



KOLHAPUR INSTITUTE  
OF TECHNOLOGY'S  
**COLLEGE OF  
ENGINEERING**  
(AUTONOMOUS),  
KOLHAPUR



**Innovation &  
Research  
Foundation**

**IIC-KITCoEK**



**INSTITUTION'S  
INNOVATION  
COUNCIL**  
(Ministry of Education Initiative)

## **Annual Report 2023-24**



**Kolhapur Institute of Technology's College of  
Engineering (Autonomous), Kolhapur**

R.S. No. 199B/1-3, Gokul - Shirgoan, Kolhapur - 416 234, Maharashtra State, INDIA

Contact Number: 7769001199, 9168781199 Email: [info@kitcoek.in](mailto:info@kitcoek.in)

## Annual Report 2023-24



### Kolhapur Institute of Technology's College of Engineering (Autonomous) Kolhapur.

#### A. About IIC Institute

The Institution's Innovation Council (IIC), K.I.T's College of Engineering (Autonomous), Kolhapur (IC201810436) was established in the year 2018 with a basic objective is to promote innovation and entrepreneurship in the Institution through multitudinous modes leading to an innovation promotion ecosystem in the campuses. The member incorporated in the IIC committee represents diversified background like Industry, Academia and consultants.

- **Vision :** To develop an entrepreneurial ecosystem on campus in various upcoming areas of technology entrepreneurship with an emphasis on product development (AgriTech, Biomedical, EnviroTech, and Electro Mechanical)
- **Mission:** To develop an effective interface between institutes, incubators, industry, and start-ups for identifying, promoting, and nurturing innovative ideas to develop commercialization of science & technology in the institute for mutual and societal benefit.





#### B. Brief mention of key functionaries at the IIC Institute

	<p>Dr. Sachin S. Shinde</p> <p>President –IIC- KITCoEK</p> <p>ARIIA- Nodal Coordinator</p> <p>Email : shinde.sachin@kitcoek.in</p> <p>Mobile : 9049506311</p>	<p>President IIC, ARIIA Nodal Coordinator &amp; Dean Incubation &amp; Innovation &amp; Linkages. Role is to Support Incubation, IIC- KITCoEK &amp; IISP implementation.</p>
	<p>Mrs. Vidula Waskar-Patil</p> <p>Convener –IIC- KITCoEK</p> <p>Email : waskar.vidula@kitcoek.in</p> <p>Mobile : 9860397530</p>	<p>Central E-cell coordinator &amp; IIC Convener. Role is to conduct Entrepreneurship related activities at institute level &amp; support Preincubation activities</p>

	<p>Mr. Sudhir Arali</p> <p>CEO- K.I.T's Innovation &amp; Research Foundation</p>	<p>External Member</p> <p>CEO- K.I.T's Innovation &amp; Research Foundation</p>
	<p>Mr Suryakant Dodmise</p> <p>CEO</p> <p>Siddham Innovation And Business Incubation Center- Sibic , Kolhapur</p> <p><a href="mailto:suryakantdodmise@gmail.com">suryakantdodmise@gmail.com</a></p> <p>9552951837</p>	<p>External Member</p>
	<p><b>Mr. Ranjeet Bhosale</b></p> <p>Assistant Professor</p> <p><b>K.I.T's Institute of Management, Education &amp; Research</b></p> <p>Kolhapur.</p>	<p>External Member</p>
	<p>Dr. Girish Naik</p> <p>NISP- Coordinator</p> <p>Email : <a href="mailto:girishnaik2025@gmail.com">girishnaik2025@gmail.com</a></p> <p>Mobile : 9850044388</p>	<p>Work as NISP coordinator at institute level and look after the IISP formulation &amp; implementation process.</p>
	<p>Dr. Rajesh M. Jorgewad</p> <p>IPR Activity Coordinator, Member</p> <p>Kapila IPR Coordinator</p> <p><a href="mailto:gudmalwar.rajesh@kitcoek.in">gudmalwar.rajesh@kitcoek.in</a></p> <p>Mobile : 9923957189</p>	<p>Work as IP coordinator and look after IP related activities and IP management</p>

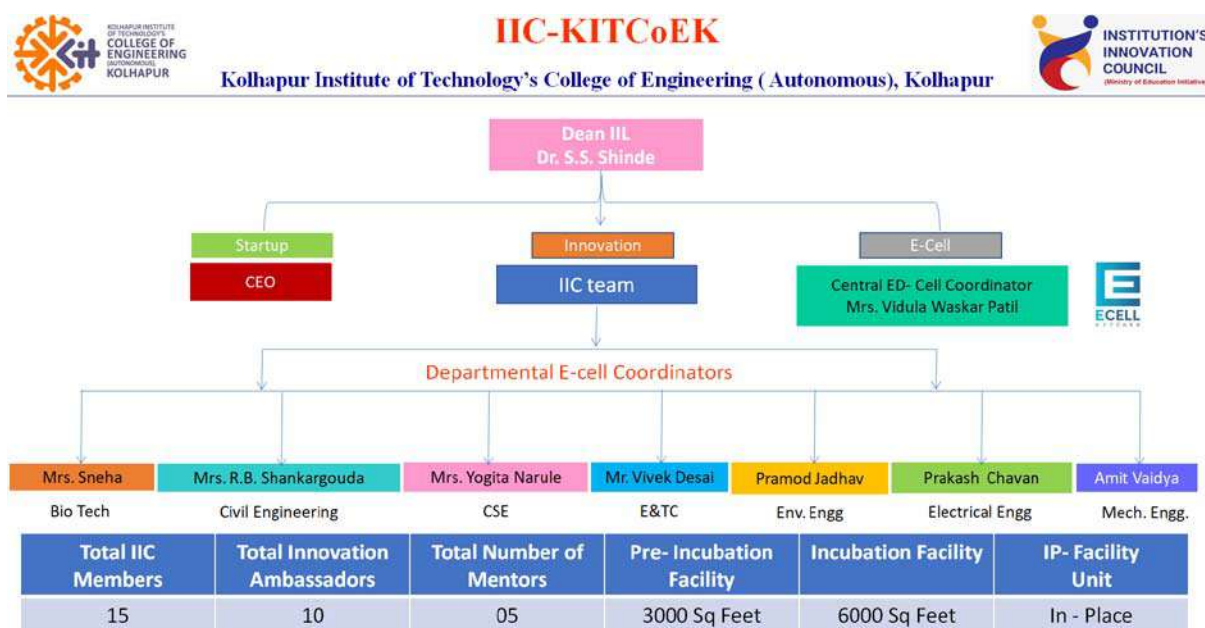
	<p>Mr Vivek Desai</p> <p>Innovation Coordinator</p> <p>Electronics And Telecommunication Department</p> <p>nigavekar.atul@kitcoek.in</p> <p>9922802999</p>	<p>Work as overall Innovation Coordinator &amp; look after Innovation related activities at institute level.</p>
	<p>Mrs. Komal Vivek Jadhav</p> <p>Assistant Professor</p> <p>M.Tech.(Electronics)</p> <p>Specialization : VLSI, Computer Network</p>	<p>Identifying Innovation Idea and promoting them in to a Startup</p> <p>Conducting Training programs &amp; Supporting Preincubation.</p>
	<p>Professor : <u>Mrs. M. N. Sarnobbat</u></p> <p>Civil and Environmental Engineering Department</p> <p>Registered Innovation Ambassador</p> <p>Completed Advanced Innovation Ambassador Training</p>	<p>Identifying Innovation Idea and promoting them in to a Startup</p> <p>Conducting Training programs &amp; Supporting Preincubation.</p>
	<p>Rashmi Shankargauda</p> <p>Civil Department</p> <p>Registered Innovation Ambassador</p> <p><a href="mailto:rashmibs039@gmail.com">rashmibs039@gmail.com</a></p> <p>890402252</p>	<p>Identifying Innovation Idea and promoting them in to a Startup</p> <p>Conducting Training programs &amp; Supporting Preincubation.</p>



	<p><b>Mr. Pramod K. Jadhav</b></p> <p><b>Civil and Environmental Department</b></p> <p>Registered Innovation Ambassador</p> <p><a href="mailto:jpramod11@gmail.com">jpramod11@gmail.com</a></p> <p>9028800388</p>	<p>Identifying Innovation Idea and promoting them in to a Startup</p> <p>Conducting Training programs &amp; Supporting Preincubation.</p>
	<p>Yogita Sachin Narule</p> <p>Assistant Professor</p> <p>B.E. Computer Engineering, M.E. Computer Science And Engineering,</p>	<p>Identifying Innovation Idea and promoting them in to a Startup</p> <p>Conducting Training programs &amp; Supporting Preincubation.</p>
	<p><b>Mr. Chavan Prakash Laxman</b></p> <p><b>Electrical Department</b></p> <p>Registered Innovation Ambassador</p> <p><a href="mailto:chavan.prakash@kitcoek.in">chavan.prakash@kitcoek.in</a></p> <p>7387473539</p>	<p>Identifying Innovation Idea and promoting them in to a Startup</p> <p>Conducting Training programs &amp; Supporting Preincubation.</p>
	<p><b>Mr. Vaidya Amit Suresh</b></p> <p><b>Registered Innovation Ambassador</b></p> <p><a href="mailto:asuvaidya@gmail.com">asuvaidya@gmail.com</a></p> <p><b>9763076765</b></p>	<p>Identifying Innovation Idea and promoting them in to a Startup</p> <p>Conducting Training programs &amp; Supporting Preincubation.</p>

	<b>Mrs. Sneha T. Patnawar</b> <b>Registered Innovation Ambassador</b> <a href="mailto:navare.bilwa@kitcoek.in">navare.bilwa@kitcoek.in</a> 8073560313	Identifying Innovation Idea and promoting them in to a Startup  Conducting Training programs & Supporting Preincubation.
	<b>Mr. Vaidya Amit Suresh</b> <b>Registered Innovation Ambassador</b> <a href="mailto:asuvaidya@gmail.com">asuvaidya@gmail.com</a> 9763076765	To Publish Activity on Social Media

C. Portfolio/graphical/Tabular representation of Resource strength (human capital and Physical capital) of the IIC institution



D. Highlight Facilities, Infrastructure of Pre-Incubation & Incubation kind and Student bodies/clubs engaged in promotion of Innovation and Entrepreneurship in the campus.

**Students Club for Innovation, Entrepreneurship and start-up promotional activities**

1. Central level E-Cell Core team -12
2. Departmental E-cell Team -30
3. Student Innovation Ambassadors-4
4. E-cell faculty team -7
5. Faculty- Innovation Ambassadors -18

## KIT's Innovation and Research Foundation

Supported by DST & MSIs

Photos of Incubation Center:

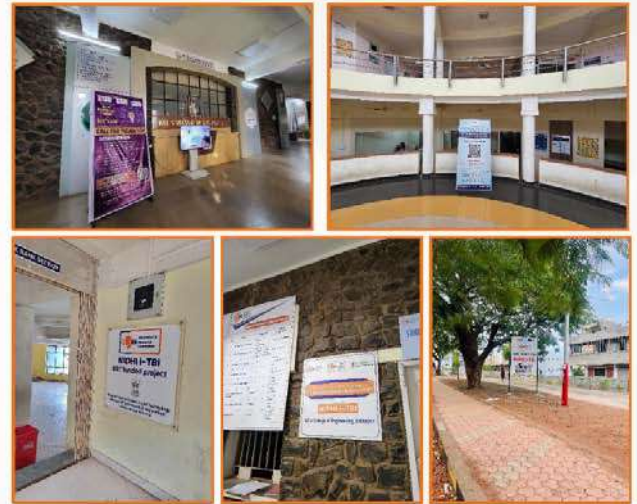


Video/ Virtual Tour of the Incubator of TBI:

<https://tinyurl.com/VirtualTour-KITs-IRF-Kolhapur>



Photos of Banner Placed of DST-iTBI at various Locations:





## E. Highlight Achievements (Narrative/Graphical/tabular representation)

**KIT's Innovation and Research Foundation**

Supported by DST & MSInS

Notable Achievements:

- **MSInS Incubator Support**– Maharashtra State Innovation Society (MSInS), Maharashtra Government has granted INR 5.00 Cr. for 5 Years for TBI to nurture Startup Ecosystem at the KIT's Campus.

Our following Incubated Startups have received various Awards/Grants/Funds,

- **CIRÉE**– The Healthcare Edu-tech Startup has received a grant of **Rs. 8.93 Lakhs** from HDFC Bank through **HDFC Parivartan CSR** (Corporate Social Responsibility) Grant.
- **SHSTRA**–
  - ✓ SHSTRA is currently benefiting with **NIDHI-EIR grant of Rs. 3.60 Lakhs** at Sci-Tech Park, Pune.
  - ✓ Moreover, the ongoing progress with **RKVY-RAFTAR** Funding signals promising prospects for additional Financial Support, showcasing the centre's proactive approach in tapping into diverse funding opportunities to fuel entrepreneurial endeavors.
  - ✓ Received **3.60 Lakh SARTHI Fellowship**.
- **Sanrajiya Agro India Pvt. Ltd.**–
  - ✓ Has achieved a significant milestone by securing funding of **Rs. 14.00 lakhs** through **MSME IDEA HACKATHON**.
  - ✓ Moreover, the ongoing progress with **RKVY-RAFTAR** Funding signals promising prospects for additional Financial Support, showcasing the centre's proactive approach in tapping into diverse funding opportunities to fuel entrepreneurial endeavors.
- **IGNITION GRANT 2023**– **10 Startups** has been sanctioned for Funding from **Rs. 2.50 Lakhs to Rs. 6.00 Lakhs** from the **Total Funding of Rs. 50.00 Lakhs**.



**KIT's Innovation and Research Foundation**

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Notable Achievements (Cont.)

- **Illuminar Ventures Pvt Ltd.**–
  - ✓ Focuses on developing a Smart Retrofitting Kit, recently secured substantial Funding to support their Innovative Project. It has received **Rs. 30.00 Lakhs** from **DICCI (Dalit Indian Chamber of Commerce & Industry)**.
  - ✓ Received an additional **Rs. 9.00 Lakhs** under **NIDHI PRAYAS**, a Government Initiative fostering Entrepreneurship and Innovation.
- **Starktech Ventures Pvt Ltd.**–
  - ✓ **SDG Innovation Challenge 2021 Rising Star Award**: Grabbed Rising Star Award with **600 USD Prize Money** and **Certification** at the **SDG Innovation challenge 2021**, arranged by the **Taiwan National University Kaohsiung**.
  - ✓ Received **3.60 Lakh Fellowship** under the **DST NIDHI EIR** scheme at **COEP'S Bhau Institute, Pune**.
  - ✓ Startup has been **awarded with Third Prize** at the **Business Idea Contest (BIC) 2022**, organized by **Bhartiya Yuva Shakti Trust-HDFC Bank Parivartan**, Sangli.
  - ✓ Received **3.60 Lakh SARTHI Fellowship**.
- **Saliva Sentinel**– Awarded a Winner's Trophy, Certificate of Excellence & rewarded a prize money of **Rs. 1,00,000/-** held at the **3<sup>rd</sup> CIIA Innovation Exhibition Awards** at the **Nehru Centre Auditorium, Worli, Mumbai** on **02/02/2024**.



## Incubated Start-ups @KIT



# KIT's IRF

Zeldatech Innovations Pvt. Ltd., Kolhapur



## Incubated Startups

CIREE Edutech LLP., Kolhapur



P&P Energy Solutions, Kolhapur



SHSTRA, Kharadi, Pune



AP Technologies, Kolhapur



Shreytechauto Pvt. Ltd., Sangli



PELAGIC-REAR LLP., Pune



Healthlink Companion Pvt. Ltd., Sangli



Illuminar Ventures Pvt. Ltd., Yavatmal



HydroGreEnergy, Kolhapur



Sanrajya Agro India Pvt. Ltd., Kolhapur



KIT's College of Engineering (Autonomous), Kolhapur

**Kolhapur Institute of Technology's  
Innovation and Research Foundation**

supported by DST, MoST, GoI under NIDHI i-TBI

## Activities Conducted Year 2023-24

Sr no	category	Event	Student Benefitted	Conducted Date	Conducted by	Location	Funded By
1	Workshop	A workshop on KIT's Copyright and IPR was conducted by Dr. Sachin Shinde by Department of Mechanical Engineering in association with E-Cell KITCoEK and IIC KITCoEK	80	11.10.23	MECHANICAL	Mechanical Seminar Hall	KIT College
2	Competition	'Pitching DECK' a pitching competition was arranged by E-Cell KITCoEK in association with IIC KITCoEK for the Students of KITCoEK	150	15.10.23	CENTRAL	Seminar Hall	KIT College
3	Workshop	A workshop on KIT's IRF and Mayura AICTE Idea Lab was conducted by Department of Mechanical Engineering in association with E-Cell KITCoEK and IIC KITCoEK	72	31.10.23	MECHANICAL	Mechanical Seminar Hall	KIT College
4	Workshop.	A workshop on Intellectual Property Rights was conducted by Mr. Aniket Walake by Department of Mechanical Engineering in association with E-Cell KITCoEK and IIC KITCoEK	72	31.10.23	MECHANICAL	Mechanical Seminar Hall	KIT College
5	Workshop	'Illuminate' one day workshop on business Model Canvas by Mr. Umesh Rathod, renowned author India organized by E-Cell KITCoEK in association with E-Cell IIT Bombay	300	9.11.23	CENTRAL	Seminar Hall	KIT College
6	orientation	E-Cell KITCoEK organised a orientation program of CSE department	40	23.11.23	CSE	Campus	KIT College
7	Field Visit	Exposure and field visit for problem identification was conducted by Dept. of Biotechnology in association with E-Cell KITCoEK and IIC KITCoEK	55	24.11.23	BIOTECH	Spurti Milk Industries	KIT College

[illegible]



17	Session	E-Cell KITCoEK organised a Speaker session as part of E-Summit 2024	300	14.4.24	CENTRAL	CAMPUS	KIT College
18	Competition	E-Cell KITCoEK organised an IPL Auction as part of E-Summit 2024	150	14.4.24	CeNTRAL	CAMPUS	KIT College
19	Competition	E-Cell KITCoEK organised a Shark Tank competition as part of E-Summit 2024	50	15.4.24	CeNTRAL	CAMPUS	KIT College
20	Competition	E-Cell KITCoEK organised a Trade Wars competition as part of E-Summit 2024	50	14.4.24	CeNTRAL	CAMPUS	KIT College
21		E-Cell KITCoEK organised a demo day of business plans and linkage with innovation experts for mentorship support	40	20.04.24	central		KIT College
22	Meetup	E-Cell KITCoEK organised a startup/ business meeetup	30	19.04.24	central	campus	KIT College
23	panel discussion	E-Cell KITCoEK organised a panel discussion with experts on developing strategies for their startups or future business	27	19.04.24	central	campus	KIT College
24	session	E-Cell KITCoEK organised a speaker session on "Why startups fail?"	50	19.04.24	central	campus	KIT College
25	Session	A workshop on Intellectual Property Rights was conducted by Mr. Aniket Walake by Department of Civil Engineering in association with E-Cell KITCoEK and IIC KITCoEK	100	26.4.24	biotech	CAMPUS	KIT College
26	quiz	Quiz on the occasion of IPR day	30	26.04.24	biotech	CAMPUS	KIT College
27	session	E-Cell KITCoEK organised a speaker session on IPR, patents, trademarks and copyrights	100	26.04.24	CSE	CAMPUS	KIT College
IV Quarter							
28	competiti on	Organisez an Inter/Intra Institutional Start-up Competition and Reward Best Start-ups for the students of KIT and other colleges	40	15.06.24	central	CAMPUS	KIT College

29	session	World Entrepreneurship Day online session for the students of KIT	40	21.08.24	central	CAMPUS	KIT College
30	workshop	IRF Orgsnixed a workshop on the occasion of World Entrepreneurship Day	45	21.08.24	central	CAMPUS	KIT College
31	session	Organise Session on “Lean Start-up & Minimum Viable Product/Business”- Boot Camp (or) Mentoring Session	50	15.06.24	central	CAMPUS	KIT College
32	panel discussion	Panel discussion with innovation and Start-up Ecosystem Enablers from the region level		31.07.24	central	CAMPUS	KIT College
33	Bootcamp	5-Day Startup Bootcamp at KIT's IRF! for the students of KIT	30	16.08.24	central	CAMPUS	KIT College
34	Pitching	intra institutional start-up competition for the students of KIT and other colleges	20	01/08/24	central	CAMPUS	KIT College
35	session	Creating and Managing YUKTI Innovation and IPR Repository (YIIR) in HEIs	10	02.08.24	central	CAMPUS	KIT College

### List of Innovative Ideas at campus

Name of Innovation	TRL
Structural Design Of Cooling Tower Using Pultruded FRP Sections - A Comparative Study Using STAAD.Pro And SAP	Level 3
Utilization of manufacturing sand / crush sand for concrete work available near kolhapur area	Level 4
Statistical validation of Unit Hydrogen for unguaged Hiranyakeshi basin	Level 3
CO2 Absorbant bricks	Level 4
Low cost wastewater treatment sysem for Pachgaon village	Level 3
Telemedicine	Level 3
Digitalization of medical records	Level 3
Payroll Management System	Level 3
Oversee (School Management System)	Level 3
Trip Management system	Level 3
KOUSHALYA	Level 3
Pharmacy Management System	Level 3
Smart Bin	Level 3
Effective eco-friendly construnction	Level 4
Decentralization of solid waste compact composter	Level 3
DPR for Treatment of Waste water using Constructing Wel tand	Level 3
Design & Analysis of Solar Based Wireless Power Transfer	Level 3

IOT Based Smart Energy Meter	Level 3
Automatic bottle filling System	Level 3
Automatic mixing & controlling in a tank	Level 3
Smart car parking	Level 3
Staff Management	Level 3
Brain Tumor Detection	Level 3
Solar Power Generation	Level 3
Characterization of expensive soil as a foundation strata & rock exploration with SBC calculation on unconfirmed compressive strength	Level 4
Characterization and improvement of black cotton soil	Level 3
Charcterization of foundation strata of Sarlashkar Heights a residential project	Level 3
Construnction project controlling & schedulling using MSP	Level 3
Project scheduling and planning using MSP software	Level 3
Microsoft project planning of G+1 framed structure	Level 3
Production of citric acid by microbial fermentation	Level 3
Production of bioethanol from Banana and Orange peels	Level 3
Production of biofertilizer from Rhizobium	Level 3
Validation of Test/ Analytical Method - ELISA	Level 3
Milk process line validation at Yalgud, Kolhapur	Level 3
Validation of Ayurvedic Products	Level 3
Intelligent Sign Language recognition for deaf person using AIML	Level 4
Assessment of Soil Erosion in Hilly region of WADE village	Level 4
Design and Developoment of Solar Powered & Battery-operated Street Sweeping Machine	Level 4
AgroGODS- Enhancing Roots of Mother Culture using machine learning algorithms	Level 6
Growth Studies on Chlorella Protothecoides	Level 5
Farm Mpower and Pesticides Robots	Level 4
SMART Torch	Level 5
Performance Evaluation of Moving Bed Biofilm Reactor (MBBR) in Sequencing batch mode using novel media Configuration	Level 4
Solar powered battery operated Street sweeping machine	Level 5
Improvement and Modernization of Go-Kart Chassis.	Level 3
Comparison between batch and fed batch mode with media optimization study for CHO cells	Level 3
Process development for recombinant protein production	Level 4





## KIT's Innovation and Research Foundation

Supported by DST & MSInS

### Startup Ignition Grant Details (Cont.)

Sr No.	Startup/Innovator	Startup/Innovator Founder's Name	Date of Agreement	Details of the Startup/Innovation/ Solution	Grant Amount Released	
					Total Fund Sanctioned	Fund Released
6	Development of Broiler Bird Harvesting Machine	Mr. Saurabh Bhosale	14/05/2024	Bird Catching, Counting, Weighing, and Transporting Machine, including smooth bird catching and transportation processes, an authorized counting and weighing system by using AI/ML & Image Processing for accuracy, and both automatic and manual operation modes.	Rs. 5,00,000/-	Rs. 3,00,000/-
7	Saliva Sentinel: Non-Invasive Uric Acid Detection Kit	Ms. Shrutika Dalavi	14/05/2024	Development of Rapid, Non-invasive, Cost Effective, Time Saving Salivary Uric Acid Detection Kit.	Rs. 2,50,000/-	Rs. 1,25,000/-
8	Aparamparik-PNP	Mr. Avinash Pudale	14/05/2024	An open-source pick and place machine designed to make surface-mount technology (SMT) assembly affordable and accessible for educational institutions, small-scale industries, and makerspaces in India.	Rs. 5,00,000/-	Rs. 2,50,000/-
9	Silver (Ornament) Soldering Machine	Mr. Shreyas Kulkarni	14/05/2024	Automated process of soldering of ornaments which requires labours and long working hours which leads to Deterioration of health of workers and reduced operational time of manufacturing unit.	Rs. 4,50,000/-	Rs. 2,50,000/-
10	Solar Smart E-Urinal System	Mr. Vinayak Kumbhar	14/05/2024	Develop the clean Urinal system which can create awareness among the people about Clean and Hygienic Urinal System.	Rs. 5,00,000/-	Rs. 3,00,000/-



- No. of IPs generated, published and granted

Sr. No	Title/Name of IP (Copyright/Design Only)	Type of IP	IP Registration Number of Copyright/Design	Date of Filed/Published	Has this IP (Copyright & Designs Only) been Commercialized/Transferred to Industry/Startup/Society?
1	Gear Oil Analyzing System	Design	360574-001	14-03-2022	Yes
2.	Arc Welding Rod Holder	Design	Design No. 374157-001	15-11-22	No
3	Mattress for prevention of Pressure Ulcer	Patent	201621043344 Patent No: 461680	Granted 25/10/2023	No

4	“A mechanical lateral tilting bed for bedridden patients to reduce pressure ulcers”	Patent	Application No 20162104334 3	Granted 29/12/20 23	No
5	Semi Automatic-Floor Cleaning M/C	Patent	Application No 20172100757 2	Granted 19/09/20 23	No

**F. Highlight few best IIC Faculty/Student members and their achievements/  
Rewarded for the innovations at different forum**

**Highlight of best IIC Faculty Start-up**

## Startup @ KITE



**WaveNXD Technologies Pvt. Ltd.**

- Promoted by Prof. Atul R. Nigavekar and Prof. Vivek K. Deasi
- Both from Department of Electronics & Telecommunication, KITCOEK

- Business Verticals



Original Equipment  
Manufacturing



Original equipment  
manufacturing



Product Engineering  
services



Original Design  
Manufacturing

- Breakthrough Products
  - Ultrasonic Spray Nozzle and Drive system, PIPAC, Spray pyrolysis
- Patent filed: Suffocation free antimicrobial breathing mask
  - Electronic, Battery operated mask can act as vaccine against airborne virus





Mr Atul Nigavekar  
Associate Professor  
Electronics And Telecommunication Department  
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9922802999



Mr. Vivek Desai  
Associate Professor  
E&TC  
desai.vivek@kitcoek.in  
Mobile : 9545114441

In Feb. 2022 the two professor of Electronics and Telecommunication department of KIT's college of Engineering, founded WaveNxD Technologies Pvt. Ltd. to leverage diverse experience in offering consultancy services to industry. The company promote platform to deliver innovative solution to society that simplify and bring quality to human life through electronics and computing engineering. Through continues research and Hercules (Bhagirath) efforts on complex technologies the company is opening avenues of import substitute, high quality and cost effective solutions to industry, research community as well as a common man.

The company has started operations at KITE, incubation center of KIT's college of Engineering. The company works on three business verticals:

1. Product engineering services (PES)
2. Original design manufacturing (ODM)
3. Original equipment manufacturing (OEM)

The product engineering services vertical is offering complete product solution to the product manufacturer. This incorporates concept understanding, Specification development, Product design, Implementation, Testing and offering few Functional products for field trials. The company is offering following PES and ODM to the clients.

The OEM vertical aims at launching own product in the market. At present the company has developed technology of Ultrasonic spray nozzle with product brand name: iMinds Ultrasonic spray nozzle and dive system.

The Unique Spray Characteristics of the Ultrasonic spray Nozzle are: Low velocity atomized spray, Tight drop distribution, Independent control of process variables, Self-cleaning, non-clogging, low maintenance device. The titanium construction is resulting in high reliability and long life.

The applications of Ultrasonic spray nozzle are: Spray driers for nano particles, Spray pyrolysis, Blood collection tube coatings, Stent coating, Glass coatings, Semiconductor wafer coating, PCB spray fluxing, Lubrication coatings.

One of the most innovative applications of this technology is PIPAC. This is a high efficiency drug delivery method to cancer patients in the fourth stage. The intra-peritoneal tissues/organs are aerosoled by chemo drugs. This promising invention is an import substitute for Capno-pen manufactured in Germany. At present laboratory trials are in progress in collaboration with Department of Botany, Shivaji University, Kolhapur.

The company is at early stage of startup. Many industries, research organizations and universities have expressed interest in this promising technology manufactured first time in India.

This effort story shall be incomplete without mention of Visionary management of the college. The ex-chairman Shree Bharat Patil and Secretary Shree Deepak Chaogule established the Institution innovation and startup policy (IISP) for KITCOEK as per guide lines of AICTE. Our Chairman Shree Sunil Kulkarni and Secretary Shree Deepak Chaugale supported consistently in the journey till date to cater our needs of startup infrastructure. The Vice chairman encouraged the idea of IISP in KITCOEK.

Our Executive Director, Dr. Vilas karjinni, fertigated and irrigated this new plant of KIT. Our I/C Director Shree Manoj Mujumdar helped to get permission for faculty startup in KITCOEK. Prof. Dr. Girish Naik, Prof. Dr. Sachin shinde Crafted the IISP with multiple meetings with industry and startup experts. This path breaking initiatives are enabling students, faculty and alumni of KIT to spread wings and participate in the Startup mission of our nation set by our beloved Prime minister, Shree Narendra Modiji. Our KIT family shall be torch bearer for our Nation in this mission.

#### G. Highlight selected best Innovations & images with mention of inventor/innovation name

**KIT's Innovation and Research Foundation**

Supported by DST & MSInS

Notable Achievements (Cont.)

- Illuminar Ventures Pvt Ltd.-**
  - ✓ Focuses on developing a Smart Retrofitting Kit, recently secured substantial Funding to support their Innovative Project. It has received **Rs. 30.00 Lakhs** from **DICCI (Dalit Indian Chamber of Commerce & Industry)**.
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- Starktech Ventures Pvt Ltd.-**
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## TDI – AAYU

TDI – AAYU is a portable artificial respiratory device designed to serve as a first aid to the patient suffering from respiratory failure



### Target Users

- Primary healthcare centres.
- Small clinics.
- Ambulances.
- Clinics in tribal, resource poor areas.
- Individuals such as Asthma patients, home quarantined patients, etc

**TECHDAWN INNOVATIONS PVT. LTD.**


**CIN:** U73100PN2022PTC216391

**Regd. Off:** Plot No. 23, A, Padmavati Nagar, Mangalwar Peth, Kolhapur

**Co. No:** +91 7841888741

**Mail:** techdawn.innovations@gmail.com

## H. Highlight selected start-ups established by students/faculties with mention of founder/cofounder name



**Student Start-up Registered**





**Student Start-up Registered**  
**Techdawn Technology Pvt. Ltd.**



Name of Founder : Mr. Chinmay Joshi  
 Name of Company : Techdawn Innovations Pvt. Ltd.  
 Reg. No. : U73100PN2022PTC216391  
 Est. Year : 2022  
 Address : KITCoEK  
 Dist.-Kolhapur, Maharashtra  
 Contact no. : 7841888731  
 E mail ID : techdawn.innovations@gmail.com

KIT's Innovation and Research Foundation

Supported by DST & MSInS

Startup Ignition Grant Details

Sr No.	Startup/ Innovator	Startup/ Innovator Founder's Name	Date of Agreement	Details of the Startup/Innovation/ Solution	Grant Amount Released	
					Total Fund Sanctioned	Fund Released
1	EROX	Mr. Aniket R. Walake	14/05/2024	A centralized Online Platform connecting customers with printing service providers, streamlining the process by allowing customers to interact directly with facilities online.	Rs. 6,00,000/-	Rs. 2,50,000/-
2	Seaweed Cultivation	Mr. Rishabh Malhotra & Mr. Manik Malhotra	14/05/2024	Cultivation of Seaweed in Maharashtra Coastal Region. Planning to upscale the Cultivation in different parts of Maharashtra Coastal line.	Rs. 4,00,000/-	Rs. 3,00,000/-
3	HealthLink Companion: IoT based Device for Old Age People	Smt. Malan Shirguppikar and Mrs. Divyarani Ganachari	14/05/2024	Developing a device to help older people stay connected with their families and doctors. Features- Telehealth Integration, Emergency Alerts, Smart Home Integration, Caregiver Services, Medical Records Management, Home Health Monitoring.	Rs. 5,00,000/-	Rs. 2,00,000/-
4	FRP profiles in Industrial use for Farming and Industry	Mr. Amol Kalgonda Patil	14/05/2024	Material with High end chemical changes and is possible to use in place of steel sections, which is as strong as steel sections, nonmetal it is Dielectric, Safer, 4 times light weight than Steel Sections, and 25% cheaper.	Rs. 6,00,000/-	Rs. 4,00,000/-
5	Dibbler Type Fertilizer Machine	Mr. Sangram Vikas Patil	14/05/2024	Dibbler Type Fertilizer Machine is a Tractor mounted and can be drawn by any tractor of above 25 HP specially recommended by Sugarcane farming as well as Vegetable Farming.	Rs. 3,00,000/-	Rs. 2,00,000/-



KIT

KIT'S INNOVATION & RESEARCH FOUNDATION



MSInS

Ministry of Science & Technology



DST NIDHI

Department of Science & Technology



GOVERNMENT OF INDIA

DEPARTMENT OF SCIENCE & TECHNOLOGY



Maharashtra State Innovation Society







Name of Founder	:	Mr. Sangram Patil
Name of Company	:	Swarajya Agro Implements
Reg. No.	:	UDYAM-MH-15-0000584
Est. Year	:	Dec 2019
Address	:	A/P. Bhuyewadi, Tal.-Karveer, Dist.-Kolhapur, Maharashtra
Contact no.	:	9923777045/9130317045
E mail ID	:	sangramp7045@gmail.com
Nature of Plant	:	Manufacturing of Agricultural Implements

**I. List if any break through Innovations / Technology Developed at the institute (2-3 technology with 2-3 lines about technology and innovation**

**Ultrasonic spray nozzle and dive system.**

The Unique Spray Characteristics of the Ultrasonic spray Nozzle are: Low velocity atomized spray, Tight drop distribution, Independent control of process variables, Self-cleaning, non-clogging, low maintenance device. The titanium construction is resulting in high reliability and long life.

The applications of Ultrasonic spray nozzle are: Spray driers for nano particles, Spray pyrolysis, Blood collection tube coatings, Stent coating, Glass coatings, Semiconductor wafer coating, PCB spray fluxing, Lubrication coatings.

One of the most innovative applications of this technology is PIPAC. This is a high efficiency drug delivery method to cancer patients in the fourth stage. The intra-peritoneal tissues/organs are aerosoled by chemo drugs. This promising invention is an import substitute for Capno-pen manufactured in Germany. At present laboratory trials are in progress in collaboration with Department of Botany, Shivaji University, Kolhapur.

**J. Participation of IIC-institute in various programs of Central and State Govt. Highlighting specially for the schemes or programs**

Institute is participating in MSME Idea Hackathon following are the details of Idea Hackathon Participation

1. MSME IDEA HACKATHON 2022 1.0  
Total Idea Submitted 4 – 1 Got Selected and received 14L Rs. funding
  2. MSME IDEA HACKATHON 2022 2.0  
Total Idea Submitted 7 – Not Selected
  3. MSME IDEA HACKATHON 2022 3.0 ( Women)  
Total Idea Submitted 6 – Result Awaited
- **NISP Adoption status** - K.I.T's College of Engineering under initiate of MIC & IIC has formulated Institutional Innovation & Startup Policy by considering the guidelines of NISP. Currently we are at the implementation stage and developed a start-up enabling ecosystem and infrastructure at college campus.
    - **Policy Formulated** - Yes
    - **Policy Implemented** - Yes
    - **Trained Faculty- 18**
  - **Smart India Hackathon:-**
    - K.I.T's College of Engineering ( Autonomous) was one of the institutes in Maharashtra as Nodal center selected by Innovation cell, AICTE and ministry Education New Delhi. for organizing SIH-2023 (Software)

लोकमत

## केआयटीमध्ये 'एक्सलरेटर मिट' इनोव्हेशन कौन्सिल : विविध तज्ज्ञ मंडळींशी चर्चात्मक संवाद

लोकमत न्यूज नेटवर्क  
कोल्हापूर : एआयसीटीई व इन्स्टिट्यूट इनोव्हेशन कौन्सिल (आयआयसी)च्या 'एक्सलरेटर मिट'ला विद्यार्थ्यांचा प्रतिसाद मिळाला. केआयटी अभियांत्रिकी (स्वायत्त) महाविद्यालयामध्ये झालेल्या या कार्यक्रमाचे आयोजन शिक्षण मंत्रालयाच्या इनोव्हेशन सेलच्या पश्चिम क्षेत्राने केले होते.

परिसरातील महाविद्यालयातील आय.आय.सीचे निमंत्रक, इनक्यूबेटर, इनव्हेस्टर, इंडस्ट्री लीडर, आय.पी. विषयातील तज्ज्ञ, स्टार्टअप्स सुरू करणारे, त्यांना मार्गदर्शन करणारे तसेच इन्स्टिट्यूट इनोव्हेशन कौन्सिलचे सदस्य या सर्वांशी समन्वय वाढवणे हा या कार्यक्रमाचा हेतू होता.

विविध तज्ज्ञ मंडळींशी चर्चात्मक



केआयटी येथील 'एक्सलरेटर मिट' मध्ये उमेश राठोड यांनी मार्गदर्शन केले. यावेळी डॉ. डी. जे. साठे, डॉ. मोहन वनरोट्टी, सुधीर आरळी उपस्थित होते.

संवाद, प्रश्नोत्तरचा कार्यक्रम दोन सत्रांत पार पडला. केआयटीचे संचालक आणि मयुरा एआयसीटीई आयडिया लॅबचे मार्गदर्शक डॉ. मोहन वनरोट्टी यांनी प्रास्ताविक केले. इनोव्हेशन मॅनेजर (पश्चिम विभाग) उमेश राठोड यांनी अशा प्रकारच्या

विविध उपक्रमांची माहिती सांगितली. लॅबचे प्रमुख डॉ. दत्तात्रय साठे आणि आय.आर.एफ.चे मुख्य कार्यकारी अधिकारी सुधीर आरळी समन्वयक होते. संस्थेचे अध्यक्ष सुनील कुलकर्णी, उपाध्यक्ष साजिद हुदली, सचिव दीपक चौगुले यांचे प्रोत्साहन लाभले.

# अभियंत्यांकडे देशाचे प्रश्न सोडवण्याची क्षमता

## अरुण भट : केआयटीत 'स्मार्ट इंडिया हॅकॅथॉन'चा समारोप

### ► सकाळ वृत्तसेवा

कंदलगाव, ता. २१ : आपल्या तरुण अभियंत्यांकडे देशातील सर्व तांत्रिक प्रश्न सोडवण्याची इच्छाशक्ती व क्षमता आहे. हे अशा दर्जेदार स्पर्धेतून दिसून येते, असे मत नोर ब्रेम्से इंडियाचे व्यवस्थापकीय संचालक अरुण भट यांनी व्यक्त केले.

केआयटी येथे ए. आय. सो.टी.ई.च्या माध्यमातून संरक्षण मंत्रालय, पर्यावरण मंत्रालय, आयुष मंत्रालय यांच्यातर्फे आयोजित 'स्मार्ट इंडिया हॅकॅथॉन' स्पर्धेच्या समारोप कार्यक्रमात ते बोलत होते. अध्यक्षस्थानी 'केआयटी'चे अध्यक्ष सुनील कुलकर्णी होते.

अंतिम फेरीसाठी पात्र ठरलेल्या सहभागी स्पर्धक व मार्गदर्शक



कंदलगाव : केआयटी येथे झालेल्या 'स्मार्ट इंडिया हॅकॅथॉन' स्पर्धेच्या पारितोषिक वितरण समारंभात अरुण भट यांनी मार्गदर्शन केले. या वेळी सहभागी स्पर्धक, प्राध्यापक उपस्थित होते.

प्राध्यापकांचा सत्कार करण्यात आला. 'केआयटी'चे संचालक डॉ. मोहन वनरोट्टी यांनी या स्पर्धेचा सारांश मांडला. एकूण ३६ तास चाललेल्या या स्पर्धेची तांत्रिक व व्यवस्थांची

माहिती त्यांनी दिली. रात्री सहभागी विद्यार्थ्यांसाठी झालेला सांस्कृतिक कला दर्शनाचा कार्यक्रम, तसेच पहटे 'केआयटी'च्या प्रा. विजय रोकडे यांनी योगासनाच्या प्रात्यक्षिकातून 'मानसिक

स्थैर्यता' याबाबत माहिती दिली. सौरभ निमळे, स्पर्धा निरीक्षक प्रसाद दिवाण, डॉ. आर. डी. ओत्तील शास्त्रज्ञांचा या वेळी विशेष सत्कार करण्यात आला. सचिव दीपक चौगुले व विश्वस्त कर्नल प्रतापसिंह रावराणे उपस्थित होते. स्पर्धेचे निर्मात्र डॉ. वनरोट्टी यांनी विजेत्या संघांची घोषणा केली.

प्रमुख अतिथी व मंचावरील मान्यवरांच्या हस्ते पाच विजेत्या संघांना प्रत्येकी एक लाखाचा घनादेश, प्रमाणपत्र, स्मृतिचिन्ह देऊन सत्कार करण्यात आला. संस्थेचे उपाध्यक्ष साजिद हद्दली, प्रा. अरुण देसाई यांनी आभार मानले. प्रा. समता जैन-चोरडिया, प्रा. अजय कापसे यांनी सूत्रसंचालन केले.

Social Media links:

<https://www.ecellkitcoek.com/>

<https://www.facebook.com/ecellkitcoek/>

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<https://twitter.com/officialkitcoek/>



**L. Testimonials from IIC members and external about IIC institute and IIC of MoE's Innovation Cell**

1. Ms. Shamika Mandre:  
Final Year E&TC Engineering Student  
9021790018 |  
IIC-KITCoEK



**Shamika Mandre**

+91 90217 90018

The Institution Innovation Council at KITCoEK highly encourages the students from the very first year of engineering to think differently and come up with innovations and ideas in order to make them entrepreneurs of the future through a variety of sessions, workshops, field visits and competitions. IIC KITCoEK not just inspires but also nurtures and supports the students to transform their ideas into a working model/ prototype. Hence, a very great opportunity is made open for students at an institute level.

Mr. Vivek Deai  
Faculty of Electronics & Telecommunication Engineering  
[desai.vivek@kitcoek.in](mailto:desai.vivek@kitcoek.in) 9850844491



AICTE published National innovation and start-up policy. The vibrant management and administration took immediate call on the policy and developed IISP: Institution innovation and start up policy. This policy created profound impact on students and teaching community. The IIC-KITCoEK in association with ED cell conducted various wakeup and warm up lectures through in house and subject matter experts for college students and faculty. Faculty from each department identified to register as innovation ambassador. The courses offered by IIC were excellent especially on topics like Design Thinking, Business plan writing and Market analysis etc. The impact of above environment has resulted in to registering of start-up company named, WaveNxD Technologies Pvt. Ltd. by me along my faculty friend colleague Prof. Vivek Desai.

The company has started operations at KITE, incubation center of KIT's college of Engineering.

Dr. Bhavna Ambudkar  
Dean - Alumni Relations, Entrepreneurship Development  
Startup & Innovation Cell ,  
Head - Department of Electronics & Telecommunication  
Engineering  
Dr. D.Y. Patil Institute of Technology – Pimpri Pune



Testimony Recorded link:

<https://drive.google.com/file/d/16Z8ynQ-UacN0Dqtfu827ZvXidn4k8IDG/view?usp=sharing>

## M. Images



**26 Teams from 12 States continuous 36 Hrs coding SIH Organised at K.I.T. CoEK 2023. And E-Summit Organised by E-Cell KITCoEK.**



KIT's College of Engineering (Autonomous), Kolhapur  
**KIT's Innovation and Research Foundation (KIT's IRF)**  
Supported by MSInS, GoM and DST NIDHI i-TBI, MoST, GoI

# 5-days Startup Bootcamp

A VOYAGE: Idea to Startup to Scale-Up

Eminent  
Speaker



**Mr. Amol Nitave**  
CEO & Founder EvolvingX

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- Context Setting: Ideation
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- Startup: Rise-Up, Build-Up, Scale-Up
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- Incubation Support

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& looking to Commercialize it

Innovators with a Prototype ready  
for Market Launch

Entrepreneurs who have a  
Startup and aim to Scale it

Students and Professionals  
seeking Entrepreneurial Skills

Startup Enthusiasts and  
Innovators



16th to 18th August and  
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VLSI Theater, Main Building,  
KITCoEK, Kolhapur (Offline)



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For more Details, Contact Mrs. A. S. Kumbhoje,  
nidhitbi@kitcoek.in

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## N. Contact

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Kolhapur. 416234 Maharashtra (INDIA)

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