

# SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY STRATEGIC PLAN 2017-2022

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# SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY

## STRATEGIC PLAN -2017-2022

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### Preface

*We live in a changing world. The phenomenal advances in Science and Technology are bringing in new challenges to the technical education system. Consequently, the mission and goals of technical institutions are also fast changing. Nothing escapes the effects of changes in science, technology, economics, politics and society. We are all constantly adapting to change in our lifestyle, in our occupations and perception. The educational institutions must also adapt, even lead by changing themselves to be in tune with the world around us.*

*Academic institutions form an important and major segment of the organization contributing to the economical, technological and human resource and cultural development of the society. The phenomenal and decisive role played by the academic institutions stresses the need for effective and efficient management of them. There is a general perception that the task of managing academic institutions is easier and does not call for special management techniques and practices. The primary objective of the academic institution is to provide educational and other allied social services to society. So the critical question is how far they are efficient and effective in providing these services. Any academic institution should prove itself in terms of quality of service and its social contribution to society. Strategic planning for the continuous Development of Educational Institutions is an innovative management process, which can be practiced for self-development.*

*Strategic Planning is widely practiced by organizations the world over in every sphere of human endeavor. Each organization can adapt a variety of approaches, styles and formats in developing a strategic planning process that suits its unique character.*

*Strategic Planning, in a generic sense, is a tool to bring about changes in an organization from what it is today into what it aspires to be tomorrow.*

*This document deals with the Strategic Plan for SCMS School of Engineering and Technology for the year 2017-2022. After SWOC analysis seven major thrust areas are identified and projects to be completed under each thrust area are finalized after detailed discussion and brainstorming sessions conducted among members from different departments. General projects under each thrust area and the projects to be completed during the current year (2022) are identified.*

*Action plans for different thrust areas under each project are drafted for time bound execution of the projects.*

*Success of the implemented projects need to be monitored and evaluated constantly by the strategic planning group and the sub groups .New projects may be identified and implemented to march towards the vision of the organization. This is a beginning of a “NEVER ENDING JOURNEY”.*

*The main significance of this document is that it will act as guideline to take up the projects in a priority manner considering the strength and constraints of the institution and complete them in a systematic and time bound manner.*

## **2. Introduction to Strategic Planning**

### **2.1 What is Strategic Planning?**

Strategic planning is a disciplined effort to produce fundamental decisions and actions that shape and guide what an organization is, what it does and why it does it. It is a future oriented process where in an organization defines what it aspires to become and how it proposes to get it. The plan may be a grand document or it may be an undocumented collection of thoughts and actions. The key is “THINKING AND ACTING” strategically and in organization to think and act with a common strategy.

### **2.2 Why Strategic Planning:**

In Today’s world of education

- Competition is emerging and will challenge us.
- Accreditation calls for confirming to standards.
- Customer’s expectations are increasing and changing.
- Complacency and deficiency in quality of service will threaten our survival.

- There is a crisis in education. Students drop out, employee's needs are not met, teachers are frustrated, bureaucracy stifling progress.
- Industry and society are continuously changing and institutions must adapt to such changes.

### **2.3 Benefits of Strategic Planning:**

- It enriches an organization's capability to proactively anticipate the changes needed, cause the changes and manage them. So, Strategic Planning is the most suitable approach to manage an organization which operates in a changing environment
- Strategic Planning is not a top down approach. It is a bottom up approach which requires participation of all the **STAKEHOLDERS** (interested parties) in the planning process. This involvement, in particular, of the employees of the organization makes them Co owner of the plan and increases their commitment to the implementation of the plan.
- It enables an organization to optimize its resources to maximize its performance and power.
- Strategic Planning is not a one shot affair. It is done continually and hence it adapts to reality.

### **2.4 Basic Assumptions:**

Certain basic assumptions about human behavior in organizations and about effective management approaches underscore the theory and philosophy of strategic planning for continuous improvement.

- Without change and improvement, the output value of any institution will decline. Output value cannot be sustained unless improvement occurs in what it does and how it does it. When a continuous improvement process is employed, output value can increase over a period of time.
- Every human being has great potential for creative, innovative thought and action. Human potential can be stimulated to higher levels of effectiveness by appropriate management techniques.
- There is a latent desire for change/improvement to be found in every person.
- Management power (defined as the ability to cause change) is enhanced when subordinate levels are empowered to think and act with diminished control from above.
- There is always opportunity to improve; quality of output has no limit.
- People who are given support, encouragement and freedom to think and act will always out-perform people who are given orders and are subjected to control.

### **2.5 Strategic Planning Process:**

1. Initiating and agreeing the Strategic Planning Process-The first step is an acceptance to have a strategic planning, a strong desire for change with top down support. Top management support and commitment is vital for the success of the process.

2. Clarifying the Mandate and the Mission-The Mandate is a brief description of what the organization must do and is permitted to do as directed by the legitimate higher authorities in their formal and informal statements, policies and communications.

The mission refers to what the organization wishes to do and to become with in and beyond its mandate. This mission statement indicates organizational purpose, goals and services to meet the needs of its stakeholders and an explicit or implicit declaration of its

core values.

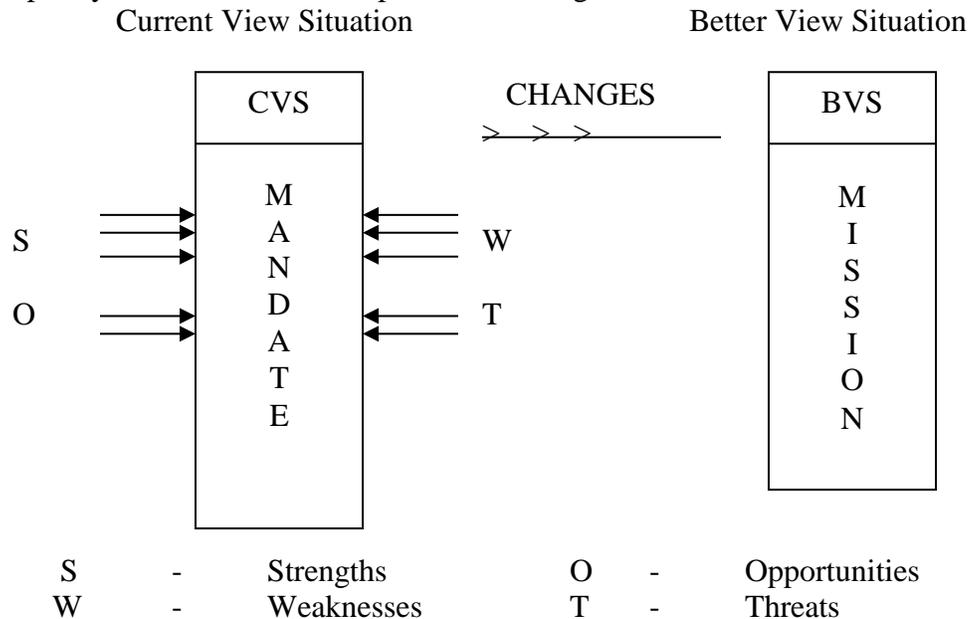
### 3. Conducting Internal and External scans (SWOC Analysis)

SWOC is a simple acronym for **S**trengths, **W**eaknesses, **O**pportunities and **T**hreats. SWOC analysis combines the following two things:

- (i) An assessment of the organization’s internal strengths and weaknesses based on human resources, (People) academic and support services, (Programmes) Physical resources (Properties) and Processes.
- (ii) An assessment of the opportunities and threats posed by its external environment based on Political, Economical, Social, Technological and Environment changes taking place.

### 4. Determining Thrust areas and identifying strategic options

The Strategic Planning Group (SPG) reviews the mandate, mission and SWOC analysis data and determines the major strategic directions or Thrust areas. These thrust areas are policy directions for development of the organization.



SPG will identify projects to eliminate the weaknesses and will build on its strengths incorporating the opportunities available. The force-field analysis will demonstrate the changes from the CVS (Current View Situation) to BVS (Better View Situation) over a period of time.

### 5. Implementation – Action Plan

- (i) Formation of a seven to nine staff members including the principal who all have a desire to change the institution, who all agree to follow a systematic process and wish to

work as a team. (The Strategic Planning Group “SPG”)

The Strategic Planning Group develops two exercises:

- (a) An analysis of the Current Situation as visualized by various interested parties. (Current View Situation CVS). Specifically the Mandate of the institution is clarified and an

environmental scan of internal and external factors is carried out. (Strength, Weaknesses, Opportunities and Threats SWOC analysis).

(b) An idealized or better situation is visualized for the future of the institution. (Better View Situation – BVS). Specifically a Mission Consisting of Goals and Values is drafted. Then an elaborated set of broad goal directions is prepared.

(ii) Having identified CVS (Current View Situation) and BVS (Better View Situation) the next step is to develop specific strategies that will contribute to the journey from CVS to BVS. These strategies are subdivided into small project objectives. The SPG select some of these strategies/objectives for immediate action, based on criteria that focus on feasibility of success with available resources.

(iii) The SPG then plans and organizes several small projects, in detail, and invite voluntary

leadership and commitment to implement the project.

(iv) The SPG continues to function in its role of;

- Generating ideas
- Selecting for immediate action
- Organizing projects
- Recognizing the work of its volunteers.

Thinking and acting strategically is a continuous process that has its principal output of a flow of action projects that result in the continuous improvement of the output of the organization. The planning group maintains a continuous flow of small, feasible improvement projects. The flow can be pictured as a short pipeline of 15-20 active projects. As projects are completed, new ones are created to maintain the flow. It is not recommended to have a large bank of projects designed and awaiting activation. New projects should be generated continuously, slowly and only a few at a time.

The process is very simple; it is purely part-time and voluntary but can over a period of time accumulate very substantial results and improvement in the quality of the institution.

The planning group and the sub groups should meet regularly to monitor and to evaluate the success of the implemented projects; new projects will be identified and implemented to march towards the vision of the organization. This is a beginning of a “NEVER ENDING JOURNEY”

### **3. SCMS School of Engineering and Technology (SSET) – Profile.**

Established in 2001, SCMS School of Engineering & Technology (SSET) is a new generation engineering college set up under the self financing scheme. SSET is conceived as a hi-tech, state of the art college, offering graduate and postgraduate programmes in various streams of engineering and technology. Even though the College was established only in 2001, the SCMS School of Engineering & Technology has the rare distinction of setting up the most modern infrastructure facilities within a short span at its sprawling 27-acre campus at Vidya Nagar, Karukutty, Ernakulam District, Kerala.

The SSET is situated in the midst of an idyllic 27-acre rubber plantation. The Campus comprises of the Main Engineering College Building with 18297 sq. mt of built-up space which

accommodates Classrooms, Faculty Offices, Administrative Office, Library, Computer Lab, Electronics and Microprocessor Labs, Laboratories, Workshops, Machine shop and Heat Engine Lab which are strategically located around the main building in the campus. The college has its own hostel facilities for boys and girls separately within the premises and can accommodate about 800 students. The canteen facility is provided in a separate building inside the campus for the benefit of staff and students in addition to hostlers.

## Governing Structure

SCMS School of Engineering & Technology (SSET) is an institution of the SCMS Group of Education Institutions, under the able leadership of its founding Chairman Dr.G.P.C. Nayar. The Board of Governors (BoG) act as the apex body in formulating policies for the governance of the institution. The Board comprise of people of eminence from different walks of life including representation from the faculty. The Governing body function through its executive arm, the Board of Management (BoM). The Academic Advisory Board (AAB) acts as advisory to BoM on the activities of the program. AAB is assisted by the faculty team of the different departments by updating the details of the program.

### Board of Governors

The constitution of BoG of the institution is given in Table 2.1

*Table 2.1: Board of Governors of the institution*

<b>SCMS SCHOOL OF ENGINEERING &amp; TECHNOLOGY BOARD OF GOVERNORS</b>				
	<b>Name</b>	<b>Position</b>	<b>Qualification</b>	<b>Current organization and Positions held</b>
1	Dr.Subramanian Swamy	Member of Parliament - Chairman	Ph.D.	Formerly Union Minister for Commerce, Law & Justice & Professor, Harvard University
2	Mr.P.C.Chacko	Public Representative - Member	Graduate	Ex-MP., Formerly Minister for Industry, Govt. of Kerala
3	Dr.G.P.C.Nayar	Chairman and Founder, SCMS Group - Member	B.Sc., B.Jlm, PGDBM, MBA, Ph.D. (USA)	Chairman SCMS Group of Educational Institutions

4	Mr.T.P.Sreenivasan IFS	Ex-Ambassador & Educationist - Member	IFS	Former Chairman, Higher Education Council and Director, NSS Academy of Civil Services, Director General, Kerala International Centre
5	Dr.U.Ramesh	Regional Officer (Addl. Charge) & Director, AICTE - Member		Regional Officer (Addl. Charge) & Director, AICTE
6	Prof.N.C.George	AICTE nominated industry expert - Member	MA & DTFT (UK)	Management Consultant
7	Nominee of the State Government -	Nomination Awaited		
8	Nominee of the State Government (Outside expert from the Region)	Nomination Awaited		
9	Dr.C.V.N.Reddi	Academician and Administrator - Member	Ph.D.	National Professor of Public Relations (UGC)
10	Mr.A.K.Nair	Management expert from Industry - Member	B.Tech., MBA	Ex - Managing Director, KSIDC & KCPL
11	Prof.S.Gopakumar	Director, SCMS Group - Member		Director, SCMS Group
12	Dr.Anitha G.Pillai	Professor & Dean – Academic Affairs, SSET - Member	M.Tech., Ph.D.	Professor & Dean – Academic Affairs, SSET
13	Dr.Varun G.Menon	Asso. Professor, SSET – Member	M.Tech. (CSE)	Asso. Professor, SSET
14	Mr.Siddharth Sethu	Alumni Representative - Member	B.Tech.	Unisys, Delhi.
15	Mr.Shibu Balakrishnan	Industry Expert-Member	MBA	Cognizant Technologies

16	Dr.Praveensal C J	Principal, SSET – Member Secretary	M.Tech., Ph.D.	Principal, SSET
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The major functions of the BoG are

- Acting as the advisory to Board of Management
- Assessing the standing of the institution and its activities, and, to check its conformity with the mission of the institution.
- Integrating strategic plans and activities with organizational vision and mission
- Exploring the scope for expansion of present activities and identifying the avenues for future growth and development of the institution

### **Board of Management**

The governing body has a participative decision making process and functions through its executive arm, the Board of Management (BoM).

### **Members of Board of Management – SCMS Group of Educational Institutions**

Dr.G.P.C.Nayar                      -Chairman, SCMS Group of  
Educational Institutions

Prof.PramodP.Thevannoor                      - Vice Chairman,SCMS  
Group of Educational Institutions

- Prof.S.Gopakumar                      - Group Director, SCMSGroup
- Dr.RadhaThevannoor                      - Group Director, SCMSGroup
- Dr.Indu Nair                      - Group Director, SCMSGroup
- Prof.Baiju R.Nair                      - Director, SCMSGroup

The role of the BoM is

- Scrutinizing suggestions from Academic Advisory Board and give approval for implementation of action plans and various activities supporting the realization of strategic objectives.
- Identifying and mobilizing resources required for program implementation.
  - Approval of budget and budgetary allocation for various programmes and activities.
  - Scanning of environmental changes affecting the functioning and progress of the institution and assessing the market potential for new opportunities.

**Focus areas:**

The main focus area of the SCMS School of Engineering and Technology is the imparting of Engineering courses at B.Tech level for disciplines like Computer Science and Engineering, Electronics and Communication Engineering, Electrical and Electronics Engineering, Mechanical Engineering, Automobile Engineering, Civil Engineering, M.Tech level for disciplines like Computer Aided Structural Analysis, Environmental Engineering, Production and Industrial Engineering, VLSI, Communication Engineering and Computer Science and Information Systems and Master of Computer Applications. The Foundation has sponsored several world-class professional institutions under the SCMS umbrella and it has been christened as SCMS Group.

The SCMS Group of Educational Institutions include...

- School of Communication and Management (SCMS - 1976)
- SCMS School of International Studies (SSIS - 1998)
- SCMS School of Engineering and Technology (SSET - 2001)
- SCMS School of Technology and Management (SSTM - 2003)
- SCMS Centre of Research, Consultancy and Training (SCRCT - 2003)
- SCMS MASSCOM School
- NORKA-SCMS Institute For Paramedical and Development Studies
- SCMS Academy for Animation and Media Studies(SAAMS)
- SCMS Institute of Biotechnology and Biosciences Research and Development (SIBBR& D)

**Recognition and Affiliation Details:**

The SSET is recognized by the All India Council for Technical Education (AICTE), Govt. of India vide their letter No... 770-54-023(NDEG)/ET/2001 dated 27/06/2001. The Mahatma Gandhi University granted affiliation in accordance with the G.O.No.(MS) 88/2001/H.Edn. dated 21/07/2001 and the affiliation continued till 2018. All the Engineering Institutions in Kerala

including SCMS School of Engineering and Technology came under the affiliation of The APJ Abdul Kalam Technological University in the year 2015. SSET was granted affiliation in accordance with the No: KTU/A/59312015 and an extension of approval are granted every year.

### **Programmes and Departments:**

SSET, already recognized as a centre of excellence, offers courses in traditional engineering as well as technology-based disciplines.

### **U G Programmers in Engineering ( B Tech )**

1. B.Tech in Civil Engineering (120)
2. B.Tech in Mechanical Engineering(120)
3. B.Tech in Electrical Engineering (60)
4. B.Tech in Electronics & Communication Engineering (60)
5. B.Tech in Computer Science & Engineering. (120)
6. B.Tech in Automobile Engineering. (60)

### **PG Programmers in Engineering ( M Tech )**

1. M. Tech in Computer Aided Structural Engineering (18)
2. MTech in Environmental Engineering (24)
3. MTech in Production and Industrial Engineering (18)
4. MTech in Computer Science and Information Systems (18)
5. MTech in VLSI(18)
6. MTech in Communication Engineering (9)
7. Master of Computer Applications (60)

### **Faculty :**

A team of highly qualified, experienced and motivated faculty is the main asset of the college. Apart from teaching, the faculty also assumes the role of mentors to the student community and assists them in over all development of personality of each student. Expert trainers in various personality development related fields, coming from different parts of the country are commissioned to train the students with a view to improving their communication skills, positive thinking, group dynamics and presentation techniques. Such programmes give our students an edge over their contemporaries when they face campus interviews and give them cthe onfidence to meet the stiff challenges opposed by the industry in their future careers. The college has been paying particular attention to confidence-building measures in students by way of arranging national level technical seminars, participation in quiz competitions, arranging technical fests and department wise seminars. Almost every student gets ample opportunity to face the audience and get over their stage fright through these activities. The student executive council is elected every year and the office bearers take active participation in the overall conduct of student's activities and development programmes.

**Placement:**

Our Training and Placement Cell provides assistance for the overall development of our student's personalities and thus makes them ready for placement activities. The department organizes on and off-campus as well as pooled campus recruitments, pre-placement training programmes through Aptitude tests, Group Discussions, Interviews and Presentation skills. The training programs offered enable students to identify their strengths and weaknesses and select strategies for improvement. Besides, we extend intensive support for their career development.

Following companies conducted campus recruitment: IBS, US Technology, Caritor, Galfar Construction and Contracting LLC, Oman; L&T Infotech, Essa Engineering and Marine Services LLC, UAE; Tata Elxsi, Apollo Tyres, Indian Navy, Ernst and Young, Mahindra, HP, Sasken, Allsec, Sobha developers, Sutherland, Accenture, Slash Support, Spectrum Softech Solutions, Godrej & Boyce Mfg.

Various off campus interviews were also done by some of the companies: Infosys, Wipro, Cognizant, Robert Bosch, Syntel, Nest, Hexaware, Birla Soft, Dell, I Gate, HCL, Satyam, Subex, Anglo Eastern Ship Management, Reliance Industries.

We hope within a year the campus will be able to achieve the distinction of cent percent placement for all eligible candidates before the completion of their courses.

**PTA:**

The college is fully committed to imparting high-quality technical education. With a view to soliciting the attention of parent today day to day monitoring of the student's performance, interactive open house sessions are being held class-wise for every class at least twice a year where-in the parent, faculty and each individual student meet together and discuss the assets and shortcomings. Based on the above, action plans were formulated to bridge the voids identified in the teaching/learning process.

**Co-curricular activities:**

Extracurricular activities, aimed at overall student development are also being attended to with all seriousness it deserves in an engineering institution. A full-fledged stadium complex with facilities for football, hockey, cricket, volleyball, basketball, athletics etc. will be commissioned shortly. A Physical Education department has been added to the college to impart programmed coaching to students.

**Continuing Education Programs:**

Opportunity based programmes such as Redhat Linux certification course, high-end training programmes with IBM partnership, training on communication skills and group discussion etc. are being introduced from time to time to enhance the job potentiality of students. The college also interacts with industry from around the country and supplements the syllabus based academic environment with live technical projects.

To obtain practical knowledge, students are given opportunities to conduct one-day educational tours to industries inside Kerala state and short term tours to other states in India.

**Student's council:**

The student's council consists of members (elected by the students from each class), chairman, secretary and other executive members elected from among them. This council is a non-political forum. The student's council with the staff in charge meets at regular intervals. They make proposals and take decisions regarding the different functions and celebrations like Onam celebrations, Arts festivals, Annual Day celebrations and National Technical festivals.

**N.S.S:**

SCMS School of Engineering and Technology is proud of the NSS programmes under the guidance of the coordinator and the student's secretaries. They conduct various activities like Blood donation camp and contributes training program for the community.

**ISTE:**

An ISTE institution chapter and student's chapter are in the process of formation. A number of members are already life members and associate members.

**Alumni Association:**

An Alumni Association has been formed and in their annual meeting, gold medals were awarded to the university rank holders of this institution.

**Blood donor forum:**

A blood donor forum that help to identify the blood group of the students and donate blood to the absolutely needy patients in the nearby hospitals.

**Strategic Planning Group:**

The SPG is planning the activities such that the institution marches forward from the current view situation to a better view situation. An innovative management process, strategic planning for continuous development of the institution is practiced in the college.

**Helping Hands Organization**

As it is said 'A goal without a plan is just a wish, we have come up with six main areas to be concentrated for the betterment of the society, so that a well-structured plan on these areas shall help us bring smiles to the needy.

#### **4. Vision of SCMS School of Engineering and Technology**

##### **VISION**

**To be a centre of excellence in providing technical education in harmony with the changing global order.**

## **5. Mandate of SCMS School of Engineering and Technology**

### **MANDATE**

**The SCMS School of Engineering and Technology (SSET) was established by the Prathap Foundation for Education and Training, (known as SCMS Group, Cochin) in October 2001 under self-financing scheme. The college offers B.Tech courses of four year duration in Civil Engineering, Mechanical Engineering, Electronics and Communication Engineering, Computer Science and Engineering, Electrical and Electronics Engineering, Automobile Engineering and three year course in Master of Computer Applications . The students are admitted as per the norms prescribed by the government. The college is approved by the AICTE and affiliated to Mahatma Gandhi University till 2018 and affiliated by APJ Abdul Kalam, University from 2015.**

## 6. Mission of SCMS School of Engineering and Technology

### MISSION

**To offer technology related education of exceptional quality to students by developing their total personality with due emphasis on ethical values and preparing them to meet the growing challenges of the industry and human society.**

## **7. Quality Policy of SCMS School of Engineering and Technology**

### **QUALITY POLICY**

**SCMS School of Engineering and Technology (SSET) is envisaged as a premier institution offering technology related education of exceptional quality to students by developing their total personality with due emphasis on ethical values and preparing them to meet the growing challenges of the industry and diverse societal needs of the institution.**

## **8. Objectives.**

### **Towards pursuit of excellence....**

1. Creating an excellent academic ambience in the campus
2. Developing a team of dedicated and motivated team of faculty
3. Providing excellent infrastructural facilities
4. Strengthening Consultancy, R&D and continuing Education activities
5. Promote Entrepreneurship Development programmes
6. Networking with national and International Institutions of higher learning
7. Effective interfacing and synergy with Industries
8. Commencement of Post Graduate programmes in emerging areas and setting up of research programmes.
9. Achieving autonomy status
10. Setting up Innovation to Incubation centre.

### **9. SWOC Analysis - SCMS School of Engineering and Technology**

#### **STRENGTH**

- Serene campus with a well-organized teaching and research environment for the last 20 years.
- Excellent central library with adequate books and journals, and a consortium for e-resources.
- Experienced, qualified, dedicated faculty.
- Healthy number of PhD completed and pursuing faculty.

- Overall Discipline of Campus.
- Outstanding and consistent performance in university examinations.
- The excellent placement record of graduates across all programs, especially in circuit branches.
- Pro-active management with a progressive vision and all-round support.
- Multidisciplinary courses under the same management.
- An exceptional academic environment for students and teachers, with good infrastructure support.
- Well-equipped Fab lab and robotics centre to promote rapid prototyping and project-based learning.
- Direct involvement in public consultancy works.
- NBA accreditation.
- Internationally renowned for its established reputation, that is bolstered by illustrious alumnae across the world.
- Plethora of opportunities for curricular/co-curricular activities that promote gender equality.
- Mentoring and counselling of students evaluated regularly.
- With NSS/Sports/Cultural clubs, students receive appropriate guidance, support, and encouragement to help them grow into responsible citizens.
- Good number of research publications from the faculty and students.
- Incentives for Paper publications to motivate research activities.
- On-campus hostel for both Boys and Girls, with all nearby amenities such as Hospital, Bank (ATM) etc
- College bus facility available in all major routes.

## **WEAKNESS**

- Self-supporting college calling for massive investment with no financial grants or any kind of support from any other sources
- Industry- academia interface needs more augmentation.
- Faculty and student research projects into new areas to be probed.
- Require more funded projects and collaborative research in each department.

- More initiatives are needed for Alumni involvement at the institution level.
- To comprehend new and critical challenges, more faculty internships/industrial trainings are required.

## **OPPORTUNITIES**

- IEDC centre, Fab lab, Robotics center to enshrine innovation and startup culture.
- Locational advantage for strengthening academia-industry linkages.
- Prevalent boom in IT enabled sectors.
- Alliances with R&D organizations in India and abroad to optimize learning outcomes.
- Feasibility of student projects to patents and Incubations.
- Streamlining collaborative research with research institutions.
- Hub for society beneficial interdisciplinary and community-based research and projects.
- Sustaining the autonomy of the institution by making more research guides available.
- MOU with Industries.
- Water Institute, Robotics Center, and IEDC to attract government and private sector projects.
- Conducting socially relevant activities/program for the benefit of local community.
- Exposure to experts though webinars and invited talks, including Dr Pradeep P Thevanoor talks.
- Incubation center for both urban and rural entrepreneurs.
- Induction of inter-departmental research orientation.
- Improve industry connectivity by increased alumni interaction.

## **CHALLENGES**

- More placement in core companies.
- Coping with changing cutting-edge technologies.
- Premium institutions' competitive pressures and the proliferation of new colleges.
- Keeping pace with the rapid changes in higher education.
- Phenomenal gap between academia and industry.
- Encourage interdisciplinary courses.
- NBA accreditation for all branches.
- Reigniting the interest in core engineering streams and improving admission.
- Reduced admission due to lack of interest in PG courses.
- Lack of interest among bright engineers to pursue research as a career.
- Full time Internship opportunity not available for final year B. Tech students.

## 10. Strategic Goals

SSET Leadership Team after brainstorming the vision, mission, quality policy, core values, environmental factors and SWOC analysis arrived at the step to establish high-level goals (HLG) which are also called Institution Strategic Goals (ISG)

- a. Good Governance
  - b. Leadership Development
  - c. Financial Management
  - d. Physical infrastructure
  - e. Teaching – Learning infrastructure
  - f. Library & information centre
  - g. Attraction, Development, Retention
  - h. Teaching, Learning and Evaluation
9. Industry- Institute relationships
10. Research, Development & Innovation
- i. Quality assurance systems
  - j. Entrepreneurship
  - k. Placement, Internships & Career
  - l. Extra-curricular and co-curricular
  - m. Alumni engagement and interaction
  - n. Community Service and Extension

### 1. Good Governance

<b>Governing Body</b>	<ul style="list-style-type: none"> <li>▪ Merit based GB appointment</li> <li>▪ Performance management of GB members through specific responsibilities</li> <li>▪ Evaluation of institutions performance and benchmarking</li> <li>▪ Guiding and approving policy matters</li> </ul>
<b>Vision, Mission and Institution Goals</b>	<ul style="list-style-type: none"> <li>▪ Vision, Mission development &amp; their articulation</li> <li>▪ Setting short term and long term goals</li> <li>▪ Institutional Strategic development plan</li> <li>▪ Institutional strategic goals setting</li> </ul>
<b>Transparency &amp; Leadership</b>	<ul style="list-style-type: none"> <li>▪ Transparency in Leadership &amp; appointment of Key positions</li> <li>▪ Service conduct rules and policies formulation, approval &amp; implementation</li> <li>▪ Grievance Redressal mechanism</li> <li>▪ Leadership Development through decentralization</li> <li>▪ Establishing E-Governance- MIS- Data analysis</li> </ul>

<b>Internal Quality Assurance Cell &amp; Accreditation</b>	<ul style="list-style-type: none"> <li>• Setting up of IQAC with internal &amp; external members to audit processes</li> <li>• Establishing an internal audit committee for regulatory compliance</li> <li>• Systems, checks and balances- Remedial measures.</li> </ul>
<b>Students Participation</b>	<ul style="list-style-type: none"> <li>▪ Students nomination to Governing Body</li> <li>▪ Their suggestions in various academic and student affairs</li> </ul>

## **2. Leadership Development**

<b>Developing Ownership</b>	<ul style="list-style-type: none"> <li>▪ Motivating through interactions</li> <li>▪ Partnership incentive plans</li> </ul>
<b>Assessment &amp; Identification</b>	<ul style="list-style-type: none"> <li>▪ Expert committee to assess all existing leaders potential</li> <li>▪ Find gaps and structure changing</li> <li>▪ Identify positions for external</li> </ul>
<b>Decentralization</b>	<ul style="list-style-type: none"> <li>▪ Decentralize the academic, administration and student related</li> <li>▪ Prescribe duties , responsibilities and accountability</li> <li>▪ Rotation of key posts to build leadership</li> </ul>
<b>Development &amp; Job Rotation</b>	<ul style="list-style-type: none"> <li>▪ Develop Leadership competencies</li> <li>▪ Plan for Job rotation /enlargement /enrichment assignments</li> <li>▪ Plan for new /crisis assignments</li> </ul>
<b>Retention Measures</b>	<ul style="list-style-type: none"> <li>▪ Growth retention plans through Career advancement.</li> <li>▪ Golden handcuffs through (monetary /welfare )</li> </ul>

## **3. Financial Management**

<b>Budgeting</b>	<ul style="list-style-type: none"> <li>▪ Department wise Budget planning of all heads of accounts</li> <li>▪ Forecast &amp; estimation of revenue (Both IRG and ERG)</li> <li>▪ Forecast &amp; estimation of expenditure</li> <li>▪ Emergency plans</li> <li>▪ Budget formulation &amp; approval through Finance committee</li> </ul>
<b>Financial Governance (HoDs)</b>	<ul style="list-style-type: none"> <li>▪ Planned expenditure management</li> <li>▪ Procurement and Financial policies implementation</li> <li>▪ Support through research, consultancy and training</li> </ul>

<b>Outflow Management &amp; Growth plans</b>	<ul style="list-style-type: none"> <li>▪ Monitoring expenses as per budget planning</li> <li>▪ Predicting internal revenue generation</li> <li>▪ Treasury (surplus funds ) management</li> <li>▪ Growth- Expansion plans</li> </ul>
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#### **4. Physical infrastructure**

<b>Green Campus</b> (Keeping with the Vision & Mission)	<ul style="list-style-type: none"> <li>▪ Plantation, Rain water harvesting and green cover</li> <li>▪ Energy harvesting &amp; management</li> <li>▪ Hygiene, solid waste management (zero plastic usage)</li> <li>▪ Efficient usage of recycled waste water from STIP</li> </ul>
<b>Academic infrastructure</b>	<ul style="list-style-type: none"> <li>▪ Aesthetic Class rooms, Tutorials, Seminar halls</li> <li>▪ State of the art Laboratory &amp; equipment</li> </ul>
<b>Library</b>	<ul style="list-style-type: none"> <li>▪ Library infrastructure up gradation</li> <li>▪ Functional Furniture and fittings for e-learning</li> </ul>
<b>Sports, Hostel &amp; Canteen</b>	<ul style="list-style-type: none"> <li>▪ Developing sports ( indoor/outdoor) facilities</li> <li>▪ Hobby clubs, Canteen &amp; community centre</li> <li>▪ Executive Hostel facility for boys &amp; Girls within the campus</li> </ul>

#### **5. Teaching- Learning Infrastructure**

<b>Smart Classrooms</b>	<ul style="list-style-type: none"> <li>▪ Multimedia and support equipment</li> <li>▪ E-Learning facilities</li> </ul>
<b>Laboratory- R&amp;D Equipment</b>	<ul style="list-style-type: none"> <li>▪ R&amp;D Laboratory and its maintenance</li> <li>▪ Simulators</li> <li>▪ Industry equipment (centres of competence) for consultancy</li> </ul>
<b>KE &amp; ICT</b>	<ul style="list-style-type: none"> <li>▪ Licensed Softwares- Higher BW</li> <li>▪ Hardware (Servers, Computers...etc)</li> <li>▪ Pedagogy tools</li> <li>▪ Online learning tools</li> <li>▪ Evaluation &amp; assessment tools</li> <li>▪ Learning Management System</li> <li>▪ ICT for 360 deg. Feedback.</li> </ul>
<b>Books &amp; E-Learning</b>	<ul style="list-style-type: none"> <li>▪ Books, Journals, Periodicals, Magazines</li> <li>▪ Online access to E-media</li> <li>▪ Departmental library books</li> </ul>

## 6. Library & Information Centre

<b>Infrastructure enhancement</b>	<ul style="list-style-type: none"> <li>▪ Budget allocation</li> <li>▪ Infrastructure ( Buildings &amp; Furniture)</li> <li>▪ CCTV and Lockers facility</li> </ul>
<b>Removal of obsolescence in Books &amp; Resources</b>	<ul style="list-style-type: none"> <li>▪ Books, journals procurement, storage and retrieval</li> <li>▪ Resources automation &amp; Access ( 24X 7)</li> </ul>
<b>Digital &amp; E-Library</b>	<ul style="list-style-type: none"> <li>▪ Digitization of Library resources</li> <li>▪ Establishing cloud based e-library &amp; online access</li> </ul>

## 7. Attraction, strengthening and retention of Faculty

<b>Talent Hiring &amp; Retention policy</b>	<ul style="list-style-type: none"> <li>▪ Merit based hiring policy formulation &amp; implementation</li> <li>▪ Career advancement Schemes</li> <li>▪ Scientific induction/ orientation of new talent</li> <li>▪ Critical talent identification &amp; retention measures</li> </ul>
<b>AICTE Scales, Rewards &amp; Recognitions</b>	<ul style="list-style-type: none"> <li>▪ AICTE scales implementation for all cadres/designations</li> <li>▪ Additional cadres to be created for deserving staff</li> <li>▪ Rewards – recognitions &amp; incentives</li> <li>▪ Welfare policy formulation &amp; implementation</li> </ul>
<b>Conducive working environment</b>	<ul style="list-style-type: none"> <li>▪ Best work facilities and infrastructure</li> <li>▪ Role &amp; responsibilities clarity and empowerment</li> <li>▪ Online access to Library- journals 24X7 hours</li> <li>▪ Township /quarters facility</li> </ul>
<b>Career growth &amp; Development</b>	<ul style="list-style-type: none"> <li>▪ Sponsorship/ Deputation, sabbaticals for higher education &amp; Exchange programmes</li> <li>▪ Sponsorship to participate in national /international conferences</li> <li>▪ Deputation to premier national /international universities/industry</li> </ul>

## 8. Teaching-Learning and Evaluation Process

<b>Benchmark with Premier institutes</b>	<ul style="list-style-type: none"> <li>▪ Constitute academic teams and visit premier institutions</li> <li>▪ Customise &amp; Implement best practices</li> </ul>
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<b>Lesson plan</b>	<ul style="list-style-type: none"> <li>▪ Develop lesson plan as per OBE &amp; academic calendar</li> <li>▪ Develop e-learning content</li> <li>▪ Benchmark with industry requirements</li> <li>▪</li> </ul>
<b>Upgrading faculty &amp; staff competence</b>	<ul style="list-style-type: none"> <li>▪ Conduct training needs analysis every two years</li> <li>▪ Conduct/depute faculty and staff for competence development</li> <li>▪ Support paper publications and presentations</li> <li>▪ Provide opportunities for networking</li> </ul>
<b>Knowledge Delivery &amp; Outcome-based education</b>	<ul style="list-style-type: none"> <li>▪ Define outcomes of each teaching-learning initiative</li> <li>▪ Continuous Assessment and evaluation to measure outcomes</li> <li>▪ Establish Research Culture</li> <li>▪ Access to online learning</li> <li>▪ Mentor on academic, career &amp; higher educational opportunities</li> </ul>
<b>Evaluation &amp; Assessment</b>	<ul style="list-style-type: none"> <li>▪ Create a proper feedback system</li> <li>▪ Continuous progress assessment</li> <li>▪ Question bank development &amp; Term-end examinations</li> <li>▪ Credit transfers and performance development</li> </ul>

## **9. Industry- Institute Relationships**

<b>Industry Database &amp; Intelligence</b>	<ul style="list-style-type: none"> <li>▪ Strengthen placement, training and industry-institute interaction cell</li> <li>▪ Identify branch wise preferred industries &amp; companies</li> <li>▪ Identification of potential areas of research</li> <li>▪ MoUs &amp; NDA with potential industries/companies</li> <li>▪ Professional bodies membership</li> </ul>
<b>Leverage Industry Resources</b>	<ul style="list-style-type: none"> <li>▪ Invite industry experts for guest lecturers /talks/seminars</li> <li>▪ Partner with industry for syllabus reviews/advisory roles</li> <li>▪ Deputation of faculty to Industry on sabbatical</li> <li>▪ Leverage for internships, research projects, consultancy &amp; placements</li> <li>▪ Scholarships</li> </ul>
<b>Leverage Industry Institute Academia Interface</b>	<ul style="list-style-type: none"> <li>▪ Enhance research and academic excellence</li> <li>▪ Student-faculty exchange programs</li> <li>▪ Multi &amp; interdisciplinary research and product development</li> </ul>
<b>Leverage Institutional Resources for Industry</b>	<ul style="list-style-type: none"> <li>▪ Training and talks by faculty</li> <li>▪ Consultancy and testing to industry</li> <li>▪ Enrolling industry personnel for PhD.</li> </ul>
<b>Setting up Centres of Excellence</b>	<ul style="list-style-type: none"> <li>▪ Identify potential industries that can establish centres of excellence department wise</li> <li>▪ Establish and operationalize centres of excellence</li> </ul>

## **10. Research, Development and Innovation**

<b>R&amp;D Infrastructure &amp; Teams</b>	<ul style="list-style-type: none"> <li>▪ R&amp;D laboratories in all departments</li> <li>▪ Modernisation and removal of obsolescence of laboratories</li> <li>▪ Dedicated R&amp;D facilitation &amp; documentation centre</li> <li>▪ Competent technical staff for R&amp;D labs</li> </ul>
<b>Establishing Centres of competence</b>	<ul style="list-style-type: none"> <li>▪ Fundraising through Project proposals</li> <li>▪ Apply for TEQIP/Government/ other funding</li> <li>▪ Establishing centres of excellence</li> <li>▪ Establishing Consultancy cell</li> </ul>
<b>Incubation Centre /Product Development</b>	<ul style="list-style-type: none"> <li>▪ Encourage “idea to product” pre-incubation activities</li> <li>▪ Establishing incubation centres</li> <li>▪ Focus on Product development</li> <li>▪ Startup of maker Space (Fab Lab) – Product and development</li> </ul>
<b>Setting up of Patent cell</b>	<ul style="list-style-type: none"> <li>▪ The patent filing, Scaling-up &amp; commercialisation</li> <li>▪ Starting of patent cell</li> <li>▪ Appointment of search and Patent Attorney</li> </ul>

## **11. Quality Assurance Systems**

<b>Establishing Quality Systems</b>	<ul style="list-style-type: none"> <li>▪ Setting up benchmarks &amp; system flow</li> <li>▪ The quality Policy steering committee</li> <li>▪ Publishing Quality system design &amp; culture</li> <li>▪ Educating &amp; Training of all employees</li> </ul>
<b>Internal Quality Assurance &amp; Assessment cell</b>	<ul style="list-style-type: none"> <li>▪ Setting up of IQAC team</li> <li>▪ Periodic checks and guidance</li> </ul>
<b>Accreditation &amp; Certifications</b>	<ul style="list-style-type: none"> <li>▪ Internalise the process based on</li> <li>▪ Choose accreditation/certification agency</li> <li>▪ Audit and certifications</li> </ul>
<b>Audit Internal Controls</b>	<ul style="list-style-type: none"> <li>▪ Establish audit process &amp; audit teams</li> <li>▪ Train internal auditor teams</li> <li>▪ Audit and remedial measures</li> </ul>
<b>Continual improvement, Rewards &amp; Recognitions</b>	<ul style="list-style-type: none"> <li>▪ Setting up of Quality assurance cell</li> <li>▪ Identifying achievements &amp; best practices</li> <li>▪ Quality circle competitions &amp; rewards</li> <li>▪ Annual competitions</li> </ul>

## **12. Entrepreneurship**

<b>IEDC Cell</b>	<ul style="list-style-type: none"> <li>▪ Budget /seed funding for funding initial projects</li> <li>▪ Identification of emerging areas of entrepreneurship</li> </ul>
<b>Identification of students, mentors &amp; Training</b>	<ul style="list-style-type: none"> <li>▪ Identify interested students for entrepreneurship</li> <li>▪ Identify mentors from successful entrepreneurs from Alumni/others</li> <li>▪ Formal training on entrepreneurship</li> </ul>
<b>Leverage Promotion agencies</b>	<ul style="list-style-type: none"> <li>▪ EDP agencies and networking</li> <li>▪ Competitions participation</li> <li>▪ Leverage for funding &amp; support</li> </ul>
<b>Incubation &amp; Pilot projects</b>	<ul style="list-style-type: none"> <li>▪ Establish an incubation centre for prototypes</li> <li>▪ Provide incubation support for students</li> <li>▪ Incubation support for outside SMEs</li> </ul>

## **13. Placements, Internships & Career Guidance**

<b>Placement &amp; Career guidance Department</b>	<ul style="list-style-type: none"> <li>▪ Dedicated team</li> <li>▪ Modernisation of infrastructure (Video conferencing, interview &amp; conference rooms)</li> <li>▪ Video recording of mock up interviews of students and feedback</li> </ul>
<b>Industry MOUs- Intelligence</b>	<ul style="list-style-type: none"> <li>▪ Data base of various potential industries/companies</li> <li>▪ MOU s and relationship management</li> <li>▪ Industry experts as resource persons</li> </ul>
<b>Training &amp; Development</b>	<ul style="list-style-type: none"> <li>▪ Awareness programmes</li> <li>▪ Value added programmes (soft skills &amp; domain expertise)</li> <li>▪ Competency enhancement centre</li> </ul>
<b>Internships, Placement process &amp; Success stories</b>	<ul style="list-style-type: none"> <li>▪ Internships planning and execution</li> <li>▪ Placement process coordination</li> <li>▪ Success stories celebration- Brand building</li> </ul>

## **14. Extra-Curricular and Co-curricular activities**

<b>State of the art infrastructure</b>	<ul style="list-style-type: none"> <li>▪ Budget allocation</li> <li>▪ Establish state of the art infrastructure ( indoor/outdoor)</li> <li>▪ Formation of hobby clubs</li> </ul>
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<b>Coaching, training &amp; competitions</b>	<ul style="list-style-type: none"> <li>▪ Dedicated coaches /trainers recruitment</li> <li>▪ Regular training /coaching classes</li> <li>▪ Participation in tournaments/competitions</li> <li>▪ Hosting competitions/ tournaments</li> </ul>
<b>Credit transfer, Rewards &amp; Recognition</b>	<ul style="list-style-type: none"> <li>▪ Admission priority for state/national achievers</li> <li>▪ Academic credits transfer</li> <li>▪ Attendance compensation</li> <li>▪ Reward &amp; Recognise achievers</li> </ul>

### **15 .Alumni Interaction**

<b>Alumni Association</b>	<ul style="list-style-type: none"> <li>▪ Strengthen Alumni association and engagement</li> <li>▪ Establish alumni association office on campus, engage students</li> <li>▪ Database updation and interactive alumni website</li> <li>▪ Establish global chapters and networking</li> </ul>
<b>Relationships &amp; Leveraging</b>	<ul style="list-style-type: none"> <li>▪ Regular interactions /invitations</li> <li>▪ Recognise successful alumni</li> <li>▪ Leverage for guest lecturers/internships/placements</li> <li>▪ Academic advisors/ Board of governors</li> </ul>
<b>Endowments</b>	<ul style="list-style-type: none"> <li>▪ Explore Contributions/endowment partnering</li> <li>▪ Brand ambassadors</li> <li>▪ Sponsorships/scholarships</li> </ul>

### **16.Community Service and Extension activities**

<b>Budget and Resources</b>	<ul style="list-style-type: none"> <li>▪ Budget from institution resources</li> <li>▪ Budget from Faculty/students/Govt/other donors</li> </ul>
<b>Village adoption &amp; Rural Projects</b>	<ul style="list-style-type: none"> <li>▪ Identify nearby villages for adoption</li> <li>▪ Study rural projects and challenges</li> <li>▪ Explore &amp; provide support to the execution of projects</li> </ul>
<b>Vocational training</b>	<ul style="list-style-type: none"> <li>▪ Identify the job-oriented courses as per local needs</li> <li>▪ Provide vocational training at the institute</li> <li>▪ Educational tuitions/ support to village students</li> </ul>
<b>Health and hygiene support</b>	<ul style="list-style-type: none"> <li>▪ Conducting health awareness camps</li> <li>▪ Providing free medicines to the needy</li> <li>▪ Psychological and psychiatric support</li> </ul>

## **Strategy Implementation and Monitoring**

Strategic development plan once approved by Governing Body the next immediate step is its implementation in true spirit. Strategy when being implemented, the progress shall be measured from time to time through the IQAC. SMART (specific, Measurable, Attainable, Realistic and Time-bound) concept is made use of while arriving at implementation plans. All the measures of success are clearly spelt out in the implementation document and the Head of the institution along with the leadership team is the custodian for implementation and its success.

### **Implementation Plan at Institution Level**

Good Governance & Administration	GB, Chairman, Members of GB
Finance Management	Finance Committee, Hon. Treasurer, Principal
Institution Statutory Compliance	Principal and Coordinators
Branding /Expansion	GB members, Leadership team & Public relations team
University Status	GB / Special Committee
Talent Management	GB, Chairman and Principal
TEQIP	GB, TEQIP coordinator and Principal
Infrastructure (physical)	GB, Chairman, & team
Infrastructure-Academics	Principal, HODs, Deans (Academics)
Teaching- Learning	Principal, Dean (academics), HODs, Faculty and Staff
Research	Dean (Research)
Student affairs	Dean (Student Affairs)
Student admissions	Principal
Departmental activities	HODs and Faculty
Placement & Training	Placement Coordinator

### **Measurable during Implementation**

<b>Good Governance</b>	GB selection, appointment, functioning, good governance initiatives, Management commitment, Vision-Mission reviews, Number of meetings conducted, decisions made, Committees appointments, performance, Policies implementation, grievance procedures, Educational ERP implementation. etc.
<b>Talent Management</b>	Recruitment, Selection of faculty, staff, salary, attrition rate, benefits as per AICTE norms, Track Faculty and staff performance.

<b>Student Intake Quality</b>	KEAM ranking, Students profile, PCM marks score
<b>Student Academic Performance</b>	Pass percentage, number of distinctions & first classes, Graduate attribute attainment levels and alumni feedback.
<b>Placement</b>	Number of offers made through placement department, average salaries offered, Companies visiting the campus, Number of graduates pursuing higher education, number of students becoming eligible for higher education through GRE/GATE/CAT/GMAT...etc., Public sector and other Government jobs, percentage of graduates becoming Entrepreneurs.
<b>Curriculum</b>	Curriculum gap review & design, Industry partnerships, Faculty training on new areas, Introduction of add-on courses in emerging areas.
<b>Alumni</b>	Alumni database, number of interactions, support for internships, placements, projects, scholarships, consultancy and contribution towards infrastructure development.
<b>Research and Consultancy</b>	Publications in national/international journals and conference proceedings, Patents filed, conferences & workshops organised, New MOUs signed with academic and industrial organizations, Centres of competence established.
<b>Physical Infrastructure</b>	The number of buildings, classrooms added, removal of obsolescence, equipment added, annual budget allocated & utilized.
<b>Social Responsibility</b>	The number of villages adopted vocational pieces of training provided, social projects are undertaken and skill development programs for the marginal section of the society.
<b>Extra-Curricular Activities</b>	Number of student participants, number of tournaments won, number of sports and Technocultural events organized, Regional, National & International recognitions received, competitions participated.

<b>Sources of Funding</b>	Students – Tuition Fees, Government grants, Industry Sponsorships, Funding raised through sponsored Projects, Consultancy /Testing Services
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The committee will be formed for review from time to time . The following leadership team will monitor the time to time implementation scheme against the measurable.

- Chairman, GB
- Principal/ Deans/ HODs
- Professors, Faculties& Staff
- Student Representatives
- Industry representatives
- Parent Nominees
- Accreditation / Inspection bodies

### **Conclusion**

The strategic plan for SCMS School of Engineering and Technology for the year 2020-25 is presented in this document. Projects are selected after a discussion over different thrust areas applicable to SCMS School of Engineering and technology considering its strength and threats constraints. -----