

### SHRI SANT GAJANAN MAHARAJ COLLEGE OF ENGINEERING SHEGAON - 444203, DIST. BULDHANA (MAHARASHTRA STATE),

"Recognized by A.I.C.T.E., New Delhi" Affiliated to Sant Gadge Baba Amravati University, Amravati "Approved by the D.T.E., M.S. Mumbai"

Ph: +918669638081/82 Website- www.ssgmce.ac.in Email.principal@ssgmce.ac.in, registrar@ssgmce.ac.in

### Strategic Plan

Shri Sant Gajanan Maharaj College of Engineering, Shegaon (SSGMCE), one of the premier institutes in the field of engineering, was established in 1983 by Shri Gajanan Shikshan Sanstha, Shegaon. It is affiliated to Sant Gadge Baba Amravati University, Amravati, recognized by AICTE, New Delhi and approved by DTE, Maharashtra State, Mumbai. Courses at SSGMCE are accredited by NBA 4 times) AICTE, New Delhi. The Institute was selected as the Network Institute under NPIUs TEQIP, MHRD, Govt. of India under Phase-I. SSGMCE is honoured with Dewang Mehta National EDUCATION LEADERSHIP AWARD, CII-GRATITUDE AWARD, and honoured as Management College of the Year by Higher Education Review Magazine. Career360 Magazine ranked the institute as AAA.

The Institute offers 5 Undergraduate engineering courses and 5 Postgraduate (4 Engineering and 1 Management) courses. All the laboratories have been recognized as centres for Ph.D. programme. It has excellent physical facilities in the form of residential and academic buildings, library, laboratories, equipment's, hostels, Yoga and Meditation Centre etc. of its own spread over neat and clean 82 acres of campus. It provides Indoor/ Outdoor Sport facilities with Wooden Flooring Badminton Court, Hi-tech Gymnasium Centre, Skating Ring (National Standard), Cricket Ground of an International Standard.

#### **VISION:**

To impart world-class Engineering and Management education in an environment of Spiritual foundation to serve the global society

#### **MISSION:**

- To develop Excellent learning centre through continuous design and up gradation of Courses in close interaction with Research and Development centres, Industries and Academia.
- To produce competent, entrepreneurial and committed Technical & December 2015 amp; Managerial human resource, with spiritual foundation to serve the society.
- To develop state of the art infrastructure, centres of excellence and to pursue Research of global and local relevance.
- To strive for 'Sarve Bhavantu Sukhinah' The ideal of our parent organization Shri Gajanan Maharaj Sansthan through symbiosis of Science and Spirituality.

#### **Core Values:**

**Personal Excellence** 

**Accountability** 

**Trustworthiness** 

**Holistic Development** 

**Creativity and Innovation** 



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### Strategic Plan (2018-19 to 2022-23)

SGMCE is dedicated to positioning itself as a leading institution in the education sector, particularly in the domains of engineering, technology, and management. With a primary focus on nurturing highly competent and industry-ready professionals, the institute has meticulously crafted a comprehensive strategic plan spanning from 2018-2019 to 2022-2023.

This strategic roadmap delineates the methodologies, action plans, and specific timelines crucial for realizing our ambitious goals. The formulation of this plan has been shaped by a myriad of factors, including a robust analysis of the institute's Vision and Mission, a detailed SWOC analysis, strict adherence to standards set by accrediting, ranking, and assessing agencies, incorporating valuable feedback from accrediting agencies and stakeholders. Furthermore, the plan is intricately designed to align seamlessly with the National Education Policy (NEP) of 2020, and it incorporates proactive measures aimed at effectively addressing anticipated challenges in the future.

The strategic plan serves as a dynamic framework, guiding SSGMCE towards excellence and responsiveness to the evolving needs of the industry and community

### Goals:

To become a premier institute for Engineering and Management education by implementing high-quality teaching and learning practices

To foster and provide assistance for research, consultancy, innovation, and entrepreneurial initiatives

To establish an environment that facilitates students' success through active engagement in academic and both co-curricular and extracurricular activities

To cultivate an environment that encourages continuous development and learning for our faculty and students

To develop and uphold the necessary facilities, infrastructure, governance, and administrative frameworks that contributes to the fulfilment of the college's vision, mission, and values



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Goal 1: To become a premier institute for Engineering and Management education by implementing high-quality teaching and learning practices		
Objectives	Action Plan	
Curriculum Enhancement	Develop and conduct Add on courses/ Value added courses	
	to incorporate emerging technologies and advancements.	
	05 per year	
	Integrate crosscutting issues relevant to Professional ethics,	
	Gender, Human values, Environment in curriculum	
	01 activity per dept per year	
	Facilitate internships, industrial visits, and guest lectures by	
	industry professionals.	
	Internships-30 % students per dept	
	Industry Visit-02 per dept per year	
	No. of Industry persons to be invited as Resource person = 02 per dept. per year	
	02 per dept. per year	
	Implement regular feedback mechanisms from students,	
	faculty, and industry partners to identify areas for	
	improvement.	
Transformative Pedagogies: Advancing Teaching and Learning Excellence	Implement Innovative teaching learning methods (Blended	
	Learning, Peer Teaching, Flipped Classroom, Project-Based	
	Learning (PBL), virtual lab)	
	Integrate innovative teaching tools and e-learning platforms	
	to enhance the overall educational experience	
	Implement student-centric teaching approaches that foster	
	critical thinking, problem-solving, and practical application	
	of knowledge.	
	Establish mentorship programs and support services to	
	ensure personalized guidance for students.	
	Address the diverse learning needs of both slow and	
	advanced learners	
	Implementing an Outcome-Based Education (OBE)	
	framework	



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Ph: +918669638081/82 Email.principal@ssgmce.ac.in, Website- www.ssgmce.ac.in registrar@ssgmce.ac.in Attain the position in NIRF Ranking Building the Institute as NBA Accreditation for all Programs a Center for Excellence Better Grade in NAAC Accreditation in upcoming cycle and Innovation Obtain ISO 9001:2015 Certification Goal 2:To foster and provide assistance for research, consultancy, innovation, and entrepreneurial initiatives Establishment of Incubation centre International Conferences to be organized = 01 per year Research methodology related workshops = 02 per year Enhancing incubation activities through effective project management and increased engagement with industries. Proposals to be submitted to various funding agencies = 02per dept per year Faculty publication in recognized SCI/WoS/Scopus indexed journals and conferences. = 01 per Faculty per year Faculty publication in National/ International conference books / book chapters in edited volumes/ books =01 per Faculty per year Faculty undergoing Industry training/Internship = 01 per Cultivate a Vibrant dept. per year Ecosystem for Research, Registration of every PhD qualified faculty as a PhD Consultancy, Innovation, supervisor and Entrepreneurship MoUs with academic institutes/industries = 01 per dept. per year Grants received from Government and Non-Government Agencies>= 3 Lakhs Consultancy Project =01 per dept Workshops/ Seminars/ Training program on IPR and Entrepreneurship-=06 per year Student publication: 05 to 10 high quality publication (project based) per year Societal and economically important projects=02 per dept



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Goal 3: To establish an environment that facilitates students' success through active engagement in academic and both co-curricular and extracurricular activities		
Foster Student Success	Students participating in State-level/ National Level	
through Active	activities = 50 % per year.  Students' achievements in activities – Incremental	
Engagement in	Students achievements in activities – incremental  Sports and cultural activities conducted =30 per year	
Academic and Diverse	Professional Chapter Activities== 05 per dept. per year	
Co-	NSS / Unnat Bharat Abhiyaan Activities=10 per year	
curricular/Extracurricular	Gender Sensitization activities =04 per year	
Activities, Cultivating	Extension Activities =02 per dept	
Holistic Development		
Goal 4: To cultivate an learning for our faculty ar	environment that encourages continuous development and ad students	
	Industry Certified Training Courses for Students =10 per	
	year  Alumni involvement in guest lectures, mentorship,	
	Internships, placement support, and as innovators in the	
Establish a dynamic	campus start-up ecosystem=05 per dept per year	
·	Students completing Campus Placement enhancement	
professional	training =80 %	
development culture for	Career Guidance and career counseling offered =05 per	
both faculty and	year	
students. Additionally,	Yoga and Mediation session =01 every year	
provide targeted	Campus Placement = 80% of eligible students	
guidance and support to	Student's enrollment in State/ National/ International Level	
enhance students'	examination=20 % per year	
employability, ensuring	Conduct mock interviews before the visit of companies	
they secure quality		
placements aligned with	NPTEL/SWAYAM Course Certification = 10% students	
their career aspirations.	per dept per year  Capacity building and skill enhancing program=05 per year	
	Industry oriented certified training for Faculty=02 per year	
	FDP/STTP completed by Faculty = 80% faculty per year	
	Financial assistance provided to attend	
	conference/STTP/training program=50 % Faculty per year	



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Ph: +918669638081/82 Email.principal@ssgmce.ac.in, Website- www.ssgmce.ac.in registrar@ssgmce.ac.in Non-teaching Staff completing Skill development program =80 % per year Goal 5: To develop and uphold the necessary facilities, infrastructure, governance, and administrative frameworks that contributes to the fulfilment of the college's vision, mission, and values ICT-enabled classrooms = 100% Enhance and sustain Development of Centre of Excellence = 01 per dept facilities, essential Industry-supported lab. = 01 per dept infrastructure, Subscription of e-books = 100 per year governance, and Up gradation of Internet bandwidth administrative Student Computer Ratio<5 frameworks

PRINCIPAL
Shri Sant Gajanan Maharaj
College of Engineering, Shegaon.



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### Perspective Plan -2023 to 2025

Objectives	Action Plan
Optimize and expand the organization's physical and technological infrastructure	Establishment of Centers of Excellence that align with
	industry support and adhere to the highest standards
	01 per dept
	Implementation of ERP Software
	Smart Board Installation
	01 per dept
	Establish Computing Facility Center
	Establish separate Wi-Fi internet and intranet facilities in
	hostels
	Upgrade the existing laboratory facilities with the latest
	technology.
	Upgrade the internet bandwidth 1Gbps
	Establish an integrated framework for self-learning through
	MOOCs like NPTEL and Coursera
Enhance organizational	Implement targeted training programs for Faculty
capabilities and employee	50 % Faculty per year
proficiency	Initiate a holistic professional development program
	covering grant proposals, industrial training, and patents
Eulene and and	04 per year
Enhance academic	Establish Additional Research Centers and Facilities
development	Cultivate collaborations with reputed research institutions
	and organizations
	Engage Industry Experts as Professors of Practice in TLP
	Strengthen the Research and Development (R&D)
	Resource Center (RRC) system.
	Faculty with PhD qualification= 50%
	Incentives for high-quality publications
	R&D Projects and Consultancy worth =10 Lakhs per year
	Guidance sessions for GRE/TOEFL etc. = 02 per year
	To attain autonomous status for the institute by improving
	governance, meeting legal requirements, securing financial
	independence, and gaining stakeholder support.
	Implement the National Education Policy (NEP) 2020
	effectively within the institution, ensuring smooth
	integration of its key principles and guidelines





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### Deployment and Implementation of Strategic Plan (2018-19 to 2022-23)

SSGMCE has a well-defined strategic plan formulated as a Five-Year plan and implemented since the Academic Year 2018-19. Heads of the Departments are actively involved in the implementation of the strategic plan at the department level, overseeing various development activities such as Curriculum Development, Teaching & Learning, Research and Development, as well as Co-Curricular and Extra-Curricular activities. A well-structured Internal Quality and Assurance Cell is in place to monitor and audit periodic activities. The IQAC is responsible for maintaining internal quality and creating a conducive academic environment.

### **Implementation of Strategic Plan**

A five-year plan covering the period from 2018 to 2023 has been developed to ensure the effective functioning of the Institute. Various initiatives have been undertaken to implement the strategic plan.

#### **Curriculum Enrichment**

Institute offered 224 additional courses to integrate emerging technologies and advancements, with 84% of students completing the courses successfully.

To integrate crosscutting themes like professional ethics, gender, human values, and environment into the curriculum a range of initiatives were executed. These initiatives encompassed industrial visits, workshops, guest lectures, and other social activities designed to address these diverse issue.

The feedback from stakeholders was collected, analyzed, and suitably incorporated into all new curricula, resulting in the introduction of additional courses in the corresponding academic year.

### **Advancing Teaching and Learning Excellence**

To ensure the seamless execution of academic plans, institute formulated and strictly adhered to the annual Academic Calendar. Academic strategies included the implementation of Student-Centric pedagogy, focused attention on both advanced learners and those progressing at a slower pace, and the adoption of innovative teaching methodologies

Incorporated innovative teaching methodologies, including mind maps for visual learning, crosswords for interactive problem-solving, virtual labs for hands-on experience, and YouTube channels for multimedia content delivery

A mentorship program was successfully launched across departments to provide personalized guidance for students. Mentors were trained to address academic and personal development needs. Resources and assistance were provided for both slow and advanced learners to foster an inclusive learning environment.

Successfully adopted and implemented an Outcome-Based Education (OBE) framework across all academic programs, aligning curriculum, assessments, and teaching methodologies



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with predefined learning outcomes, and providing faculty training on OBE principles for successful implementation

### **Accreditation and Recognition**

Four undergraduate programs have obtained an initial 03-year accreditation from the NBA. Subsequently, these programs have been granted an extension of an additional 03 years, securing accreditation until 20-06-2025.

The ISO 9001:2015 Auditors Certification Training program was successfully conducted.

### **Vibrant Ecosystem for Research and Innovation**

SSGMCE has instituted a Research & Development Cell, led by the Chief Coordinator of R&D, responsible for formulating and implementing the proposed research and development activities outlined in the Strategic Plan. A Research and Development Committee has been established to oversee and guide faculty in various activities, including the review of submitted research projects, organization of workshops, conferences, and guest lectures on advanced research, emerging areas in industry, IPR, and entrepreneurship. To ensure the smooth functioning of these activities, an R&D Policy has been framed. Additionally, an Innovation Cell has been created to address the needs of students and faculty entrepreneurs with innovative ideas of social relevance, fostering a culture of entrepreneurship within the college. This initiative is designed to elevate our education system.

### **Outcomes:**

MBA department successfully organized AICTE Sponsored First National Conference on "Innovation Management" NCIM, fostering global collaboration and knowledge exchange.

The Electronic Department successfully organized the International Conference on Innovative Trends and Advances in Engineering and Technology (ICITAET) during the academic year 2019-20.

During the assessment period, a total of 107 workshops and seminars on Research Methodology, Intellectual Property Rights (IPR), and entrepreneurship were conducted, fostering a culture of innovation and enhancing research skills and methodologies among faculty and students, while also raising awareness about IPR and entrepreneurship

The institute received a total grant of Rs 53 lakhs from various government and nongovernment funding agencies for organizing FDPs and STTPs. Additionally, two departments received MODROB grants for enhancing laboratory facilities.

### Strategic initiatives to enhance placement opportunities

In response to declining opportunities in the production sector, proactive steps have been taken to expand employment avenues for core engineering students by facilitating entry into high-paying Information Technology (IT) jobs. Dedicated courses have been introduced to equip Electrical and Mechanical Engineering students with programming skills and coding abilities. Specialized coding training is integrated, complemented by soft skills and aptitude courses. Additionally, mock interviews are conducted to prepare students for placement drives. Extra coaching is provided to students in core branches before core company



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recruitment drives. Internships and training opportunities are offered in core companies to provide students with a first-hand experience of the work culture

### **Quality Assurance Initiatives**

The initiative for overall Quality Assurance at SSGMCE involves establishing a dedicated Internal Quality Assurance Cell (IQAC) responsible for ensuring internal quality and overseeing various activities aimed at enhancing education standards. The committee is constituted following UGC and NAAC guidelines, advising strategies for conscious and consistent improvement in SSGMCE's overall performance. The IQAC conducts periodic reviews of Teaching-Learning processes and provides recommendations for operational and learning outcome improvements. Additionally, the IQAC ensures the timely preparation and dissemination of the Academic Calendar. Feedback received from stakeholders enhance the teaching-learning process. IQAC takes initiatives in organizing FDPs, administrative, and professional development courses for teaching and non-teaching staff.

### The following are the major initiatives of IQAC

- Conducted regular meetings of the IQAC to strategize and implement quality improvement measures.
- Collected and analysed feedback for continuous institutional improvement.
- Established MoUs with industry partners
- Participated in NIRF •
- Conducted quality audits recognized by state, national agencies (Green audit, energy audit, environment audit).
- Initiated the Annual Academic Audit
- Four undergraduate programs secured an initial 3-year accreditation from the NBA, extended for an additional 3 years until 20-06-2025.
- Formulated various policies to ensure the seamless functioning of academic and administrative activities.



