Matrix:7.2.1 Describe two best practices successfully implemented by the Institution as per NAAC format provided in the Manual

II. Best Practice-II

A. Title of the Practice:

Progressive Technical & Management Education through Multi-collaborative Approach

B. Objectives of the Practice:

a. To make students industry ready by bridging the gap between academics and industry expectations
b. To enhance the collaboration among Institute, Industry and Learning Platforms to provide progressive technical and management education
c. To promote the establishment of Memorandum of Understanding between Institute and Industries for strategic collaboration
d. To facilitate the consultancy services using the expertise and resources at the Institute
e. To promote the participation of various stakeholders in the development of curricula and improve the quality of student project

C. The Context:

The field of technology and management has become extremely dynamic today due to continuous introduction of new technologies and processes in the industry. However, on the other hand the syllabus which is being taught in the educational institutes fails to meet up with the ever-changing demands of the industries. The uncertainties such as pandemics has worsened the situation further. Hence the students who are completing their education in such situations are not industry ready and face grave problems in securing employment in the wake of fierce competition. Providing the industry exposure to the students & staff members and bridging the gap between the

industry expectations & academics has become a necessity. The online learning platforms which are posing competition to brick & mortar educational institutes, have been becoming prominent day by day with increasing number of students opting online courses. In such scenario, providing progressive technical and management education through multi collaborative approach has become the need of the hour, not only for the survival of the institute but also for the benefits of its stakeholders.

D. The Practice:

i. Smart Campus Projects: Project-based Learning Approach

The Institute initiated innovative project development concept through the support of MVP Samaj Trust Management. Under this activity, Final Year students and faculties of various branches of engineering are invited with their research and innovative ideas in the areas such as robotics, IoT, Automation, Solid Waste Management, Rain Water Harvesting, Fire Protection System, Water Management, Agricultural Technology etc. The ideas are then finalized by institute R&D cell coordinator along with head of the institution and department project coordinators. In the next step, the actual work starts with the financial support of MVP Samaj Trust. The students are guidance and support by the internal and external project guides. The developed projects and prototypes are then assessed by the selected experts in the respective fields.

ii. Web-based / Online Learning: Turning competition into partnership

The Institute organizes Webinars, Online - Workshops and Expert sessions throughout the academic year where alumni, academicians and Industry experts conduct the sessions and provide the knowledge about the recent trends and practices in respective industries. They also guide the students on skill set, capabilities and knowledge requirement to secure employment in these industries. The web based / online learning platforms were evolving as competitions to the traditional brick & mortar structure. These platforms provide plethora of courses at a comparatively lesser prices than that of the physical educational institutes. The Institute took efforts and collaborated with many of these web based / online learning platforms, thereby succeeding in provision of additional courses to the students and turning the competition into the partnership. The Institute actively

fosters self-learning by motivating students to enrol and complete courses on the platforms like Coursera, NPTEL, EdX, IIRS (Indian Institute of remote sensing), IIT(B) Virtual Lab for Practical's etc. Information about the registration of the mentioned courses is disseminated to the students through mentors and subject teachers. The students effectively took the benefit of this Web-based / Online Learning platforms even during COVID-19 pandemic.

iii. Industry Institute Collaboration: A Strategic Partnership

The Institute has its collaboration with many organizations and industries which it uses strategically for the benefits to the students and staff members. To name a few, the Institute has collaborated with Armstrong Machine Builders Pvt. Ltd. to set up one of the most advanced MVP-Armstrong Robotics Laboratory. The students learn about recent trends in Robotics and Automation through this laboratory. It also served as one of the consultancy services revenue sources for the institute. Similarly, the Institute also has collaborated with Fox Solutions Pvt. Ltd. to set up MVP-Fox Automation Training Centre. The students learn about Industrial Automation (PLC, HMI, SCADA, Drives) in this training centre. The Institute has collaborated with Zensar Technologies Ltd. and Winjit Technologies Pvt. Ltd. to boost the learning of recent trends in IT & Software Industry. Apart from this, the institute has 72 MoUs through which various activities are carried out to assist in imparting of progressive technical and management education.

E. Evidence of Success:

The success of Progressive Technical & Management Education can be understood by the number of collaborations the Institute has maintained and their utilization for the benefit and development of Staff and Students of the Institute. The practice has reaped many benefits to all its stakeholders which can be considered as evidence of success, few of them are listed below:

a. To the Students
b. To the Institute
c. To the Industry

a. To the Students

The students are primarily benefitted by the improvement in knowledge of recent trends, current industry practices and the opportunities available for them. This practice has helped the students to be industry-ready which provided a competitive edge to them over the students of other institutes. Various activities such as Placements, Internships, Training Programs, Industry Visits, Expert Talk, Project Guidance etc. are being carried out in collaboration, which helped the students in their overall development. The students also have been taking the benefit of the online learning platforms which are made available to them through the collaboration by enrolling and completing various courses.

b. To the Institute

The Institute has established a strong industry network which helped the institute in improvement in the quality of teaching – learning practices through the establishment of various laboratories and training centres. Dissemination of progressive education and making students industry ready, helped the Institute in the improvement of overall placements. These collaborations also helped the Institute in appropriate utilization of the available resources for the student development and consultancy services revenue generation.

c. To the Industry

The industries are benefitted through availability of the qualified and industry ready young engineers and managers to work for them. The organizations which are having MoU with the institute carry out their various activities utilizing the expertise and the resources at the Institute. Involvement of Industry personnel in setting the academia has helped in designing a curriculum that could cater to their ever-changing needs.

F. <u>Problems Encountered & Resources Required</u>:

- Focus and dedication of involved students and staff members from regular teaching-learning hours
- Presence and establishment of intrinsic motivation and inspiration towards Co-curricular and extra-curricular activities

- Regular review and follow up of students during various activities is needed to have desirable outcomes.
- Systematic and accuracy in record keeping as it may involve financial matters
- The Institute motivates the active participation of students by duly recognizing their efforts through distribution of Certificates after completion of collaborative programs, activities and projects.
- Sometimes, the activities face limitations such as time constraints and resources constraint.