



7.2.1 Describe two best practices successfully implemented by the institution as per NAAC format provided in the manual

The institute firmly believes that the best practices help to promote the scientific approach to issues or problems of society. In view of this, the institute has adopted the following best practices:

Title of the Practice	Organized by	Primary Beneficiary	Secondary Beneficiary
Little Mentoring	Our Institute in Identified High schools of Udupi district	High school children (Little mentee)	Our students (Little mentor)
Prakruthi- Sukruthi @SMVITM	Institute	Institute and the society	Our students

Title of the Practice: "Little Mentoring System"

Objectives of the Practice: The Little Mentoring helps to inculcate the curiosity about Science, Technology, Engineering, and Mathematics (STEM) along with innovative thinking among the children in the age group of 12-16 years. This program is designed to fulfil the following objectives:

- a) To develop technical skills and creativity among the school children
- b) To improve the technical competency and presentation skills of our students
- c) To support our students to learn planning, designing and execution of projects
- d) To understand the problems of the society and develop the problem solving skills

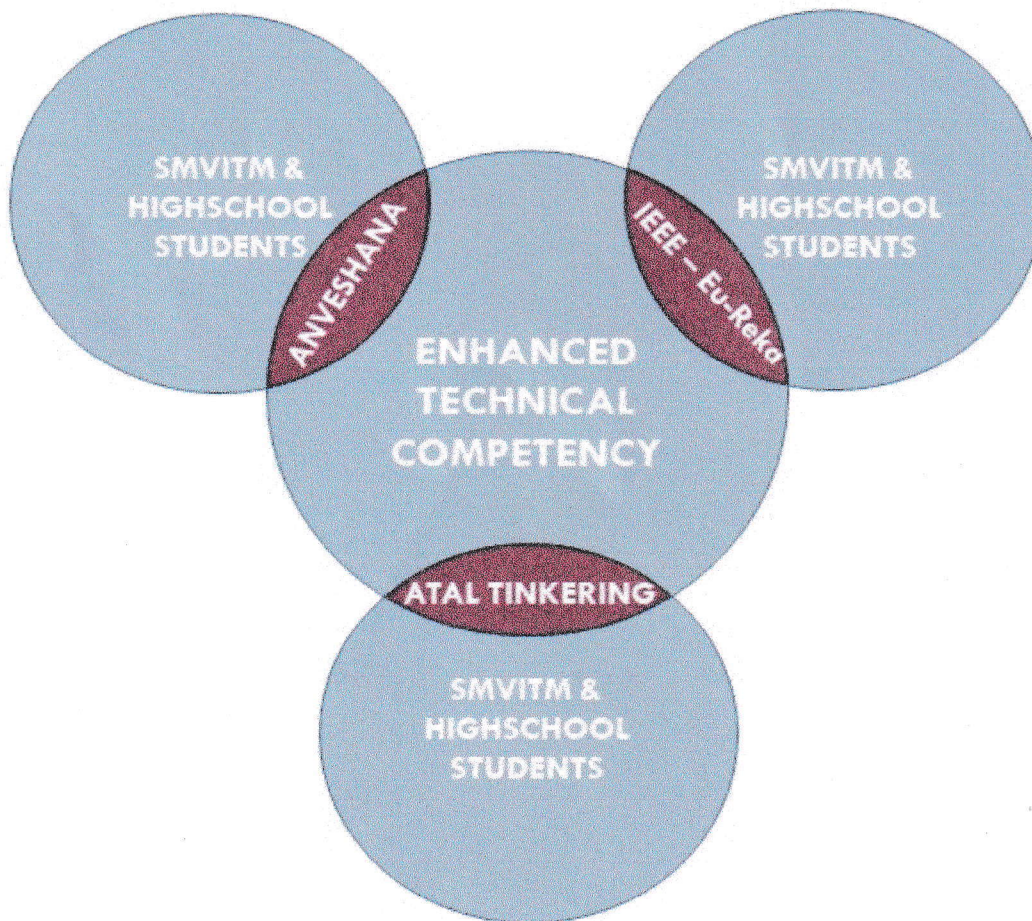
The context: The communication skill and problem solving ability based on the technical knowledge acquired are the two major requirements of an engineer to lead a comfortable professional career. The little mentor scheme is an eco-system that helps the students of SMVITM to fulfil the above major requirements. Also the system helps to motivate the high school children in the age group of 12 – 16 year to identify the technical solution for the problems of the society. In addition, the system engage the participants in innovation, creativity and there by contributing to boost the self-esteem.

The Practice: The institute has implemented the system with the support of ISTE and IEEE student branch of the institute. Following are annual activities linked to meet the objectives.

- Anveshana
- IEEE-Eureka
- Atal Tinkering Lab

Anveshana: Anveshana is a platform where engineering students collaborate with high school students and develop innovative models addressing real time problems of the society.

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students from our institute who play the role of little mentors teach the high school children about the challenges in the project/problem. This collaborative process allows the high school participants to actively contribute to finding solutions, providing them with valuable hands-on experience. The little mentors in turn get the guidance and support from the parent organization.

IEEE - Eu-Reka: IEEE Pune subsection will be organizing this program every year for the benefit of engineering college students as well as high school students. The mode of operation of this program is similar to Anveshana but the difference is the type of solutions

expected. In the IEEE – Eu-Reka, the students are required to participate in the event to be held at Pune and the participants are expected to present their solutions using software or electronic set-ups. This program is concentrated to IEEE student members.

The program aims to foster a culture of hands-on learning and technological exploration among participants from both engineering colleges and high schools.

Atal-Tinkering Lab: Most of the Government high schools in Udupi district have adopted the “Atal Tinkering Lab (ATL)”, a central government initiative to promote technical competency among the students. In a collaborative effort, our institute has partnered with 15 schools in Udupi district that have ATL facilities. Our students actively engage in training sessions for school children, utilizing the resources available in the ATL. In addition to this, the little mentors also train the high school students using various tools and kits such as Arduino boards and make-it kits from our institute.

This multi-faceted approach not only enhances technical skills but also encourages hands-on learning, contributing to the overall development of the students and promoting a culture of innovation and technical excellence.

How the eco-system works:

At the beginning of every academic year, the ISTE/IEEE student branch will prepare a list of various societal problems and share the same with the headmasters of the identified high schools. Also request to identify 2 interested students for each problem statement. Later the Anveshana coordinator/IEEE student coordinator takes charge to pair two engineering college students, known as little mentors, with the selected high school students. These little mentors play a crucial role in building a rapport with the high school students and training them to devise and execute solutions for the identified problem statements.

Team formation: For the Anveshana and IEEE-Eureka programs, two students from our institute collaborate with two identified students from high schools and help the high school students to solve the problems effectively using the facilities available at their school / our institute.

For the Tinkering Lab programs, a team of 4 or 5 students from our institute, accompanied by faculty, visits identified high schools and conduct various technical learning sessions. The curriculum for these training sessions will be prepared by our institute.

Evidence of Success: The success of the program wholly depends on active participation of students and magnitude of guidance provided. In both the Anveshana and IEEE-Eu-Reka programs, the students will get the opportunity to showcase their talents and potentially win prizes. This accomplishment not only reflects individual excellence but also highlight the institute’s commitment in nurturing the talents.



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Similarly, in the Tinkering Lab program, the combination of training sessions and exhibitions serves to enhance students' critical thinking, problem-solving skills, and analytical abilities to solve the technical issues.

Problems encountered and resources required:

The academic calendar for high school students doesn't match with that of engineering students except in the month of September, November and December. Hence a proper coordination between the two institutes (our institute and the identified high school) is essential.

At present various expenses are managed by the parents or our institute. The program become very successful and can be extended to other engineering institutes with some financial support from the Government.

We could manage to get the support of few high schools using the contacts of our management members. Otherwise it is difficult to connect high schools, unless the end results are assured.



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Title of the Practice: Prakruthi-Sukruthi @ SMVITM

Go green campus:

Green initiatives are need of the hour. Adopting green initiative in an engineering college campus motivates the students to practice environmental sustainability. The main objectives of go green campus are:

- To fulfil the responsibility towards nature's sustainability
- To provide a holistic Nature Spirituality @SMVITM through ecological concerns
- To raise awareness on the environmental issues and promote sustainable developments
- To educate the stakeholders on implementing energy efficient measures and adopting renewable energy resources
- To minimize waste generation and promote recycling, composting systems
- To conserve natural resources such as water and energy through various means

The Context: Green Campus Initiatives are a response to the growing awareness of environmental issues and the need for sustainable practices within educational institutions. These initiatives reflect a broader societal shift towards environmental stewardship and the recognition of the significant impact that campuses can have on the environment. Green Campus Initiatives allow institutions to fulfil their responsibility to minimize their ecological footprint and promote sustainable development. Green Campus Initiatives provide valuable educational opportunities for students, faculty, and staff to learn about environmental issues, sustainability principles, and practical solutions. A good academic campus requires a spiritually enlivening and energising eco system, which can only be provided by Mother Nature. Mother Nature has the power to provide an amicable eco system where students and learning flourish.

The Practice: Prakruthi-Sukruthi @ SMVITM is a Holistic Approach to Teaching-Learning through Holistic and healing touch extended by Nature through the sustainability extended by SMVITM. The institute has adopted several eco-friendly facilities and devised several activities to meet the defined objectives. They are

- a. Solar Power Plant: 125 KW solar power plant established in the institute and as a result, the institute could save an average of 13,000 Kilowatt-hour electricity in a calendar month with Rs. 1,00,000 savings in electricity bill . The energy generated will be utilized for the institute purpose during working days and getting transferred to the grid on Sundays and holidays. The facility is installed in a prime location and the students may get inspired by this initiative.
- b. Rain water harvesting: The institute require an average of 50KLD water for the campus inmates. During the peak monsoon, i.e. from June to August every year, the institute hardly pump the water from the bore well/open well. Instead, the filtered and clean rain water stored in the sump is the source of water. The statistics published at prominent places in the institute motivate the stakeholder to adopt the rainwater harvesting. Also,

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the water from the rain drains is allowed to be absorbed by letting it 2 wells in the campus, out of these, the one near the dining hall exclusively to drain the rain water.

- c. **Sewage Treatment Plant:** The institution is equipped with a 125 KLD capacity Sewage Treatment Plant (STP) operating 24 hours a day. The treated water is used for flushing purpose in hostel washrooms and for gardening purpose. The method adopted does the waste water recycling and reuse.
- d. **Waste Management:** The efficient waste management practice of the institute includes reduced use of papers, proper disposal of e-waste; plastic free campus and efficient way of managing food waste. Minimized use of paper has been ensured by sending circulars and notifications through email. The admission process and filling of examination form is completely online. Academic processes like feedback collection, progress report etc are made paperless. Administrative activities like leave processing, examination duty allotment are being carried out through Management Information System (MIS) without any scope for the use of papers. The e-waste generated is collected and handed over to the certified vendor. Awareness about hazardous nature of plastic is created among students and staff through talks, street plays. Cleaning drives are also conducted within and outside the campus with social concern. Sufficient numbers of garbage bins are placed in strategic locations to collect any plastic waste which is brought into the college and will be given to authorized plastic recycling unit. The food waste is sent to nearby piggery and compost.
- e. **Usage of energy efficient lights and fans:** In hostel blocks, 18 street lights, the 300 existing fluorescent lights are changed to 9-W LED lights. Around 300 LED lights energy consumption per day is 60 units which is 108 units using fluorescent lights considering 10hrs usage. The existing 180 fans were changed to BLDC (Brushless Direct Current) fans which are energy efficient than the previously used fans. The energy consumption by 180 normal fans is around 126 units per day and by BLDC fan is 63 units considering 10hrs usage. Energy conservation practices, such as switching off lights and the electrical appliances when not required, are encouraged. Faculty and students are encouraged to use EV and CNG vehicles.
- f. **Landscaping:** The College has a lush green campus having a wide variety of flowering plants and trees. More than 100 varieties of rare species of trees are planted inside the campus. Green Audit is carried out in the campus to understand the further scope for improvement in environmental issues. During every graduation day, branch toppers plant a sapling each and are well maintained, which carries their names, as a token of memory. Saplings are planted by every prominent personality visiting our campus during various occasions. Sandal wood sampling is done by Swamiji during annual day.
- g. **Energy literacy programs:** Energy literacy certification course conducted by EnergySwaraj foundation was completed by the students, faculty and staff of SMVITM. The certification course created the awareness among 750 SMVITM. The institute got Silver certification for making 500+ members energy literates.

Anoop



- h. Education on Green Campus initiatives: The Environment Club, EV club and NSS unit of SMVITM is conducting workshop on paper pen making for the students. The club/unit also conducted sessions on plastic ban, water treatment plant in schools and colleges. Every year, students celebrate World Environment Day and conduct seminars.

Evidence of Success: The success of each step has been demonstrated by way of boards and banner across various places in the campus. This initiative helps the management to educate the young minds on green campus.

Reduced Carbon Footprint

Increased Energy Literacy

Waste Reduction

Certifications and Awards

Awareness Displays

Community Engagement

Resource and Energy Conservation

Problems Encountered and Resources Required: Though several steps are being followed to keep the campus green and educate the stakeholders on sustainability, there are challenges associated with the promotion of green campus.

The problems encountered are listed as follows:

- Green Campus Initiatives often involve multiple stakeholders, and interdisciplinary challenges, making implementation difficult.
- Measuring the effectiveness and impact of Green Campus Initiatives is truly challenging, requiring reliable data collection, monitoring, and evaluation processes.
- Retrofitting the existing systems, installing renewable energy systems, and integrating green technologies require significant investments and technical expertise.

Addressing these challenges requires strategic planning, collaboration, and innovative solutions to overcome obstacles in the promotion of a sustainable and environmentally friendly campus.

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