Vidyavardhini's College of Engineering & Technology

Founder President Late Padmashri H. G. Vartak

Approved by AICTE, DTE Maharashtra and Affiliated to University of Mumbai
NAAC accredited, 4 Programmes Accredited by NBA

Criteria Number: 7   **Criteria Name**: Institutional Values and Best Practices

Sub criteria Number: 7.3   **Sub-criteria Name**: Institute Distinctiveness

7.3.1 Portray the performance of the Institution in one area distinctive to its priority and thrust within 1000 words.

Institute Distinctiveness

VCET offers a plethora of opportunities for students and faculty to enhance their skills, ensuring their relevance to industry and societal needs. VCET has implemented various capacity-building initiatives aimed at nurturing overall personality of the students and enhancing the technical competencies of faculty, supported by the institute's infrastructure and financial resources.

Capacity-building initiatives for students

- Curriculum Enhancement:

At VCET, fostering technical proficiency among students is paramount. In the academic curriculum, students undertake innovative mini- and major projects aimed at addressing industrial and societal challenges while upholding environmental sustainability goals. Well-defined rubrics are used for monitoring and assessing projects and all other curriculum-related evaluations. The outcome of these measures ensures students development in technical proficiency, problem-solving skills, environmental sustainability awareness, and comprehensive learning assessment through a transparent evaluation framework.

- Bridging the Emerging Technology Skill Gap:

Keeping the students abreast of technological advancements and equipping them with relevant technical skills is a continuous endeavor at VCET. VCET offers open elective courses such as Management Information System, Disaster Management & Mitigation Measures, Energy Audit & Management, Project Management, etc., and honor/minor courses such as Smart Cities, Cyber Security, IoT, Artificial Intelligence and Machine Learning, etc. These courses are introduced to students by subject experts who also highlight their industry relevance.

Beyond academics, VCET organizes numerous student development programs throughout the year to bridge the gap between academia and industry. Furthermore, to keep themselves updated on the recent trends in technology, students pursue online courses on emerging technologies through Learning Management Systems (LMS).

To provide students with invaluable exposure to the professional industrial landscape, VCET's Industry Institute Interaction Cell (IIIC) has dedicated faculty members who actively seek out

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industry partnerships. These collaborations have resulted in numerous MoUs covering projects, expert sessions, workshops, internships, industrial visits, etc. Additionally, VCET also offers internships and training through the established Centers of Excellence and industry collaborations, including the Siemens Center of Excellence, Texas Innovation Lab, and E-Yantra Robotics laboratory in collaboration with IITB.

To assess technical proficiency, students actively participate in a diverse array of activities such as paper presentations, project competitions, hackathons, product showcases, workshops, etc.

- Research Aptitude:

VCET has taken many measures to inculcate research aptitude among the students through the Research and Development (R&D) cell. The Institute Innovation Council (IIC) organizes workshops on innovative ideas and product development. Students take up innovative and original research-based and industry-sponsored projects. To assess their research aptitude, students participate in state and national-level project competitions like Avishkar and the Smart India Hackathon and present or publish their research findings at national and international conferences. Students also file patents and copyrights to safeguard their research works. VCET provides financial support for all the research activities.

- Competent Professional

To enhance students' employability, VCET's Training and Placement(T&P) cell conducts technical and aptitude training and soft skills training programs through external agencies such as Gyanteerth, Coding Genius, etc. Students' employability is assessed through external agencies like SHL Aspiring Minds, right from the first year. To monitor the progress of the students, training programs are planned based on these assessments. VCET also conducts career guidance sessions to promote higher education. All these activities are provided free of charge to the students. In collaboration with IIIC, the T&P cell maintains strong ties with industries across various sectors, facilitated by the alumni network.

VCET has established E-Cell to promote entrepreneurship. Additionally, events such as Udyam Samman (Industry Institute Meet) and Vasai Virar Startup Fest (VVSF) serve to strengthen the bond between the institute and industry.

- Social Responsibility and Sustainable Development:

Instilling ethical-moral values and a sense of social responsibility is integral to the holistic development of the students. VCET organizes sessions and events promoting sustainable living practices, such as energy conservation week, donations, and clean-up drives. Students also actively participate in various community service activities under the VCET-National Service Scheme (NSS).

- Social Skills

VCET emphasizes the holistic development of students, addressing both soft skills and physical and mental well-being. To enhance students' confidence, language skills, communication skills, time management skills, etc., many initiatives, including an annual literary festival,

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language software utilization, and soft skills training programs, are conducted regularly. For physical and mental wellbeing, VCET hosts annual sports and cultural festivals and provides counseling services. The financial aspects of all these activities are borne by the institute.

VCET recognizes students' academic achievements, technical proficiency, research, leadership, and contribution to the institute and society through the Best Outgoing Student award.

Capacity-building initiatives for faculty

- Effective teaching-learning skills

For effective teaching and learning practices and to enhance the quality of content delivery, sessions are conducted by the Internal Quality Assurance Cell (IQAC) on outcome-based education (OBE), the National Education Policy (NEP), exam reforms, etc. Faculty undergoes teaching-learning and pedagogical courses conducted by NPTEL, NITTTR, and other MOOC courses.

- Skill Upgradation and Industry Connect:

VCET empowers faculty to enhance their skillsets and stay updated with emerging technologies and academic advancement by taking care of both monitory and non-monitory aspects. To understand the trends in technology used in the industry and skill upgradation, faculty interact with industry professionals, undergo industrial training, and participate in faculty development programs. With the support of the Institute, faculty actively contribute to scholarly discourse through research paper publications, books, book chapters, patent filings, and copyright registrations.

- Holistic faculty empowerment

Emphasizing the importance of holistic growth, VCET organizes expert sessions on mental wellbeing, stress management, finance, investments, etc. Empowerment is showcased through personal and the institute's commitment to community engagement and social responsibility. Faculty engage in outreach activities, raising awareness about basic science and technology and emerging areas among schoolchildren. Furthermore, faculty actively participate in donation drives, cleanliness campaigns, and awareness initiatives.

This document contains the criteria associated with Institute Distinctiveness. The documentary evidence is as follows.

Ethan Racing 2019

Ethan Racing 2023

Ethan Racing 2023

Students Achievement 2022-23

SOLECTHON

Centurions

Handeskeleton

ETHAN RACING

AVISHKAR & HACKATHON

Sports Competition

Team VCET

Team ETHAN Racing
ranked **8**th at Formula Imperial 2020

Team Centurions
participating in 8th Quad Torc (2022) at Madurai, TN

Team Centurions
Team Centurions participated in Quad Torc, Season 9 (2023)

Team Airnova
ranked **21**st position in Asia Level during IPAS-2021

VCET Solethon Winners 2023

Price Distribution at SEVC 2023

Awarding ceremony for the 'Best Innovative Design'

Students Achievements

- Rahul Kamble was amongst 10 teams out of 207 submissions from the total of 1878 registered teams. Project titled SMART COVID FACE SHIELD & MASK and has received an award under the Best Embedded System (Product) category in e yantra Hackathon

- 5th Rank In National Level Techfest-Covideate, IIT Bombay.

- Sikandar Kanojia, In Corona Virus (COVID-19) the global outbreak, he developed an automatic hand sanitizer dispenser that uses IR sensors to detect the presence of a hand and activates a pump to pour the liquid on the hand.

चार लाखांत सौर ऊर्जेवर धावणारी गाडी

Aditya Patil, Motorist of Solar Car. This Car is made by 40 students of the Institute. Once charged can run for 125 km. The speed of Solar car is 65km/hr.

Winners of FACEOFF-2023

Techotrav-22 , DattaMeghe College of Engineering 2022-23

Students Achievements

Nihal Kumar, Nachiket Lele ,Tarang Marolikar , Got 1st Prize in XZIBIT-2021 National Level Project Competition.

Sarvesh Sant , Pawan Singh, Mrudula Bidvi, Hetsi Parmar :3rd Prize in Technical Paper presentation in TECHNOVATION.

Journals/Conference/Publications:

- Sakshi Gupta, Danish Shaikh Pradeep Gulbile :"Malware Intrusion Detection for Network Security"(IEEE xplore)
- Atique Ansari, Mustakim Ansari, Yash Mehta: "Smart Gateway Screening For COVID-19 " IEEE Conference (INDISCON)
- Komal Gupta, Shubha Bari, Rohit Chavan, Shruti Kuvekar, Jayshree Mhatre, :Smart Solar Tracker with energy monitoring, IEEE- International Conference on Electronics & Renewable systems.
- Vikas Patekar, Shreyas Takke, Hrithik Gavankar, Rahul Kamble: " Interfacing of TFT dispaly with machines"Reserach & Analytical Reviews.
- Swathi Gaitonde, Shraddha Kini, Prasad Sawant : "Contactless Heartrate Analyzer", International Journal of Research & Analytical Reviews
- Sujith Anugu Reddy ,Naman Darveshi ,Akash Gawas : "Intelligent assistance for smart shopping" Internationla Conference on Intelligent Networking & Computing 2022
- Adisha Jayant Waghare ,Sneha Kalpesh Singhi ,Prerna Kaushal Tiwari : "Light weight cryptography for security in IOT devices" ,International Conference on Communication, Computing & Data Security2022
- Akash Sankhe ,Rushikesh Sawant, Dhanush Shetty: "Design of 8 bit hybrid carry save adder" National Conference on "Changing Technology & Rural Development CTRD 2022"
- Many Teams also participated in Smart India Hackathon/Avishkar Research Convention

VNPS 2022-23

WINNERS OF EXTEMPORE 2023

Solethon Winners 20-21

Solethon Winners 2020-21

3RD Pragati 2023 BusinessPlan 2022-23
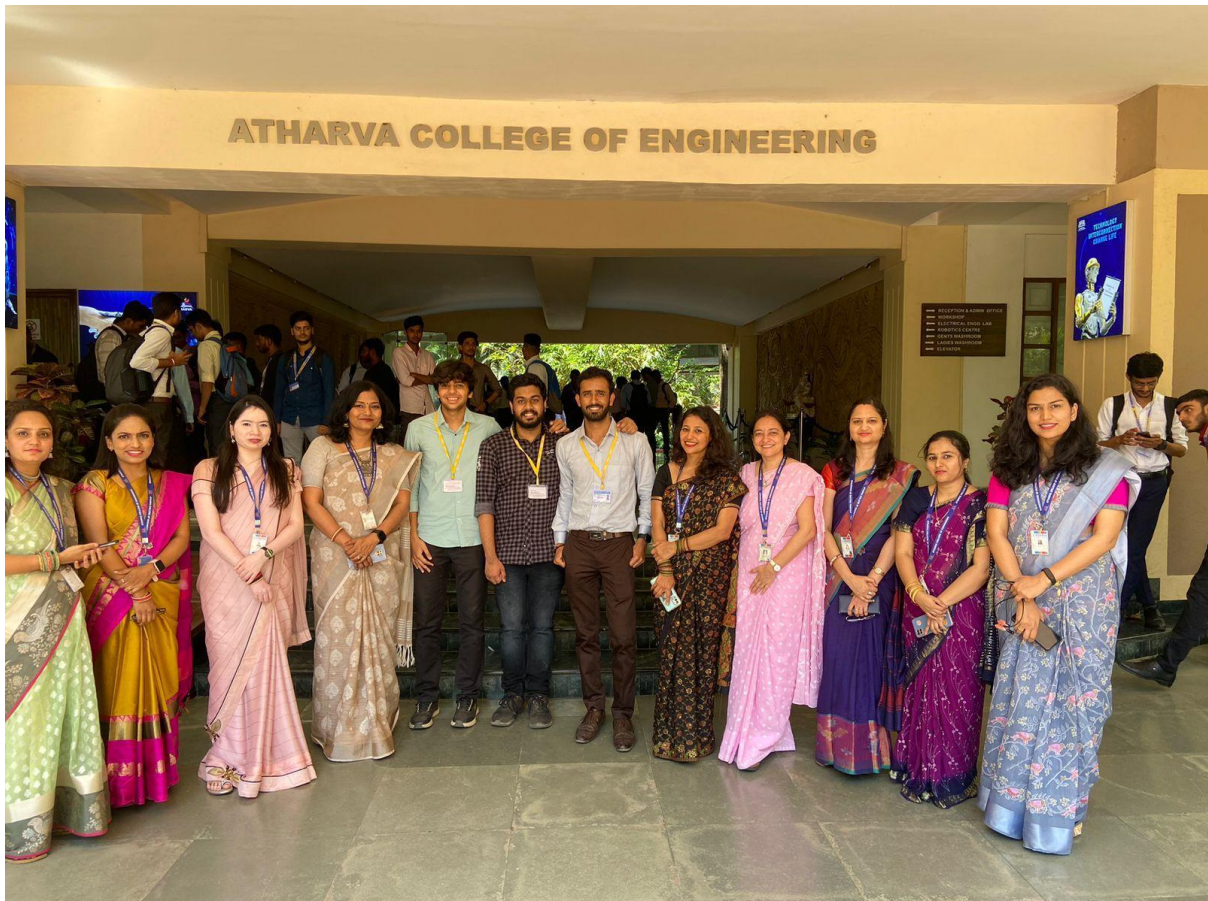

E-yantra Center of Excellence

E-yantra Center of Excellence

FaceOff Winners and Runner-up 2022-23

Computer Engineering Student Achievements 2022-23

The project "Drug Control System using Blockchain" by Anmol Prajapat, Varun Surti and Jugal Salaria from BE Comps have secured 2nd runner-up position at Projectathon-National Level Project Showcase 2022-23 at Atharva College of Engineering

Computer Engineering Student Achievements 2018-19

first Runner-up in HackwithInfy , national level competition organized by Infosys

Najiba Halim

NSS Activities 2022-23

NSS Activities 2021-22

Drawing competition

Beach Cleaning

Rangoli CompetitionNSS Activities 2020-21

Army Day posters

Tree plantation