

KAMARAJ
COLLEGE OF ENGINEERING & TECHNOLOGY
VIRUDHUNAGAR



NAAC

Self-Study Report

Volume 1/2



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Certificate of Compliance

(Affiliated/Constituent/Autonomous Colleges and Recognized Institutions)

This is to certify that ~~KUMARAJ COLLEGE OF ENGINEERING & TECHNOLOGY~~ (Name of the institution) fulfils all norms

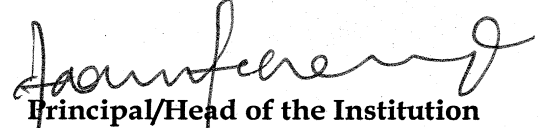
1. Stipulated by the affiliating University and/or
2. Regulatory Council/Body [such as UGC, NCTE, AICTE, MCI, DCI, BCI, etc.] and
3. The affiliation and recognition [if applicable] is valid as on date.

In case the affiliation / recognition is conditional, then a detailed enclosure with regard to compliance of conditions by the institution will be sent.

It is noted that NAAC's accreditation, if granted, shall stand cancelled automatically, once the institution loses its University affiliation or Recognition by the Regulatory Council, as the case may be.

In case the undertaking submitted by the institution is found to be false then the accreditation given by NAAC is liable to be withdrawn. It is also agreeable that the undertaking given to NAAC will be displayed on the college website.

Date: 03/02/2015
Place: Virudhunagar


Principal/Head of the Institution
(Name and Signature with Office seal)
PRINCIPAL
Kumaraj College of
Engineering and Technology
Virudhunagar.

Executive Summary

Kamaraj College of Engineering and Technology is the outcome of the cherished desire and dream of the people of Virudhunagar, which is a major business town and home land of Karmaveerar "Bharat Ratna" K. Kamaraj. The College is ideally located on the National Highways 7, at a distance of 35 Km to the South-West of Madurai.

The college is rightly named after the son of this soil, Bharat Ratna Sri. K. Kamaraj who was the undisputed leader of the suppressed and downtrodden and a champion of free education for the masses. A huge statue of him is erected at the entrance of the college, along with two school going children standing beside him, to make the students and the public to remember his indefatigable efforts, to bring school education to millions of the rural poor by introducing free education and the free Midday Meal Scheme during his tenure as chief minister.

“Kamaraj College of Engineering and Technology Managing board” society was formed in the year 1997 and they established this institution in the academic year 1998-1999. It has established itself as one of the most successful and credible professional engineering and technology education body of its kind in the south Tamilnadu.

The Managing Board was formed by the members of Virudhunagar Hindu Nadars Abiviruthi Palasarakku Kadai Mahamai Tharappu, Virudhunagar Hindu Nadars Abiviruthi Panjukadai Mahamai, Virudhunagar Hindu Nadars Arisikadai Mahamai, Virudhunagar Hindu Nadars Navathaniakadai Dharma Fund, Virudhunagar Hindu Nadars Javulikadai Mahamai Tharappu, Virudhunagar Hindu Nadars Abiviruthi Paruthividhai Kadai Mahamai, Virudhunagar Hindu Nadars Uraivimurai Paripalana Sabhai at Madurai, Virudhunagar Hindu Nadars Mahamai Abiviruthi Fund at Tuticorin, Virudhunagar Hindu Nadars Abiviruthi Dharma Fund at Chennai, Virudhunagar Hindu Nadars Mahamai Abiviruthi Fund at Theni, Virudhunagar Hindu Nadars Mahamai at Bombay, Virudhunagar Hindu Nadars Improvement Mahamai Fund at Kumbakonam. They have over 100 years of experience in the field of education and the trust has attracted students from all over the state and has branched out into many institutions. The prominent institutions of these Mahamai Tharapus are Virudhunagar Hindu Nadar Senthikumara Nadar College, Virudhunagar S.Vellaichamy Nadar Polytechnic College, Kshatriya Vidhya Sala, Kshatriya Girls Schools, P.S.Chidhambara Nadar Senior English School, V.V.Vanniaperumal College for women, V.V.V. College of Nursing etc. About 28 thousand students are studying under the mahamai tharapus of Virudhunagar.

The association has 68 members who are elected from the above Mahamai Tharappus, once in four years. The institution is governed by board of Directors and office bearers, the Patron, the President, the Vice-President, the Secretary, the Joint Secretary, the Treasurer, who are elected by the association and they serve for two years.

The office bearers of the present board are Er.A.S.K.A.M.Nagarajan, B.E.(Hons.), M.Sc.(Engg.), M.I.E., Patron, Thiru.T.C.S.P.S.Krishnamoorthy, B.Sc., President, Thiru.A.S.A.A.G.Balamurugan, M.B.A., Vice President, Er.C.Marimuthu, M.Tech., Secretary, Thiru.V.V.R.J.Senkuttuvan,B.Sc., Joint Secretary, Thiru.M.S.P.R.Navarajan, B.A., Treasurer, Thiru.A.C.S.Rathinasamy,Custodian of Documents, Thiru.S.M.S.Natarajan,D.E.E.E., Custodian of movable properties, Thiru. R.Mahesh Kumar,B.A.,Custodian of Immovable properties, Thiru.B.Siva Chidambaram, Developer of Sports & Extra Curricular Activities.

The Patron, Thiru.A.S.K.A.M. Nagarajan has magnanimously donated 50 Lakhs and S.P.G.Chidambara Nadar family has donated 25 acres of Land for the progress of college. Our Institution is growing with sustained progress due to the generous contributions from Virudhunagar Devasthanam, Various Mahamai Tharappus and Educational Institutions. At present the College spans to 45 acres of land.

Dr. K. Sarukesi, Ph.D., Dean Kamaraj College of Engineering and Technology formerly Vice-Chancellor, Hindustan University, Chennai has a distinguished career spanning nearly, 47 years. Graduating with a B.E. Mechanical Engineering from Annamalai University, he obtained his M.Sc.(Engg.) in Production Engineering, from PSG College of Technology, affiliated to Madras University. He earned University 1st rank in his M.Sc., (Engg.) and was awarded a Commonwealth Scholarship by the association of Commonwealth Universities, London for doing Ph. D. in U.K. and he completed his Ph.D. from University of Warwick, U.K. in the year 1982. He has vast teaching experience in various universities in India as well in Abroad. He has been honored and awarded commendation for his work done in the field of Information Technology by the Government of Tamil Nadu. He is very congenial and encourages the faculty members and students to recognize their talents and helps them to develop into good professionals. His suggestions in the academic activities especially in teaching-learning and evaluation processes have been helping the institution to reach top positions amongst the reputed institutions under Anna University.

Dr. Anant Achary, M.Tech., Ph.D., is the Principal of Kamaraj College of Engineering and Technology, Virudhunagar. He is guiding eleven Ph. D., research scholars in the field of Bio-Technology. He has made publications in Peer Reviewed International and National Research Journals and presented papers in National and International conferences. He had received grants for projects from various organizations like DRDO, New Delhi, India – Major Research Projects (Principal Investigator), AICTE, New Delhi – RPS – Grant, AICTE, New Delhi – Seminar Grant and TNSCST, Chennai – Student Project Scheme (Supervisor). He worked as Charg d Research at Biopole Vegetal Amienx, France, associated to University of Technology Compiegne, France. He has established himself as a researcher, an academician and an administrator for which he was awarded The Rashtriya Vidya Saraswathi Puraskar, The Rashtriya Vidya Gaurav Gold Medal Award and Certificate of Excellence in Education in 2013.

The College is a co-educational institution and currently offers the following Courses :

UG Courses :

Sl. No.	Courses Offered	Sanctioned Strength
1	B.E. Computer Science and Engineering	120
2	B.E. Electronics and Communication Engineering	120
3	B.E. Electronics and Instrumentation Engineering	60
4	B.Tech. Polymer Technology	60
5	B.Tech. Information Technology	60
6	B.Tech. Biotechnology	60
7	B.E. Electrical and Electronics Engineering	120
8	B.E. Mechanical Engineering	120
9	B.E. Civil Engineering	120
10	B.E. Mechatronics	60
Total		900

PG Courses :

Sl. No.	Courses Offered	Sanctioned Strength
1	M.Tech. Polymer Science and Engineering	18
2	M.Tech. Biotechnology	18
3	M.E. Communication and Networking	18
4	M.E. Manufacturing Engineering	18
5	M.E. Power Systems Engineering	18
6	M.E. Structural Engineering	18
7	M.E. Computer Science and Engineering	18
8	M.E. Biometrics and Cyber Security	18
9	M.Sc. Software Systems (5 year integrated)	60
Total		204

Research Centres :

Sl. No.	Departments
1	Biotechnology
2	Polymer Technology
3	Electrical and Electronics Engineering
4	Physics
5	Chemistry

The Institution has been planned to be a model Engineering College. It envisages producing highly qualified engineers with devotion to duty and dedication to service. It strives to educate the mind, nurture the spirit, and foster the development of the whole individual. Its dedicated and talented band of faculty members wires the mission and as they continue to look for educational growth for themselves, they bring new and innovative ideas back into the classroom. The thirst for knowledge and love for learning thrives at KCET in both students & teachers.

The college is ranked 33rd out of 506 Engineering Colleges based on Nov / Dec 13 results by Anna University, Chennai and ranked 73 among Engineering Institutions in India in the year 2013. [Data Quest Survey- www.dqindia.ciol.com] and ranks 19 among Engineering colleges in Tamilnadu. [chennaikalvi.com Survey]. The college is one of the first in installing Automatic Restoration Generator Set with capacity of 1075KVA among various Engineering college in Tamilnadu.

The salient features of the college are:

- Over **1400 Computer systems connected with powerful network to Xeon server**
- **45Mbps 1:1 internet connectivity** with **wi-Fi** facility all over the campus.
- **EDUSAT** Live telecast of program with special lectures by experts, telecast by **Anna University, Chennai**.
- **National Instruments Lab view Academy school**.
- Green campus with **30kW solar power grid, 30 solar street lights and Solar Water Heaters**.
- Purified drinking water plant by RO plants and **water coolers** inside the campus.
- **Library** with volume of Reference books and **digital section** for e-journals, **NPTEL- Videos, Edusat Videos** of technical contents.
- **Multipurpose Hall** with a capacity of 1500 students with additional **lift facility**
- 1750 KVA auto start genset.
- Excellent infrastructure for various Games, Sports and Cultural activities.

- Separate hostel for boys and girls with a **Computer Room with Internet facility, 24 x 7, 45 mbps wifi connectivity, Indoor Games, Gymnasium, Solar Water Heater, Shoe Polishing Machine, Tuck-shop, Public Address System, RO Water, Water Cooler, STD Booth, Boys Recreation Hall, LCD TV and Dispensary.**

The college is an associate member of **ICTACT, CII** and it enhances Industry-Institute partnership. It is one of the partner colleges of IT giant INFOSYS. Infosys has extended its support in fine-tuning our students in the area of software development and soft skills.

The Training & Placement cell effectively functions under the guidance of our Secretary and Principal giving ample opportunities to the budding Technocrats. Students are trained by experts from various training organizations. Also, to ensure continuous training for all the students, coaching hour is scheduled in regular time-table for the Placement training. All efforts are taken to reach 100% Placement in the near future.

Our college has received Rs.1,84,06,000 as grants from various organizations listed below for creating research facility in the departments:

- Centre for Fire, Explosive & Environment Safety, Defense Research & Development Organization, Ministry of Defense, Brig. S.K.Mazumdar Road, Timarpur, Delhi – 110 054, for the project titled **Development of degradable polymers having applicability at high altitudes and sub-zero temperature** in 2003 for **Rs. 9,90,600/-**
- DRDO, New Delhi for the project titled **Isolation and Identification of antihepatatic principle from field grown and in vitro plants of Eclipta prostrataitalies** in 2003 for **Rs.4,55,000/-**
- Defence Materials & Stores R&D Establishment, DMSRDE Post Office, GT Road, Kanpur-208 013: for the project titled **Development of novel polyimide encapped oligomers as high temperature matrix resins** in 2003 for **Rs. 4,85,600/-**
- DRDO, New Delhi for the project titled **Development of Microbial Consortium for degrading packaging polymers (Polyolefin)** in 2004 for **Rs. 3,00,000/-**.
- Department of Science & Technology, New Delhi, for the project titled **Melt functionalisation of Polyolefins – a FTIR study** in 2005 for **Rs. 10,62,000/-**.
- Indira Gandhi Centre For Atomic Research, Kalpakkam- 603 102, for the project titled **Development of Intmescent Polymers for extinguishing Sodium Fire** in 2007 for **Rs. 9,56,000.**

- DRDE, Gwalior, for the project titled **To Synthesis and Study the antibacterial behaviour of nano-silver particles** in 2007 for **Rs. 9,50,000/-**
- LSRB, DRDO, New Delhi for the project titled **Production process optimization and characterization of sulfated fucoidans from brown algae that has diverse pharmaceutical potential** in 2007 for **Rs. 8,38,000/-**
- TNSCST for the **project titled Nanobiotechnological approaches to synthesis of nano crystalline silica particles from agro waste for health care** in 2008 for **Rs. 2,00,000/-**
- DRDO, New Delhi for the project titled **Development of Novel High Temperature Resistant Matrix Resins for Aerospace application** in 2008 for **Rs. 18,38,000/-**.
- Department of Atomic Energy, Board of Research in Nuclear Science(BRNS) for the project titled **Development of Electron Beam Curable resins for Fibre Reinforce composites (2010-2013)** **Rs. 21,64,000/-**.
- AICTE (RPS) for the project titled **Optimization of medium, Process parameters and purification of Alkaline protease from Novel Bacillus species through design of experiments** in 2010 for **Rs.2,50,000/-**.
- AICTE, MODROBS, New Delhi for the project titled **Modernisation and Upgradation of Bioprocess Laboratory** in 2012 for **Rs.12,00,000/-**
- Defence Research & Development Organization, Delhi – 110 054 for the project titled **Synthesis and Characterizations of super hydrophobic copper and aluminum substrate for optoelectronic applications** in 2012 for **Rs. 50,87,000/-**.
- TNSCST – Student Project Scheme – 2011-2012 for the project titled **Synthesis and Characterizations of silver end capped diblock copolymer nano miscelles** in 2012 for **Rs.6,000/-**
- TNSCST – Student Project Scheme – 2011-2012 for the project titled on **Low cost air pollution monitoring system using sensor web.** 29th February 2012 for **Rs.6,000/-**
- TNSCST – Our college coordinated State level **TNSCST Student Projects seminar cum exhibition** on 10th & 11th Aug 2012 and got a grant for **Rs. 1,25,000/-**
- TNSCST, Chennai & NCSTC, New Delhi for the project titled **Programme on bio-technology in india a promising future** 02nd November 2012 for **Rs.15,000/-**

- TNSCST – Student Project Scheme – 2012-2013 for the project titled **Study on mechanical properties and fresh state behaviour of self compacting concrete containing waste material fibres** 15th May 2013 for **Rs. 10,000/-**
- TNSCST – Student Project Scheme – 2012-2013 for the project titled **Study of interfacial bond behaviour of composite road** on 15th May 2013 for **Rs. 10,000/-**
- TNSCST – Student Project Scheme – 2012-2013 for the project titled **Hybrid Solar Vertical Axis helical wind turbine for the production of electricity** on 15th May 2013 for **Rs. 10,000/-**
- TNSCST – Student Project Scheme – 2012-2013 for the project titled **A Novel way of designing & fabrication of mechanical heart pump machine** on 15th May 2013 for **Rs. 10,000/-**
- TNSCST – Student Project Scheme – 2012-2013 for the project titled **Synthesis and characterisation of drug bridged novel polymer nano particles for cancer treatment.** on 15th May 2013 for **Rs. 10,000/-**
- TNSCST – Student Project Scheme – 2012-2013 for the project titled **Eco-friendly biodegradable films derived from Aloe vera** on 15th May 2013 for **Rs. 5,000/-**
- TNSCST – Student Project Scheme – 2012-2013 for the project titled **Cost effective production of biosurfactant using oil industry effluent and its potential in chromium recovery** on 15th May 2013 for **Rs. 5,000/-**
- TNSCST – Student Project Scheme – 2012-2013 for the project titled **Extraction purification of phlorotannins from different species of marine algae and evaluation of its antioxidant and anti-cancer potential** on 15th May 2013 for **Rs. 10,000/-**
- Department of Atomic Energy, Government of India for the project titled **DAE – Young Scientist Research Award (YSRA)** on 7th June 2013 for **Rs. 14,50,000/-**
- Foundation for Advancement of Education & Research (FAER), Bangalore for the project titled **Design and Fabrication of artificial bone for injured person using layered manufacturing technique** 16th August 2013 for **Rs. 5,000/-**
- Foundation for Advancement of Education & Research (FAER), Bangalore for the project titled **Adaptive Energy Efficient smart street light solid state lighting system** 16th August 2013 for **Rs. 2,800/-**