



Adi Shankara

INSTITUTE OF ENGINEERING AND TECHNOLOGY

Approved by AICTE & Affiliated to APJ Abdul Kalam Technological University
Vidya Bharathi Nagar , Mattoor, Kalady, Ernakulam District, Kerala State Pin: 683574



CRITERION 4 - INFRASTRUCTURE AND LEARNING RESOURCES

4.1 Physical Facilities



Facilities for Innovation, Incubation and Entrepreneurship



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Facilities for Innovation, Incubation and Entrepreneurship

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FAB LAB

ASIET FAB LAB is a State of the Art laboratory for digital fabrication facility to make ‘almost anything’ This lab is meant for the faculties as well as for the student to create any creative design as projects. The facility is open for all disciplines in technology as well as outside partners with permission. This consists of a facility setup in 1365 sqft that has all the amenities for making marketable products in a short span of time. Facilities include 3D Printing, Vinyl Plotting, PCB Milling, Laser Cutting/Engraving, 3-Axis CNC Milling, Sand blasting, Screen printing, Electronic production etc.



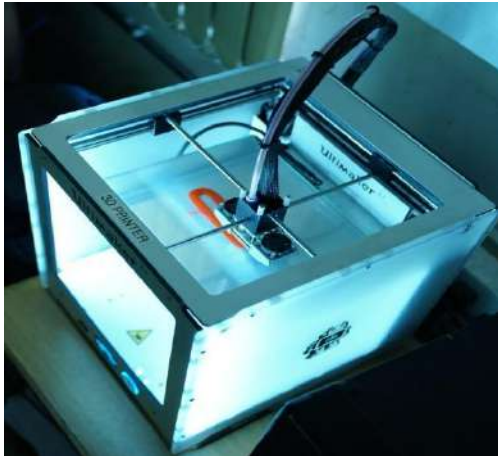


Details of Machines-

Name of the machine
3D Printer
Laser Cutter
CNC Machine
Electronics Workbench
DSO
Function Generator
Power supply
Soldering station
Microwave oven
Magnifier
Vinyl Plotter
Screen Printing
Sand Blaster
Molding & Casting



3D PRINTER



SHOPBOT



3D SCANNER



VINYL PLOTTING



LASER CUTTING, ENGRAVING



SAND BLASTING





IEDC BOOT CAMP

ASIET Innovation and Entrepreneurship Development Centre IEDC BOOT CAMP is an important step to enlighten the flame of entrepreneurship and creativity within students established in 2015. IEDC helps to develop institutional mechanisms for the creation of an entrepreneurial culture in academic institutions to foster growth of innovation and entrepreneurship amongst the faculty and students. ASIET provides facilities for IEDC bootcamp which organizes various innovation challenges for the students.





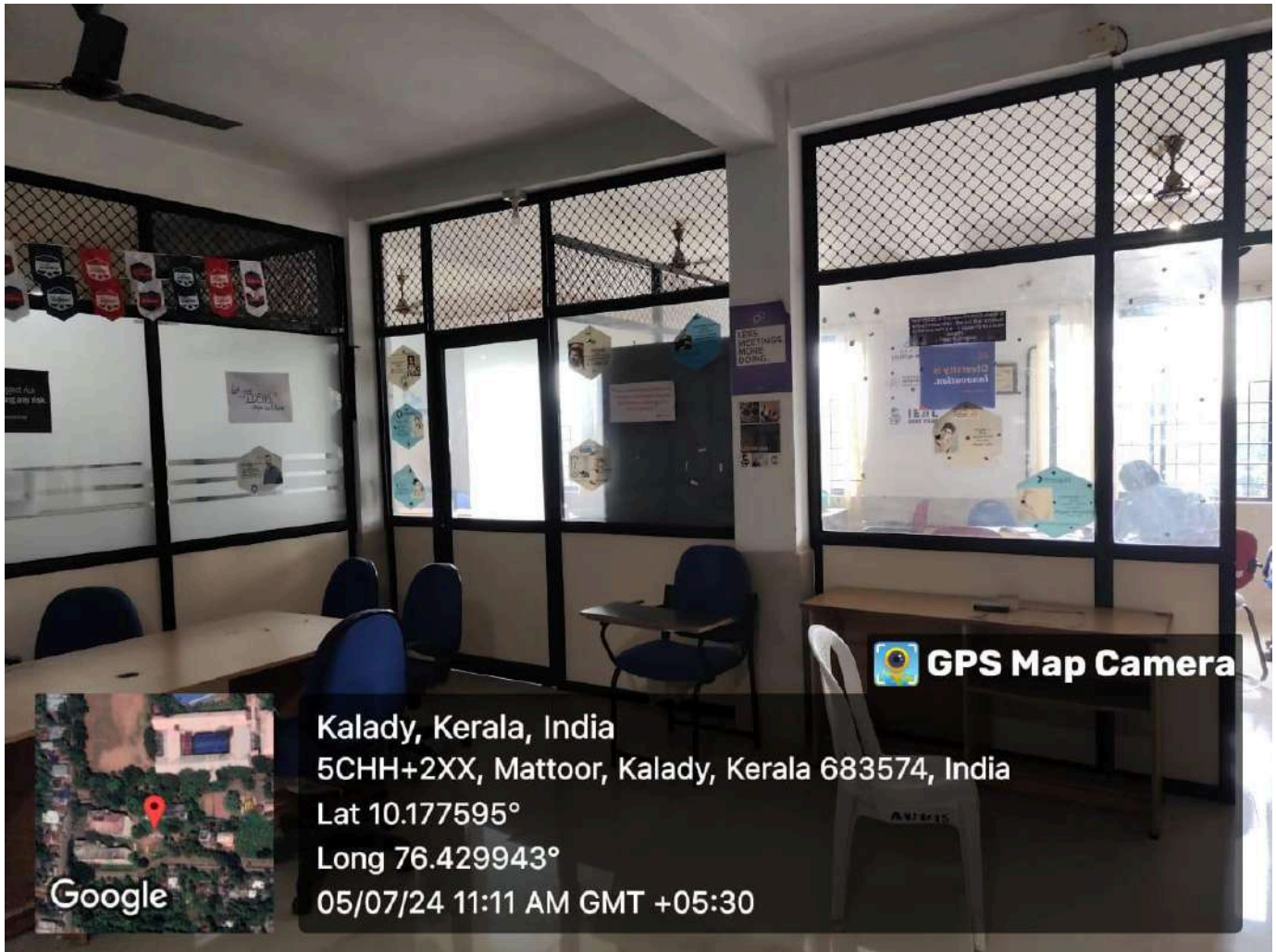
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Kalady, Ernakulam dist.
Kerala- 683574

Criteria-4



Kalady, Kerala, India
5CHH+2XX, Mattoor, Kalady, Kerala 683574, India
Lat 10.177595°
Long 76.429943°
05/07/24 11:11 AM GMT +05:30



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Criteria-4





Technology Business Incubator (TBI)

Evaluating our [IEDC](#) performance, in 2019 Kerala State Industrial Development Cooperation (KSIDC) has sanctioned Technology Business Incubation Centre at Adi Shankara. Currently 10 of our alumni startups named ICube Design Studio, PenserLabs, RIOD Logic, Edith Industries, Green Bay, Machbee, Charity Monk, Hexify Technologies, Zonst, AIYGON got incubated in the same. Notable achievement is that out of the 10 incubated startups Alygon and Edith Industries were only Women Startups, which really reflects the women empowerment through entrepreneurship initiatives of our campus.

Various acceleration programs and startup funding mechanisms have been done by the TBI for scaling up the incubated startups to the next level. As a part of the same the institution has decided to provide a Seed Funding support up to 5 Lakhs to all potential startups for their initial product development.



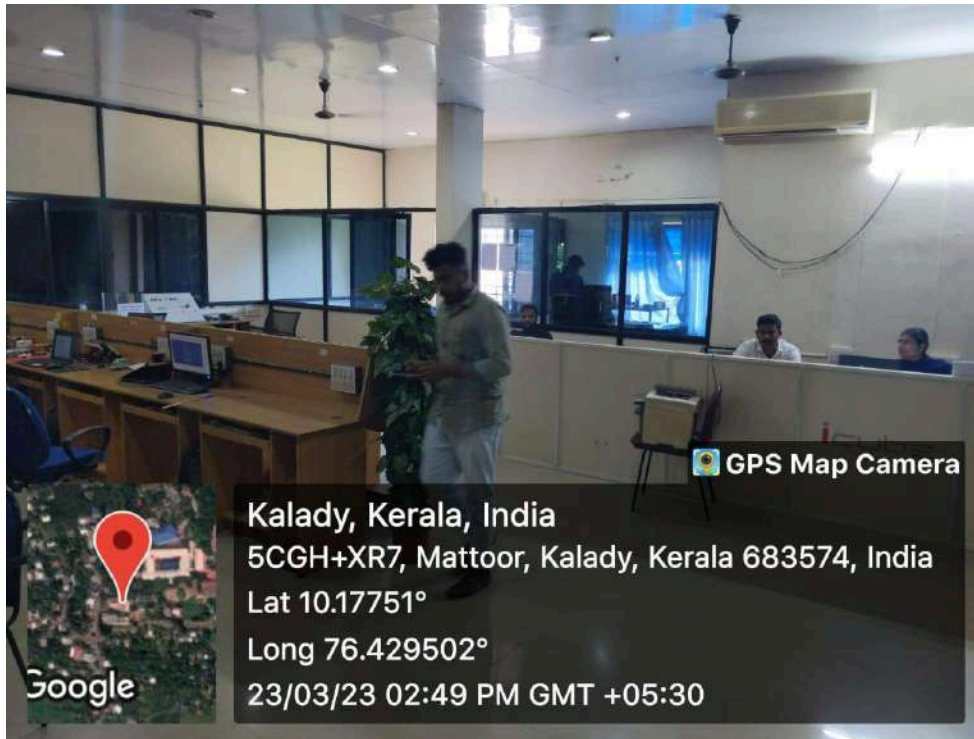


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Criteria-4





Startups develop ventilator at ASIET

TIMES NEWS NETWORK

Kochi: Three startups working under the Technology Business Incubator (TBI) at the Adi Shankara Institute of Engineering & Technology (ASIET), Kalady has developed an emergency ventilator with artificial respiration support and all essential features at its campus to support the government overcome the Covid-19 crisis.

Named Adishankara Jeeva Vaayu, the ventilator is awaiting certification after which ASIET will go into mass production.

The product was developed by iCube Design Studio, RIOD Logic Pvt Ltd and Machbee and incubated at Adishankara Technology Business Incubator under the supervision of Ajay Basil Varghese (nodal officer, TBI, ASIET). While iCube has done the mechanical works of the ventilator, RIOD and Machbee have done the electronic and elec-



The team that developed the emergency ventilator

trical works. The ventilator features all technical specifications like pressure monitoring, volume control, airflow monitoring and backup battery system. Jeeva Vaayu also provides visual and audio alarm systems to alert low supply pressure, airway pressure, leakage detection, power failure, low bat-

tery indication. It was built according to medical standards with the help of an expert team from the department of biomedical engineering and Lissa Hospital, who validated the parameters.

"Adishankara Jeeva Vaayu is the first emergency ventilator developed by an engineering institute un-

der APJ Abdul Kalam Technological University. The entire cost of the product is around Rs.25,000 and we are planning to reduce the cost by making some modifications. To cut down the cost, we are removing the screen and the vitals can be accessed on mobile screen. For this we are developing an android application," said Varghese.

As the lockdown due to the pandemic has affected the supply of components, the ventilator was developed with the help of various departmental laboratories at the institute.

"Lack of availability of a motor to automatically compress the ventilator's bag that helps a patient inhale the oxygen was a challenge. The team finally repurposed the windshield wiper motor of a Tata Nano car to power a small castor wheel that pushes down on the bag to control oxygen flow," said Varghese.



— THE HINDU
SUNDAY, APRIL 12, 2020

Jeeva Vayu to the rescue of patients at Ernakulam GH

Ventilator developed by engineering college under KTU

SPECIAL CORRESPONDENT
KCHD

The Jeeva Vayu ventilator developed by Adi Shankara Institute of Engineering and Technology, Kalady, was handed over to General Hospital, Ernakulam, on Saturday.

Minister for Agriculture V.S. Sreedharan handed over the emergency ventilator in the presence of the college and health authorities.

"It is the first emergency ventilator developed by an engineering institute under the Kerala Technological University (KTU). It includes all technical specifications like pressure monitoring, auto reset, airflow monitoring, and backup battery mechanism," said Aja Paul Varghese, model officer, Technology Business Incubator and Innovation and Entrepreneurship Development Centre under the institute.

The product provides visual and audio alarm system for low supply pressure, air-way pressure, leakage detection, power failure, and low battery indication. "We are in the phase of getting product certification for mass



Minister for Agriculture V.S. Sreedharan handing over the ventilator to the Ernakulam General Hospital on Saturday

production. The base model can be made at a cost of around 10,000, while the price of the high-end model will be around 20,000," said Mr. Varghese.

The product was developed by startups including Koba Design Studio, KOD Logic Pvt. Ltd., and Machice incubated at Adi Shankara Technology Business Incubator. An expert team from the department of biomedical engineering at Laxi Hospital, Ernakulam, was also involved in product design, according to college officials.

Two new machines

Two new ventilators have been installed at the Ernakulam

General Hospital.

The ventilators and associated equipment were bought using the Indian Oil Corporation's Corporate Social Responsibility funds amounting to ₹15 lakh.

MP's initiative

The initiative to procure the ventilators was taken by Biju Eden, MP representing Ernakulam, keeping in mind the needs of regular patients after the Government Medical College, Kalamassery, had been converted into a COVID-19 care centre, said a press release.

Mr. Eden has so far allocated ₹1.46 crore from his MPLADS fund for the fight against the pandemic.