7.2.1

**BEST PRACTICES-1**

**TITLE OF THE PRACTICE:**

Renewable Energy Resources (on-grid solar power plant)

**CONTEXT:**

Solar energy is a renewable energy source as it is used to produce electricity as long as the sun exists. India holds an important place in the global education industry.

India has one of the world's largest networks of higher educational institutions. Gross Enrolment Ratio in higher education reached 25.8 percent in 2017 – 18. This presents a perfect opportunity for solar rooftops in educational institutions.

It also helps to house renewable energy to bring down energy costs. Setting up a solar photovoltaic (PV) power plant will not only contribute to the reduction in overall costs of energy for the premises but also contribute to a greener or sustainable environment.

**OBJECTIVES OF THE PRACTICE:**

- Install a solar power plant on the roof terrace and generate solar energy.
- Offsetting of greenhouse gases.
- To utilize the generated solar power for college as a substitute for a conventional power supply.
- To export the excess generated solar power to the national grid.
- To impart practical knowledge among students from this work.
- To augment long-term research in the field of solar power.
- To become a role model among the public in going green.

**THE PRACTICE:**

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Considering the growing energy demand from various sectors, college has decided to use non-conventional energy resources for all its internal consumption by installing rooftop solar panels.

Our annual requirement for energy usage for the last five years is about 16824 units. We have installed 46 solar panels with a sanctioned load of 22 kw with a capital cost of Rs. 547676/- in the month of November 2018. The solar system has given excellent results, which have generated 37372 units of solar energy from November 2018 to July 2020. On average, the system generates about 50 units of energy per day. That is about 18000 units per year against our requirement of 16825 units. Thus, making the college self-sufficient to export the surplus energy to the national grid.

The generation of solar energy has given a number of environmental benefits in terms of offsetting greenhouse gases. 37372 units as solar energy generated is equivalent to the creation of 41.6 hectares of forest land, saving 482278 kg of carbon dioxide, which reduces pollution caused by 6 passenger cars emitting carbon dioxide, over 106.32 hours. Reduction of 236.64 kg of nitrous oxide, is equivalent to the power required for 2094 computers for a year. Reduces 1393 kg of sulphur oxide, is equivalent to the emission of carbon dioxide by TV over 103005 hours.

**OBSTACLES FACED IF ANY, AND STRATEGIES ADOPTED TO OVERCOME THEM:**

- Poor service from suppliers after installation
- Daily cleaning of panels is necessary to improve efficient power generation. Care should be taken of obstacles falling on the panels like trees and building shadows. So, daily maintenance and manpower are required for the same.
- Strategies adopted - Local experts are contacted and taken service on a need basis.

**IMPACT OF THE PRACTICE:**

- Sustainable and Renewable Energy Sources
- Builds goodwill with the community
- Good learning opportunities

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- Utilization of terrace for installing solar panels results in the accumulation of truly renewable energy source.

**RESOURCE REQUIRED:**

In-house experts and local agencies.

**BEST PRACTICES-2**

**TITLE OF THE PRACTICE-**

Add-on courses

**THE CONTEXT:**

The prevailing system of higher education in the region focuses mainly on academic aspects and performance at the expense of other innate talents in the students. Being an affiliated college curriculum is designed by the parent university. It is very difficult to change the syllabus frequently. The present education system is student-centric and needs to be focused on their employability. There is a dynamic change in the requirement of recruiters, which may not be 100 percent met through the existing curriculum. Therefore, add-on courses need to be introduced to bridge this gap to make our students more employable and develop entrepreneurship skills.

So, add-on courses enable the teacher to motivate the students to gain maximum academic benefit.

**OBJECTIVES OF THE PRACTICE**

In line with the institutional vision, add-on courses are being adopted as a best practice by the institution with the following objectives:

Make our students more employable and develop entrepreneurship skills.

Project an institution that moulds and provides all-round development in the student's educational phase.

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Develop holistic academic growth along with social and professional development.

## THE PRACTICE:

Since 2018-19, the college has introduced fifteen add-on courses, including three foreign languages (French, German, and Japanese) and twelve add-on courses in the respective functional areas. Depending upon the course requirement, the content of the course is developed with a weightage of 2 to 6 credits (one credit = 15 contact hours). The course content is developed by an expert committee, under the chairmanship of the Head of the department. The Principal charts the guidelines of add-on courses in consultation with the management, which is included in the annual academic calendar. The various activities conducted are highlighted as follows:

- **Assessment of performance:** Motivating students to participate in the form of oral, theoretical, practical, and site experiences in the schedule framed for the course.
- **Organizing competition:** These competitions are organized with the intent of knowledge dissimilation to develop effective language skills to enable simultaneous improvement in academics.
- **Organizing field visits:** These activities are conducted to enable students to appreciate as they can link actual classroom teaching with practical work.
- **Awarding Certificate:** Certificates are awarded to students on successful completion of the course.

## OBSTACLES FACED, IF ANY AND STRATEGIES ADOPTED TO OVERCOME THEM:

The tight schedule involved in the University's Laid-down semester system is a major obstacle the college faces.

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- **Strategy Adopted:** To overcome time constraints, the college drafts an Annual Academic Calendar incorporating all academic and add-on courses framework with effective time management and ensuring the program's success. Such add-on course activities are slotted in mind that the normal class routines are not affected. The college has been able to cope with the issues of the time factor due to the effective participation and cooperation from the students and the management.

## IMPACT OF THE PRACTICE:

The positive outcome of the practice can be highlighted as:

- Healthy Participation of the students.
- An increase in the confidence level of the students as they are exposed to new and important aspects in their functional area.
- Such activities for a short duration generate interest and curiosity among the students to show their skills.
- The students develop an improved personality, confidence level, and teamwork culture.

## RESOURCES REQUIRED

Professional experts are required to impart their inputs.

Field experts are also required to impart practical knowledge.

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