AQAR 2023-24

1.   **Title of the practice: Incubator and Promoting Startup**

2.   **Objective:**

The primary objective of this initiative is to promote startups by fostering an environment conducive to innovation, team building, and the development of groundbreaking products. This approach encourages the creation of new products through innovative ideas and technological advancements, ultimately leading to user acquisition and improved revenue growth.

3. Context:

This initiative aims to cultivate a culture of innovation, research, and entrepreneurship within the institution. By providing support for startup activities, the institution seeks to drive new product development, stimulate industrial growth, and contribute to economic development. The focus is on creating a robust ecosystem that encourages students to innovate and develop commercially viable products.

3.   **The practice**

The institution has established a comprehensive set of initiatives and resources to nurture startups and entrepreneurship among its students. The Institute Innovation Council (IIC) plays a pivotal role by organizing industrial visits to incubation centers, such as the one at IIT Madras. These visits focus on skill development, team building, and promoting innovative thinking among students, equipping them to launch startups and compete in the market.

The IIC also organizes hackathons, where participants form teams to brainstorm, pitch ideas, solve problems, and build prototypes. These events foster ongoing collaboration among participants and provide continued support to help teams further develop their projects. Additionally, the Entrepreneurship Cell (E-Cell) offers mentorship programs, providing guidance from experienced entrepreneurs, mentors, and industry experts.

The institution's social media Team assists students in promoting their products through marketing and advertising, while the Research and Development team encourages students to innovate and refine their products. These combined efforts create a dynamic environment that supports entrepreneurial endeavors and product innovation.

5. Evidence of Success:

The institution's commitment for supporting innovation and entrepreneurship is evident through its continuous achievements. Successful outcomes include industry collaborations, commercialization of research, and initiatives that address societal challenges. Over the past year, the institution organized numerous workshops and seminars on innovation, research methodology, entrepreneurship, and skill development, significantly enhancing students' skills and interest in innovation.

Through the MSME Innovation Scheme, the institution received funding of Rs 29.4 lakhs via the MSME Idea Hackathon, leading to the registration of startups on campus. Additionally, the number of Intellectual Property Rights (IPR) grant is 22 (4 utility and 18 design) published reached **17 (**11 Utility & 6 Design), and **five** startups were successfully registered. The Ministry of Micro, Small, and Medium Enterprises (MSME) recognized the institution, particularly Velammal Engineering College, for its effective implementation of the incubation component under the MSME Innovation Scheme.

- Patent Granted
    - Dr.A.Lakshmi Sangeetha, Associate Professor-CSE, Autonomous Unmanned Aerial Vehicle with Vertical Take Off and Landing Mechanism.
    - Dr.A.Balaji Ganesh, Professor & Dean Research Patent Granted for Postural Stretch Alert and Injuries Prevention System
    - Dr.A.Balaji Ganesh, Professor & Dean Research Patent Granted for Augmented Reality and Internet of Things Supported environmental Monitoring System
    - Dr Ganapathy Sundaram E, and M.Yuvaraj, Automobile Department- Patent granted for "Solar Hybrid Desalination System"

Table 1 Startup registered for the Academic year 2023-2024

Sno	Start-Up Name	Name of the Directors	Faculty/ Student	Date of Registration	Corporate Identity Number	Udyam Number
1	Critter Graphix	Elton Shalin, Vinunithi	Student	26/08/2023	-	UDYAM-TN-02-0234213
2	Amply Innovations Private Limited	Dr.Lakshmi Sangeetha	Faculty	02/04/2024	U27900TN2024PTC169265	DIPP163912
3	Onyx Shopping Store	A. JOHN LEONARD	Faculty	02/06/2024		UDYAM-TN-02-0304712
4	Cogniacc Energy Solutions Private Limited	Dr.M.Deepak Kumar Mr.D.Dinesh Babu	Faculty	27/12/2023	U35105TN2023PTC166275	
5	PP-VAC Engineering Solution Private Limited	Dr.V.Chandran	Faculty	14/10/2023	U27900TN2023PTC163627	

6.   Problem encountered and Resources Required:

One of the challenges faced is encouraging a startup mindset among students. There is a need to actively promote innovation and entrepreneurship by motivating students to participate in Smart India Hackathon (SIH) and various other hackathons focused on startups, organized by reputed institutions. To overcome these challenges, the institution requires continuous support and resources to nurture this mindset and create opportunities for students to engage in startup activities.
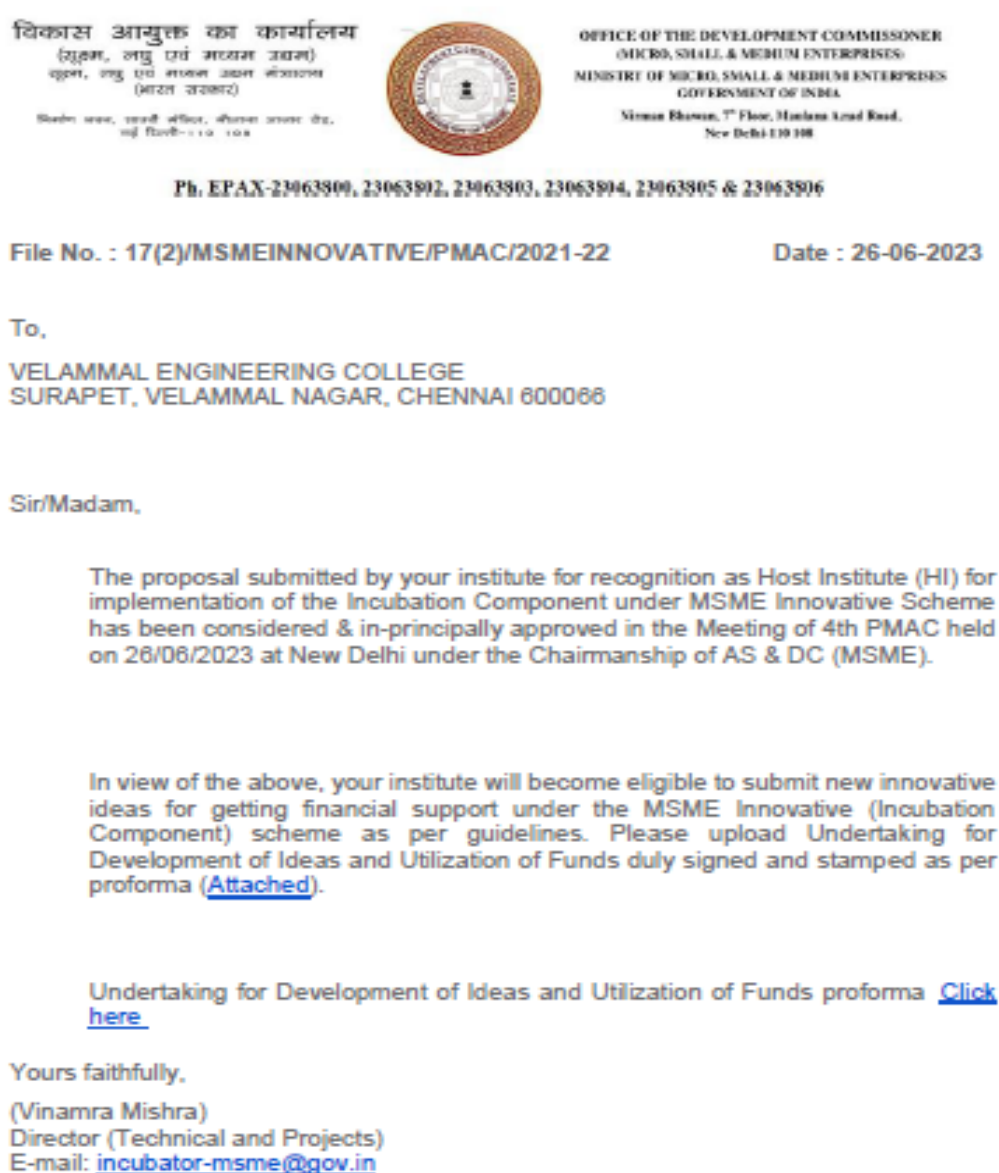
विकास आयुक्त का कार्यालय
(सूक्ष्म, लघु एवं मध्यम उद्यम)
सूक्ष्म, लघु एवं सरकार ज्ञान मंत्रालय
(भारत सरकार)

OFFICE OF THE DEVELOPMENT COMMISSIONER
(MICRO, SMALL & MEDIUM ENTERPRISES)
MINISTRY OF MICRO, SMALL & MEDIUM ENTERPRISES
GOVERNMENT OF INDIA
Nirman Bhawan, 7ᵗʰ Floor, Maulana Azad Road,
New Delhi-110 108

Ph: EPAX-23063800, 23063802, 23063803, 23063804, 23063805 & 23063806

File No. : 17(2)/MSMEINNOVATIVE/PMAC/2021-22   Date : 26-06-2023

To,

VELAMMAL ENGINEERING COLLEGE
SURAPET, VELAMMAL NAGAR, CHENNAI 600066

Sir/Madam,

The proposal submitted by your institute for recognition as Host Institute (HI) for implementation of the Incubation Component under MSME Innovative Scheme has been considered & in-principally approved in the Meeting of 4th PMAC held on 26/06/2023 at New Delhi under the Chairmanship of AS & DC (MSME).

In view of the above, your institute will become eligible to submit new innovative ideas for getting financial support under the MSME Innovative (Incubation Component) scheme as per guidelines. Please upload Undertaking for Development of Ideas and Utilization of Funds duly signed and stamped as per proforma (Attached).

Undertaking for Development of Ideas and Utilization of Funds proforma Click here

Yours faithfully,

(Vinamra Mishra)
Director (Technical and Projects)
E-mail: incubator-msme@gov.in

Fig. 1 MSME Innovation

AQAR 2023-24

1.   Title of the practice: Institutional Management Software for academics

2.   Objective

The primary challenge faced by the institution is the timely accessibility of data for informed decision-making. The objective is to develop and implement Institutional Management Software (IMS) to streamline administrative procedures related to academics. This software aims to facilitate efficient management of all academic-related processes.

3.   Context

The IMS software is designed to automate administrative procedures across various domains, including Academics, Student Management, Staff Management, Library Management, HR Management, and Finance Management. By collecting and storing all necessary data in a centralized system, the IMS ensures quick and easy retrieval of information. This centralized system leads to efficient end-to-end campus management.

4.   The practice

The IMS system, known as ROVAN IMS, operates on both internet and intranet platforms, allowing for easy access from anywhere. One of the key features of this system is its accessibility to all academic stakeholders, including the Principal, Heads of Departments, Faculty, Class Advisors, Administrative Officials, Central Library Staff, Parents, and Students. The IMS system is designed with robust security features to ensure confidentiality, utilizing role-based access where staff members must log in with their unique staff code and password.

Heads of Departments (HoDs) have access to view details of all students within their departments, while faculty members can view details of students enrolled in the courses they handle, both in theory and laboratory settings. Students can access their academic performance and achievements through the system.

The IMS system also includes a timeline-based locking feature, which enforces timely entry of daily attendance, continuous internal evaluation question papers, assessment marks, and

other periodic entries by faculty members. Class advisors can generate student attendance reports directly from their workspace. Additionally, the system offers features for calculating Course Attainment and Program Outcome Attainment based on Semester End Examination and Internal Assessment Test results.

5.   Evidence of success

The implementation of the IMS system has resulted in smoother workflows and increased productivity. The availability of required data at all times saves significant time and effort, allowing faculty members to engage in other productive activities. The IMS system also ensures continuous monitoring of students' academic progress throughout the course duration.

The seamless integration between admission, fee payment, academic courses, departments, placement, and examination modules within the IMS eliminates unnecessary and redundant data entry. This integration not only saves effort but also increases the accuracy of data management. The real-time availability of data enables the management to make informed decisions from anywhere, significantly enhancing the decision-making process.

6.   Problem encountered and resources required

Effective use of the IMS software requires specialized training for faculty members. A strong and reliable internet connection is also necessary. Additionally, financial support is needed to address any technical issues that may arise, as technical professionals may be required to provide solutions.
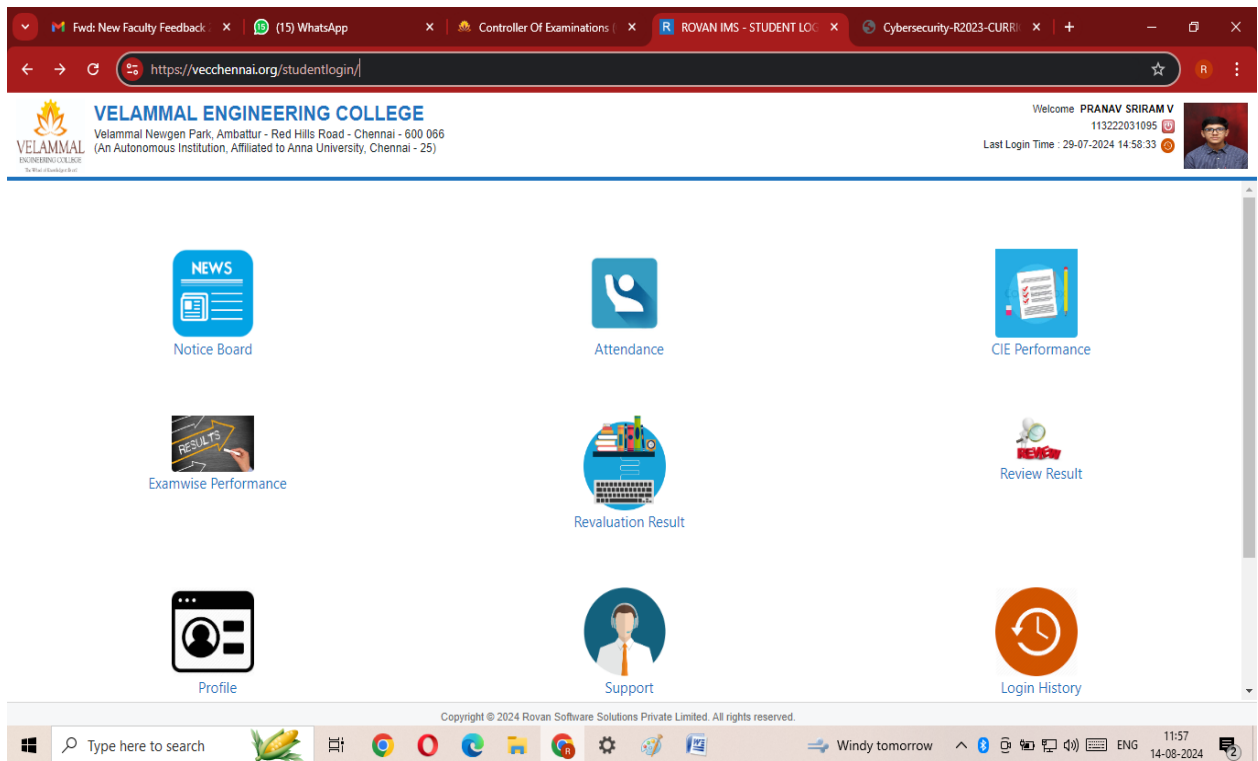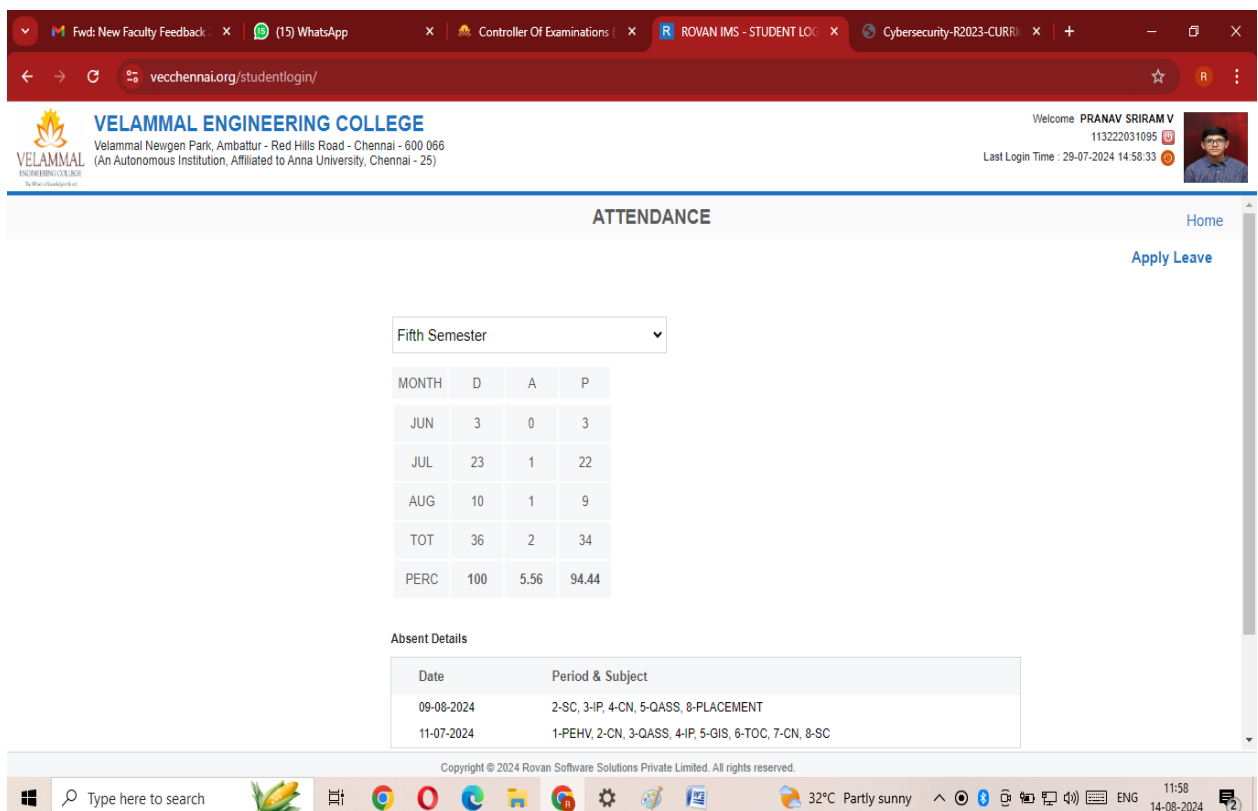
Fig. 1 Student Login Rovan
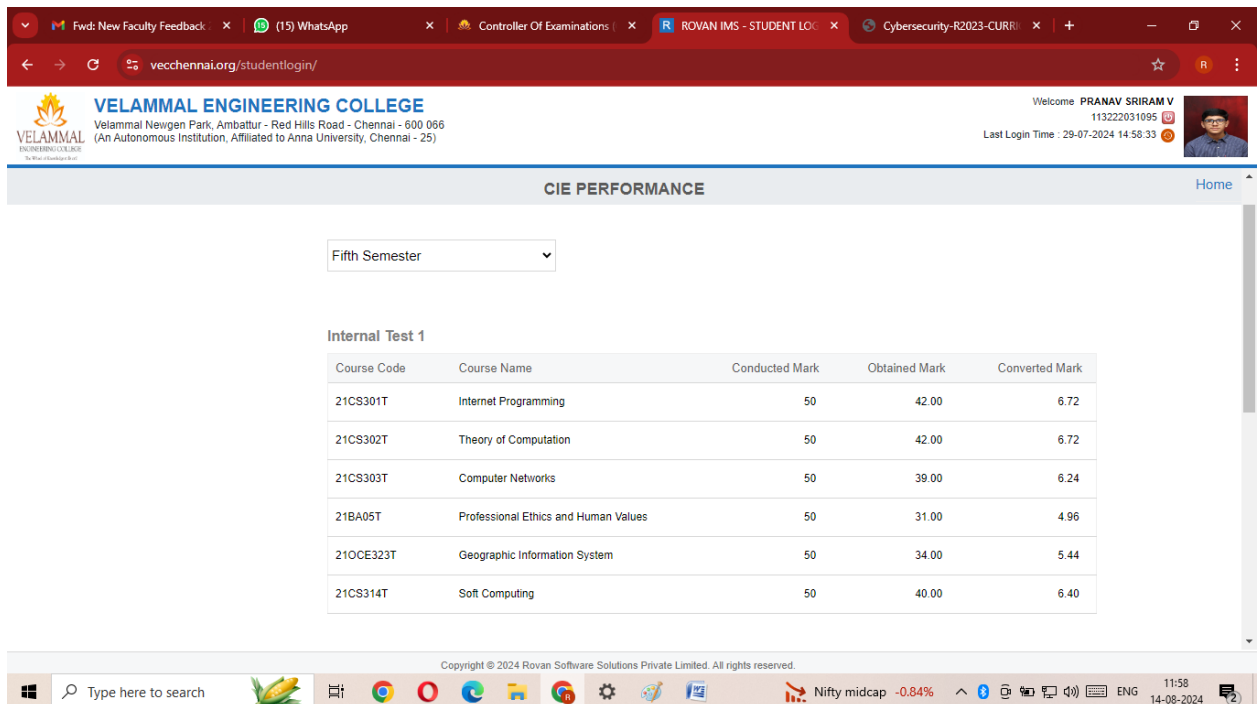

Fig.2 Student Attendance in Student Login

Fig. 3 CIE1 Performance