

**K.S.R. COLLEGE OF ENGINEERING**  
**(Autonomous)**  
**TIRUCHENGODE, TAMIL NADU - 637 215**



**STRATEGIC PLAN (2020 - 2025)**



**JULY 2020**

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## 1. PREFACE

K.S.R. College of Engineering was established in the year 2001 by the leadership of Lion. Dr.K.S. Rangasamy, MJF., Founder-Chairman and Shri. R. Srinivasan, Chairman cum Managing Trustee in a greenish campus for providing education to society. There are 17 Institutions functioning in this Campus and the Land area of K.S.R. College of Engineering is 29.8 acres. The Institution is Accredited by National Assessment and Accreditation Council (NAAC) with “A” grade (2017-2022) with a CGPA of 3.09. The institution was started with 3 programmes namely B.E.-Computer Science and Engineering, B.E.-Electronics and Communication Engineering and B.Tech. - Information Technology. The institution is grown year by year and currently offering 26 programmes which includes, 9 Under Graduate (UG) programmes, 9 Post Graduate (PG) programmes and 8 Research (Ph.D) programmes. The institution has an Internal Quality Assurance Cell (IQAC) to promote Quality Education.

The Institution achieved many laurels since its inception by the active involvement of Management, Principal, Faculty, Staff and Students (Stake holders). Some of the achievements are Gold medals and University Ranks (2004-2005) & (2014-2015), NBA Accreditation (2007-2008 and 2012-2013), Research Centre approval (2008-2009), Autonomous status (2012-2013), Anna University IPR Award (2015-2016), Second State level Ranking for Academic Excellence (2015-2016), Outcome Based Education (2015-2016), Blooms Taxonomy (2015-2016), Graduate Attributes (2015-2016).

The Institution has Forty Six (46) cells/clubs to promote Autonomous, Academic, Research and extension activities like NCC, NSS, YRC, RRC and OUTREACH. Internal Quality Assurance Cell (IQAC), Research and Consultancy Cell, English Literary Club, Science club, Entrepreneurship cell, Women Empowerment cell, Higher Education cell, Anti-Ragging cell, Sports, Training and Placement Cell are functioning to enhance the Universal Human Value of the students. The Institution has excellent infrastructure, well equipped laboratories, computerized library with on-line subscription facilities for internationally referred e-journals and other general amenities. There is adequate number of

latest computer systems with latest software. The faculty has the synergy of excellence in application oriented teaching, research and consultancy activities. The experienced faculty continuously endeavors to impart the knowledge to groom the students into industry ready engineers. Information and Communication Technology (ICT) is used in this Institution to avoid usage of papers, wherever possible (Example: e-communications like e-circular, library automation, online Internal Test, etc.). The Second five year strategic plan 2020-2025 was established in the Academic Year 2020-21.

## **2. VISION AND MISSION OF THE INSTITUTION**

### **VISION OF THE INSTITUTION**

We envision to achieve status as an excellent educational institution in the global knowledge hub, making self-learners, experts, ethical and responsible engineers, technologists, scientists, managers, administrators and entrepreneurs who will significantly contribute to research and environment friendly sustainable growth of the nation and the world.

### **MISSION OF THE INSTITUTION**

- To inculcate in the students self-learning abilities that enable them to become competitive and considerate engineers, technologists, scientists, managers, administrators and entrepreneurs by diligently imparting the best of education, nurturing environmental and social needs.
- To foster and maintain mutually beneficial partnership with global industries and institutions through knowledge sharing, collaborative research and Innovation.

### **QUALITY POLICY**

“We, at K.S.R. College of Engineering shall strive hard continuously to achieve academic excellence in Science, Engineering, Technology, Management and Research to promote the most competent Scientists, Engineers, Entrepreneurs, Managers and Researchers through innovative teaching methods, dedicated and duty conscious faculty, continuous and consistent updating of facilities, welfare and quality improvement of faculty through continuous process improvement”.

### **STARTUP / ENTREPRENEURSHIP POLICY**

We, at K.S.R. College of Engineering startup cell promotes entrepreneurs (Startup Professionals) at least one in forty graduates through self and continuous learning of

industry benefits through literature, social and environmental challenges.

### **GOALS**

- To enhance the learning skills of the students to improve their technical and soft skills.
- To implement an effective system that make the students to get involved in improving professional and entrepreneurship skills with social and environment importance.
- To enrich the research attitude among the faculty and students to address various National and International issues.

### **OBJECTIVES**

- To impart sound knowledge and best education to students.
- To enhance the self-learning skills among the students.
- To tie up with national and international industries to make the students an industry ready person.
- To nurture the students by meeting environmental and socio-economical needs.
- To inculcate research skills among the students during their tenure in the institution.

### 3. PROGRAMMES OFFERED

S.No.	PROGRAMMES OFFERED	YEAR OF ESTABLISHMENT
<b>A. UNDERGRADUATE PROGRAMME (UG)</b>		
1.	B.E - Automobile Engineering	2009-2010
2.	B.E - Civil Engineering	2002-2003
3.	B.E - Computer Science and Engineering	2001-2002
4.	B.E - Electronics and Communication Engineering	2001-2002
5.	B.E - Electrical and Electronics Engineering	2002-2003
6.	B.Tech. - Information Technology	2001-2002
7.	B.E - Mechanical Engineering	2005-2006
8.	B.E - Safety and Fire Engineering	2020-2021
<b>B. POSTGRADUATE PROGRAMME (PG)</b>		
9.	M.E - Structural Engineering	2009-2010
10.	M.E - Construction Engineering and Management	2010-2011
11.	M.E - Computer Science and Engineering	2007-2008
12.	M.E - Communication System	2010-2011
13.	M.E - Power Electronics and drives	2009-2010
14.	M.E - Information Technology	2012-2013
15.	M.E - Industrial Safety and Engineering	2011-2012
16.	MCA - Master of Computer Application	2003-2004
17.	MBA - Master of Business Administration	2006-2007
<b>C. RESEARCH PROGRAMME (Ph.D)</b>		
18.	Ph.D. - Civil Engineering	2009-2010
19.	Ph.D. - Computer science and Engineering	2007-2008
20.	Ph.D. - Electronics and Communication Engineering	2007-2008
21.	Ph.D. - Electrical and Electronics Engineering	2009-2010
22.	Ph.D. - Information Technology	2017-2018
23.	Ph.D. - Mechanical Engineering	2007-2008
24.	Ph.D. - Master of Computer Application	2007-2008
25.	Ph.D. - Physics	2009-2010
26.	Ph.D. - Chemistry	2009-2010

#### 4. ACHIEVEMENTS AND MILESTONES

S.No.	DESCRIPTION	YEAR
1.	Year of Establishment (Land Area : 29.8 Acres )	2001 – 2002
2.	Research Culture	2001 – 2002
3.	ISO Certification	2003 – 2004
4.	Gold Medals and University Ranks	2004 – 2005
5.	2 (f) Status of UGC	2005 – 2006
6.	NBA Accreditation (CIVIL, ECE, EEE, CSE, IT, MCA)	2007 – 2008
7.	Research Center Approval	2008 – 2009
8.	Wipro Accreditation	2011 – 2012
9.	Autonomous Status	2012 – 2013
10.	NBA Accreditation (ECE, EEE, MECH, CIVIL)	2012 – 2013
11.	Outcome Based Education and Blooms Taxonomy	2012 – 2013
12.	Establishment of Entrepreneurship Development Institute	2013 – 2014
13.	Patent granted	2015 - 2016
14.	12 B Status of UGC	2015 – 2016
15.	Anna University IPR Award (First Place)	2015 – 2016
16.	State Second Rank in Anna University Results	2015 – 2016
17.	IIT – Madras PALS Tie-up	2016 – 2017
18.	NIRF Ranking (151-200)	2016 - 2017
19.	Choice Based Credit System and Modular Courses	2016 – 2017
20.	Anna University IPR Award (First Place)	2017 – 2018



21.	NAAC Accreditation ( “A” grade with CGPA of 3.09)	2017 – 2018
22.	National Award - The Week Magazine	2017 – 2018
23.	Copy Right granted	2017 – 2018
24.	ICT ACT - Trial Head, Outstanding Contribution – Student Championship – 2018	2017 – 2018
25.	Second Rank among Trichy Cluster of PALS – IIT Madras Activities	2017 – 2018
26.	Ranking of outstanding engineering colleges of excellence (24 <sup>th</sup> place by CSR)	2017 - 2018
27.	Outlook – Drshti Professional College Survey 2017 ( 75 <sup>th</sup> Rank)	2017 - 2018
28.	ICT Academy Best Practices in Higher Education -Award	2017 - 2018
29.	National Award - The Week Magazine ( 89 <sup>th</sup> Rank India Level, 61 <sup>th</sup> among South Zone)	2018 – 2019
30.	AICTE – CII Survey of industry linked technical institute (Silver award)	2018 – 2019
31.	Extension of Autonomous Status	2018 - 2019
32.	Anna University IPR Award (First Place)	2018 – 2019
33.	NBA Accreditation (ECE, CSE)	2019 - 2020
34.	Institution Innovation Council	2019 - 2020
35.	AICTE – Jal Sakthi Abhiyan Award	2019 - 2020
36.	Patent granted (Information Technology)	2020-2021
37.	Patent granted (MCA)	2020-2021
38.	Funded Projects (Civil, ECE, MBA)	2020-2021
39.	Patent granted (EEE)	2021-2022
40.	Secured 9th Outstanding Engineering College of Excellence - CSR-GHRDC Survey 2021.	2021-2022
41.	Secured 21st Ranking (Top Private Engineering Institution, Tamilnadu) - Times Engineering Institution Survey 2021.	2021-2022

## **5. STRATEGIC PLAN 2020-2025**

Strategic planning is proposed as a key tool for systematic approach to bring the necessary changes for greater internationalization in the institutional direction and daily operations. The key decisions of strategic plan are discussed in the Governing Council for further improvement in the plan and communicated to stockholders for implementation.

The Strategic Plan 2020-2025 of K.S.R. College of Engineering (Autonomous) is derived to enhance the activities of various stackholders to reach the vision and mission of the Institution. This Strategic plan emphasises the developments in the following areas.

1. Curriculum Aspects
2. Teaching-Learning Process
3. Research Activities
4. Faculty, Staff and Students
5. Co-Curricular Activities
6. National and International Collaborations
7. Industry and Community Interactions
8. State of the art infrastructure
9. Involvement of Stackholders
10. Accreditation Ranking & Recoganzation (National and International)

### **1. CURRICULUM ASPECTS**

Being an Autonomous Institution, K.S.R. College of Engineering aims to utilize the academic and administrative autonomy extended by UGG (University Grants Commission), AICTE (All India Council for Technical Education) and Anna University. Academic flexibility is enhanced by introducing the best practice in curriculum and regulations. Strategic Plan 2020-2025 emphasises on self-learning, project based learning, open electives, one-credit and value added courses, internship and industry-linked projects. In order to achieve excellence the following activities are planned.

- Design of an innovative curriculum that is flexible, responsive and caters to the needs of the learners with global significance.
- The Choice Based Credit Systems (CBCS) to learn multidisciplinary domain.
- Design of a curriculum with in-depth focus on fundamentals which seamlessly integrates theory, practical, self-learning and experimental learning.
- The courses that reflect innovative, analytical, logical and technical aspects of engineering and in depth perspective of global scenario.
- Emphasizing research-based, application-oriented and product-development projects in the curriculum design.
- Academic flexibility by introducing innovative curriculum with more focus on Self-learning, Project based learning, Open Electives, One-credit courses, Value added courses, Semester-long internship with fast track opening and industry-linked projects.
- To promote On-Line Courses for self learning through NPTEL and Coursera.

## **2. TEACHING-LEARNING PROCESS**

Teaching - learning process is important to make students to understand the concepts of their field of study which enhances the skill and ability of students to world standards. In order to bring excellence in students the following are planned in the Teaching-learning process.

- Teaching and learning environment that nurture leadership qualities, teamwork and professional ethics.
- Review of teaching and learning activities with a view to updating on current trends, tools design and future requirements.
- Improvement of teaching – learning process through Outcome Based Education (OBE), NPTEL, MOOCs, and Video Conferencing etc.
- Integrated e-learning, blended learning and flipped classrooms as part of the Teaching - learning process.

- Developing evidence-based approaches for assessing best practices in learning methodologies and course delivery.
- Employing teaching assistants with financial support to help faculty in student interaction.
- Establishment of dedicated Teaching - learning Centre to provide training to faculty and explore innovations in pedagogical and technological aspects of teaching learning and evaluation processes.
- Providing ample opportunities for the exposure and interactions with international experts and global leaders in a variety of curricular, co- curricular and extra-curricular activities for enrichment of learning the experience.
- Faculty and students encouragement to take online courses like Swayam, NPTEL and other courses recommended by MHRD.

### **3. RESEARCH ACTIVITIES**

Research culture inculcates the skill and ability of students in the latest trends. Therefore, all the faculty and students are involved in the research activities such as publications, patents, Funded Projects, Consultancy, Faculty Skill Development (FSD) / Students Skill Development (SSD) etc., In addition to this, the following activities are aimed in this strategic plan.

- Special incentives for faculty who bring in research funding agencies.
- Encouragement of interaction between faculty of basic science and engineering & technology disciplines.
- Establish a Research Advisory Committee with internal and external members to interact with faculty and suggest long term opportunities and trends.
- Departments are approved by centre for research, Anna University Chennai. Undertaking various funded projects for the benefits of society.
- Encouraging faculty members to interact with industries to address real world problems.

- Creating opportunities for interested students in research activities.
- To increase the developments in research activities and outstanding researchers are encouraged and rewarded.
- Creation of intellectual resources and infrastructural facilities including workplace, simulation labs and networking & sharing of resources and infrastructure with other industries, funding agencies and government.
- To design training programmes and conduct research in coordination with government agencies oriented in solving specific national goals.
- Innovation and entrepreneurship shall be promoted through the Atal Innovation Mission (AIM). Incubation centres shall be started for the benefit of faculty and students.
- Students are encouraged to participate in various technical events organized by leading institutions and industries. Coding context is given prior importance.

#### **4. FACULTY, STAFF AND STUDENTS**

High Quality workforce (Faculty and Staff) is essential to uplift the students and other activities to Global Standards. The following activities are planned to enhance the quality of human resources (faculty, staff and students) of this institution.

- Requiring Faculty educated from Alumni of Nationally / Internationally Reputed Institution.
- Organizing seminars/ workshops to faculty with National / International experts/ professors.
- Encouraging faculty for National / International Industry / Institution Certifications / Faculty Development programmes / Interaction with experts.
- Encouragement for publication in Reputed Journals, Patents, Funded Projects.
- Encouraging faculty to participate in National Initiatives (NPTEL, SWAYAM, ATAL, AICTE Faculty award, Training in NITTTR etc.,)
- **The following programmes are planned for faculty and students**
  - Motivation for Filing PATENTS.
  - Involvement in Consultancy Activity.

- Encouragement for handling funded projects.
- Encouragement for Academic Excellence.
- Motivation for Faculty / Staff skill Development.
- Students Skill Development (SSD)

## **5. CO-CURRICULAR ACTIVITIES**

The Co-Curricular activities are planned in the following methods.

- English language course as bridge course to strengthen English Language Skills through British English Council (BEC).
- Ensuring increase in student participation in co-curricular activities such as Seminar Presentation, Technical project Contest etc.,
- Interaction with Corporate, Key professional bodies and associations for Internships, Projects and Placements.
- Support to technical, social, innovative and theme area project competitions in national and International forums.

## **6. NATIONAL AND INTERNATIONAL COLLABORATIONS**

In order to bring national and international exposure to faculty and students the following activities are planned.

- Enhance the image of the institution both nationally and internationally through sustained focussed interactions, with specific plans to bring in students from diverse groups.
- Promotional activities to increase the visibility of the undergraduate, postgraduate and research programmes through sustained campaigns in India and foreign countries.
- Promotions to enrich the national and international character of the Institution by Recruitment of foreign faculty, invited experts and admitting international students.
- Benchmarking against technologically sound global leaders with a view towards continuous improvement.
- Enhancing and standardizing a model for international semester exchange or Internships.
- Joint research publication and conference presentations.

- Offering English language course as bridge course for International students.
- Establishing country-wide alumni associations' network for establishing contacts in India and abroad.
- Preparing Faculty and students for implementing New Education Policy (NCP) of INDIA.

## **7. INDUSTRY AND COMMUNITY INTERACTIONS**

The industry and community collaborations are important to establish 360° interaction with industry for placements, internships, training, work experience, research, technology transfer, commercialization, designing and offering programs. Have community interaction to identify socially relevant critical problems, find solutions and disseminate knowledge through various outreach programmes.

- Enhance and expand the career and placement opportunities to include more national and multinational industries and wider varieties of careers.
- Establish a feedback mechanism for employers during and after internship or job placements.
- Student volunteers are engaged with community by tree plantations, Temple /School cleaning and white washing through the services by NSS/NCC/YRC/RPC. Disseminating information for the benefit of the community by KSR FM radio service.
- To encourage students for Chief Minister Award for Excellence in e-Governance.
- Mobilizing the Students to help the community by donating the blood by conducting Camps and on emergency etc.
- Establishing formal interaction with the community regularly through government officials for e-district projects.
- Encourage social entrepreneurship by establishing a framework and information exchange mechanism where student, faculty, industry or community can interact to discuss social problems and provide specific solutions.

## **8. STATE OF THE ART INFRASTRUCTURE**

The infrastructure with modern faculties brings in good Learning and Research ambience. The following are planned in this strategic plan.

- Construction of Smart Classrooms enabling technology based learning.
- Wi-Fi based communication and networking system for continuous and effective learning
- Enhancing technology-enriched amenities for indoor and outdoor sports, gym, swimming, health-centre and recreation.
- To setup modern laboratories in association with leading industries.
- Establishment of world class Green campus with efficient energy, water, waste and sanitation management.

## **9. INVOLVEMENT OF STACK HOLDERS**

The Stack holder plays the key role in the development/growth of the institution. The following activities are planned to increase the involvement of stakeholders (Management, Faculty, Staff, Students, Parents, Industry/Corporate, Expert, Academicians, Regulating Authorities, Statutory members, Professional bodies etc.,)

- To facilitate the curriculum enhancement, industry connection, consultancy assignment, feedback system and other socially relevant issues solving mechanism.
- To establish more alumni interaction to enhance the strong network among the current students to share the latest technology and placement activities.
- Involvement of stack holder through feedback system like alumni, parent, employer, curriculum aspect, industry personality etc.
- Feedback mechanism to review success of exciting student mentorship and counselling support.



- Continued interaction with corporate, key professional bodies and associations for internships, project and placement.
- Involvement of stack holder to ensure that the performance review and appraisal process support the student and faculty to deliver the strategic objective.

#### **10. ACCREDITATION, RANKING AND RECOGANIZATION (NATIONAL AND INTERNATIONAL)**

The Accreditation, Ranking and Recoganzation are important to raise the quality of institution to National and International Standards. The following are planned to enhance the Accreditation, Ranking and Reorganization activities of the institution.

- To bring more international academic community into institution for curriculum development, laboratory, research, student and faculty exchange program.
- To collaborate with National/International/University/Institutions/Industries/Corporate for research, placement, joint conference and publication.
- Development and strengthening of nation-wide and global networking with top class institution to ensure a robust growth of innovative research and product development for national and global need.
- To participate and get ranking in NIRF (National Institutional Ranking Frame work).
- NBA and NAAC Accreditation.
- To participate in International Rankings such as THE, QS, etc.,

## 6. EXECUTIVE COMMITTEE

The Strategic Plan Executive Committee shall meet periodically (at least twice in a semester) to review the progress of the Institution. The Executive committee details are given below:

S. No.	NAME	DESIGNATION	CAPACITY
1.	Dr. P. Senthil Kumar	Principal, KSRCE	Chairman
2.	Dr. P. Kulandaivelu	Principal, KSRIT	Management Committee
3.	Dr.A.M.Kalapana	Professor/HOD/CSE, GCE, Salem.	External Expert (Academician)
4.	Mr. J.M.Gokulraaja	DMS Head – Software Division, ISD Department, TVS Motor Company LTD, Hosur.	Industry Expert
5.	Dr. R.V.M. Rangarajan	HOD/MATHS	Internal Member
6.	Dr. M. Prabhu	HOD/SFE	Internal Member
7.	Dr. M.Vijayakumar	Assistant Professor/EEE	Internal Member
8.	Dr G.Singaravel	HOD/IT	Convener

DATE: 01-07-2020

  
CONVENER

**Dr. G. Singaravel**  
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PRINCIPAL

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