MCKV INSTITUTE OF ENGINEERING

NAAC Accredited Grade "A" Autonomous Institute under UGC Act, 1956
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Best Practices of the Institute (2021-22)

Best Practice I

1. Title of the Practice

> **Promotion of inculcating Positive Mindset among Students and Staffs.**

2. Objectives ofthePractice

> To inculcate universal values like promotion of Truth, Righteous conduct, Love, Non-Violence and peace, service etc. Swami Vivekananda Centre for Positive Thinking (SVCPT), of our Institute is working with this goal.

3. The Context

In today's world, where majority of the people are pursuing only self interests relentlessly, the institution emphasize the need to inculcate the universal values like promotion of truth, selflessness, righteousness, service etc.

SVCPT the first centre in West Bengal, an initiative of MCKVIE faculties, staff members & students with the active advice of Ramakrishna Mission Vivekananda Educational and Research Institute(Deemed University),Belur Math is dedicated to orient the students, faculties & staff members of the college through teachings, life giving thoughts and philosophy of Swami Vivekananda and other Great men.

The seed planted and watered with the selfless efforts of many students and faculties, transformed into a formal form in the hallowed name of Swami Vivekananda on 10th January 2011 with the inaugural talk by Swami Atmapriyananda, the then Vice Chancellor of Ramakrishna Mission Vivekananda University and Swami Bhaveshananda.

Objectives:

- To Provide Personal Counselling and service towards community
- To Organise Seminars/ Invited Talks
- To Organise Youth Programmes and Outreach Programmes
- To Run a separate Library of containing more than 850 value education books

4. The Practice

Talks are delivered by monks of the Sri Ramakrishna Order, and by eminent Professors, Doctors and Social Workers. Study circle are conducted among the Faculty and Staff members of MCKVIE.

The SVCPT has organized the following activities during AY 2021-2022:

1. Visit to Sri Sarada Math and Mission for old dress Distribution which was handed over to Revered Pravrajika Aptokamaprana Mataji. The event conducted on 27.10.2021
2. A study circle held at SVCPT MCKVIE. The event conducted on 26.11.2021
3. An Outreach Programme on Positive Thinking & Value Education held at Jhargarm. The event conducted on 22.12.2021
4. 169th Birth Day Tithi Puja celebration of Sri Ma Sarada Devi followed by Discourse. The event conducted on 05.01.2022

5. 160th Birth Day Tithi Puja celebration of Swami Vivekananda followed by Study Circle. The event conducted on 08.02.2022
6. 187th Birth Day Tithi Puja celebration of Sri Ramakrishna followed by Discourse. The event conducted on 04.03.2022
7. An Outreach Programme on Positive Thinking & Value Education held at Ramakrishna Math, Kathamrita Bhavan, Kolkata. The event conducted on 11.03.2022
8. One day talk on "Value Education and Thinking". The event conducted on 08.04.2022
9. Invited Talk on "Stress Management". Revered Swami Shanteshananda from Ramakrishna Mission, Belur Math was the speaker. The event conducted on 30.08.2022
10. Visit to Ramakrishna Mission, Belgharia. Donated Mosquito Nets, Water Bottle, Tiffin Box, Stationary Kit and sweets to 104 needy children of Slum area of Belgharia. The event conducted on 27.09.2022

Moreover, Universal Human Values are taught at Induction Programme for Fresher's (SIP) and Professional Values & Ethics subject is incorporated in the UG syllabus for the improvement of student moral values.

5. Evidence of Success

Students are increasingly taking interest in this practice. They are regularly attending different online classes and competitions in scope of their regular scheduled academic classes.

6. Problems Encountered and Resources Required

During this journey, motivation and interest planted among the participants required sustainability in future. Inspiration from the society and other communities required in future life for a good human being.

More dedicated human resource with additional infrastructure may improve the overall propagation delay.

7. Notes (Optional)

Any other information that may be relevant and important to the reader for adopting / implementing the Best Practice in their institution (about 150 words).

Best Practice II

1. Title of the Practice

Technotica: A Technical Competition.

2. Objectives of the Practice

To encourage students to develop innovative projects that directly apply scientific principles for manufacturing and practical uses in Electronics & Communications, VLSI, Computer science & Engineering, Data Science, Information Technology, Artificial Intelligence and Machine Learning, Automobile Engineering, Mechanical Engineering & Electrical Engineering department students and other related engineering fields.

3. The Context

Innovation is practical implementation of ideas that result in the introduction of new products or improvement in offering products. Keeping in mind, the importance of innovation in day to day life, TECHNOTICA is organized by the institute every year to encourage students to come with innovative ideas and implement those ideas in the form of simple projects.

Technotica is an Intra College Technical Project Competition organized by the Institute every year. Students from MCKV Institute of Engineering are eligible to participate in the competition in a group of maximum three students per team. It is organized in two phases: an initial screening round and a final project demonstration round. A group of external experts judge the final demonstration of the projects. The projects are evaluated on the basis of innovation, originality, practicability, understanding and presentation of the work and top three teams are awarded.

4. The Practice

Innovative technical project proposals are being invited from students of MCKV Institute of Engineering. Once they submit the proposals, an initial screening round is conducted to understand the feasibility and students' understanding regarding their proposals. After screening, teams are selected for participation in the final round where they need to demonstrate their projects/prototypes in front of external judges. They are judged on the basis of innovation, originality, practicability, understanding and presentation of the work.

Technotica 2021-22 was held on 31st March, 2022. Initial call for projects was published on 3rd November 2021. After initial screening round, 12 teams (34 students) participated in the final round of competition. Standings were decided by the external judge considering above mentioned criteria.

Following teams were awarded:

1. First prize:
   Project name: Intelligent Cleaning Robot
   Team Members: NehaDolui, Soham Banerjee, Anubhab Mukherjee
2. Second prize:
   Project name: Home from the Future
   Team Members: Raunak Ghosh, Syeeb Uddin Mallick, Rahul Sapui
3. Third prize:
   Project name: MEDIWELL - One App, Easy Life
   Team Members: Pritam Bose, Sandip Chakraborty, Palash Bag

5. Evidence of Success

Top teams are generally nominated for participation in various technical fairs/competitions organized by external agencies. Top two teams of 2021-22 has been nominated forScience & Engineering Fair 2023 organized by Birla Industrial & Technological Museum, Ministry of Culture, Govt. of India, 19 A, Gurusaday Road, Kolkata - 700 019.
Students of MCKV Institute of Engineering have won several prizes in this competitions held in earlier years.

6. Problems Encountered and Resources Required

Problems Encountered: Required funding to implement the projects sometimes becomes challenging. If the project cost is too high, it becomes an issue. It is also sometimes difficult to motivate students to participate in this type of events. Need to explain them the advantages of participation in technical competitions and how the hands on work experience gained in this competition help them in future specially during job interviews.

Resources: Students are provided with technical support and resource required from the institutes. Electronic equipment and components from Project Lab of ECE department and support from Mechanical Workshop are generally provided. If they encounter any technical problem, they may consult Faculties and Lab Instructors of different department.

7. Notes (Optional)

Any other information that may be relevant and important to the reader for adopting / implementing the Best Practice in their institution (about 150 words).

Institutional Distinctiveness

Emerging Tech Laboratory: Institute setup various emerging tech laboratory as describe below.

1. *Centre of Excellence in 3d Printing:* The goal of the Centre of Excellence is to bring together industries, R&D institutions, and academics to hold manufacturing problems using 3D printing technologies. Through access to 3D printing technology, the Centre of Excellence aims to bridge the gap between basic research, product design, and development, and provide cutting-edge solutions.

2. *Electric Vehicle Laboratory:* Electric vehicles are being considered a medium of future mobility. MCKV Institute of Engineering has set up a State-of-the-art Electric Vehicle Laboratory in collaboration with Logiczap NextGen Technologies (one of the fastest-growing companies in the field of EV training & skill development), to provide complete training, internship & skill development solution in EV two-wheeler Technology for students and professionals.

Green-Campus-Clean-Campus: The institute has an intention to adopt the "Green Campus" system for environmental conservation and sustainability. The goal is to reduce CO_2 emission, energy and water usage, while creating an environmentally literate campus where students can learn the idea of protection of environment and stay healthy. The "Green Campus" has been a very new concept adopted by this institute. The college administration is working on the several facets of "Green Campus" including Water Conservation, Tree Plantation, Waste Management, Paperless Work, Carbon Footprints and Alternative Energy.

As a result of continuous effort to provide a global-and-holistic education in a healthier environment, the management and editorial team of R. World Institutional Ranking congratulates MCKVIE on being Ranked No. 67 across India, in The Green Rankings 2022.

Institution's Innovation Council (IIC): Institution's Innovation Council (IIC) is an initiative of the Ministry of Education's Innovation Cell (MIC) for fostering the culture of innovation amongst higher education Institutes. The Innovation Council was established to promote innovation in the Institution among the young students to work on new ideas and to familiarize them with concepts of improving products and services to the market, increasing efficiency and product profitability.

The main aim of IIC is to conduct various activities related to innovation, entrepreneurship, IPR, and startups in collaboration with academicians, entrepreneurs, investors, and professionals for creating a mentor pool for student innovators.

Institute received 3/5 star rating during the AY: 2021-2022 as announced by IIC-MIC.

PRAYAS: PRAYAS is an initiative taken by the institute to make a platform for the engineering students to express their innovative ideas by contributing to the solutions of different real life technical problems. By participating in this competition, the students will be able to showcase their knowledge level by proposing innovative solutions to technical problem. They will also be able to acquire the skill of writing a research article following a particular template. And they will also be able to develop their attitude through the process of presenting their proposal to the audience. So, in a nutshell, PRAYAS helps the students to develop their Knowledge, Skill and Attitude (KSA) which are the basic building blocks of successfulness in professional world. The proceedings of the program are being published in the form of a book with an ISBN.