

Karpaga Vinayaga College of Engineering and Technology
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Best Practices

Best Practice - I

Title of the Practice

Peer Group activities – Promoting innovative and novel ideas to live projects

Objectives of the Practice

- To create innovative thinking for design and development
- To achieve ideas and design into prototype product by the students to build confidence in them
- To inculcate research attitude among students

The Context

Contextual Features/ challenging issues to be addressed

- The features of Peer Group activities are
 - ✓ Literature survey
 - ✓ Identification of product and related work done
 - ✓ Innovation, novelty and originality
 - ✓ Design and fabrication of prototype model
 - ✓ Product development
 - ✓ Real-time implementation and application
 - ✓ Patent and copyright

One of the challenging issues is to find sufficient time for the project during academic activities

The Practice

- The potential faculty member identifies the interested students for the Peer Group, comprising of students of IV, III, II year UG and a PG in their discipline of Engineering / Technology.
- The area of interest and in turn title of the project with budget involved is presented to the evaluation committee.
- The committee approves the project based on novelty, innovation, quality, viability; application oriented and stipulated time of completion.
- After approval, Peer group students will carry out design, fabrication, testing and develop a prototype working model.
- The Peer Groups present their work in a phased manner to the committee for suggestions and improvements to be incorporated.
- The committee will review and evaluate periodically the progress made for the successful implementation of the project.
- The completed projects will be demonstrated by all the Peer Groups and by merit, awards will be presented to the best 3 projects with the cash prize.
- Uniqueness in this practice is that the projects are carried out, apart from the prescribed curriculum by the affiliating University, in the stipulated time.

Evidence of Success

- During the course of implementation of the projects, the peer groups exhibit skills of communication, working effectively as a team, engaging them in self-evaluation and reflection, bringing out graphical & visual representation and exercising creative and intuitive instincts.
- All the students get adequate knowledge and skills as a platform for doing their final year projects (curriculum based) effectively.
- Based on the peer group projects, the students of automobile engineering have developed solar powered bike, solar powered car and self balancing bike and won awards in National Level competitions during the year 2015-16, 2015-16, 2016-17 respectively.
- As an innovative activity mini heater has been designed and fabricated by Student of ECE in the year 2012-13 and won Limca award.
- The Department of Biomedical Engineering students developed sweat based glucometer.

Problems Encountered and Resources Required

The Peer Group students are hard pressed with limited time to complete their Peer Group project apart from the time schedule on assessments and University examinations as a part of their curriculum study as prescribed by the affiliating University. In certain cases, financial constraints are encountered by the students to meet out expenses on projects.

Best Practice - II

Title of the Practice

Students Mentoring System – The major objective of the mentoring is to facilitate the academic, Emotional, Social and cognitive development of the students to empower them in their learning and personal development.

Objectives of the Practice

- To facilitate academic, social and cognitive development of the students to empower them in their learning and personal development
- To make students emotionally stable in sensitive situations
- To promote clarity in thinking and decision making among students

The Context

Contextual Features/ challenging issues to be addressed

- The features of students mentoring activities are
- Collection of student's personal details
- Identification of issues for a particular student
- Counseling and suggestions
- Parent – mentor interactions
- Psychosocial counseling, if needed
- Remedial suggestions & regular observations for further improvement

One of the challenging issues is to counsel student from the very poor economic background from drop out.

The Practice

Academic counseling

- 15 - 20 students are assigned with each mentor and are counseled on academic issues during the mentor hour as scheduled.
- Their doubts are cleared and encouraged to solve many Question Banks

Personal Counseling

- Student counselor meets the students and parents on personal issues and resolves them.
- Sensitive cases are referred to Chief Mentor, Gender Issue Cell/ Women Empowerment Cell for further counselling.

Career Counseling

- Mentors counsel students on career guidance, industrial needs, opportunities available, management and professional ethics, Entrepreneurship, etc.

Psycho-social Counseling

- Dr. Sethumathavan from Karpaga Vinayaga Institute of Medical Sciences, regularly visit and counsel our students for their health and stress management and fostering their resilience and tools to express and overcome grief and adversity.
- Very sensitive cases are informed to their parents for remedial measures.
- Counseling will be given on all working days. Parents can meet counselor with the prior appointment during all working days.

Evidence of Success

- Improvements in performance in the daily test, internal assessments, Model and University examinations are evidence of the success of student's involvement in the regular learning process.
- The regularity to college, involvement in co-curricular activities and committed towards the academic work and discipline of the students after counseling is the evidence of their positive behavioral changes.

Problems Encountered and Resources Required

- The students have limited time to interact with their mentor apart from the time schedule on the timetable.
- Inadequate availability of time for faculty members to aid students' community as mentor beyond college hours.