

An Autonomous Institute
(Approved by AICTE, New Delhi; Affiliated to VTU, Belagavi;
Recognized By UGC under 2(f) & 12(B); Accredited by NBA & NAAC)

Best Practice – 1 Title of the Practice: Centralized Internal Assessment Cell

Objective: The main purpose of introducing Centralized Internal Assessment Cell in MVJCE is to bring transparency in the periodic evaluation of teaching learning process. The Centralized Internal Assessment Cell assesses the performance of students over a well-distributed interval of time within the semester and to make the examination an internal and integral part of the teaching process. It is taking into account a number of essential abilities such as drive and capacity for hard work, leadership and team-work, motivation, quality of imagination, intuition and speculation, skilled use of hands, etc.

The Context: Internal Assessment is a continuous, periodic and internal, in which assessment is done in relation to certain abilities and skills of the students periodically and continuously. Internal assessment tests will be conducted by college as per University schedule, while end examinations are conducted by the University. Internal assessment is to be assessed by the faculty of the particular course and no external teacher or instructor involved in this. Internal assessment demands the outcome of the students than the ability and the skills of the students. MVJCE Centralized Internal Assessment Cell is basically a well defined and transparent methodology to evaluate the robustness of internal assessments meant for eradicating the problems relating to our examination system. A good internal evaluation system allows teachers of various courses to evaluate the performance of their students in accordance with the objectives they had set before themselves.

The Practice: Institute is affiliated to VTU, Belagavi, the rules and regulations for evaluation process are laid down by the affiliating University and are communicated to students through syllabus copies supplied in the beginning of first year of their academic program. MVJCE Centralized Internal Assessment Section is headed by the Principal and assist by Exam Section Co-coordinator. An internal assessment test committee is established in the campus with Principal as the head and representatives from all the departments as IA coordinates. IA

Committee Meetings are conducting on regular basis. The MVJCE Exam Cell is well established in terms of infrastructure, computing, printing and intercom facilities. The schedules of internal assessments are communicated to students and faculty in the beginning of the semester through institute academic calendar. The internal assessment evaluation process is communicated to students by the respective faculty and also during orientation program for first year students. Syllabus for internal assessment will be communicated to students well in advance. Question papers are set based on Course outcomes and are approved by heads of the department. Scheme and Solution are prepared by the faculty and are displayed on the notice board on completion of the assessment. Evaluation of blue books is based on scheme and solution by the faculty and internal assessment marks are displayed on the notice board. The blue books are given to students after the completion of evaluation for verification of the marks. Any grievances in evaluation will be handled by faculty and Head of the department if necessary.

Internal question paper setting process as follows:

For every subject, respective faculty prepares question bank that covers equal number of questions from each unit, covering all the topics. Department internal exam coordinator under the guidance of HOD, checks for the standard of the question bank. College Internal Exam Coordinator along with an Exam team selects the final internal questions for each subject from the question bank. Question papers are given to the internal exam coordinators of the department on the day of test, after approval from the Principal. Faculty members prepare the answer key / Scheme of evaluation. Internal exam coordinator ensures smooth conduction of test and proper valuation of internal books. A Centralized valuation system is followed. After every internal exam, Total Quality Management (TQM) Check is performed to ensure that valuation is done according to Scheme prepared. Three IA exams are conducted in a semester which includes 3 units of syllabus covered in IA1, another 3 units of syllabus covered in IA2 and last 2 units of syllabus covered in IA3 (2 to 3 Cos are assessed in each IA exams).

Evidence of Success: The success rate in the final university exam has been improved after the implementation of the centralized internal assessment cell. Consistent pass percentage (> 85%) as well as the number of University Ranks in UG and PG programs. All internal exams related works are done inside the confidential room like Generation & Photocopying of exam Question papers, storing all unused answer scripts and dispatching of Written Answer scripts from the

concerned class rooms to the Centralized Exam Cell. Transparency in exam and there is no chance of malpractice or injustice, since the question paper is reaching the respective exam hall just like the VTU exam. The institution follows a very clear, wellplanned calendar which schedules the examination. The faculty members are completing the valuation within a stipulated time so that proctors can pass the student's academic details to parents and they can attend the regular Parent Teacher Meeting. The students with less mark in the respective subjects are identifying by the class in charges and remedial /tutorial classes are given on that basis. This system adopting in MVJCE is producing a good quality professionals, so that with good technical knowledge they are facing the placement interviews.

Problems Encountered: Nil.

Resources Required: A body of dedicated faculties, IA Coordinators and supporting staffs. An academic calendar clearly specifying the date/time of various academic events to take place during the academic session should be notified prior to the commencement of the academic session. An IA committee should be constituted to monitor every program of the institute.

Future plans: Reaching of student IA marks to Parents as SMS.

Best Practice – 2.Title of the Practice: The Tomorrow's Engineers Club

Objectives: The Tomorrow's Engineers club is a college affiliated club which provides opportunities for students to interact with other fellow students from various engineering disciplines and develop team spirit, leadership and practical skills. This is a platform for MVJCE students to be successful inside and outside the class room. The Tomorrow's Engineers club is to take up Engineering studies as a team sport. It is helping to get involved with other fellow students and discover new areas of interest. It is helping our students to think out of the box and enhance problem solving skills. The Tomorrow's Engineer's club is developing practical and leadership skills in students. It is having a network with professionals in and around Bangalore.

The Context:

We need more engineers for the betterment of society. For that we need more young students to understand how what they learn at college is used in the real world. Giving young people the chance to talk directly to engineers and engage in hands-on activities that showcase and

contextualize engineering is at the heart of the Tomorrow's Engineers approach. We have to explore the young engineering ideas, meet engineering researchers and professionals, and work on a hands-on engineering project. Here Interdisciplinary teaching and learning occurs when practitioners from traditional disciplines join together to work on a common question. Interdisciplinary workshops allow for synthesis of ideas and the synthesis of characteristics from many disciplines. At the same time, it addresses students' individual differences and helps to develop important, transferable skills. These skills, such as critical thinking, communication and analysis are important and continually developing at all stages of life. Educational systems are serving students best if they enable and encourage students to build their own interdisciplinary pathway. This approach is sure to foster a love of learning, ignite a spark of enthusiasm and address learning differences for students.

The Practice:

The Tomorrow's Engineers program brings together the engineering community in a collective drive to build the future generation of engineers needed by the industry. In MVJCE, every semester one workshop is organized by the Tomorrow's Engineer's club so that the students are getting an opportunity to think out of box. The Tomorrows Engineers club conducted a workshop on "The Problem solves skills –An innovative and creative approach".

In that three-day workshop the student participants had an insight of

1. What is engineering? And marvels in engineering field.
2. Importance of problem solving skills, creativity and innovation in engineering.
3. A systematic approach towards problem solving.

For inspiring and encouraging the students in the Tomorrow's Engineer's club, faculties from different departments are giving talk on different topics like, creativity and innovation, real time examples of creativity and innovation etc. Teams are presenting their ideas on the chosen open-ended problems. All the presentations by the students on open ended problems are having a

societal impact. Student presentation on problems and the stakeholders are also involved in a problem.

The “Tomorrows Engineers” Club organized a three-day workshop on “Societal Concerns and contribution to solve societal problems “under the workshop series on “Problem Solving skills – An innovative and Creative approach”.

In the series of Tomorrow’s Engineer’s club workshops, the participants understood the importance of problem solving skills and the role of engineer in society. Teams (with interdisciplinary participants) were formed and open ended problems were given to the teams. The participants had an insight on systematic approach to solve a problem. The teams were asked to find the solution for the open ended problem they chose. Then the teams presented their solutions to the jury. Finally the importance of stake holders in problem solving was made clear to the participants. The teams had to choose their own problem and identify stake holders for that problem.

The challenges of sustainability and responding to climatic change define the careers of 21st century engineers. This workshop gave a platform to a new conception of engineers in order to meet these challenges.

The open ended problems discussed in the workshops were,

- Recycling and Conservation
- Life Style tracking system
- Health care system
- Loss of Green cover on earth
- Precision Agriculture
- Drinking water crisis
- Urbanization
- E- learning facility for rural school children
- Cyber hacking or cybercrime.

With the idea of making MVJCE as a “Hub of Innovation”, the college organized a three day intensive technical workshop on “Tomorrow's Engineers” from 11th to 13th March 2016.

About 45 students and 15 faculties of MVJ College of Engineering participated in the workshop.

The workshop was inaugurated by Honourable Chief guest Dr. Krishnaswamy Kasturirangan, chief of Indian space research organization (ISRO) between 1994 to 2003. The objective of organizing the event was to inculcate lot of positive thoughts and explore current opportunities. Padma Bhushan Dr. B. N. Suresh, the president of Indian National Academy of Engineering and Chairman of Governing Council of MVJCE, and Dr. Kota Harinarayana, popularly known as Father of India's Light Combat Aircraft (LCA), and Dr. K Sudhakar, Professor, Aerospace Engineering, IIT Bombay were the experts who conducted the workshop.

Evidence of Success: The 'Tomorrow's Engineers' workshop is organizing for student participants from various streams of engineering so that they are allowed to learn by making connections between ideas and concepts across different disciplinary boundaries. Students learning in this way are able to apply the knowledge gained in one discipline to another different discipline as a way to deepen the learning experience. The guests coming for workshops advised our budding engineers to design high-tech solutions in a low cost environment to meet Indian and global challenges. Regarding this approach, we are getting a very good feedback from the MVJCE student community. The Tomorrow's Engineer's club is enabling the students to develop complex and innovative thinking skills so that they can solve various open ended societal problems and finally framing them as entrepreneurs. The Tomorrow's Engineer's club is enabling the students to work in a team and it is improving the leadership quality of students. Such interaction is in support of the constructivist paradigm which allows for new knowledge construction and a deeper understanding of ideas than disciplinary study. The problems that were selected in the workshops are planning for implementation. Critical thinking skills are used and developed as students look across disciplinary boundaries to consider other viewpoints and also begin to compare and contrast concepts across subject areas. Such interaction has been shown to promote constructivist learning, problem solving and innovative thinking so that our institution is reaching its vision.

Problems Encountered: NIL.

Resources Required: Dedicated students who have creative ideas and faculties from different department to inspire, encourage and to support students in all ways to

Future plans: Changing the projects into innovative business ideas by its implementation in MVJCE campus.