2.3.1. Student centric methods, such as experiential learning, participative learning and problem- solving methodologies are used for enhancing learning experiences and teachers use ICT- enabled tools including online resources for effective teaching and learning process.

Various instructional methods and pedagogical initiatives in online and offline mode are adopted for student centric methods.

Experiential learning

Experiential learning opportunities are seamlessly integrated into the institute's curriculum, offering myriad benefits to students. Third-year students gain invaluable firsthand industry experience through **internships**, equipping them with essential practical skills for their careers. **Industrial visits** bridge theoretical knowledge with real-world applications, showcasing how academic concepts translate into marketable products. **Participation in competitions** like hackathons fosters creativity, teamwork, and problem-solving abilities. Additionally, the institute utilizes **virtual labs and simulation software** to enhance students' practical skills, while courses on **open-source platforms** like NPTEL, Coursera, etc. encourage continuous learning and adaptability. Moreover, **Hands on** Workshop activities are incorporated for overall end-to-end technical based learning development. Engaging in realistic, **industry-specific projects** sponsored by companies provides application oriented experience and prepares students for professional challenges ahead.

Participatory learning

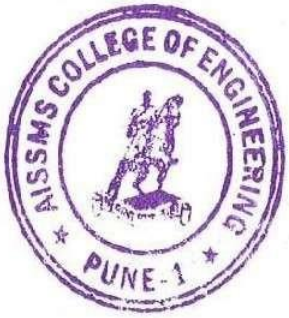
Participatory learning thrives through diverse platforms within the institute. Membership in **professional bodies** like IETE, SAE, ISTE, IEI, SESI, IGS, and IWA offers students opportunities to excel professionally, network with industry experts, and stay abreast of field advancements. Additionally, **student clubs** such as Avit- O-Virtue Drone and Robotics, e-Baja, Supra, BAJA, and Garudashwa foster communication and leadership skills, empowering students as effective collaborators and future leaders. The annual technical event **AISSMS ET** provides a stage for students to showcase talents, enhance practical skills, and explore emerging technologies. Furthermore, the institute's social gathering **"Shivanjali"** nurtures creativity and belonging, while the **NSS unit** instills values of community service and social responsibility, preparing students for impactful contributions to society.

Problem solving methods

Problem-solving methods are essential components of the learning experience, offering students numerous benefits and practical skills. Through **project-based learning** (PBL), teams of 3-5 students collaboratively tackle real-world problems under mentor guidance, fostering critical thinking, teamwork, and communication skills. This approach is embedded in the curriculum, ensuring that all first and second-year students receive structured exposure to problem-solving methodologies. Additionally, the **final year project** allows students to apply their knowledge to real-life scenarios, promoting creativity, innovation, and independent learning. **Mini-projects** further enhance students' understanding of specific concepts, while collaborative efforts within department clubs facilitate joint problem-solving, enabling students to develop resilience, adaptability, and confidence in navigating complex challenges and succeeding in various endeavors.

ICT Tools:

ICT tools utilized by faculty enhance teaching and benefit students in various ways. **Learning Management Systems** such as Microsoft Teams, ERP, Google applications, and Canvas simplify online teaching, providing easy access to course materials like notes and assignments. Integration of online **drawing tools** like Wacom tablets and smart boards improves teaching mathematical subjects, facilitating interactive and visual learning experiences. Additionally, tools like YouTube channels, Kahoot, GitHub, demonstration videos, Google Colab, Mentimeter, Spinning wheel, and Quizziz enrich the teaching-learning process, promoting engagement and creativity. **Lecture Capture system** record classroom lectures, which students can review at their own pace. Access to **e-resources** on platforms like Knimbus m-library App fosters independent learning, contributing to students' academic growth and readiness for future career challenges.



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