



# **A D Patel Institute of Technology**

## **AICTE IDEA Lab**

**Monthly**

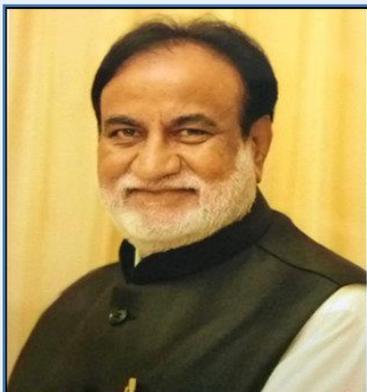
**Activity Newsletter:**

**July Issue 01**

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# Message from President



AICTE-IDEA (Idea Development, Evaluation & Application) Labs are being established across the country for encouraging students for application of Science, Technology, Engineering and Mathematics (STEM) fundamentals towards enhanced hands-on experience, learning by doing and even product visualization.

Activities will be conducted to align with many of the national initiatives to develop “Aatma Nirbhar Bharat”.

The Institute has already started courses under “National Skill Qualifications Framework” scheme, for skill development of youth, and the IDEA lab infrastructure will be shared for such courses also.

IDEA Lab provides all facilities under one roof, for conversion of an idea into a prototype. The ultimate objective is to transform engineering and science knowledge using such a Lab for nearby technical institutions and school students and for this they must proactively expose all students. The IDEA LAB should frequently organize training sessions for interested students as well as support projects to improve employability or entrepreneurship skills of students through experiential learning.

Head of the institute as chief mentor, faculty coordinators and student ambassadors will be responsible for overall implementation of AICTE initiative. Trainings, boot camps, internships and professional training programs will be organized throughout the year for faculty and students.

Faculty would be encouraged to get trained in these Labs and strive for creating problems/ projects/ internships in their own subjects/ disciplines and mentor the students. The industry, academia, technical institutions and school learners must take advantages of established resources under AICTE IDEA LAB.

Best wishes

Er. Bhikhubhai B. Patel  
President, CVM University  
Chairman, CVM

## Message from Chief Mentor



AICTE IDEA LAB at ADIT aims to develop as a physical and virtual environment for generating, developing, and commercializing innovative students' ideas through relevant trainings, mentoring and technology put at their disposal. Members of idea lab team were actively involved in providing guidance, mentoring and support to realize complexity, nature of problem and effective utilization of resources of IDEA LAB.

IDEA LAB would serve as “Clinic” for engineers in line with Hospitals for Medical students. The focus will be on imparting hands-on training among students so that they become imaginative and creative and stay confidently on workplace or as an independent entrepreneur. Interdisciplinary Design with Experimental orientation in the laboratory promotes new-innovation through material experimentation and performance-based design strategies. It also leverages students to participate at national and international level competitions such as Smart India Hackathon (SIH), ROBOCON, SAE- Baja (India), e-Yantra etc.

Integrated platform for students, faculty and Industry is beneficial mutually at every forefront of design in advancing knowledge and learning from each other. Industry-Academia interaction with help of IDEA LAB and MoUs with corporate sectors and research institutions have ensured that students obtain best possible exposure to multiple learning experiences.

I strongly believe that AICTE IDEA LABs will act as the main driver for continuous improvement in quality technical education and serve as the benchmark for future engineering endeavours.

**Best Wishes**

**Dr. Vishal Singh**

**Chief Mentor, AICTE IDEA LAB, ADIT**

**Principal, A D Patel Institute of Technology**

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**Visit us: <http://www.adit.ac.in/idealab.jsp>**

## Message from Coordinator



The primary goal of the Idea-Lab is to serve as a 'Technology Incubator' that aims to impart skill development among young minds and support potential ideas with good technological merit. Students should engage in activities, events and projects according to their interests. Prime minister's vision of new age learning- by 5E's such as Engage, Explore, Experience, Express, and Excel can be accomplished through it.

IDEA Lab would serve as an infrastructure for faculty to take up and promote multidisciplinary education and research emphasized in the National Education Policy 2020.

Basically, IDEA LAB word is coined from Innovation Design & Empowerment Applications Lab. It will make engineering graduates more imaginative and creative, besides getting basic hands-on training skills like-critical thinking, problem-solving, research, collaboration, communication, lifelong learning etc. essential for modern industry environment.

The main objectives of AICTE IDEA LAB are skill development, trainings in critical thinking, problem solving, design thinking, boot camps, internships and professional training programs, collaborations with industry and research organizations will be throughout the year for faculty, students, and institute growth. We always believe in collaboration and excellence.

We are glad for your footsteps at ADIT-AICTE IDEA LAB for new collaborative efforts towards solutions. Whatever may be the reason, please check out our IDEA LAB team and projects. Again, welcome to IDEA Labs, where people, knowledge, and technologies converge! We look forward to hearing from you.

Best Wishes

Dr. Yashavant Patel  
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Visit us: <http://www.adit.ac.in/idealab.jsp>

## Message from Co - Coordinator



AICTE IDEA Lab shall transform technical education by empowering young minds with cutting-edge tools, processes, and skills. It acts as a focal forum to inculcate scientific temper for attaining new heights in research and development for welfare of masses and to improve the quality of their life as well as to solve important issues by acting as organic link between science, technology and economy.

The focus will be on training students so that they become imaginative and creative and stay so at the workplaces they join. The ultimate objective is to transform engineering education with such a Lab and for this the institute must proactively expose all students to the IDEA Lab, organize training sessions for interested students as well as support projects and by providing online learning materials. The idea lab aims at developing critical thinking & complex problem-solving abilities among the students at the institute. The lab will also provide support to schools, polytechnic colleges, and engineering colleges in the vicinity. IDEA Lab would also serve as an empowering infrastructure for faculty to delve into multidisciplinary education and research, emphasized in the National Education Policy 2022.

**Best Wishes**

**Mr. Dhaval N Tailor**

**Co-Coordinator, AICTE IDEA LAB, ADIT**

**Assistant Professor, Department of Electrical Engineering**

**M: 9601290378**

## Message from Editors



It makes us proud to present this edition of AICTE IDEA Lab newsletter and share the past and upcoming events happening at IDEA Lab of ADIT.

We strongly believe that skill development among youth can be achieved by practical exposure through various planned activities. IDEA lab is a constant endeavour to aid in the growth of our students in more scientific way and provide industry ready environment. The lab has various sections that deals with different skill sets to render an all-round development of the students. Common observations are among students regarding excellence in theoretical concepts but scope of improvement for their practical knowledge. We are sure that this gap can be bridged at IDEA LAB through various programs such as Skill development workshops, Awareness programmes, etc. Moreover established facilities will also benefits faculty members of all nearby institutions to become proactive for meeting 21<sup>st</sup> century challenges and diversity. The Industry personals may also utilize these facilities for their new product development and testing.

Best wishes and Happy Learning to all...

**Prof. Jinal Bhagat & Prof. Sherin Mariam Jijo**  
Editors, AICTE IDEA LAB, ADIT  
Department of Information Technology

# About AICTE IDEALab

ADIT has been selected among 49 colleges across India by AICTE to establish IDEA LAB co-funded by CVM University.

## Vision for the IDEA Lab:

- To create start-ups and Innovation community within the town and proximity rural areas to foster the "Make in India" movement of the country.
- To develop the ecosystem of individuals who exchange knowledge, ideas, and technology to empower people of all ages.
- To be a reference centre focused on the development and rapid prototyping of design projects for technological transformation and innovation in "Charotar region" of Gujarat.
- To support the learning process based on the latest trends required by the industry and the market.

## Integration of IDEA Lab with existing facilities:

The institute has eight Centre of Excellence (CoE) in emerging areas of engineering and technology. Many UG/PG students are working under these CoEs for project and dissertation work; the IDEA lab may help them to carry their work to the next level. The faculty members of the institute are actively involved in R&D activities and have received many research grants from ISRO RESPOND, AICTE, DST etc.; the IDEA lab may empower faculty members to raise the research work in the institute. The institute is associated with various professional bodies like IEEE, ISTE, IE, SAE, SME, ISHRAE, AFST and IGBC; various activities under these professional bodies can also utilize the facilities available with IDEA Lab. The IDEA lab may support the SSIP cell, E&D cell and Innovation Council of the institute to promote the start-ups, entrepreneurship and Innovation related activities.

## Benefits to students:

A.D. Patel Institute of technology is one of the leading engineering institutes in state of Gujarat with NBA accreditation (4-Branches for 2nd Term) and ISO 9001-2015 certification. Since inception, the institute provides quality education and promoting research, start-ups and innovation related activities. The institute runs 8-UG programs, 6-PG programs with 1800 students and 100 faculty members. The institute has centre of excellence in emerging areas of

engineering and technology like "Robotics, Autonomous and Intelligent Systems", "Electric Mobility", "Food product Development and Modelling" etc.

As a part of that, students of the institute brought many laurels to the institute with the active participation in many state and national level competitions. The IDEA lab will provide the promising platform for students to enhance the required skills for converting the innovative ideas into reality. The lab empowers the faculty members to accelerate the R&D activities and project-based learning in the institute. The IDEA lab will also attract and inspire the school students to think out of the box at the beginner's level.

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# Committee Members

Name	Designated Role
Dr. Vishal Singh	Chief Mentor, Principal, ADIT
Dr. Yashavant Patel	Coordinator, Associate Prof. and Head, Mechanical Engineering
Prof. Dhaval Tailor	Co-Coordinator, Assistant Prof., Electrical Engineering
Prof. Sankalp Bhatiya	IDEA LAB GURU, Assistant Prof., Mechanical Engineering
Prof. Mitul Malli	Member, Assistant Prof., Mechanical Engineering
Dr. Viranchi Pandya	Member, Associate Prof., Electronics and Communication
Dr. Kalpesh M Shah	IDEA LAB GURU, Assistant Prof., Electronics and Communication
Prof. Vishal sheth	Member, Assistant Prof., Electrical Engineering
Dr. Nimit Patel Member	Assistant Prof., Automobile Engineering
Prof. Kuldeep Patel	IDEA LAB GURU Assistant Prof., Automobile Engineering
Prof. Bhavin Patel	Member, Assistant Prof., Civil engineering
Prof. Shah Axay	Member, Assistant Prof., Civil engineering
Prof. Priyanka Puvar	Member, Assistant Prof., Computer Engineering
Prof. Aniruddha Kurtkoti	IDEA LAB GURU, Assistant Prof., Computer Engineering
Prof. Jitiksha Patel	Member, Assistant Prof., Information Technology
Prof. Keyur Patel	Member, Assistant Prof., Information Technology
Prof. Sherin Mariam Jijo	Member, Assistant Prof., Information technology
Prof. Jinal Bhagat	Member, Assistant Prof., Information technology
Dr. P M Ganorkar	Member, Assistant Prof., Food Processing Technology
Dr. Ankita singh	Member, Assistant Prof., Food Processing Technology
Dr. Abhay Dashdiya	Member, Assistant Prof., Soft skill and Science Cell
Prof. Devang Shah	Member, Assistant Prof., Soft skill and Science Cell

# Inauguration

Shri Rajeev Chandrasekhar, Hon. Minister of State for Skill Development and Entrepreneurship, Government of India, undertook his visit to Charutar Vidya Mandal University, Vallabh Vidyanagar during 27th June 2022 and 28th June 2022 to encourage and interact with the young minds, industrialist and to inaugurate AICTE IDEA LABS of A.D.Patel Institute of Technology (Constituent Colleges of CVM University). The Hon. Minister was accompanied by Shri Dr. Kuber Dindor, Hon. Minister for State, Higher & Technical Education and Legislative & Parliamentary Affairs, Government of Gujarat, Shri. M. Nagrajan, The Commissioner, Commissioner of Higher Education Department, Government of Gujarat and Shri G.T. Pandya, The Commissioner, Commissioner of Technical Education, Government of Gujarat.

On his arrival at Vallabh Vidya Nagar on 27th June 2022, Er. Shri Bhikhubhai Patel, President CVM University (Chairman Charutar Vidya Mandal), welcomed him along with his team members. The delegation had an interactive session with notable industrialists of Vithal Udyognagar.

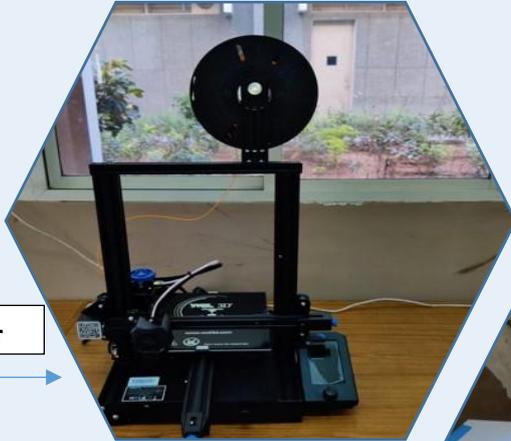
On 28th June 2022, the delegation headed to visit the venue of the event ADIT, a constituent college of CVM University. Mr. Pankaj Kumar V. Desai, Chief whip Member of Legislative Assembly Nadiad Poll, Gujarat State had come to bless us. An exhibition of total of 33 start-ups and entrepreneurs showcased their ideas and got a chance to interact with the Hon. Union Minister. The startups were from varied domains like IT technology, electric mobility, food processing technology, ayurveda and medical devices, and 3D printing.



The Hon. Union Minister has inaugurated AICTE IDEA LABs of A. D. Patel Institute of Technology (Constituent Colleges of CVM University) in august presence of Shri Dr. Kuber Dindor, Hon. Minister for State, Higher & Technical Education and Legislative & Parliamentary Affairs, Government of Gujarat, Er. Shri Bikhubhai Patel, President CVM University (Chairman Charutar Vidya Mandal), Shri Mehul Patel, Hon. Joint Secretary, CVM. During visit to AICTE IDEA LAB ADIT dignitaries interacted with ADIT ROBOCON team ARJUN, where team explained and presented the work done by them in IDEA LAB. Visit to IDEA LAB ADIT with dignitaries was further guided Dr. Vishal Singh, Principal ADIT.



# Equipment Gallery



3D Printer



Sewing Machine



CNC Plasma Cutting Machine



Vinyl printer & cutter



Stereo lithography (SLA) Machine



PCB Milling Machine

# Equipment Gallery(cont.)



**Pillar Drilling Machine**



**Electronics workbench**



**Pipe Bending Machine**



**Variable power supply**



**Hacksaw Machine 14"**



**CNC Wood Router**

# Equipment List

Sr.	Equipment	Sr.	Equipment
1	3D Printer	20	Portable Grinding machine
2	3D Scanner	21	Refrigerator
3	Drilling Machine 1 HP Motor	22	Normal Microwave Oven
4	Digital storage Oscilloscope	23	Magnifying Glass with stand
5	Signal Generator	24	Digital Microscope
6	PCB prototype Machine	25	Mixed Signal Oscilloscope
7	Bench top grinder Machine	26	Variable Power Supply
8	Wood Lathe	27	Bench top Multimeter
9	Laser Cutter	28	Projector
10	Vinyl Cutter	29	Heavy Duty Laser Printer
11	3D Printer	30	PCB Milling Machine
12	3D Scanner	31	Computer workstations in networking
13	CNC Router	32	Quadcopter Assembly kit
14	Mini desktop Lathe cum Milling	33	Smart board
15	Handheld High Speed drilling machine 15000 rpm with accessories		
16	Solder stations		
17	Desoldering machine		
18	Advanced motorized sewing machine		
19	Power tools		

# Event Summary

Sr.	Event Name	Date	Time	Event Coordinators
1	One Day Workshop on Laser Cutting Machine & Engraving Machine	05 July 2022	09:00 AM to 4:30 PM	Prof. Mitul Malli & Prof. Sankalp Bhatia
2	“Skill Development Program”	09 July 2022	10:00 am to 04:30 pm	Prof. Sankalp Bhatia Prof. Dhaval Tailor
3	Awareness Program for Principal/ Senior School Teachers	09 July 2022	09:30 am to 4:30 pm	Dr. Ankita Singh Prof. Jitiksha Patel
4	Awareness program for School Students	16 July 2022	10:15am to 11:30 am	Prof. Abhay Dasadiya Prof.Bhavin Patel
5	Skill Development Program	16 July 2022	10:00 am to 04:30 pm	Prof. Sankalp Bhatia
6	Ideation workshop for technical students	18 to 20 July 2022	10:00 am onwards	Prof. Mitul Malli Prof. Sankalp Bhatia Prof. Priyanka Puvar
7	Skill Development Program	20 July 2022	9:00 am to 01:00 pm	Prof. Dhaval Tailor, Dr. Hardik Shah
8	Ideation workshop for technical students	21 to 23 July 2022	10:00 am onwards	Prof. Mitul Malli Prof. Sankalp Bhatia Prof. Priyanka Puvar
9	Idea lab awareness program for Industries	22 to 23 July 2022	10:00 am to 04:00 pm	Prof. Devang Shah & Prof. Bala Dutt
10	Idea lab awareness program for School Students	23 July 2022	10:15am to 11:30 am	Prof. Abhay Dasadiya Prof.Bhavin Patel
11	Idea lab awareness program for Industry personnel	25th to 26th July 2022	10:00 am to 04:00 pm	Prof. Devang Shah Prof. Bala Dutt
12	Awareness program for School Students	30 July 2022	10:15am to 11:30 am	Prof. Abhay Dasadiya Prof.Bhavin Patel



“One Day Workshop on Laser Cutting Machine & Engraving Machine”	
<b>Date:</b>	05.07.2022
<b>Time:</b>	09:00 am to 4:30 pm
<b>Targeted Audience:</b>	ADIT Mechanical Engineering Students & ADIT Faculties
<b>Event Coordinators:</b>	Prof. Mitul Malli Prof. Sankalp Bhatia
<b>Workshop Contain:</b>	<ul style="list-style-type: none"> <li>• About AICTE IDEA LAB at ADIT</li> <li>• Laser Cutting Machine software training</li> <li>• Machine Application</li> <li>• Machine demonstration</li> <li>• On hand practice on acetic sheet</li> </ul>

“Awareness Program for Principal/ Senior School Teachers”	
<b>Date:</b>	09.07.2022
<b>Time:</b>	09:30 am to 4:30 pm
<b>Targeted Audience:</b>	Principals and senior school teachers
<b>Event Coordinators:</b>	Dr. Ankita Singh, Prof. Jitiksha Patel
<b>Resource Person:</b>	Dr. Y.D. Patel, Prof. Tejas Prajapati, Prof. Mitul Malli, Prof. Sankalp Bhatia, Prof. Kuldeep Patel
<b>Workshop Contain:</b>	<ul style="list-style-type: none"> <li>• About AICTE IDEA LAB at ADIT</li> <li>• CNC Machines</li> <li>• Introduction to 3D Printing Machine &amp; its applications</li> <li>• Introduction to Laser cutting &amp; Engraving machine &amp; its applications</li> <li>• Introduction to CNC Plasma Cutting Machine &amp; its applications</li> <li>• Introduction to CNC Wood router &amp; its applications</li> </ul>



“Skill Development Program”	
<b>Date:</b>	09.07.2022
<b>Time:</b>	10:00 am to 4:30 pm
<b>Targeted Audience:</b>	ADIT Students
<b>Event Coordinators:</b>	Prof. Sankalp Bhatia & Prof. Dhaval Tailor
<b>Resource Person:</b>	Prof. Ruchir Desai & Prof. Sankalp Bhatia
<b>Workshop Contain:</b>	<ul style="list-style-type: none"> <li>• Introduction to Vinyl Cutting Machine and its applications with hands on Training</li> <li>• Introduction to T-shirt and MUG Printing Setup and hands on Training</li> <li>• Introduction to Laser cutting &amp; Engraving machine and its applications</li> </ul>



"Awareness Program at IDEA Lab, ADIT"	
<b>Date:</b>	16.07.2022
<b>Time:</b>	09:30 am to 12:00 pm
<b>Targeted Audience:</b>	11th Standard students of Angel School, Anand
<b>Event Coordinators:</b>	Prof. Abhay Dasadia & Prof. Bhavin Patel
<b>Resource Person:</b>	Prof. Mitul Malli, Prof. Krunal Shah, Prof. Tejas Prajapati, Prof. Harsh Joshi, Prof. Ruchir Desai
<b>Workshop Contain:</b>	<ul style="list-style-type: none"> <li>• About AICTE IDEA LAB at ADIT</li> <li>• Demonstration of 3D Printing FDM &amp; SLA</li> <li>• Demonstration to digital microscope • CNC laser engraver</li> <li>• Introduction to CNC plasma cutting machine</li> </ul>

"Skill Development Program"	
<b>Date:</b>	16.07.2022
<b>Time:</b>	10:00 am to 4:30 pm
<b>Targeted Audience:</b>	ADIT Students
<b>Event Coordinators:</b>	Prof. Sankalp Bhatia
<b>Resource Person:</b>	Prof. Krunal Shah, Prof Kuldeep Patel, Prof. Sankalp Bhatia
<b>Workshop Contain:</b>	<ul style="list-style-type: none"> <li>• Introduction to CNC Wood Router and its software</li> <li>• Demonstration &amp; hands on practice of CNC Wood Router</li> <li>• Introduction to CNC Plasma Cutting Machine and its applications with hands on practice</li> <li>• Introduction to Rapid Prototyping and its applications</li> </ul>



"Ideation Workshop for Technical students"	
<b>Date:</b>	18.07.2022 to 20.07.2022
<b>Time:</b>	10:00 am to 4:30 pm
<b>Targeted Audience:</b>	ITI Students
<b>Event Coordinators:</b>	Prof. Mitul Malli, Prof. Sankalp Bhatia, Prof. Priyanka Puvar
<b>Resource Person:</b>	Prof. Ruchir Desai & Prof. Sankalp Bhatia
<b>Workshop Contain:</b>	<ul style="list-style-type: none"> <li>▪ About AICTE IDEA LAB at ADIT</li> <li>▪ Introduction to 3D Printing Machine</li> <li>▪ Pre-Processing in rapid prototyping</li> <li>▪ Hands-on 3D Modelling and Slicing</li> <li>▪ Demonstration &amp; Hands-on practice on 3D Printer</li> <li>▪ Introduction to Laser cutting &amp; Engraving machine and its software</li> </ul>



"Skill Development Program"	
<b>Date:</b>	20.07.2022
<b>Time:</b>	09:00 am to 01:00 pm
<b>Targeted Audience:</b>	ADIT Students
<b>Event Coordinators:</b>	Prof. Dhaval Tailor, Dr. Hardik Shah
<b>Resource Person:</b>	Prof. Dhaval Tailor
<b>Workshop Contain:</b>	<ul style="list-style-type: none"> <li>• Introduction to T-shirt and Mug printing Machine</li> <li>• Demonstration &amp; hands on practice of T-shirt and Mug printing Machine</li> <li>• Introduction to Electronics Workbench and its applications with hands on practice</li> <li>• Introduction to Vinyl Cutter machine</li> </ul>

"Ideation Workshop for Technical Students "	
<b>Date:</b>	21.07.2022 to 23.07.2022
<b>Time:</b>	10:00 am to 4:30 pm
<b>Targeted Audience:</b>	ADIT & other institute Students
<b>Event Coordinators:</b>	Prof. Mitul Malli, Prof. Sankalp Bhatia, Prof. Priyanka Puvar
<b>Resource Person:</b>	
<b>Workshop Contain:</b>	<ul style="list-style-type: none"> <li>• About AICTE IDEA Lab at ADIT</li> <li>• Introduction to 3D printer</li> <li>• Pre-Processing in rapid prototyping</li> <li>• Hands on 3D modelling and slicing</li> <li>• Demonstration &amp; practice on 3D printer</li> </ul>



"Two Days Workshop on Industry Awareness Program"	
<b>Date:</b>	22.07.2022 and 23.07.2022
<b>Time:</b>	09:00 am to 4:30 pm
<b>Targeted Audience:</b>	Industry People
<b>Event Coordinators:</b>	Prof. Devang Shah & Prof Bala Dutt
<b>Resource Person:</b>	Prof. Krunal Shah, Prof Sankalp Bhatia, Prof. Mitul Malli, Prof Kuldeep Patel
<b>Workshop Contain:</b>	<ul style="list-style-type: none"> <li>• About AICTE IDEA LAB at ADIT</li> <li>• Laser Cutting Machine software training</li> <li>• Machine Application</li> <li>• Machine demonstration</li> <li>• On hand practice on acetic sheet</li> </ul>



"Awareness Program at IDEA Lab, ADIT"	
<b>Date:</b>	23.07.2022
<b>Time:</b>	09:30 am to 12:00 pm
<b>Targeted Audience:</b>	Students of 11th & 12th Science of V. B. Multi purpose School, Sunav
<b>Event Coordinators:</b>	Prof. Abhay Dasadia & Prof. Bhavin Patel
<b>Resource Person:</b>	
<b>Workshop Contain:</b>	<ul style="list-style-type: none"> <li>• About AICTE IDEA LAB at ADIT</li> <li>• Demonstration of 3D Printing FDM &amp; SLA</li> <li>• Demonstration to digital microscope</li> <li>• CNC laser engraver</li> <li>• Introduction to CNC plasma cutting machine</li> </ul>

"Two Days Workshop on Industry Awareness Program"	
<b>Date:</b>	25.07.2022 and 26.07.2022
<b>Time:</b>	09:00 am to 4:30 pm
<b>Targeted Audience:</b>	Industry People
<b>Event Coordinators:</b>	Prof. Devang Shah & Prof Bala Dutt
<b>Resource Person:</b>	Prof Krunal Shah, Prof. Sankalp Bhatia, Prof. Mitul Malli, Prof. Kuldeep Patel
<b>Workshop Contain:</b>	<ul style="list-style-type: none"> <li>• About AICTE IDEA LAB at ADIT</li> <li>• Laser Cutting Machine software training</li> <li>• Machine Application</li> <li>• Machine demonstration</li> <li>• On hand practice on acetic sheet</li> </ul>



"Awareness Program at IDEA Lab, ADIT"	
<b>Date:</b>	30.07.2022
<b>Time:</b>	09:30 am to 12:00 pm
<b>Targeted Audience:</b>	Students of 11th Science of R.P.T.P. School, V.V. Nagar
<b>Event Coordinators:</b>	Prof. Abhay Dasadia & Prof. Bhavin Patel
<b>Resource Person:</b>	Prof. Mitul Malli , Prof. Krunal Shah, Prof. Tejas Prajapati, Prof. Harsh Joshi, Prof Ruchir Desai
<b>Workshop Contain:</b>	<ul style="list-style-type: none"> <li>• About AICTE IDEA LAB at ADIT</li> <li>• Demonstration of 3D Printing FDM &amp; SLA</li> <li>• Demonstration to digital microscope</li> <li>• CNC laser engraver</li> <li>• Introduction to CNC plasma cutting machine</li> </ul>

# Robocon'22

## About DD Robocon India :

Doordarshan Robocon India 2022 (DD Robocon) is a National Competition organized by IIT Delhi for Asian-Oceanian college robot competition, organized internationally by Asia-Pacific Broadcasting Union. In the competition robots compete to complete a task within a set period of time. The contest aims to create friendship among young people with similar interests who will lead their countries in the 21st century, as well as help advance engineering and broadcasting technologies in the region. The theme of Robocon was Lagori.

## Selection :

On 15-5-2022 Team Arjun of A. D. Patel of Institute from CVM University were selected for the phase 3 of DD Robocon 2022 to be held at Thyagraj Stadium at New Delhi.

Team Arjun having total of 9 members along with Prof. Dhaval Tailor went to IIT Delhi. There were two robots R1 and R2 made to participate in the competition. After reaching Delhi, team Arjun managed to reassemble both the robots R1 and R2. While practicing, Team Arjun was able to do the diagnostic and were able to do many modifications for the robot which were required at the time of deployment to compete against other teams from all around different states of nation.

The 1st match of Team Arjun was against team Presidency University, Bengaluru and The 2nd match of Team Arjun was against Pimpri Chinchwad College of Engineering, Pune. We scored 25 points in both the matches. In this round, unfortunately the Lagori gripper of R2 broke again but still we tried to pile the last Lagori using the ball gripper mechanism.

By the hard work and interesting journey of ROBOCON, we learnt many things:

1. Harmony between man and machine on the game field,
2. Conversion of thoughts into the reality,
3. Team Spirit and How to gather a positivity when all things fails,
4. Different technical in terms of electronics as well as mechanical aspects,
5. Communication skills, and
6. Importance of pneumatics.

We gave our best efforts, since we are not selected this time but next time, we ensure that we will do more and more efforts. We are grateful to A D Patel Institute of Technology (ADIT) and Charutar Vidya Mandal (CVM) University for giving us this level of platform in which we got a chance to participate and learn new things.

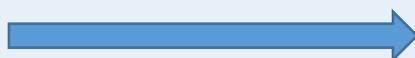
- ROBOCON Team



ADIT Robocon'22 team shortlisted in stage-2 at National Level Event



ADIT Robocon Team playing Lagori game using two Robots



Interactions with principal sir after participating Phase-III Robocon competition at IIT- Delhi



# Project Summary

Title	Coordinator	Project Guide	Stream of the project	Idea Lab facility utilized by project handler
Robots to pick up and play Lagori	Madhav Makwana	Prof. Dhaval Tailor	Mechanical and Electrical	3D Printers, Compressor, Drilling Machine, Vinvy plotter, Electronics workbench
Ultrasonic (HC-SR04) Interfacing, Buzzer, LED using Arduino Uno R3	YASH SINGH	Dr. Viranchi Pandya	Electronics and Communication	Electronics Workbench, Computer Workstation
IOT Based Smart Web Controlled Notice Board	Mishra Karan	Dr. Viranchi Pandya	Electronics and Communications	Node MCU (ESP8266-12E Board), Bread board, Jumper wire, Potentiometer (10k), Liquid crystal display (JHD162A 16X2 LCD Display)
Mini portable speaker	Vaishnavi Prajapati	Dr. Viranchi Pandya	Audio system	LM386 Speaker 3.5mm jack Capacitors Register Battery Connecting Wires
Temperature based fan control using Arduino	Prachi Ajay Raichura	Dr. Viranchi Pandya	Automation	Arduino, bread board, male to male jumper wires, battery, resistors, capacitor, buzzer
Smart Pot Dashboard	Premkumar M. Mistry	Dr. Viranchi Pandya	Smart Farming4	Arduino Uno, Bread Board, Jumper Wire, 20 x 4 LCD with I2C module, Soil Moisture Sensor, LED, LM35, LDR, Resistors
Radar System using Arduino Uno	Kartik V. Bhatia	Dr. Viranchi Pandya	Electronics	Electronics workbench, Computer system
LED control with Relay module	Yogendra C Adesara	Dr. Viranchi Pandya	IOT	Electronics Workbench, Power supply, PCB drill machine, Soldering Iron and 24v relay Prototype board (PCB)

**Education is the most  
powerful weapon, which you  
can use to change the world.**

**-Nelson Mandela**



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