



*Excellence is our Priority*

# Erode Sengunthar Engineering College

## An Autonomous Institution

Perundurai, Erode, Tamil Nadu 638057

# INSTITUTIONAL DEVELOPMENT PLAN

## 2021–2026





## PREFACE

An Institution's success hinges on its Institutional development planning, which acts as a roadmap to achieving its vision and mission. This ongoing process is crucial in today's competitive environment, ensuring the institution aligns with its surroundings. These surroundings encompass internal and external factors that can influence the institution's activities, both positively and negatively. Institutional development planning (IDP) and Implementation is a tool derived from analyzing current obstacles and potential future opportunities. It charts a course for the institution to navigate towards its established goals and objectives.

The initial IDP stage sets the institution's vision, mission, core values, and long-term/short-term goals through a SWOC analysis and stakeholder feedback. Following internal and external assessments, institutional goals are formulated across various areas through brainstorming sessions with faculty and department heads. Finally, specific strategies and action plans are developed.

To foster a sense of ownership among all stakeholders, the Institutional development planning (IDP) and Implementation document is formulated with extensive participation. Drafts are circulated throughout all departments for review. The document prioritizes clear implementation and monitoring strategies, outlining measurable targets aligned with expected outcomes. Finally, the IDP undergoes a meticulous review and approval process by the institution's Staff Council.

The Institutional development planning (IDP) and Implementation serves as a central guiding force, ensuring all institutional processes and efforts work in unison. By 2030, this strategic roadmap has the potential to position the institution as a leader among higher education institutions in the country.



## Vision, Mission and Quality Policy

### VISION

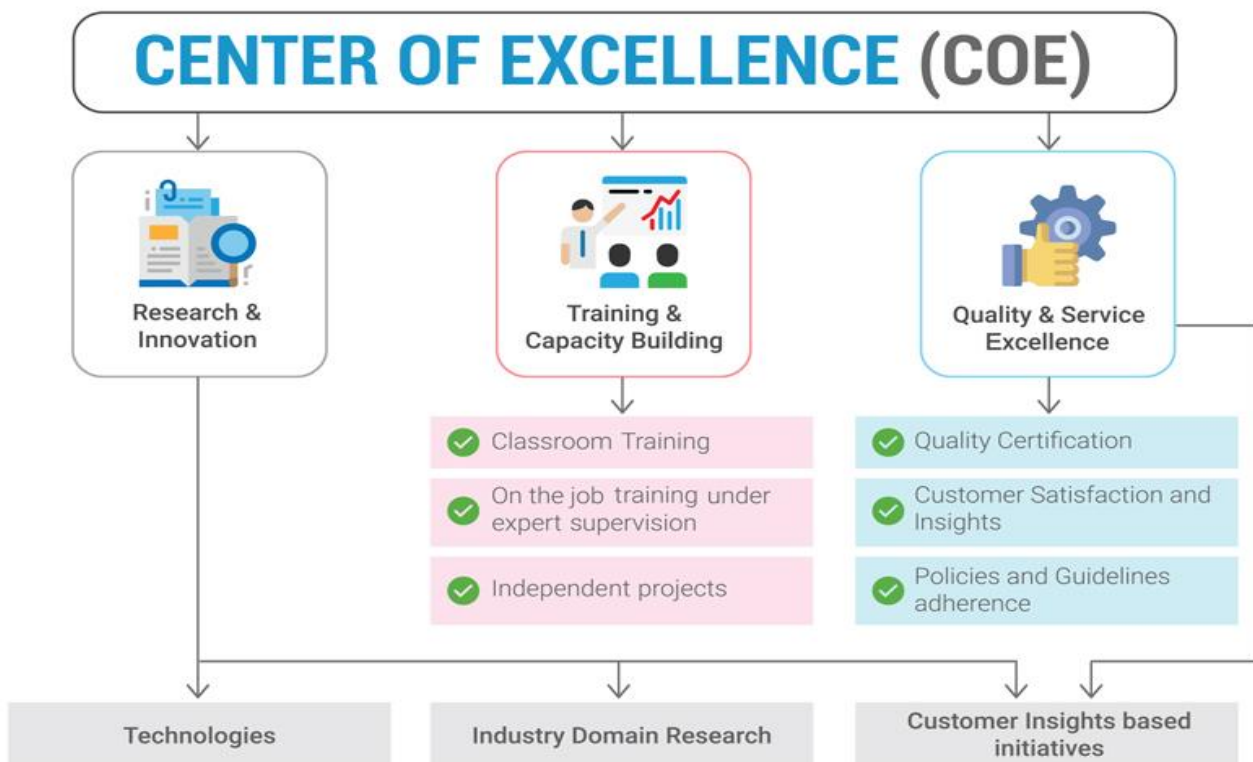
The vision of Erode Sengunthar Engineering College (ESEC) is "To become a World Class Technical Institution and Scientific Research Centre for the Benefit of the Society".

### MISSION

- Create Positive difference to Society through Innovative Teaching – Learning Process.
- Impart Value Based Technical Education to the Students from across various Socio Economic backgrounds.
- Build State of art infrastructure for high quality Research and Development capabilities on par with the finest in the Globe and widen student's horizons beyond Class Room.
- Bring out Competent, Ethically Strong and Quality Professionals.

### QUALITY POLICY

Erode Sengunthar Engineering College (ESEC) is committed to empowering our students to become responsible and ethical citizens who contribute meaningfully to society. We achieve this by providing high-quality technical education and fostering a culture of continuous improvement in pursuit of becoming a world-class engineering institution.





## SWOC Analysis

### STRENGTHS (S):

- ✓ **Industry-Aligned Programs:** ESEC offers B.E./B.Tech. programs designed with industry input, ensuring graduates possess the skills employers seek.
- ✓ **Expert Faculty:** The college boasts a team of industry-trained faculty members who bring real-world experience to the classroom.
- ✓ **Global Exposure:** ESEC fosters international collaborations and provides opportunities for students to gain a broader perspective.
- ✓ **Focus on Discipline & Ethics:** ESEC instills a strong sense of discipline and ethical conduct in its students.
- ✓ **Proven Placement Success:** The college has a history of achieving excellent placement records for its graduates.
- ✓ **Multilingual Advantage:** ESEC offers foreign language classes, preparing students for an increasingly globalized workforce.
- ✓ **Exposure to Industry:** National and international industrial visits provide students with firsthand industry experience.
- ✓ **Supporting Rural Students:** ESEC actively promotes inclusivity and supports students from rural communities.
- ✓ **Advanced Learning Environment:** Smart classrooms and cutting-edge sports infrastructure enhance the learning and overall student experience.
- ✓ **Dedicated Mentorship:** ESEC provides excellent proctorial guidance to support students throughout their academic journey.
- ✓ **Future-Proof Curriculum:** The college regularly updates its curriculum and syllabi to reflect the latest advancements in engineering fields.
- ✓ **Well-Resourced Learning:** ESEC offers well-equipped laboratories to facilitate practical learning and experimentation.
- ✓ **National Recognition:** ESEC's membership in MHRD IIC signifies its commitment to innovation and entrepreneurship.
- ✓ **Entrepreneurship Ecosystem:** The college's incubation center fosters student innovation and provides support for aspiring entrepreneurs.

### WEAKNESSES (W):

- **Limited Diversity in Student Body:** While ESEC welcomes students from rural backgrounds, attracting a broader student population could enrich campus life and perspectives.



- **Encouraging Collaborative Learning:** ESEC could explore ways to enhance collaborative work among students, fostering teamwork and communication skills.
- **Securing Research Funding:** The college might benefit from strategies to strengthen research grant proposals and attract more research funding opportunities.
- **Enhancing Research Output:** Increasing the number of publications in top academic journals can elevate ESEC's research profile and faculty recognition.
- **Strengthening Industry Ties:** Building stronger networks with local industries for internship placements, guest lectures, and research collaborations could be beneficial.
- **Promoting Student Research Participation:** Strategies to encourage student involvement in research projects can ignite their passion for innovation and discovery.
- **Developing Language Skills:** Focusing on improving foreign language proficiency can better prepare students for a globalized job market.
- **Expanding Faculty Expertise:** Considering the potential benefits of inviting visiting or adjunct faculty with specialized knowledge can further enrich the educational experience.

### **OPPORTUNITIES (O):**

- ❖ **Leveraging Online Learning:** ESEC can utilize online resources to enhance teaching and learning, offering flexibility and reaching a wider audience.
- ❖ **Industry-Academia Collaboration:** Building stronger bridges with industry partners can provide guest lectures, research collaborations, internship placements, and real-world project opportunities for students.
- ❖ **Alumni Network Advantage:** Engaging alumni for placements, industry consultancy, and collaborative student projects can leverage their experience and strengthen the ESEC community.
- ❖ **Fostering Innovation:** Organizing Make-A-Thon or Hack-A-Thon events can stimulate student creativity, problem-solving skills, and entrepreneurial thinking.
- ❖ **Competitive Exam Preparation:** ESEC can offer targeted support to help students prepare for competitive exams, enhancing their career prospects.
- ❖ **Securing Research Funding:** Exploring research grants from industry partners and government agencies can strengthen ESEC's research capabilities and faculty output.





- ❖ **Collaborative Research & Development:** Signing Memoranda of Understanding (MoUs) with industry and universities can facilitate collaborative research and development projects, leading to advancements and knowledge sharing.
- ❖ **Global and National Partnerships:** Establishing tie-ups with foreign and Indian universities can provide student exchange programs, joint research projects, and broaden academic horizons.
- ❖ **Industry-Aligned Value-Added Courses:** Developing value-added courses tailored to industry requirements can equip students with in-demand skills for a competitive job market.

### CHALLENGES (C):

- **Enhancing PG Program Appeal:** Strategies to attract more qualified students to PG departments might include innovative program offerings, scholarships, and industry collaboration.
- **Bridging the Skill Gap:** ESEC can work towards ensuring graduates possess the industry-ready skills companies seek through internships, industry projects, and skill-development workshops.
- **Standing Out from the Crowd:** Developing a strong institutional brand identity and highlighting ESEC's unique strengths can help it stand out in a competitive educational landscape.
- **Encouraging Gender Diversity:** Initiatives to promote STEM education for girls in schools and offering targeted scholarships or mentorship programs can increase female student enrollment.
- **Pursuing National Recognition:** Building research output, strengthening industry partnerships, and improving student learning outcomes can contribute to achieving a coveted NIRF (National Institutional Ranking Framework) ranking.
- **Boosting Core Placements:** ESEC might explore collaborating with core companies to understand their specific needs and tailor curriculum and training programs accordingly.
- **Enhancing Graduate Employability:** Negotiation skills workshops or career guidance programs can help graduates secure better salary packages with core companies.



## **Strategic Objectives for Academic Year 2021-2026**

- ✓ **University Aspiration:**  
Achieve university status within the next decade.
- ✓ **NAAC A++ Accreditation:**  
Secure NAAC A++ grade during the 2nd Cycle Accreditation process.
- ✓ **Top 100 in NIRF Ranking:**  
Break into the top 100 engineering institutions in the NIRF Rankings.
- ✓ **Top 50 in ARIIA Ranking:**  
Aim for a top 50 position in the ARIIA Ranking 2020 (or next available ranking cycle).
- ✓ **Strengthen Industry Collaboration:**  
Foster strong partnerships with top multinational companies (MNCs) for mutually beneficial collaboration.
- ✓ **Centres of Excellence:**  
Establish Centres of Excellence in emerging engineering fields like advanced materials and manufacturing, artificial intelligence, energy, and the Internet of Things (IoT).
- ✓ **Startup Incubation:**  
Incubate successful startups that develop innovative products and business models leveraging knowledge and technologies from ESEC.
- ✓ **Faculty & Staff Well-being:**  
Create an invigorating work environment that fosters excellence and well-being for faculty and staff.
- ✓ **Active Alumni Network:**  
Increase alumni involvement in various aspects of institutional development, including placements, guest lectures, student mentoring, startup incubation, research & development, and consultancy.
- ✓ **Industry R&D and Consultancy:**  
Collaborate with various industries in research & development and consultancy projects.
- ✓ **Global Partnerships:**  
Establish collaborations with international institutions to promote quality higher education and facilitate student/faculty exchange programs.



## **LONG TERM GOAL (2021-2026)**

### **LTG 1. To Create Centres of Excellence.**

- Creation of Centres of Excellence (COE) by utilizing the resources and expertise in each cluster.

### **LTG 2. To Provide Modern Infrastructure Facility.**

- Develop infrastructure for carrying out R&D activities.
- Academic infrastructure to be strengthened further
- Strengthen campus wide networking.
- Modernization of all laboratories.
- Upgradation of Central Library.

### **LTG 3. To have 70% of Faculty with PhD qualification.**

- Encourage all faculty to register for Ph.D.
- Support faculty who have already registered to complete their Ph.D.
- Recruitment of faculty with Ph.D. from premier Institutions in specialized area/industry expertise.

### **LTG 4. To introduce new UG and PG Programs and enhance the intake of existing programs.**

- Explore the possibilities of adding new UG and PG programs (based on the availability of resources and industry demand).
- Enhance intake across programs depending upon the demand.

### **LTG 5. To facilitate students to become entrepreneurs (incubation centre).**

- Conduct Business Plan and Idea Competition.
- Encourage more campus companies to provide start-up opportunities for our students.
- Provide the necessary infrastructure for incubating the ideas.
- Bring in mentors to hand hold the students with innovative ideas.
- Provide the seed fund to develop prototype.

### **LTG 6. To make use of technologies for providing skill sets and additional self-learning.**

- Adopt digital learning, e-learning solutions, and interactive sessions.
- Encourage self-learning techniques.
- Adopt blended learning to maximize student learning.





**LTG 7. To collaborate with Foreign/National institutions of higher learning and research organizations.**

- Collaborate with reputed Foreign universities/Institution.
- Faculty exchange programs.
- Partnership programs.
- Collaborate with universities/Institution of repute for research activities.
- Best practices from reputed academia & industry to bring holistic learning experiences.

**LTG 8. To establish collaborative laboratories with the support of industry.**

- Set up laboratories to pursue research with son of the reputed companies.
- Create experiential learning opportunities by providing live industry projects.

**LTG 9. Strengthening the conduction of social activities.**

- The College plans to increase the conduction of social activities to create strong connectivity with neighborhood Community through various departments and committies of the college.



## **SHORT TERM GOAL (2021-2026)**

### **STG 1. NAAC Accreditation & NBA Accreditation for all eligible programs.**

- ✓ It is required to get all the eligible UG & PG programs accredited by NBA from time to time.
- ✓ To have accreditation status by NAAC from time to time.

### **STG 2. Strengthen the campus Facilities and Support systems.**

- ✓ Augmenting the laboratories to stay relevant.
- ✓ Online access to material on website, to further augment library resources to meet the growing needs in academia and research.
- ✓ To upgrade the internet bandwidth to support the continuous utilization of the increased usage to cater to the entire campus including hostel requirements.

### **STG 3. Enhance the Output in Research and Consultancy.**

- ✓ To enhance the quality of research publications by motivating faculty to publish in SCI journals.
- ✓ Focus on increasing the external funded research projects Research with international collaborations.
- ✓ Fostering Industry sponsored R&D projects.
- ✓ Enhanced Consultancy projects.

### **STG 4. Introduce New UG and PG Programs.**

- ✓ Explore the possibilities of adding new Programs by assessing the requirements in the emerging areas.
- ✓ The institute can plan to offer interdisciplinary programs.

### **STG 5. Introduce Multidisciplinary courses /Projects**

- ✓ Introduce multidisciplinary courses (cluster approach: Institutional electives).
- ✓ Encourage multidisciplinary projects.

### **STG 6. Development of new Curriculum**

- ✓ Periodically design and develop for UG and PG Programs post academic autonomy.
- ✓ Introduce course end survey.
- ✓ Introduce industry relevant courses.
- ✓ Encourage interdisciplinary projects.



### **STG 7. Foster Creativity and Innovation.**

- ✓ Establishing Centres of Excellence.
- ✓ Establish Incubation Centres.
- ✓ Apply for more patents to protect IP.
- ✓ Explore possibility of patent commercialization.

### **STG 8. Improve teaching learning Process.**

- ✓ Implement pedagogical innovations: OBE, active learning, open ended experiments. Extended classrooms (virtual class rooms): Lecture capturing.
- ✓ Blended learning: E-learning, virtual labs, MOOCs, Social learning.
- ✓ Comprehensive course implementation.

### **STG 9. Organizing Technical Events.**

- ✓ Conduct events in cutting edge technologies and recent trends & developments across various domains.
- ✓ Conduct Seminars & Expert Lectures through professional bodies.
- ✓ Increase industrial visits and make it more accountable.
- ✓ Conduct international conferences/symposia and pre conference workshops.

### **STG 10. Enhance Industry Institute Collaborations.**

- ✓ Enhancing the number of MOUs with Industry and revisiting the existing MOUs based on its merits.
- ✓ Adjunct Faculty: Industry experts delivering part of the courses.
- ✓ Collaboration with Industries for research and innovative projects.
- ✓ Increasing the connect with the Industry through guest and expert lectures.

### **STG 11. Infrastructure requirement for e-Governance**

- ✓ Creation of database for online submission of documents for approval to regulatory bodies.
- ✓ Automate academic administrative process and develop metrics to assess the performance from time to time.
- ✓ Create a database to maintain the student records online.
- ✓ Create process for examination and evaluation activities with secured database.

# Erode Sengunthar Engineering College

## An Autonomous Institutions

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