

VELAMMAL COLLEGE OF ENGINEERING AND TECHNOLOGY, Madurai (Autonomous)

9.10. E-Governance

(E-governance initiatives, sustainable practices in academic and learning management, campus-wide computing resources, and their accessibility and availability to support academic and professional activities for students and faculty)

Digital Campus Infrastructure:

The campus is equipped with over 1,000 computer systems, which are supported by both licensed and open-source software, facilitating coursework, practical sessions, and activities such as quiz contests and online events. These systems are utilized for a wide range of academic activities, including workshops, seminars, coding assessments, and placement preparation on platforms like Hackerrank. Additionally, self-paced learning is promoted through access to NPTEL learning modules. This robust infrastructure supports not only academic excellence but also fosters extracurricular development, contributing to a comprehensive digital learning environment in alignment with e-governance practices.



Fig No. 9.10.1: Student Utilization of Computing Resources.

VCET Online Student Information System:

VCET has implemented an online Student Information System accessible through https://www.vcet.ac.in/vcetattendance/start.php. This system centralizes all student-related data, offering convenient access to academic records, attendance, grades, course enrollment, and personal information. Both students and faculty use the platform to monitor academic progress, attendance, and regularity. Faculty members can record attendance, assignment scores, and internal assessment marks, while administrators have the ability to manage course registrations, generate reports, and ensure the accuracy of student records. This system enhances efficiency and transparency in academic administration, directly supporting the institution's e-governance initiatives.

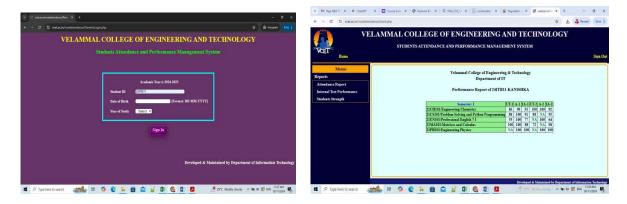


Fig No. 9.10.2: Student Academic Information.



Fig No. 9.10.3: Attendance and Marks statement of students in SIS.

Access to IEEE Xplore for Research and Academic Advancement

The college provides access to IEEE Xplore through an institutional login at https://ieeexplore.ieee.org/Xplore/home.jsp, enabling students and faculty to access a vast repository of research papers. This resource supports high-quality academic work and cultivates a research-driven environment. By providing easy, centralized access to the latest technological advancements, it enhances the academic and research experience. This initiative aligns with the institution's e-governance strategy by promoting digital resources that streamline access to information, supporting continuous learning and research collaboration across the academic community.

Smart Classrooms and Digital Learning Enhancements:

Each department at VCET is equipped with smart classrooms that have LAN connectivity, enabling the seamless integration of technology into the learning process. These smart classrooms are regularly used to conduct online programs, enhancing the overall learning experience. Additionally, all classrooms are equipped with projector facilities, which help students grasp complex concepts through visual aids and interactive lessons. These technological advancements align with the institution's e-governance initiatives by promoting digital learning tools, improving accessibility, and fostering a more engaging, tech-driven educational environment.



Fig No.9.10.4: Utilization of Smart Classrooms in Learning.



Fig No. 9.10.5: Utilization of Projectors for Interactive Classroom Teaching.

Website: Our college website serves as a comprehensive platform for e-governance, ensuring transparency, efficiency, and accessibility for students, faculty, and administrators. The website integrates the following key elements in line with NBA standards to enhance the academic and administrative experience:

- **1. Course and Program Information:** Detailed information on courses, programs, curriculum and Vision, mission, and program outcomes (POs).
- **2. Admission Process:** Clear guidelines on admission, eligibility criteria and online application facilities.
- **3. Academic and Examination Information:** Timely updates on exam schedules, results and academic calendars.
- **4. Student and Faculty Portals:** Dedicated portals for students and faculty to track academic progress, attendance, Assessment marks and assignments.
- **5. E-Governance Systems:** Systems for online fee payment, attendance tracking and academic performance monitoring.
- **6. Research and Development:** Access to research databases, publications and academic resources like IEEE Xplore and NPTEL modules.
- **7.** Event and Seminar Announcements: Information on workshops, seminars, conferences and online registration facilities for events.
- **8.** Library and Learning Resources: Access to digital libraries, learning platforms and other academic resources.
- **9. Grievance Redressal System:** An accessible online platform for students and faculty to register and track grievances.
- **10. Feedback Mechanism:** A platform for students to provide feedback on academic and administrative services.
- **11. Institutional Policies and Accreditation Information:** Easy access to institutional policies, NBA accreditation and other regulatory body information.
- **12. News and Updates:** Regular updates on institutional achievements, placement information and institutional announcements.

13. Accessibility and Usability: The website is designed to be accessible and user-friendly, supporting multiple devices and meeting accessibility standards.

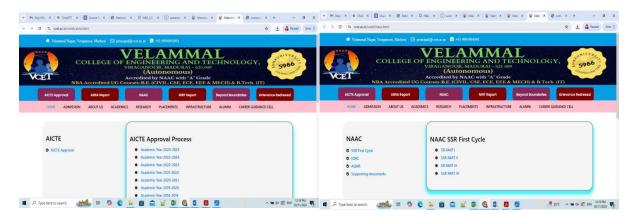


Fig No. 9.10.6: AICTE and NAAC SSR Report in VCET website.

Additional Applications:

VCET is using software for student's feedback entry, accessing library, syllabus and program information repository. Additionally, VCET is having the facility to access the library of Anna University.

Table No. 9.10.1.: Additional Applications related to e-governance.

Platform	Link
Feedback Entry	http://172.16.1.3/col/feedback/feed.p
	hp
Syllabus and Program Information	https://www.vcet.ac.in/vcetit/curricu
repository	lum.html
Library Access	http://172.16.10.1/opac/
Anna University Library portal	https://access.auerc.com/vceta

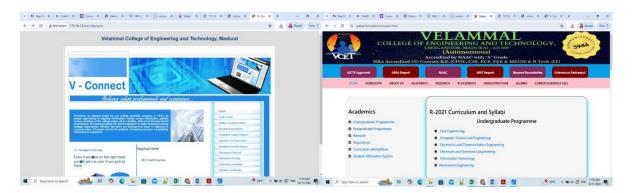


Fig No. 9.10.7: Student Feedback Portal.

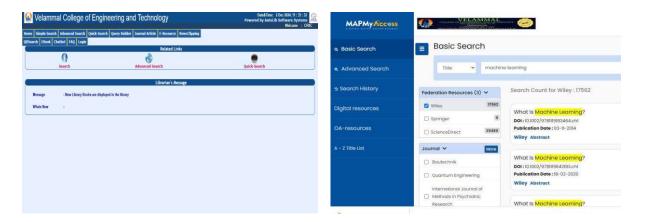


Fig No. 9.10.8: VCET Online Library Platform, Anna University Online Library Platform.

Learning Management Systems (LMS):

The faculty at VCET uses Learning Management Systems like Google Classroom to manage and deliver educational content, assignments, assessments, and discussions in an online format. The faculty at VCET also uses blogs to share assignments and study materials.

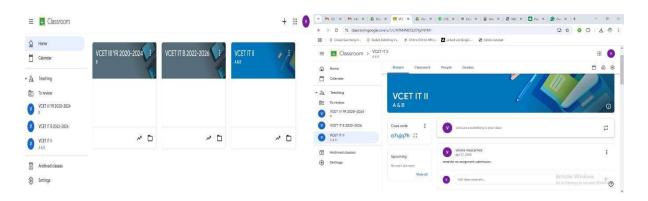


Fig No. 9.10.9: Google Classroom page.

Internet Facility:

The internet provider for the college is Airtel, offering a bandwidth of 600 Mbps and an access speed of 128-256 kbps per user. Wi-Fi is enabled across the campus, and the internet is available in exclusive labs, most computing labs, departments, faculty rooms, and other units. Additionally, all faculty rooms are connected through LAN and internet. VCET provides its own email facility for both faculty and students through the email server mail@vcet.ac.in. The institution ensures security and privacy for email and internet users by implementing advanced security measures, including a firewall, to protect data and communications.

Firewall:

The campus network at VCET is protected by state-of-the-art SOPHOS firmware to ensure the security of network traffic. Each user is provided with a unique username and password to maintain privacy and security while accessing data. Content filtering is enabled

through a firewall to prevent students from accessing illegal and malicious content, thereby safeguarding the system. For students and employees working on projects that require bypassing the firewall, access is granted through a proper channel. Dynamic Host Configuration Protocol (DHCP) is enabled to address the majority of internet users, while sensitive users are assigned static IP addresses. Additionally, backups of the firewall's rules and policies are automatically taken daily to ensure disaster recovery.

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