12/2022	46
31	National Innovation Challenge At Piet, Panipat	10/12/2022	10/12/2022	10
32	Workshop on PCB Milling Machine	17/12/2022	17/12/2022	48
33	Students Training Program on CNC Router	19/12/2022	20/12/2022	52
34	Entrepreneurship For Absolute Beginners	27/12/2022	27/12/2022	57
35	Awareness Workshop For Industry	28/12/2022	29/12/2022	14
36	Skilling Development Program	28/12/2022	28/12/2022	53
37	Workshop On Arduino C	29/12/2022	29/12/2022	60
38	Workshop On Recent Trends On Cad Software For Engineering Students	10/01/2023	11/01/2023	60
39	Skill Development Program On 3d Scanner And Co2 Laser Cutter	11/01/2023	12/01/2023	53
40	Workshop On 3d Printing In Industry 4.0	17/01/2023	17/01/2023	53
41	Outside Participation Lnmiit Hackathon	27/01/2023	29/01/2023	24
42	FDP On Future Scope Of Additive Manufacturing	06/02/2023	11/02/2023	17
43	Skilling Development Program On Pcb Milling Machine	09/02/2023	10/02/2023	36

44	Awareness Workshop For Industry Person's	15/02/2023	16/02/2023	17
45	Skilling Development Program On "Laser Cutting And Engraving Machine"	23/02/2023	25/02/2023	35
46	2nd Edition Of Poornima Hackathon	03/03/2023	04/03/2023	1000+
47	Skilling Development Program On Eagle Software	15/03/2023	16/03/2023	40
48	Skilling Development Program On Auto Cad Software	17/03/2023	18/03/2023	52
49	Skilling Development Program On Solid Works Software	20/03/2023	21/03/2023	44
50	Skill Development Program (Sdp) On Electronic System Design Using Pcb Prototyping	23/03/2023	25/03/2023	37
51	One Day Of Hands-On Training On Arduino	23/03/2023	23/03/2023	43
52	Skill Development Program On Fusion 360	03/04/2023	04/04/2023	51
53	Three Days Student Training Program On IDEA Lab Machinery	17/04/2023	19/04/2023	30
54	A Workshop On Digital Manufacturing On Industry 4.0	05/04/2023	06/04/2023	46
55	Student Training Program On Arduino	14/04/2023	15/04/2023	51
56	A Workshop On Machine Learning And Iot	11/05/2023	11/05/2023	56

INTERNSHIPS

Internships are brief work experiences that are usually provided to individuals or students who want to learn real-world knowledge and skills in a particular profession or business. They offer a useful link between the academic setting and the working world, enabling students to put their newly acquired knowledge to use. For the past two years, IDEA Lab has been organising internships for first-year students. **In 2022, the internship was organised from 18 July 2022 - 2 August 2022, on the topic "IoT based Product Development (using Advanced Digital Manufacturing Equipment, Tools and Resources)"** where **150 students participated** and gained knowledge regarding IoT. This year also two internships were organised **from 7 August 2023 - 25 August 2023. The first one was on the topic "IoT based Product Development with Data Analytics (using Advanced Digital Manufacturing Equipment, Tools and Resources)" in which 40 students participated and developed projects based on IoT. And the second one was on "Data Analytics on Python and Flask" in collaboration with Bussibees in which 16 students participated.** The following are important details about internships:

- Purpose: Internships have multiple functions, such as providing participants with practical experience, skill development, career exploration, and networking opportunities.
- Types: Internships come in a variety of forms, including full-time, part-time, virtual, paid, and unpaid. Internships come in a wide range of forms and pay.

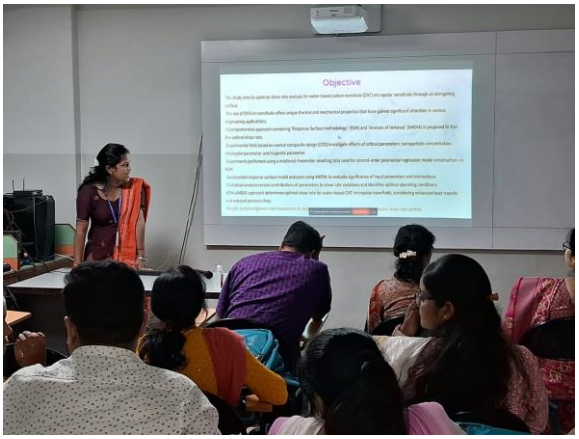
- Duration: The length of an internship might vary, spanning from a few weeks to several months. While some internships are summer programs, others could be offered all year round.
- Eligibility: Although internships are primarily aimed at students, they can also be available to recent graduates, people looking to change careers, and people looking to acquire new skills.
- Advantages:
    - Skill Development: During their internship, interns pick up knowledge and useful skills pertaining to their area of interest.
    - Networking: Internships offer the chance to make important connections with specialists in the field.
    - Building a Resume: Having an internship improves a participant's resume and increases its appeal to employers.
    - Employment Opportunities: After finishing their internship, a lot of interns receive offers from the host organisation for full-time work.
- Industries: Almost every business, including technology, finance, healthcare, education, and government, offers internships. The nature of the internship can be significantly influenced by the particular field and company.
- Responsibilities: Depending on the company and the purpose of the internship, interns usually have a set list of duties, however these can vary greatly. While some interns might help with research, others might support marketing initiatives or get practical experience in a lab or on a job site.
- Pay: While some internships are unpaid, others provide a stipend or hourly rate. Paid internships offer participants financial support but are frequently more competitive.
- Academic Credit: Students who successfully complete internships can often receive academic credit toward their degree requirements.
- Application Process: In order to be considered for an internship, candidates may be asked to attend an interview in addition to submitting a cover letter and resume. Applying for internships can be competitive, so it's critical to have a great application ready.
- Legal Considerations: In order to ensure that unpaid internships offer educational value and do not take the place of real employees, labour laws in certain countries may demand that specific requirements be completed.
- Learning aims: To assist interns in reaching their aims, a lot of internships are designed with clear learning objectives. These objectives may also include mentorship or supervision.

CONFERENCES

Conferences are get-togethers or events when people from a specific sector of the economy, academic discipline, or interest group come together to discuss the most recent advancements, discoveries, and fashions while exchanging ideas and information. They are essential for encouraging teamwork, networking, and career advancement. Recently, IDEA Lab organised one conference on **1st - 2nd September 2023 on the topic "1ST INTERNATIONAL CONFERENCE ON INNOVATIONS AND INTELLECTUAL PROPERTY FOR SUSTAINABLE DEVELOPMENT"**. Here are some essential conference details:

- Purpose: Conferences have a variety of functions, such as sharing knowledge, encouraging creativity, creating networks, and tackling problems or difficulties unique to a certain sector or industry.
- Conference Types:
    - Academic Conferences: These centre on intellectual research and usually feature workshops, panel discussions, and academic paper presentations.
    - Industry conferences: These are aimed for professionals within a particular industry and frequently feature talks of current trends in the field, product debuts, and demos.
    - Trade Shows: Trade shows are events when products and services from a certain industry are exhibited. They give businesses a chance to display their products and services.
- Size and Scope: Conferences can range greatly in size from intimate get-togethers for a few dozen people to massive multinational gatherings with thousands of attendees. Their scope can be local, national, or worldwide.
- Frequency: Conferences can occur annually, biennially, or at various times as one-time or ongoing events.
- Content: Keynote addresses, presentations, workshops, panels, and poster sessions are frequently included in conference programming. Depending on the topic and objectives of the conference, different content is covered.
- Registration: In order to attend conferences, attendees typically need to register and pay a fee. Access to conference sessions, documents, lunches, and other facilities are frequently included in the cost.
- Networking: Conference goers have the chance to meet and connect with experts, colleagues, and peers. Informal conversations that happen at meals, breaks, and social gatherings are frequently just as significant as formal ones.
- Presentation Formats: Lectures, panel discussions, seminars, and poster presentations are just a few of the formats in which speakers at conferences can choose to present. Lightning talks are brief, targeted presentations that are also offered at certain conferences.
- Conference Proceedings: Abstracts, papers, and summaries of talks and debates are published in the proceedings of a lot of scholarly conferences. For both those in attendance and those who were unable to, these can be rather helpful resources.
- Virtual Conferences: As technology has advanced, these meetings are becoming more and more common. Since everything about these activities is done online, anyone can join from anywhere in the world. Virtual conferences have the potential to be more affordable and accessible.

- Keynote Speakers: Well-known figures from the sector or field are frequently asked to give keynote addresses that enlighten and motivate conference goers.
- Sponsorship and Exhibitors: In order to support and improve the event, conferences frequently rely on sponsors and exhibitors. Sponsors have the option to contribute financially, and exhibitors display goods and services associated with the conference's theme.
- Post-Conference Activities: To increase networking opportunities and deepen attendee engagement, several conferences provide post-conference activities like workshops, site visits, or social gatherings.
- Continuing Education: Attendees who engage in particular sessions or seminars can earn continuing education credits or certificates from a number of conferences.
- Evaluation and Input: To make subsequent conferences better, organisers frequently ask for input from participants. The format, content, and overall experience are all improved by these comments.



HACKATHONS

Hackathons are frantic, team-based gatherings of people with various backgrounds who collaborate intensely on original and creative projects, frequently emphasising technology and problem-solving. These competitions have grown in popularity recently and are renowned for their cooperative and competitive environment. **PIET AICTE IDEA Lab organised one such hackathon namely, "Poornima Hackathon 2.0" which was based on the theme "Smart City" on 3rd - 4th March 2023, where more than 2000 students participated.** Here are some details on hackathons:

- Purpose: The goals of hackathons are to create new hardware, software, or solutions, promote creativity, and solve certain problems. They provide a chance to quickly design, develop, and construct a functional prototype.
- Participants: A wide range of people, including programmers, designers, engineers, business owners, and subject matter experts, usually attend hackathons. Individuals or teams may work, based on the regulations of the event.
- Duration: Depending on the goals and organisers of the event, hackathons can last anywhere from a few hours to a weekend or even a week. The brief timeline promotes quick development and gives a sense of urgency.
- Themes and difficulties: Participants in a lot of hackathons are asked to tackle particular themes or difficulties. These difficulties can be in the form of commercial solutions, technical difficulties, or social issues.

- Cooperation: A crucial component of hackathons is cooperation. Teams collaborate to assign tasks, generate ideas, and create prototypes. Innovative and multidisciplinary projects are frequently the result of collaboration.
- Judging and Prizes: Teams or individuals submit their projects to a panel of judges at the conclusion of the hackathon. Projects that meet certain criteria, like innovation, functionality, technical execution, and potential effect, are given prizes.
- Learning Opportunities: Hackathons offer important educational experiences in addition to competitive activities. In addition to learning new skills and being exposed to new technology, participants can get advice from mentors and experts.
- Innovation & Creativity: Hackathons inspire participants to think creatively and unconventionally, try out novel concepts, and push the envelope of what's feasible. They frequently result in the development of ground-breaking and inventive solutions.
- Networking: Hackathon attendees get the chance to connect with mentors, prospective employers, and like-minded people. Numerous prosperous firms have their roots in hackathon initiatives.
- Sponsorship: Businesses, associations, and academic institutions frequently provide financial support for hackathons. Sponsors can help participants succeed by offering tools, awards, and technical assistance.
- Open Source: A few hackathons concentrate on open-source initiatives, in which participants develop or add publicly accessible software or solutions for the community.
- Virtual Hackathons: Increasingly popular in recent years, virtual hackathons enable participants from many regions to collaborate virtually. These gatherings may be more open to everyone.
- Ethical Considerations: When planning projects, it's critical for organisers and participants to take ethics into account. It's imperative to make sure that initiatives adhere to ethics and respect user security and privacy.

CHAPTER - 10

COMMUNITY OUTREACH ACTIVITIES BY IDEA LAB

SCHOOL VISIT

A trip to the IDEA Lab is an exploration of the core of innovation and creativity. The limitless potential of their own ideas greets students as they enter this dynamic space. Amid an environment of cutting-edge technology, innovative tools, and enthusiastic inventors, they set out on an experiential learning journey that inspires them to imagine, create, and construct. Curiosity strikes as soon as they step through the doors, and as they learn something new, their minds grow. It is an environment that ignites creativity, turns obstacles into opportunities, and sows the seeds of invention. Students in the IDEA Lab experience more than just the power of ideas; they join a supportive community that helps them unleash their inner creativity.

S. NO.	VISITS FROM VARIOUS SCHOOLS
1.	BRIGHT CENTRAL ACADEMY JAIPUR
2.	NEERJA MODI SCHOOL JAIPUR
3.	REDIX SCHOOL
4.	SAINT SOLDIER PUBLIC SCHOOL
5.	MORNING STAR ST. ANSELM'S SCHOOL
6.	VIDHYA SAGAR SCHOOL
7.	SUBODH PUBLIC SCHOOL JAIPUR
8.	ST. EDMUNDS, JAWAHAR NAGAR, JAIPUR

DEAF AND DUMB STUDENTS VISIT

Even students who are deaf and mute can gain a great deal from a visit to the IDEA Lab. It's more important to bring ideas to life in this dynamic environment of innovation than it is to speak words. With their distinct viewpoints, deaf and mute students demonstrate to us that communication is not limited by language. They can explore their creativity and participate in practical activities that foster the growth of their ideas in the IDEA Lab. They make a connection with the core of innovation through cooperative learning, tactile experiences, and visual demonstrations. Their imaginations are

sparked by this visit, which also serves as further evidence that innovation has no bounds.

OTHER ENGINEERING COLLEGE STUDENTS & FACULTIES VISIT AT IDEA LAB

Collaborations within the PIET AICTE IDEA LAB framework are vital for fostering innovation, entrepreneurship, and enhancing education. These collaborations:

- Spark innovation by providing a space for idea development.
- Facilitate cross-disciplinary problem-solving.
- Offer practical, real-world learning experiences.
- Encourage networking and professional connections.
- Promote cultural diversity and tolerance.
- Forge research and industry partnerships.
- Create an inspiring, entrepreneurial environment.

OTHER ENGINEERING COLLEGES	
S.No.	**Name of Colleges**
1	SITM GUWAHATI
2	JIET JAIPUR
3	KHAITAN POLYTECHNIC COLLEGE JAIPUR
4	JECRC UNIVERSITY JAIPUR
5	POORNIMA COLLEGE OF ENGINEERING JAIPUR
6	ANAND COLLEGE OF ENGINEERING JAIPUR
7	ARYA COLLEGE OF ENGINEERING AND RESEARCH CENTRE JAIPUR
8	JNIT JAIPUR
9	CHANDIGARH UNIVERSITY CHANDIGARH

10	VIVEKANANDA GLOBAL UNIVERSITY JAIPUR
11	HANSRAJ COLLEGE DELHI UNIVERSITY
12	SUBODH PUBLIC SCHOOL JAIPUR
13	NEERJA MODI WORLD SCHOOL JAIPUR
14	CHANDIGARH UNIVERSITY
15	BANNARI AMMAN INSTITUTE OF TECHNOLOGY
16	JECRC COLLEGE
17	TEERTHANKER MAHAVEER UNIVERSITY - FACULTY OF ENGINEERING
18	BADERIA GLOBAL INSTITUTE OF ENGINEERING AND MANAGEMENT
19	MADHUBEN AND BHANUBHAI PATEL INSTITUTE OF TECHNOLOGY
20	JAIPUR ENGINEERING COLLEGE
21	MAHARISHI MARKANDESHWAR UNIVERSITY
22	INSTITUTE OF ENGINEERING AND SCIENCE, IPS ACADEMY, INDORE
23	JIET
24	LOYOLA-ICAM COLLEGE OF ENGINEERING AND TECHNOLOGY
25	SHREE RAYESHWAR INSTITUTE OF ENGINEERING AND INFORMATION TECHNOLOGY
26	ST.JOSEPH'S COLLEGE OF ENGINEERING
27	SWAMI KESHVANAND INSTITUTE OF TECHNOLOGY, MANAGEMENT AND GRAMOTHAN
28	VELLORE INSTITUTE OF TECHNOLOGY, ANDHRA PRADESH
29	JSPM'S JAYAWANTRAO SAWANT COLLEGE OF ENGINEERING
30	NEERJA MODI SCHOOL
31	CMR COLLEGE OF ENGINEERING AND TECHNOLOGY
32	KALINGA UNIVERSITY
33	GOVERNMENT ENGINEERING COLLEGE BHARATPUR

34	ST. EDMUNDS, JAWAHAR NAGAR, JAIPUR
35	CHAITANYA ENGINEERING COLLEGE
36	VISHWAKARMA GOVERNMENT ENGINEERING COLLEGE, AHMEDABAD.
37	SANSKRITHI SCHOOL OF ENGINEERING
38	RAJA BALWANT SINGH ENGINEERING TECHNICAL CAMPUS
39	AMITY UNIVERSITY RAIPUR
40	JSPM JAYWANTRAO SAWANT COLLEGE OF ENGINEERING, HADAPSAR, PUNE
41	ORIENTAL INSTITUTE OF SCIENCE AND TECHNOLOGY
42	BK BIRLA INSTITUTE OF ENGINEERING AND TECHNOLOGY
43	SHRI GURU GOBIND SINGHJI INSTITUTE OF ENGINEERING AND TECHNOLOGY
44	MMDU AMBALA
45	VIVEKANANDA GLOBAL UNIVERSITY
46	SRI RAMAKRISHNA ENGINEERING COLLEGE, VATTAMALAIPALAYAM
47	R C PATEL INSTITUTE OF TECHNOLOGY
48	GULZAR GROUP OF INSTITUTE
49	SRI KRISHNA COLLEGE OF ENGINEERING AND TECHNOLOGY
50	GRAPHIC ERA UNIVERSITY
51	THE NORTHCAP UNIVERSITY
52	KCG COLLEGE OF TECHNOLOGY
53	GVK CHINMAYA VIDYALAYA
54	DATTAJIRAO KADAM TEXTILE AND ENGINEERING INSTITUTE ICHALKARANJI
55	ANNASAHEB DANGE COLLEGE OF ENGINEERING AND TECHNOLOGY ASHTA

56	DKTE SOCIETY'S TEXTILE AND ENGINEERING INSTITUTE, ICHALKARANJI
57	PRATHYUSHA ENGINEERING COLLEGE
58	JERUSALEM COLLEGE OF ENGINEERING
59	RAJASTHAN UNIVERSITY
60	MIT ADT UNIVERSITY
61	GEETANJALI INSTITUTE OF TECHNICAL STUDIES
62	GEC GANDHINAGAR
63	SRI VENKATESWARA COLLEGE OF ENGINEERING AND TECHNOLOGY CHITTOOR
64	PANIMALAR INSTITUTE OF TECHNOLOGY
65	ARYA INSTITUTE OF ENGINEERING AND TECHNOLOGY
66	VISION INSTITUTE OF TECHNOLOGY
67	PDA COLLEGE OF ENGINEERING
68	RATHINAM COLLEGE OF ARTS AND SCIENCE
69	IMS ENGINEERING COLLEGE
70	MAHATMA GANDHI COLLEGE OF PHARMACEUTICAL SCIENCES
71	SHARDA UNIVERSITY
72	GLA UNIVERSITY, MATHURA
73	BIT MESRA
74	RATHINAM COLLEGE OF ARTS AND SCIENCE
75	UNIVERSITY INSTITUTE OF ENGINEERING AND TECHNOLOGY
76	GITS,UDAIPUR
77	SRI SIVASUBRAMANIYA NADAR COLLEGE OF ENGINEERING
78	RTU, KOTA

CHAPTER - 11

FUNDS & GRANTS RECEIVED
FUNDINGS AND GRANTS RECEIVED

AICTE introduced the AICTE-IDEA (Idea Development, Evaluation & Application) Lab Scheme on January 1, 2021, with the goal of creating the infrastructure necessary for new generation learning in institutions that have been approved by AICTE. The goal of this is to motivate students to apply the basics of science, technology, engineering, and maths (STEM) to their own ideas in order to improve their hands-on experience, learn by doing, and even product visualisation.

Funding received from AICTE:

We are thrilled to share that the total budget allocated for establishing the IDEA Lab is Rs. 10,86,6000/- (Rupees One Crore Eight Lakh Sixty-Six Thousand Only). Out of this, the Non-Recurring budget is Rs. 70,78,000/- (Rupees Seventy Lakh Seventy-Eight Thousand Only), and the Recurring budget is Rs. 37,88,000/- (Rupees Thirty-Seven Lakh Eighty-Eight Thousand Only).

The establishment of the IDEA Lab has been made possible through the combined efforts of our esteemed institute and generous contributions from industry partners. The total institute/industry contribution amounts to Rs. 58,27,000/- (Rupees Fifty-Eight Lakh Twenty-Seven Thousand Only). Out of this, the Non-Recurring contribution is Rs. 35,39,000/- (Rupees Thirty-Five Lakh Thirty-Nine Thousand Only), and the Recurring contribution is Rs. 22,88,000/- (Rupees Twenty-Two Lakh Eighty-Eight Thousand Only).

We are immensely grateful for the support extended by the All India Council for Technical Education (AICTE), whose contribution towards this endeavour amounts to Rs. 50,39,000/- (Rupees Fifty Lakh Thirty-Nine Thousand Only). Out of this, the Non-Recurring contribution is Rs. 35,39,000/- (Rupees Thirty-Five Lakh Thirty-Nine Thousand Only), and the Recurring contribution is Rs. 15,00,000/- (Rupees Fifteen Lakh Only). We have received the first instalment of the AICTE contribution, which amounts to Rs. 40,31,200/- (Rupees Forty Lakh Thirty-One Thousand Two Hundred Only). Out of this, the Non-Recurring contribution is Rs. 28,31,200/- (Rupees Twenty-Eight Lakh Thirty-One Thousand Two Hundred Only), and the Recurring contribution is Rs. 12,00,000/- (Rupees Twelve Lakh Only).

Funding received for HACKATHON:

We recently organised a highly successful Hackathon on March 3-4, 2023 at Poornima Institute of Engineering and Technology. This event brought together 1000+ students from various institutes to showcase their innovative ideas. We are grateful for the overwhelming response and support from esteemed companies such as **SincGrid, Enertrak, Hack2Skill, IBM, Aerophantom, ROBOMQ, IIST Pvt. Ltd. and many more who provided funding more than 1 Lakh.** The Hackathon served as a platform for participants to harness their creativity, problem-solving skills, and technical expertise to develop groundbreaking solutions that have the potential to revolutionise various industries. We are proud to have facilitated an environment that fosters innovation and encourages participants to think outside the box. The success of the Hackathon further reinforces our commitment to nurturing a culture of research and innovation at Poornima Institute of Engineering and Technology.

Funding received from AU finance:

We are delighted to announce that Poornima Institute of Engineering and Technology has secured an additional funding of 14 lakhs from AU Finance Bank for conducting various sessions under the PIET AICTE IDEA LAB. This collaboration between our institution and AU Finance Bank signifies a shared commitment to fostering innovation and knowledge exchange.

PIET AICTE-IDEA Lab is outfitted with the most cutting-edge, industry-standard equipment, including a CNC turning machine, CNC wood router, CO2 laser cutter and engraver, SLA and FDM 3D printers, vinyl cutters, 3D scanners, computer workstations, and PCB milling machines. IDEA Lab also has a long list of auxiliary tools and measurement devices that are employed in a variety of engineering specialties, including electrical, electronic & communication, computer, information technology, etc.

Poornima Institute of Engineering and Technology, we firmly believe that innovation and research are the driving forces behind societal progress. The establishment of the AICTE IDEA Lab reinforces our commitment to nurturing a culture of creativity, collaboration, and technological excellence. We are confident that this initiative will inspire our students to push boundaries, think critically, and transform their ideas into tangible solutions that address real-world challenges.

We extend our heartfelt gratitude to all the contributors, partners, and supporters who have made this endeavour possible. Together, we will continue to push the boundaries of knowledge, inspire future generations, and contribute to the growth and development of our nation.

CHAPTER - 12

FACULTY & STUDENT ACHIEVEMENT

STUDENTS ACHIEVEMENTS (AWARDS, PATENTS STARTUPS, CERTIFICATIONS)

OUTSIDE PARTICIPATION UNDER IDEA LAB		
PARTICIPANTS	**VENUE**	**OUTCOME**
Team Name - Parksphere Sudhanshu Tiwari, Kunal Sharma, Megh Shah, Dev Tekwani	Venue- Panipat Institute Of Engineering and Technology (National Innovation Challenge), Month - December 2022, No. of Days - 1	National Innovation Challenge
Team Name - Error Kunal Sharma, Dev Tekwani	Venue - Abes Engineering College (IDEA Lab Innovation Challenge), No .of days - 2	2nd winner
Team Name - Error Kunal Sharma	Venue - LNMIIT (LNM HACKS), Month - January 2023, No.of days - 3	3rd position
Team Name - Error Kunal Sharma, Dev Tekwani	Venue - VGU (Hackathon), No. of Days - 3	Top 10
Team Name - Error Kunal Sharma, Dev Tekwani	Venue - VIT (Project Exhibition), No. of days - 1	2nd Position
Team Name - Web3 wizards Megh Shah, Mitushi Yadav, Arun Joseph	Venue - JIET Jodhpur (Hackathon), Month - March 2023	2nd prize
Team Name - Bug Squashers Aditya Pareek, Kartik Mehta, Abhay Kumar MIttal	Venue - DU (Hackathon), Month - February 2023, No.of Days - 2	Top 15
Team Name - NetWork Rhythm Verma, Kartik Mehta, Sahaj Jain, Mayank Arora	Venue - SKIT (Start-up expo), Month - April 2023, No. of days - 1	Invited to work in their incubation cell
Team Name - Bug Squashers Aditya Pareek, Kartik Mehta, Abhay Kumar Mittal	Venue- Thapar Institute of Engineering And Technology (Hackathon), Month - March 2023, No. of days - 2	Built NFT games

Team Name- Bit-4-Byte Hiya Gurbani, Lavina Sevani, Harshit Verma, Jatin Nama	Venue - Bharati Vidyapeeth's College, Date - 15-16 June 2023, No. of days - 2	Top 7 in Software category
Team Name - The Errors Kartikey Sharma, Gauri Singhal, Garvit Arora, Arpita Garg	Venue - Bharati Vidyapeeth's College, Date - 15-16 June 2023, No. of days - 2	Top 5 in Hardware category
Team Name - Error 404 Harshvardhan Sharma, Mahendra Kumawat, Anurag Dadhich	Venue - Bharati Vidyapeeth's College, Date - 15-16 June 2023, No. of days - 2	Learned about the latest technologies and gained practical knowledge
Aditya Pareek, Kartik Mehta, Abhay Kumar Mittal	Venue - Bharati Vidyapeeth's College, Date - 15-16 June 2023, No. of days - 2	Learned about the latest technologies and gained practical knowledge
Burhanuddin Bohra, Kinana Bohra, Paawan Sharma, Diksha Kanwar	Venue - Bharati Vidyapeeth's College, Date - 15-16 June 2023, No. of days - 2	Learned about the latest technologies and gained practical knowledge
Pranav Agrawal, Lakshay Singh Chouhan, Chaitanya Sharma, Kashish Aggarwal	Venue - Bharati Vidyapeeth's College, Date - 15-16 June 2023, No. of days - 2	Learned about the latest technologies and gained practical knowledge

DETAILS OF STUDENT PATENTS UNDER IDEA LAB			
S. No.	**APPLICATION NO.**	**APPLICANT NAME**	**TITLE OF INVENTION**
1	202211062261	Parv Sharma	An Intelligent System and Method for Autonomous Sunlight Reflector and Moisture Level Indicator with Nutrient Provider
2	202311037475	Aditya Pareek	Intelligent Waste Segregation: Enhancing Efficiency Through Smart Dustbin for Dry and Wet Waste Segregation
3	202311037494	Kunal Sharma	Advanced And Compact Iot-Based System for Home Automation and Intelligent Electricity Management
4	202311049138	Satish Parmar	Design And Development of An Iot-Based Knee Guard to Aid Blind Individual in Obstacle Avoidance
5	202311037396	Shubham Tambi	Digital System for Student's Presence
6	202311051802	Kishor Kumar	Immersive Xr System with Voice Assistant Integration For Exploring Of Educational Institutions
7	202311037912	Nikhil Rastogi	Network Traffic Analyzer Using Nodemcu-32
8	202311078174	Kaustubh S Nair	An Intelligent Automatic Bill Generation System
9	202311078174	Yash Kumar Bhatia	An Intelligent Automatic Bill Generation System
10	202311078174	Tanishk Bansal	An Intelligent Automatic Bill Generation System
11	202311076140	Kumari Khushboo	Development of the Artificial Intelligence-Based AgroGenius System for Enhancing Farming Efficiency Based on the IoT-AR Drone Approach
12	202311076140	Khushi Gupta	Development of the Artificial Intelligence-Based AgroGenius System for Enhancing Farming Efficiency Based on the IoT-AR Drone Approach
13	202311076140	Kritika Tiwari	Development of the Artificial Intelligence-Based AgroGenius System for Enhancing Farming Efficiency Based on the IoT-AR Drone Approach
14	202311075320	Akshay Sharma	An IoT-Based Two-Way People Counter with Dynamic Tracking and Data Regression Analysis for Single Door Entry and Exit

FACULTY ACHIEVEMENTS
(AWARDS, PATENTS, STARTUPS, CERTIFICATIONS ETC.)

DETAILS OF PUBLISHED PATENT			
S. No.	**APPLICATION ID**	**APPLICANT NAME**	**TITLE OF INVENTION**
1	202311037475	Aniva Sharma	Intelligent Waste Segregation: Enhancing Efficiency Through Smart Dustbins For Dry And Wet Waste Sorting
2	202211070762	Budesh Kanwer	Enhancement In Navigation System With Verbal Briefing And Short Video Of Important Destinations
3	202211070247	Shikha Gautam	Qr Based Automated System For The Collection & Donation Of Residuals Medicine Stocks
4	202211067504	Dr. Uday Pratap Singh	System And Model For Development Of Energy Efficient Routing Protocol For Wireless Sensor Networks For Enhancement Of Sensor Node And Battery Lifetime
5	202211069267	Dr. Uday Pratap Singh	Security Improvement In Storage Of Dockers Containers On Cloud Server
6	202211067851	Alka Rani	An Intelligent System And Method For Developing Iot Based Virtual Doctor
7	202211067504	Dr. Shruti Thapar	System And Model For Development Of Energy Efficient Routing Protocol For Wireless Sensor Networks For Enhancement Of Sensor Node And Battery Lifetime
8	202311037396	Abhishek Dadhich	Digital System For Student’s Presence
9	202211067216	Alka Rani	Reduced Switch Multilevel Inverter For Improved Power Quality Based On Solar Photovoltaic Systems
10	202211069267	Vivek Saxena	Security Improvement In Storage Of Dockers Containers On Cloud Server
11	202311037945	Vivek Saxena	Implementing Iot For Garbage Monitoring And Removal
12	202311037945	Anil Kumar	Implementing Iot For Garbage Monitoring And Removal
13	202211059380	Dr. Dinesh Goyal	System & Method For Intelligent Virtual Stock Trading And Management Using Machine Learning Approach

14	202211062722	Dr. Dinesh Goyal	An Intelligent System For Peer-To-Peer Wireless Power Transfer Among Ubiquitous Devices
15	202311037475	Dr. Dinesh Goyal	Intelligent Waste Segregation: Enhancing Efficiency Through Smart Dustbins For Dry And Wet Waste Sorting
16	202311037494	Dr. Dinesh Goyal	Advanced & Compact Iot-Based System For Home Automation And Intelligent Electricity Management
17	202211068998	Udit Mamodiya	An Intelligent System And Method For Smart Cities To Provide Parking Solutions By Leasing Out Personal And Commercial Parking Spaces Using Artificial Intelligence
18	202211062722	Udit Mamodiya	An Intelligent System For Peer-To-Peer Wireless Power Transfer Among Ubiquitous Devices
19	202211059380	Udit Mamodiya	System & Method For Intelligent Virtual Stock Trading And Management Using Machine Learning Approach
20	202311037475	Udit Mamodiya	Intelligent Waste Segregation: Enhancing Efficiency Through Smart Dustbins For Dry And Wet Waste Sorting
21	202311037494	Udit Mamodiya	Advanced & Compact Iot-Based System For Home Automation And Intelligent Electricity Management
22	202211069267	Anil Kumar	Security Improvement In Storage Of Dockers Containers On Cloud Server
23	202311037945	Dr. Uday Pratap Singh	Implementing Iot For Garbage Monitoring And Removal
24	202311037912	Dr. Uday Pratap Singh	Network Traffic Analyzer Using Nodemcu-32
25	202211060618	Ajay Maurya	An Intelligent Management System For Foul Detection And Performance Analysis In Football Matches Using Artificial Intelligence With Machine Learning Techniques
26	202211060618	Anurag Anand Duvey	An Intelligent Management System For Foul Detection And Performance Analysis In Football Matches Using Artificial Intelligence With Machine Learning Techniques
27	202341023255	Bersha Kumari	An Intelligent System & Method For Providing Security In Iot Based On Quantum Cryptography
28	202341013611	Shikha Gautam	Comprehensible Artificial Intelligence To Assess Corporate Security Operations Using Eeg Data

			Within IoT Framework
29	202231062750	Anurag Anand Duvey	Development Of A Smart Vehicle Horn Management System Based On Artificial Intelligence And Machine Learning For Noise Pollution Control
30	202311034721	Chanchal Tiwari	Development Of A Machine Learning Based Approach To Predict Charging Demand For Electric Vehicles
31	202211074981	Udit Mamodiya	Development Of An Intelligent Transistor System For Smart Cities To Provide Commercial Parking Spaces Using Artificial Intelligence And Machine Learning Techniques
32	202241054495	Udit Mamodiya	A Smart Management System For Controlling Medical Robot Beds For Preventing Bedsores Using Artificial Intelligence And Machine Learning
33	202241051919	Udit Mamodiya	An Intelligent Method For Defect Recognition In Additive Manufacturing Using Image Processing Based On IoT & AI
34	202241042430	Udit Mamodiya	An Intelligent System And A Method For Monitoring Laundry Machine Operations Using Machine Learning For Analysis Of Acoustic Transducer Signal Information
35	202311029943	Udit Mamodiya	Development Of An Innovative Design Of An Art Teaching Quality Evaluation System Based On Big Data And Cloud Computing Technology
36	202311076140	Indra Kishor	Development of the Artificial Intelligence-Based AgroGenius System for Enhancing Farming Efficiency Based on the IoT-AR Drone Approach
37	202311075320	Indra Kishor	An IoT-Based Two-Way People Counter with Dynamic Tracking and Data Regression Analysis for Single Door Entry and Exit
38	202311078174	Alka Rani	An Intelligent Automatic Bill Generation System

CHAPTER - 13

ROAD AHEAD
FUTURE PLANS OF IDEA LAB

IDEA Lab is a dynamic entity which is designed to foster innovation, entrepreneurship and development of unique projects. The future plans of IDEA Lab and the goals and aims to achieve are:

1. **Enhanced Resources:** IDEA Labs frequently work to upgrade their resources and spaces to make them more appealing and creatively stimulating. This could entail setting up co-working spaces, cutting-edge machinery, and technological infrastructure.
2. **Expansion and Outreach:** A lot of IDEA Labs want to interact and reach out to more people. To promote innovation and entrepreneurship, this can entail setting up new locations or forming alliances with businesses, community organisations, and other educational institutions.
3. **Enhanced Collaboration:** One of the main objectives is to promote collaboration with mentors, other innovation hubs, and industry partners. IDEA Lab might try to fortify their networks in order to give projects and startups access to more beneficial contacts and resources.
4. **Encouraging Social Impact:** IDEA Lab concentrates on initiatives and new businesses with a distinct social impact. Plans for the future might emphasise and step up efforts to deal with societal issues and promote constructive change.
5. **Academic Programme Integration:** In order to provide courses on innovation and entrepreneurship and to make it easier for students to combine real-world experience with classroom instruction, IDEA Labs may expand their connections with academic programmes.

CHAPTER - 14
PIET AICTE IDEA LAB IN MEDIA

जयपुर, 10 मार्च 2023 5

'हैकाथॉन' में निकाले इंडस्ट्री की समस्याओं के समाधान

स्मार्ट सिटी थीम पर पूर्णिमा 'हैकाथॉन 2.0' आयोजित

समाचार जगत न्यूज

जयपुर। पूर्णिमा इंस्टीट्यूट ऑफ इंजीनियरिंग एंड टेक्नोलॉजी की ओर से इसकी एआईसीटीई आइडिया लैब में स्मार्ट सिटी थीम पर 'पूर्णिमा हैकाथॉन 2.0' आयोजित किया गया। हैकथॉन के तहत विभिन्न सरकारी और निजी एजेंसियों की ओर से 50 से अधिक प्रॉब्लम स्टेटमेंट प्राप्त हुए, जिनके इसमें शामिल हुए देशभर की 225 टीमों के करीब एक हजार स्टूडेंट्स ने समाधान निकाले। विजेताओं को करीब 1.5 लाख रुपये के पुरस्कार प्रदान किए गए। इसमें प्रतिभागियों को इंडस्ट्री एक्सपर्ट से रूबरू होने का अवसर भी मिला।

आईआईटी, इंदौर के डॉ. रामबिलास पचौरी हैकथॉन के उद्घाटन समारोह के मुख्य अतिथि थे, जबकि एंटरप्राइज सर्च एंड डेटा स्पेशलिस्ट अरुण पालीवाल गेस्ट ऑफ ऑनर और चैंबर फॉर इनोवेटर्स एंड एंटरप्रेन्योर्स इंडिया के अजय सिंह राजावत विशिष्ट अतिथि थे। मेजबान पीआईईटी के डायरेक्टर डॉ. दिनेश गोयल ने सभी अतिथियों का स्वागत किया। हैकथॉन में प्रतिभागी स्टूडेंट्स की ओर से तकनीकी इनोवेशन के जरिए इंडस्ट्री की समस्याओं के समाधान निकाले गए, जिन्हें जजेज द्वारा काफी सराहा गया। इनोवेशन, डिजाइन, तकनीक, सामाजिक लाभ और व्यापार मूल्य जैसे पैरामीटर के आधार पर इन समाधानों का मूल्यांकन किया गया, जिसके आधार पर 90 टीमों ने हार्डवेयर व सॉफ्टवेयर श्रेणी के लिए अंतिम जूरी राउंड में प्रवेश किया। अंत में एआईसीटीई आइडिया लैब के एचओडी उदित मामोड़िया द्वारा धन्यवाद ज्ञापित किया गया।

पीआईईटी एआईसीटीई आईडिया लैब में समर इंटर्नशिप प्रोग्राम की शुरुआत

जयपुर। पूर्णिमा इंस्टीट्यूट ऑफ इंजीनियरिंग एंड टेक्नोलॉजी की एआईसीटीई आईडिया लैब की ओर से आईओटी पर आधारित समर इंटर्नशिप प्रोग्राम आयोजित किया जा रहा है। 15 दिवसीय इस प्रोग्राम में देशभर से इंजीनियरिंग प्रथम वर्ष के करीब 160 स्टूडेंट्स शामिल हुए हैं। इसका आयोजन सिंकग्रिड एलएलपी, दिल्ली के सहयोग से किया जा रहा है। उद्घाटन समारोह में पीआईईटी के डायरेक्टर व आईडिया लैब के मुख्य संरक्षक डॉ. दिनेश गोयल ने नवोदित इंजीनियरों की रोजगार क्षमता बढ़ाने के लिए फैकल्टी व स्टूडेंट्स के कौशल आधारित शिक्षण में आईडिया लैब के अनुप्रयोगों की जानकारी दी।

इस अवसर पर इंस्टीट्यूट के रजिस्ट्रार व चीफ प्रॉक्टर डॉ. गौतम सिंह, आइडिया लैब के समन्वयक उदित ममोड़िया, सह-समन्वयक नितिन मुकेश माथुर, सिंकग्रिड के संस्थापक मृत्युंजय कुमार और सह-संस्थापक अरुण कुमार उपस्थित रहे। उद्घाटन समारोह के बाद प्रतिभागियों को आदर्श प्रयोगशाला के उपकरणों के बारे में जानकारी दी गई। विशेषज्ञों द्वारा उन्हें स्मार्ट मूड लैंप, इलेक्ट्रिक विजिटिंग कार्ड, होम ऑटोमेशन, आईओटी बेस्ड सिक्योरिटी सिस्टम, मौसम रिपोर्टिंग प्रणाली, स्मार्ट डस्टबिन, मोशन कैप्चरिंग डिवाइस, सेंसर नेटवर्क और स्मार्ट स्विच जैसे आईओटी पर आधारित कई प्रोजेक्ट्स के बारे में भी बताया गया। इंटर्नशिप के आगामी दिनों में आईओटी पर आधारित पीसीबी डिजाइन, ईगल सीएडी सॉफ्टवेयर, प्लान्ड डिजाइनिंग, पीसीबी राउटर के लिए पीसीबी डिजाइन को परिवर्तित करना, टोनर ट्रांसफर विधि, बेसिक थ्रीडी मॉडलिंग जैसे विषय कवर किए जाएंगे।

आयोजन नवोदित इंजीनियरों की रोजगार क्षमता बढ़ाने के लिए फैकल्टी व स्टूडेंट्स के कौशल आधारित शिक्षण में आईडिया लैब के अनुप्रयोगों की जानकारी दी

पीआईईटी एआईसीटीई आईडिया लैब में समर इंटर्नशिप प्रोग्राम की शुरुआत

जयपुर(कासं.)। पूर्णिमा इंस्टीट्यूट ऑफ इंजीनियरिंग एंड टेक्नोलॉजी की एआईसीटीई आईडिया लैब की ओर से आईओटी पर आधारित समर इंटर्नशिप प्रोग्राम आयोजित किया जा रहा है। 15 दिवसीय इस प्रोग्राम में देशभर से इंजीनियरिंग प्रथम वर्ष के करीब 160 स्टूडेंट्स शामिल हुए हैं। इसका आयोजन सिंकग्रिड एलएलपी, दिल्ली के सहयोग से किया जा रहा है। उद्घाटन समारोह में पीआईईटी के डायरेक्टर व आईडिया लैब के मुख्य संरक्षक डॉ. दिनेश गोयल ने नवोदित इंजीनियरों की रोजगार क्षमता बढ़ाने के लिए

फैकल्टी व स्टूडेंट्स के कौशल आधारित शिक्षण में आईडिया लैब के अनुप्रयोगों की जानकारी दी। इस अवसर पर इंस्टीट्यूट के रजिस्ट्रार व चीफ प्रॉक्टर डॉ. गौतम सिंह, आइडिया लैब के समन्वयक उदित ममोड़िया, सह-समन्वयक नितिन मुकेश माथुर, सिंकग्रिड के संस्थापक मृत्युंजय कुमार और सह-संस्थापक अरुण कुमार भी उपस्थित रहे।

समारोह के बाद प्रतिभागियों को आदर्श प्रयोगशाला के उपकरणों के बारे में जानकारी दी गई। विशेषज्ञों द्वारा उन्हें स्मार्ट मूड लैंप, इलेक्ट्रिक विजिटिंग कार्ड, होम ऑटोमेशन, आईओटी बेस्ड सिक्योरिटी सिस्टम, मौसम रिपोर्टिंग प्रणाली, स्मार्ट डस्टबिन, मोशन कैप्चरिंग डिवाइस, सेंसर नेटवर्क और स्मार्ट स्विच जैसे आईओटी पर आधारित कई प्रोजेक्ट्स के बारे में भी बताया गया। इंटर्नशिप के आगामी दिनों में आईओटी पर आधारित पीसीबी डिजाइन, ईगल सीएडी सॉफ्टवेयर, प्लान्ड डिज़ाइनिंग, पीसीबी राउटर के लिए पीसीबी डिज़ाइन को परिवर्तित करना, टोनर ट्रांसफर विधि, बेसिक थ्रीडी मॉडलिंग जैसे विषय कवर किए जाएंगे।

पीसीबी डिजाइन पर फैकल्टी डवलपमेंट प्रोग्राम आयोजित

जयपुर (कासं.)। पूर्णिमा इंस्टीट्यूट ऑफ इंजीनियरिंग एंड टेक्नोलॉजी की ओर से सिंकग्रिड एलएलपी, दिल्ली के सहयोग से तीन दिवसीय फैकल्टी डेवलपमेंट प्रोग्राम आयोजित किया गया।

इसका विषय 'पीसीबी डिजाइन, सोल्डरिंग, असेंबली और एनक्लोजर डेवलपमेंट यूजिंग ए पीसीबी मिलिंग मशीन, लेजर कटर एंड 3डी प्रिंटर' था। पीआईईटी के डायरेक्टर एंव आइडिया लैब के मुख्य संरक्षक डॉ. दिनेश गोयल ने इंजीनियर्स की रोजगार क्षमता बढ़ाने के लिए फैकल्टी व स्टूडेंट्स के कौशल आधारित शिक्षण में आइडिया लैब के अनुप्रयोगों के बारे में जानकारी दी। इस अवसर पर पीआईईटी के रजिस्ट्रार डॉ. गौतम सिंह, आइडिया लैब के सह-समन्वयक उदित मामोड़िया, सिंकग्रिड के सह-संस्थापक अरुण कुमार, प्रोडक्शन हेड सतीश कुमार, फील्ड एप्लीकेशन इंजीनियर नमन पुरी और आइडिया लैब, गुरु के नितिन मुकेश माथुर भी उपस्थित थे। फैकल्टी डवलपमेंट प्रोग्राम के तहत प्रतिभागियों को आइडिया लैब के उपकरणों के बारे में जानकारी दी गई। इसके अलावा पीसीबी डिजाइन, ईगल सीएडी सॉफ्टवेयर, स्कीमेटिक डिजाइनिंग, पीसीबी राउटर के लिए पीसीबी डिजाइन को परिवर्तित करने, टोनर ट्रांसफर की विधि, पीसीबी एन्क्लोजर विकसित करने और बेसिक 3डी मॉडलिंग के बारे में भी विस्तार से बताया गया और इनकी प्रेक्टिस भी कराई गई।

इंटरनल आइडिएशन हैकथॉन आयोजित

समाचार जगत न्यूज

जयपुर. पूर्णिमा इंस्टीट्यूट ऑफ इंजीनियरिंग एंड टेक्नोलॉजी की आइडिया लैब की ओर से स्मार्ट इंडिया हैकथॉन 2023 के लिए दो दिवसीय इंटरनल आइडिएशन हैकथॉन आयोजित किया गया। पीआईईटी के डायरेक्टर व एआईसीटीई आइडिया लैब के चीफ मेंटर डॉ. दिनेश गोयल, रजिस्ट्रार व चीफ प्रोक्टर डॉ. गौतम सिंह और पीआईईटी एआईसीटीई आइडिया लैब के हेड उदित मामोडिया द्वारा इसका उद्घाटन किया गया। हैकथॉन में कुल 210 स्टूडेंट्स शामिल हुए, जिनके आइडियाज का मेहुल पंचाल (सहयोग इंजीनियर, सेलेबल टेक्नोलॉजी), हर्षवर्धन सिंह (डेटा विश्लेषक, जीट्रॉन नेटवर्क्स), रणु गौर (व्यापार विकास प्रबंधक, जीट्रॉन नेटवर्क्स) और सुनील कुमार (ऑटोमेशन इंजीनियर, कैजन इनोवेशन) द्वारा मूल्यांकन किया गया। स्टूडेंट्स ने कृषि, साइबर सिक्योरिटी, ब्लॉकचेन, आईओटी जैसे विभिन्न क्षेत्रों पर विचार प्रस्तुत किए। इसके माध्यम से इस आइडिया हैकथॉन ने स्टूडेंट्स को नवाचार व तकनीकी प्रतिष्ठानों के साथ मिलकर अपने विचारों को प्रस्तुत करने का मौका दिया। इस प्रक्रिया में उन्होंने अपने कौशल व उद्यमिता का प्रदर्शन किया और नवाचार के क्षेत्र में योगदान किया। इस हैकथॉन स्टूडेंट्स को नए व उत्कृष्ट विचार विकसित करने में मदद करने का महत्वपूर्ण अवसर प्रदान किया।

प्रोजेक्ट्स में साकार हुई कॉलेज व स्कूली स्टूडेंट्स की क्रिएटिविटी

नेशनल प्रोजेक्ट एग्जीबिशन 'उद्भव 2022' आयोजित

जयपुर (कासं.)। पूर्णिमा इंस्टीट्यूट ऑफ इंजीनियरिंग एंड टेक्नोलॉजी में सोमवार को नेशनल प्रोजेक्ट एग्जीबिशन व कॉम्पिटिशन 'उद्भव 2022' का आयोजन किया गया। एआईसीटीई आइडिया लैब व इंस्टीट्यूशंस इनोवेशन काउंसिल के सहयोग से आयोजित इस एग्जीबिशन में 13 कॉलेजों व पांच स्कूलों के स्टूडेंट्स के बनाए करीब 300 इनोवेटिव प्रोजेक्ट्स डिस्प्ले किए गए। कुछ प्रोजेक्ट्स का लाइव डेमोंस्ट्रेशन देकर स्टूडेंट्स ने बताया कि इनके जरिए दैनिक जीवन किस प्रकार और आसान हो सकता है। मोटिवेशनल सैशन में भूतपूर्व सैनिक समिति के राष्ट्रीय अध्यक्ष व कारगिल योद्धा कर्नल (डॉ.) देवानंद लोहामरोर ने स्टूडेंट्स को मोटिवेट किया।

इंस्टीट्यूट के डायरेक्टर डॉ. दिनेश गोयल ने बताया कि प्रोजेक्ट्स के जरिए स्टूडेंट्स की क्रिएटिविटी व हाई वर्क को मंच प्रदान करने के उद्देश्य से उद्भव का आयोजन किया गया। कॉम्पिटिशन के लिए इन प्रोजेक्ट्स को जज करने हेतु इंडस्ट्री एक्सपर्ट्स को आमंत्रित किया गया, जिन्होंने सभी प्रोजेक्ट्स का अवलोकन कर विभिन्न श्रेणियों में पुरस्कार के लिए चयन किया। विशेषज्ञों में पीएचआई इंडिया के फाउंडर आलोक पांडे, फोक्स टेक्नोलॉजीज के को-फाउंडर योगेंद्र सिंह, जैनपेक्ट से हरीश वर्मा और बीएसडीयू से सत्येंद्र सिंह शामिल थे।

उद्भव 2022 के समन्वयक डॉ. भानु प्रताप ने बताया कि एग्जीबिशन में मशीन लर्निंग, एआई, डेटा साइंस, आईओटी, वेब डेवलपमेंट, रोबोटिक्स, ऑटोमेशन, रिन्यूएबल एनर्जी व मोबाइल एप्लीकेशन से संबंधित प्रोजेक्ट्स आकर्षण के केंद्र रहे।

आइडिया लैब में इनोवेटिव प्रोजेक्ट्स का किया अवलोकन

ब्यूरो/नवज्योति, जयपुर। एआईसीटीई के प्रतिनिधियों की ओर से पूर्णिमा इंस्टीट्यूट ऑफ इंजीनियरिंग एंड टेक्नोलॉजी में स्थापित आइडिया लैब का दौरा किया। एआईसीटीई के एडवाइजर डॉ. नीरज सक्सेना और एआईसीटीई आईडिया लैब संचालन समिति के सदस्य डॉ. अवि शाह ने राजस्थान की इस एकमात्र आइडिया लैब का अवलोकन किया। मेजबान पूर्णिमा इंस्टीट्यूट के प्रिंसिपल डॉ. दिनेश गोयल ने अतिथियों का स्वागत किया। स्टूडेंट्स ने एआईसीटीई के प्रतिनिधियों को लैब में तैयार किए अपने अर्थक्वेक डिटेक्शन सिस्टम, थ्रीडी प्रिंटिंग बेस्ड प्रोजेक्ट और लेजर कटिंग पर आधारित कुछ इनोवेटिव प्रोजेक्ट्स दिखाए।

ऑटोकैड पर फैकल्टी डेवलपमेंट प्रोग्राम

जयपुर। पूर्णिमा इंस्टीट्यूट ऑफ इंजीनियरिंग एंड टेक्नोलॉजी की एआईसीटीई आइडिया लैब की ओर से तथा कैडमेट,जयपुर के सहयोग से %रिवर्स इंजीनियरिंग फॉर प्रोडक्ट डिजाइन यूजिंग कैड% विषय पर सात दिवसीय फैकल्टी डेवलपमेंट प्रोग्राम आयोजित किया गया। इंस्टीट्यूट के डायरेक्टर एवं आइडिया लैब के मुख्य संरक्षक डॉ. दिनेश गोयल ने इंजीनियर्स की रोजगार क्षमता बढ़ाने के लिए फैकल्टी व स्टूडेंट्स के कौशल आधारित शिक्षण में आइडिया लैब के अनुप्रयोगों के बारे में जानकारी दी। इस अवसर पर आइडिया लैब के समन्वयक उदित मामोड़िया, कैडमेट के संस्थापक रवि स्वामी, आइडिया लैब के नितिन मुकेश माथुर और रेशमा काला उपस्थित थे।

पीसीबी डिजाइन पर फैकल्टी डवलपमेंट प्रोग्राम आयोजित

जयपुर (कासं.)। पूर्णिमा इंस्टीट्यूट ऑफ इंजीनियरिंग एंड टेक्नोलॉजी की ओर से सिंकग्रिड एलएलपी, दिल्ली के सहयोग से तीन दिवसीय फैकल्टी डेवलपमेंट प्रोग्राम आयोजित किया गया।

इसका विषय 'पीसीबी डिजाइन, सोल्डरिंग, असेंबली और एनक्लोजर डेवलपमेंट यूजिंग ए पीसीबी मिलिंग मशीन, लेजर कटर एंड 3डी प्रिंटर' था। पीआईईटी के डायरेक्टर एंव आइडिया लैब के मुख्य संरक्षक डॉ. दिनेश गोयल ने इंजीनियर्स की रोजगार क्षमता बढ़ाने के लिए फैकल्टी व स्टूडेंट्स के कौशल आधारित शिक्षण में आइडिया लैब के अनुप्रयोगों के बारे में जानकारी दी। इस अवसर पर पीआईईटी के रजिस्ट्रार डॉ. गौतम सिंह, आइडिया लैब के सह-समन्वयक उदित मामोड़िया, सिंकग्रिड के सह-संस्थापक अरुण कुमार, प्रोडक्शन हेड सतीश कुमार, फील्ड एप्लीकेशन इंजीनियर नमन पुरी और आइडिया लैब, गुरु के नितिन मुकेश माथुर भी उपस्थित थे। फैकल्टी डवलपमेंट प्रोग्राम के तहत प्रतिभागियों को आइडिया लैब के उपकरणों के बारे में जानकारी दी गई। इसके अलावा पीसीबी डिजाइन, ईगल सीएडी सॉफ्टवेयर, स्कीमेटिक डिजाइनिंग, पीसीबी राउटर के लिए पीसीबी डिजाइन को परिवर्तित करने, टोनर ट्रांसफर की विधि, पीसीबी एन्क्लोजर विकसित करने और बेसिक 3डी मॉडलिंग के बारे में भी विस्तार से बताया गया और इनकी प्रेक्टिस भी कराई गई।

CHAPTER - 15
PHOTO GALLERY
PHOTOS OF EVENTS ORGANISED


RTU Centre of Excellence
POORNIMA


ORNIMA


₹3,100/-

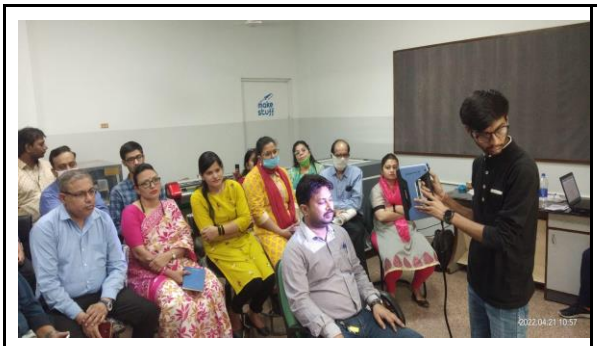

EXCELLENCE


AICTE IDEA Lab


Shot on OnePlus


Shot on OnePlus


Shot on OnePlus



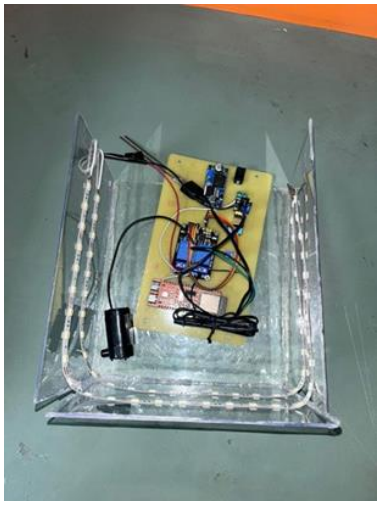
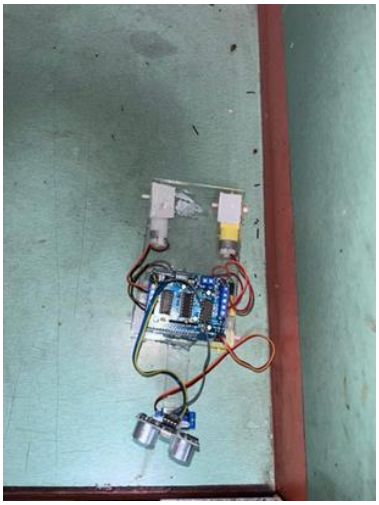

Intellectual Property

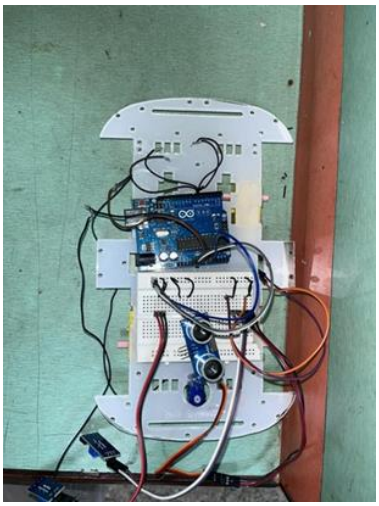

Shot on note 1

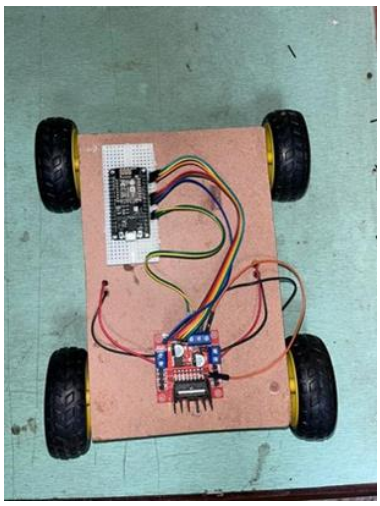
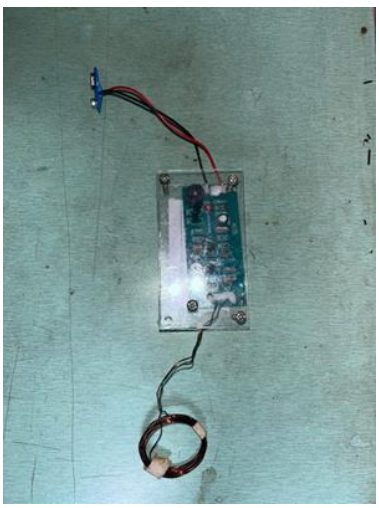
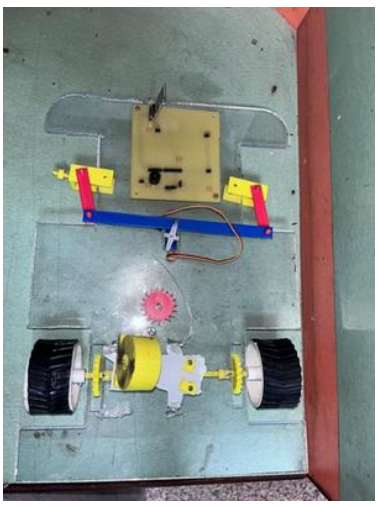

Shot on note 1

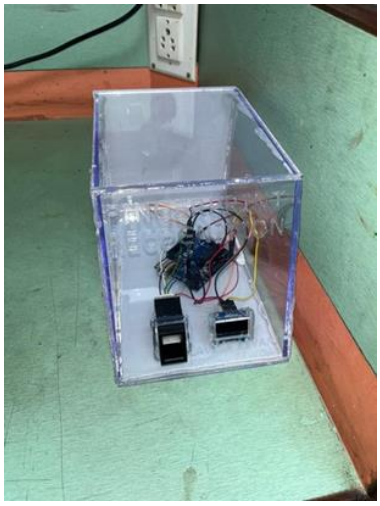

POORNIMA PIET CAMPUS
ATM

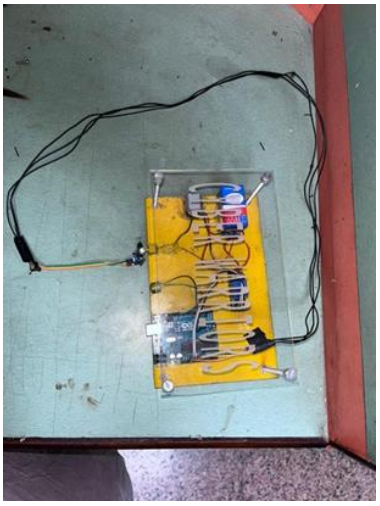
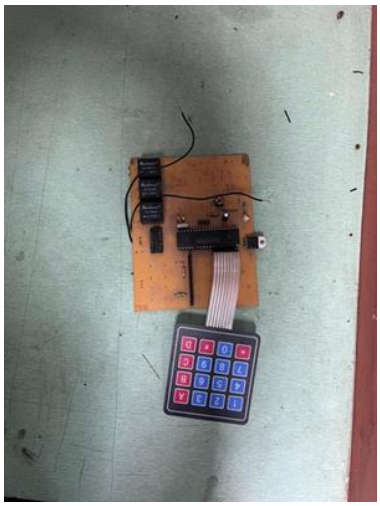
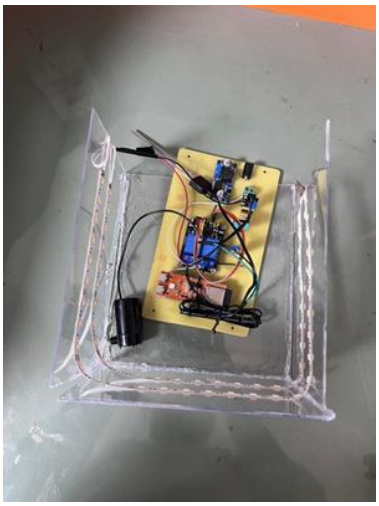
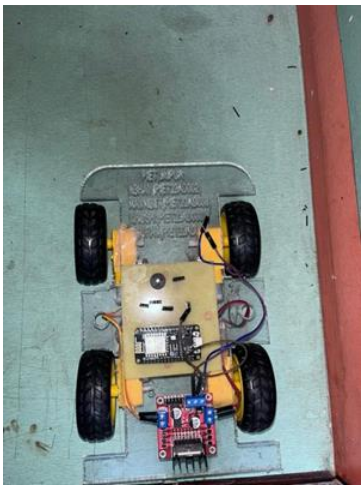
PROJECTS GALLERY



SUDYA
Mera Dost