3.2 **Innovation ecosystem**

3.2.1

The Institution has created an ecosystem for innovations and has initiatives for creation and transfer of knowledge.

Innovation Ecosystem represents a dynamic framework designed to cultivate an environment of collaboration, creativity, and progress. By leveraging cutting-edge technologies, this model serves as a catalyst for innovation, promoting the exchange of ideas, knowledge, and resources among diverse stakeholders. Through its multifaceted approach, creation of innovation ecosystem is emerged as a driving force behind transformative breakthroughs, paving the way for a brighter future of our students.

In SCMS School of Engineering and technology, the IQAC forms the core of our innovation ecosystem. The IQAC directs various groups such as IEDC, IIC and IPR cell to foster innovations in our institution.

Collaboration:

Innovation Ecosystem is built on the principle of collaboration, bringing together stakeholders from academia, industry, government, and communities. By fostering an inclusive environment, the model encourages the exchange of expertise, enabling cross-pollination of ideas and perspectives. This collaborative spirit fuels co-creation, where diverse talents converge to tackle complex challenges, accelerating the pace of innovation. Based on the above principle In SCMS School of Engineering and technology we have signed MoUs with different institutions for collaboration in exchange of students, faculty and advanced research. A MoU was signed with Shimane university Japan to promote the exchange of students, faculty, research education and academic culture. A MoU was signed with DAFF'ODIL INTERNATIONAL UNIVERSITY, DHAKA, BANGLADESH to promote the exchange of students, faculty, research education and academic culture. SCMS Group of Educational Institutions signed a Memorandum of Understanding with Hung Kuang University, Taiwan on 22nd March 2019 for academic and research collaboration. Hung Kuang University is one of the top ranked Universities in the field of Health, Biomedical Engineering and Information Systems in Taiwan.

Technology and Research Advancements:

At the core of innovation ecosystem lies a robust focus on technological advancements and research. By embracing emerging fields such as quantum computing, artificial intelligence, water management, Environmental Hydraulics, and biotechnology, the ecosystem propels forward-thinking initiatives. It provides researchers and innovators with access to state-of-the-art infrastructure, resources, and funding, empowering them to push boundaries and pioneer breakthrough solutions. Hence, SCMS Water Institute at SCMS School of Engineering & Technology, Karukutty, Ernakulam signed a MoU with SEWERIN GmbH for the training and skill development in the usage of leak detection sensors for monitoring water distribution networks.

Ms Merin Mathew, student of M-Tech Environmental Engineering, SCMS School of Engineering and Technology, Cochin, lndia, successfully completed a 1 month training programme at LimCo lnternational GmbH (from 20th April-20th May, 2015) funded by Baden Worttemberg Stiftung under the programme "BWS plus". She will continue this project in lndia for her Master Thesis under the guidance of Dr. Sunny George, SCMS, Cochin.

Entrepreneurship and Start-up Support:

IEDC is supporting the students and alumni of SCMS School of Engineering and technology by providing labs for developing prototypes and IPR cell is supporting the students to file patents for their inventions. The Labs such as Fablab , Mike computational lab, Eyantra lab and Industrial standard CNC machines act as a backbone for upcoming student innovations. Further the management is providing financial support for good innovations and research publications.

Thus Innovation Ecosystem in SCMS School of Engineering and Technology is striving for fostering collaborative research, driving innovation, and catalyzing transformative change. By embracing collaboration, advanced technologies, entrepreneurship, knowledge exchange, and social responsibility, it creates an environment where diverse stakeholders can come together to tackle complex challenges and unlock new possibilities. As this ecosystem continues to evolve, it promises to shape a future driven by innovation, prosperity, and sustainability.

3.4 Extension Activities

3.4.1 Describe the impact of Extension Activities in sensitizing students to social issues and Holistic developments:

Extension Activities serve as valuable opportunities for individuals to explore new avenues of growth and development beyond the confines of traditional learning a revolutionary educational framework, embraces the significance of extension activities in fostering holistic learning experiences. By integrating extension activities into its curriculum, which empowers students to unleash their potential, cultivate critical skills and cultivate a lifelong love for learning.

Therefore, to provide students with exposure to the society and also to help them unleash their knowledge to the goodness of the society. The NSS Unit of SSET has organized various extension activities, which includes Mission Clean at PuthuVype beach in association with Kerala Hotel ans Resident Association Resoy and Sternum Asia.Our NSS also participated in Karshikolsavam organized by Karukutty Gramapanchayat to encourage students to enhance their knowledge in agriculture and also for the implementation of new technology in agriculture by students.Our SSET NSS unit also participated in Kalimuttam Orukkam along with Kudumbasree for the initiative of cleaning St.Joseph’s LP School Nalukettu and renovated Anganwadi in Karukutty Grama panchayath.