

Criteria 7.2.1QIM

Best Practices at Vidyalankar Institute of Technology

VIT, over a period of 20 years, has developed some best practices by way of educational strategies and activities which enhanced quality of teaching and learning such as:

1. V-provisions (ICT enabled provisions)
2. Cluster Mentoring Process

Title of the First Best Practice: vProvisions (ICT enabled provisions)

Objectives/intended outcomes:

1. To create digitally-enabled platforms to enable a smart environment for learners
2. To effectively manage academic and administrative resources.

Underlying principles of this practice:

In line with GOI's initiative of Digital India, VIT has set up the following vProvisions to promote active use of technology on the campus:

- vLive
- vPrint
- vRefer
- vMIS
- E-learning
- Open Course Ware (OCW)
- vTutorials
- vAttendance

Contextual Features of vProvisions:

1. Centralized for efficient management of academic, administrative, auxiliary and financial aspects.
2. User-friendly and can be accessed on and beyond the campus.
3. Save energy, time, and are eco-friendly.
4. Quick dissemination and remote access of information.

Challenges/Issues:

1. Creating customized software and its continuous upgradation
2. Data and system security

Brief description about vProvisions:



VIT takes pride in its in-house vProvisions which were ideated and executed in Incubation Centre by students and guided by faculty.

- **vMIS:** A customized ERP that takes care of all the academic, administrative, auxiliary and financial processes on campus. It addresses -
 - Student – Admission, Exam, Library, Accounts, Transcripts, etc.
 - Staff - Attendance, Payrolls, Leaves, Stores and Inventory Management, etc.
- **vLive:** A platform and discussion forum for dissemination of information such as notices related to exam, placement, academics, competitions etc.
- **vPrint:** A web-based centralized printing service that allows users to give print jobs from any location to “Any Time Print” (ATP) stations at the Institute.
- **vRefer:** A file transfer protocol (FTP) repository for students to access educational materials.
- **E-learning:** Digitized course material integrated with images, animated videos, web links, MCQs, quizzes and games to make learning engaging.
- **VIT Open Course Ware:** VIT’s Lecture Capture System is an LMS to help learners access lectures recorded live in class.
- **vAttendance:** Biometric-based attendance capture and calculation system.
- **vTutorials:** Software which generates random mathematical assignments.

Uniqueness:

- VITians can access most of the vProvisions remotely
- vPrint, vAttendance are unique platforms with respect to VIT and are developed in-house by students.

Constraints/limitations:

- Keeping up the demand of internet throughout the campus during peak hours and providing seamless connectivity for smooth functioning of vProvisions.

Evidence of Success:

- **vLive:** Users on vLive have increased over the years, if compared from 2013 till 2019
- **vRefer:** Repository of academic resources of 200 courses till 2019
- **E-Learning:**
The number of e-books uploaded on the college repository include even ebooks and now around 146 e-books are available



- **Open Course Ware (OCW):**

Number of courses recorded in 2016, 2017, and 2018 have increased from 60, 120, to 154 respectively. The lectures recorded in these three years have increased from 631, 1789, to 2133 and visits to OCW have also increased from 2350, 22361, to 41289 respectively.

Problems Encountered:

- Like with any new technology, there were issues in users getting familiarized with it.

Resources required:

- VIT is equipped with all the resources and infrastructure required for the utilization of vProvisions which is now a well-established best practice at the Institute.
- Helpdesk system takes care of all IT related issues.

Title of the Second Best Practice: Cluster Mentoring Process

Objectives/intended outcomes:

1. To form clusters to club together allied courses of a specific domain across all programs.
2. To assign suitable mentor to each cluster for guiding cluster members for focused and in-depth work for strengthening academics.
3. To involve external experts from prestigious industrial and academic organizations to mentor and guide Institute clusters.
4. To facilitate influx of state of the art and current ideas so that the curriculum delivery is always enriched for the benefit of students

Underlying principle:

Cluster Mentoring is a unique concept and best practice initiated by the Institute wherein related courses from across various programs are grouped under small 'clusters'. A senior and experienced faculty member, designated as an **Institute Cluster Mentor**, is assigned to each Cluster. **Academic and Industry Mentors** are invited from prestigious educational institute and industry respectively to guide Cluster members for enriching the teaching-learning process. Their involvement facilitates effective mentoring in an enriched environment of teamwork which eventually benefits students. This process also enhances the Industry- Institute interaction.

Contextual Features:

1. Clusters of related courses, taught across various programs, are formed. (For example, the cluster 'Microprocessors and Microcontrollers' brings together faculty who teach related courses across Biomedical engineering, Electronics engineering, Electronics and Telecommunication engineering and Computer engineering)
2. Institute Cluster Mentors are expected to lead the Cluster by playing an active role in executing specific tasks like validating Academic Administration Plan, auditing Internal Assessment (IA) examination paper, suggesting appropriate Beyond Syllabus Activities (BSA),



3. Institute Cluster Mentors organize Advisory Panel Meeting External Cluster Mentors are invited to guide and mentor the Cluster once in a semester.

Challenges faced:

1. It may not always be possible to implement the suggestions of the external experts as what works in their respective organization may not always be a perfect solution for what our Institute requires.

Description of the Practice:

"Collaboration allows teachers to capture each other's fund of collective intelligence." -Mike Schmoker (author of Focus: Elevating the Essentials to Radically Improve Student Learning).

VIT has initiated Cluster Mentoring process in 2014 to enhance knowledge sharing through collaborative skills. Every faculty member is a part of one or more clusters. In the AY 2019-20, there were 47 number of Clusters.

Following are few roles and responsibilities of Institute Cluster Mentors.

1. The Institute Cluster Mentor oversees the curriculum planning and delivery in his/her respective cluster and undertakes many responsibilities such as analysis of course content, gap mitigation, checking paper solutions and many other initiatives to keep the curriculum up-to-date.
2. The suggestions given by the external Cluster Mentors are incorporated into the Academic Administration Plan.
3. Some of the suggestions are conducted as beyond syllabus activities or introduced as Value Added Courses.
4. This process helps to mitigate the gap between the industry requirements and the curriculum delivery.
5. It also enables the exchange of ideas and knowledge of best practices between the Institute and other reputed educational institutes.
6. Institute Cluster Mentors decide on training of cluster members for overall upgradation. They look into training of new teaching staff/lab staff, identify opportunities for participating in FDPs/STTPs/industry training opportunities/ faculty internships for their Cluster members.

Uniqueness:

1. Cluster Mentoring Process is one of the significant IQAC initiatives at the Institute for curriculum enrichment. Over the period this process is strengthened further by incorporating reforms.

Constraints/limitations:

1. The requirements of various courses under various programs may be different. These differences need to be kept in mind while inviting external experts in every semester and incorporating their suggestions.



Evidence of Success

Cluster Mentoring Process is a successful endeavour at the Institute. As a result of this process, experts from across prestigious academic and research organizations such as IITB, TIFR Mumbai, BARC Mumbai and reputed industries like TCS, L&T, Siemens have visited our campus, shared valuable inputs through the forum of advisory panel meets and interacted with our faculty. This has resulted in bagging internships and projects for students and faculty. This has also enhanced research linkages, and improved networking with these organizations. One of the key indicators is the improvement in the quality of BE Final Year projects as a result of recommendations by External and Internal Mentors.

Problems Encountered

1. Implementing the value additions recommended by external mentors within the timeframe prescribed by affiliating university.
2. As ours is an affiliated Institute, we don't have much liberty to customize our curriculum as suggested by the experts. This can be mitigated by conducting beyond syllabus activities.

Resources Required

VIT is equipped with all the resources required for the implementation of the Cluster Mentoring process, which is now a well-established practice at the Institute. Additionally, the process requires human resource from reputed academic organizations and industries.



**Principal
VIT, Mumbai**

