



# MOHAMED SATHAK A.J. COLLEGE OF ENGINEERING

Approved by AICTE, New Delhi, Affiliated to Anna University



## INFORMATION BOOKLET

TNEA COUNSELING CODE **1301**







Alhaj  
**S.M.Ahamed Jalaluddin**  
founder

## The Trust

The Mohamed Sathak Trust was established on 26th October 1973 , registered under societies registration act by Philanthropic Mohamed Sathak family of Kilakarai, Ramanad District, Tamil Nadu with the noble purpose of helping deprived people from rural and financially challenged background to pursue quality education.

The founder Chairman Late Alhaj S.M.Ahamed Jalaluddin was the motivating force behind the establishment of trust which provided quality education with academic excellence in the field of Engineering & Technology, Architecture, Arts and Science, Paramedical and Management education and training to meet the industrial and societal needs. At present, the trust is running 17 institutions such as Polytechnic College, ITI, Arabic College, Architecture, two Engineering colleges, two Teacher Training Institutes, three paramedical colleges, three Arts and Science colleges and three Schools located at Kilakarai, Ramanathapuram and Chennai.

## Governing Council

**1 Alhaj S.M.Yousuf Sahib,**

Chairman, Mohamed Sathak Trust

**2 Janaba S.M.H.Sharmila,**

Secretary, Mohamed Sathak Trust

**3 Janab P.R.L.Hamid Ibrahim,**

Executive Director, Mohamed Sathak Trust

**4 Janab Mohamed Sathak,**

Director, Mohamed Sathak A.J. College of Engineering

**5 Dr.T.V.Gopal,**

Prof/CSE, Anna University, Chennai.

**6 Dr.Anbu Thambi,**

Vice President, ICT Academy, Chennai.

**7 Mr.Arul Rajkumar,**

Vice President IT Operations,

Ford Motors Pvt.Ltd.

**8 Dr.Kulanthaivelu,**

Prof/Head-ECE, NITTTR, Chennai.

MHRD-Govt of India.

**9 Dr.P.Sathiya,**

Prof&Head Production Engg., NIT, Trichy.

**10 Mr.S.Murugavel,**

Associate Professor, Thanthai Periyar Government Institute of Technology, Vellore



# Chairman Message

**Dear Parents and Prospective Students,**

Welcome to Mohamed Sathak A.J. College of Engineering, Chennai. Choosing a right institute to pursue your higher studies is one of the most important decisions that you will ever make. It can be the key for the door of your lifelong opportunity for sustainable growth and service. We want you to base your choice at the right place with relevant and reliable education.

The success depends on the effort you invest in your own intellectual and professional development. Invest wisely and be assured that MSAJCE faculty and staff pledge their best efforts in helping you to achieve your educational goals.

Our standards are challenging and we are dedicating ourselves in helping you to meet the standards. We will judge our institution's success by how best you succeed in realizing your potential as a student and later in professional career. I invite you to visit our magnificent campus, to witness our state-of-the-art facilities, including the Technology Centres, interact with students and faculty and to convince yourselves on why so many bright students have made MSAJCE as their choice of the institution.

**I am confident that you will take pride in joining our college.**



**Alhaj S.M. Youssuf**  
Chairman



**Janaba. S. M. H. Sharmila**  
Secretary



**Janab P.R.L.Hamid Ibrahim**  
Executive Director







## Mohamed Sathak A.J. College of Engineering

### The Vision

To be an eminent institute for higher education and research through innovative teaching-learning and sustainable practices to meet the industrial and societal needs.

### The Mission

To impart quality technical education by transforming students into professionally competent technocrats.

To nurture the students in all-round sustainable development, for career and self employability.

To inculcate critical thinking, professional ethics with civic responsibilities by instilling values.





# The Institute

The Mohamed Sathak A.J. College of Engineering (MSAJCE) was established on 5th July 2001 under the aegis of Mohamed Sathak Trust. MSAJCE Strives to continuously upgrade its facilities to provide quality technical education to meet the industrial and societal needs, by providing skill based training with the state of art facilities.

The college campus, sprawling over 70 acres of lush green environment located inside the SIPCOT IT Park, Siruseri Chennai is surrounded by multinational IT companies such as TCS, CTS, Intellect, Aspire, Steria, Polaris, FSS, etc. MSAJCE has good infrastructure facilities such as spacious classrooms, drawing halls, laboratories, seminar halls, computer facilities with internet and wifi connectivity, library, workshops, auditorium, playground and hostel. The college is well connected by Road, Rail and Air from various parts of the country. A team of well qualified, dedicated and experienced faculty supports the teaching and learning process. The college provides equal importance for academic, co curricular and extracurricular activities. MSAJCE provides all kinds of training for the professional and overall transformation of the students into budding engineers.

## The Programs

Mohamed Sathak A.J. College of Engineering (MSAJCE) is approved by AICTE New Delhi, affiliated to Anna University Chennai and Government of Tamil Nadu. MSAJCE has developed unique academic model (ASCII) Activity based learning, Smart learning, Competition based learning, Innovative learning and Industrial training is being followed since 2019.

**MSAJCE offers following B.E/B.Tech (UG) Programs of 4 years duration and M.E (PG) programs of 2 years duration.**

### Under Graduate Programmes

- ✓ B.E. Civil engineering
- ✓ B.E. Computer Science and Engineering
- ✓ B.E. Electronics and Communication Engineering
- ✓ B.E. Electrical and Electronics Engineering
- ✓ B.E. Mechanical Engineering
- ✓ B.Tech. Information Technology

### Eligibility

The minimum eligibility requirements for admission to B.E/B.Tech Degree courses as recommended by AICTE & Anna University.

Category	Regular	Lateral Entry
	Pass in 12th /HSC or its equivalent with min Pass Percentage	Direct admission to 2nd year B.E / B.Tech pass in Diploma in Engg pass in B.Sc Maths
OC	45 %	45 %
BC/OBC	40 %	40 %
MBC	40 %	40 %
SC / ST	40 %	40 %

### Post Graduate Programmes

- ✓ M.E. Computer Science and Engineering
- ✓ M.E. Structural Engineering

### Eligibility

The minimum eligibility requirements for admission to M.E. Degree courses

**for M.E.Computer Science & Engineering:** Pass in B.E./ B.Tech. (EEE/ ECE/ Electronics/ IT/ CSE/ I&C/ E&I/ Instrumentation) or MCA or M.Sc. 5 years integrated Course(IT / CS / Software Engineering)

**for M.E. Structural Engineering :** Pass in B.E./ B.Tech. Civil Engg





# Why Engineering ?

Engineering is all around us, all the time. Without Engineering nothing is there in the Globe. It is involved in our buildings, food, water, energy, transport, communication, medicines, smart phone, internet, car and roads we drive on – it's everywhere. It plays a vital role literally in everything our life depends on.

It uses our knowledge of the Sciences and Mathematics, to find new solutions to everyday problems. It creates better ways of doing things and continually helps to improve our lives. It makes things easier, faster, safer, smaller, lighter, more consistent and affordable. Science enables us to understand the world around us, but it is engineering that makes practical use of the understanding, by solving problems, designing and building new things or improving existing solutions. **Albert Einstein quoted, "Scientists investigate that which already is, the Engineers create that which has never been."** Engineers are problem solvers, they research, innovate and either create something new or improve something. They find alternative solutions; they design and build better things.

## Engineering :

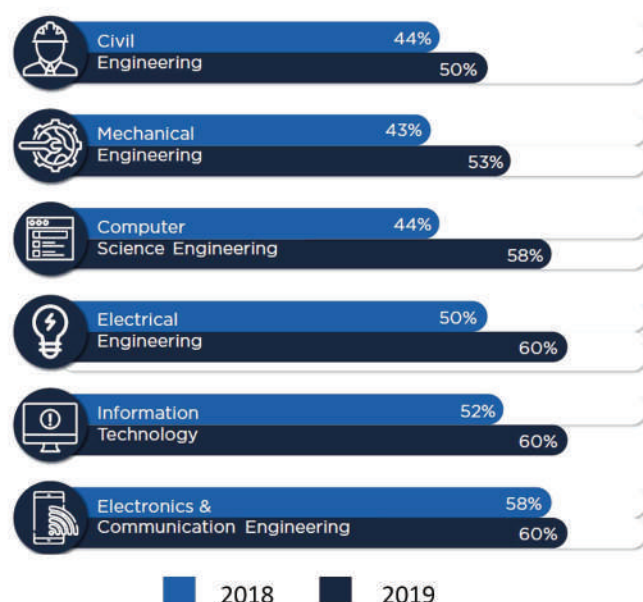
- ✓ Provides better Job satisfaction
- ✓ Improves the Team spirit and Leadership skills
- ✓ Increases Employability
- ✓ Explores the world
- ✓ Makes a difference with other professions
- ✓ Gives a good salary Package
- ✓ Provides Great prospects
- ✓ Rules the Globe

## Best Growth in Engineering Jobs for the next 10 Years

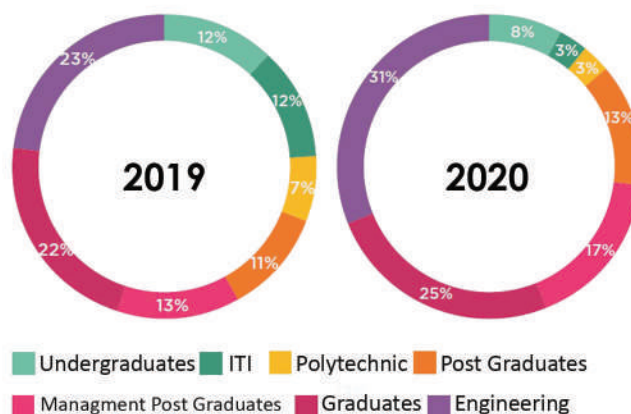
-Courtesy by India Skill Report 2020

1. Artificial Intelligence / Machine Learning & Deep Learning
2. Network, Cyber Security & Network Automation
3. Industrial Automation & Manufacturing Sector
4. Autonomous / E-Vehicle
5. Robotic Process Automation [RPA]
6. AR / VR & Gaming
7. 3D Printing & Reverse Engineering
8. Web & Mobile App Development
9. Cloud Computing, Data Science & Analytics
10. Telecom and Bio-Medical Sector
11. Automobile Sector
12. Embedded & IoT
13. Energy Engineering & Power Sectors
14. Construction & Transportation Engineering
15. Environmental Engineering
16. System Analysis & Software Development

## Course wise Employability



## Engineering & Graduates are high in demand





# The Future of Jobs 2025 (from World Economic Forum October - 2020 )

## Increasing demand

- 1 Data Analysts and Scientists
- 2 AI and Machine Learning Specialists
- 3 Big Data Specialists
- 4 Digital Marketing and Strategy Specialists
- 5 Process Automation Specialists
- 6 Business Development Professionals
- 7 Digital Transformation Specialists
- 8 Information Security Analysts
- 9 Software and Application Developers
- 10 Internet of Things Specialists
- 11 Project Managers
- 12 Business Services and Administration Managers
- 13 Database and Network Professionals
- 14 Robotics Engineers
- 15 Strategic Advisors
- 16 Management and Organization Analysts
- 17 FinTech Engineers
- 18 Mechanics and Machinery Repairers
- 19 Organizational Development Specialists
- 20 Risk Management Specialists

## Decreasing demand

- 1 Data Entry Clerks
- 2 Administrative and Executive Secretaries
- 3 Accounting, Bookkeeping and Payroll Clerks
- 4 Accountants and Auditors
- 5 Assembly and Factory Workers
- 6 Business Services and Administration Managers
- 7 Client Information and Customer Service Workers
- 8 General and Operations Managers
- 9 Mechanics and Machinery Repairers
- 10 Material-Recording and Stock-Keeping Clerks
- 11 Financial Analysts
- 12 Postal Service Clerks
- 13 Sales Rep., Wholesale and Manuf., Tech. and Sci.Products
- 14 Relationship Managers
- 15 Bank Tellers and Related Clerks
- 16 Door-To-Door Sales, News and Street Vendors
- 17 Electronics and Telecoms Installers and Repairers
- 18 Human Resources Specialists
- 19 Training and Development Specialists
- 20 Construction Laborers





# Why Join MSAJCE ?



Tech Jumboree'19, Science Exhibition and Competition on 28-08-'2019



Seminar on career opportunities in Japan delivered by JVC Japan 16-09-2019



Women Empowerment day conducted on 25-11-2019



Intellectual Property Rights workshop Sponsored by TNSCST on 13-12-2019

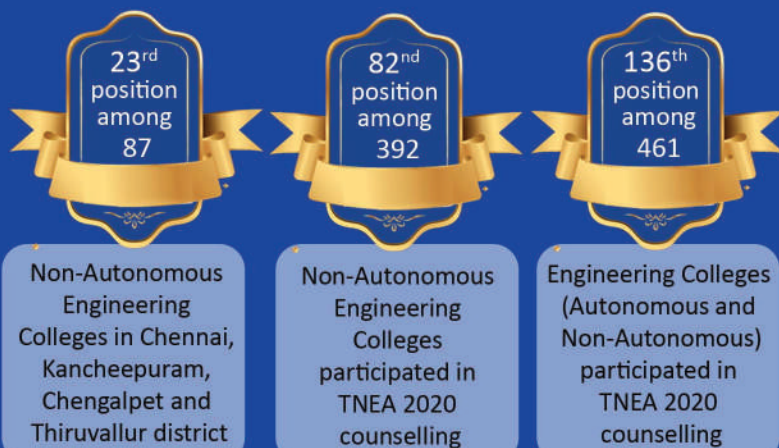
- ✓ 47 years of experience in education sector for the trust, 20 + years of excellent performance by MSAJCE
- ✓ Located in a lush green environment at Siruseri IT Park, surrounded by 100+ leading IT Industries like, TCS, CTS, Infosys, Intellect, FSS, HCL etc.
- ✓ Well defined academic process (ASCI)
- ✓ State-of-the-art facility in terms of Laboratories, Books and Environment for Smart Learning.
- ✓ Dedicated, Qualified, Experienced and self motivated faculty. Our academic process (ASCI) support Activity based learning, Smart learning, Competition based learning, Innovation in learning and Industrial Training
- ✓ 90% placement in 2019-2020 , Highest salary package 7.1 lakhs Average salary 3 lakhs.
- ✓ Scholarship for meritorious students, Economically poor students & Sports Achievers
- ✓ Excellent Eco System to Learn, Unlearn & Relearn Concepts and Attitude, Skill & Knowledge development towards work and career.
- ✓ Making knowledge more Practical rather than Theoretical and focus on Competitive Learning.
- ✓ Value added courses certified by reputed organization and Industries to learn emerging technology in accordance with upcoming jobs / skill requirement.
- ✓ Interaction with Industry person to enable them for Innovative learning.
- ✓ Support for developing Interpersonal Skills and Start Ups.
- ✓ 20 + Technology Centres in association with Industry.
- ✓ 6 Month Internship within 4 Years of Study as recommended by AICTE and Anna University.
- ✓ Career Counselling by Industrial Experts.
- ✓ On Campus Communication Language Learning facilities (English / Japanese / German).
- ✓ Support for various social activities under Unnat Bharath Abhiyan, Professional Association Activities, and Sport Activities.
- ✓ International & National Student Exchange Program for Cultural Learning / Exchange.
- ✓ Good Alumni network, Parent Teacher relation and student exchange activities
- ✓ Strong Industry Institute Interaction, Placement, Internship / Industrial visit

## Teaching learning model

Day	FN	AN
Monday to Friday	Theoretical concepts	Activity based learning / Value added Course / Practicals



# 2020 TNEA Counselling Analysis



**TNEA 2020 - END OF SUPPLEMENTARY COUNSELLING**

**RANKING - NON AUTONOMOUS COLLEGES**

Sl. No.	College Name	Rank	Score	Rank	Score	Rank	Score	Rank	Score
79	2342 Sri Rangam Institute of Engineering and Technology, Thiruvallur	209	0	2	28	95	24	150	58.40
80	2461 Sri Rangam Institute of Engineering and Technology, Thiruvallur	209	0	2	28	95	24	150	58.40
81	1452 Sri Rangam Institute of Engineering and Technology, Thiruvallur	209	0	2	28	95	24	150	58.40
82	1301 Sri Rangam Institute of Engineering and Technology, Thiruvallur	209	0	2	28	95	24	150	58.40
83	1311 Sri Rangam Institute of Engineering and Technology, Thiruvallur	209	0	2	28	95	24	150	58.40
84	2446 Sri Rangam Institute of Engineering and Technology, Thiruvallur	209	0	2	28	95	24	150	58.40
85	1302 Sri Rangam Institute of Engineering and Technology, Thiruvallur	209	0	2	28	95	24	150	58.40
86	2050 Sri Rangam Institute of Engineering and Technology, Thiruvallur	209	0	2	28	95	24	150	58.40

**TNEA 2020 - AT THE END OF SUPPLEMENTARY COLLEGES RANKING**

Sl. No.	College Name	Rank	Score	Rank	Score	Rank	Score	Rank	Score
131	2342 Sri Rangam Institute of Engineering and Technology, Thiruvallur	209	0	2	28	95	24	150	58.40
132	2461 Sri Rangam Institute of Engineering and Technology, Thiruvallur	209	0	2	28	95	24	150	58.40
133	1452 Sri Rangam Institute of Engineering and Technology, Thiruvallur	209	0	2	28	95	24	150	58.40
134	1301 Sri Rangam Institute of Engineering and Technology, Thiruvallur	209	0	2	28	95	24	150	58.40
135	1311 Sri Rangam Institute of Engineering and Technology, Thiruvallur	209	0	2	28	95	24	150	58.40
136	2446 Sri Rangam Institute of Engineering and Technology, Thiruvallur	209	0	2	28	95	24	150	58.40
137	1302 Sri Rangam Institute of Engineering and Technology, Thiruvallur	209	0	2	28	95	24	150	58.40
138	2050 Sri Rangam Institute of Engineering and Technology, Thiruvallur	209	0	2	28	95	24	150	58.40

## List of MoUs Signed

No of MoUs Signed	2017 - 2018	08
	2018 - 2019	15
	2019 - 2020	18

### MoUs signed in 2020 :

Skill Shark Edutech Pvt Ltd, Code Tantras Tech Solution Pvt Ltd, Imperial Society of Innovative Engineers(ISIE), Amazon Web Services, Palo Alto Systems, Automation Anywhere Bangalore, Altair Engineering India Pvt Ltd Chennai, Openwave Computing Services Pvt Ltd, Gowatr Pvt Ltd, Preethi Cookware Pvt Ltd, Healthy and Smart Agro Products Pvt Ltd.



MSAJCE received the Center of Excellence in AWS Academy (Amazon Web Services) from ICT Academy , at AICTE, New Delhi.



Mohamed Sathak Educational trust is honoured to receive an award in the name of Moulana Abul Kalam Azad for its contribution towards education

### Various Online Courses completed and Certified in 2019-2020:

NPTTEL, TATA STEEL, CISCO, AWS, MATH WORKS, COUSERA, GUVI, UDEMY, CURSA, OPEN SAP, SWAYAM, MBRU, ELSEVER, RPA, CODETANTRA.AUTO DESK, ISIE INDIA.

Faculty	Students
1870	1285

## Events Conducted in 2019-2020

1	GL / Seminar	09
3	Industrial Visit	17
4	Webinar	49
5	Quiz Program	17
6	Workshop Organized	09
7	Faculty Development Program Organized	14
9	Symposium Conducted	06
10	International Conferences Conducted	05
11	MCQ Test Series	18
12	Internal Hackathon	01



Mohamed Sathak A.J College of Engineering received the award for " Excellence in Higher Education" from Global Education and Career Forum.



Civil engineers conceive, design, construct, supervise, operate and maintain infrastructure projects and system in the public and private sector including roads, building, bridges, airports, tunnels, dams, systems for water supply and sewerage treatment, pollution control etc. Civil Engineering is one of the older engineering disciplines and it is a backbone and integral part of the society, without them a society cannot function. Civil Engineering is a very diverse profession and offers a wide range of activities through various disciplines such as surveying, structural engineering, transport engineering, environment engineering, water supply engineering, Remote Sensing and GIS, etc. Civil engineers are the heroes of the engineering world and part of helping society by adapting the infrastructures with new technologies, to meet the population growth and climatic change. Civil engineers will never have a dull moment and always are creative in their own unique way. The Department of Civil Engineering started in 2007, deals with planning, construction and maintenance of fixed structures or public works, as they are related to earth, water or civilization and their process. The goal of these programs is that our graduates will achieve a high level of expertise so that they are able to achieve confidence to function as consultants, industrialists, and research scientist or in other fields they choose to pursue. To strengthen this goal, the department has excellent infrastructure, qualified and motivated team of faculty with rich experience in teaching, research and industry.



## Industry Oriented Technology Centers

- ▶ Bentleys – Building Information and Modeling
- ▶ 3D Printing Lab
- ▶ CAD Lab
- ▶ Structural Analysis Lab

The students of Civil Engineering perform their major & mini projects in the following areas :

- ✓ Analysis and Design of Steel Structures
- ✓ Concrete Technology
- ✓ Pollution Control
- ✓ Water & Waste Water Treatment
- ✓ Soil Stability
- ✓ GIS & Remote Sensing
- ✓ Construction and Estimation Projects
- ✓ Prestressed Concrete Structures
- ✓ Transportation Engineering
- ✓ RCC Design Projects
- ✓ STAAD PRO / E-TABS Projects

## Laboratory facility

The Department has 8 state of art laboratories and 4 technology centres to mould the students as industry ready.

- ✓ Computer Aided Design and Drafting Lab
- ✓ Strength of Materials Lab
- ✓ Surveying Lab
- ✓ Environmental and Water Analysis Lab
- ✓ Fluid Machines Lab
- ✓ Soil Mechanics Lab
- ✓ Concrete and Highway Engineering Lab
- ✓ Structural Engineering Lab



## Department Activities

Department of Civil Engineering regularly organizes the following activities for the benefit of students to gain knowledge in event management, time management, financial management, team spirit, leadership qualities through

- ✓ National level Technical Symposium
- ✓ Faculty Development Programs & Conferences
- ✓ Publishing department News letter
- ✓ Industrial Projects & Consultancy work
- ✓ Industrial Visit & Internship
- ✓ Various technical activity by professional societies ICI & GIS
- ✓ Project competition (Inter & Intra College level)
- ✓ Community Service, Counseling / Mentoring
- ✓ Paper Publication in leading journals by faculty and students
- ✓ Seminar/ Guest Lecture/ Workshops by eminent personalities from both industry and reputed academic institutes

## Job opportunities in India and Abroad

- ✓ Design, Construction, Operation and Maintenance of Roads, Buildings, Dams, Bridges, Town Planning, Remote Sensing, Power Generation, etc.
- ✓ In Public sectors like NTPC, NHPC, PWD, Water Board, Pollution Control Board, Highways Dept, Railways, Airports, ONGC and Oil sectors, etc.
- ✓ In Core sectors – Construction Companies like L&T, Steel Industries, Oil & Gas Industries, Private Real Estate Developers, Sanmina, Steel Detailing Industries etc.



The major core curriculum for B.E-Civil Engineering includes :

- ✓ Construction Materials and Management
- ✓ Engineering Mechanics
- ✓ Renewable Energy Resources
- ✓ Strength of Materials
- ✓ Engineering Geology
- ✓ Concrete Technology
- ✓ Irrigation & Water Resources Engineering
- ✓ Structural Analysis
- ✓ Environmental Engineering
- ✓ Pre-Stressed Concrete Structure
- ✓ Soil Mechanics
- ✓ Fluid Mechanics
- ✓ Transportation Engineering
- ✓ GIS & Remote Sensing
- ✓ Surveying
- ✓ Applied Hydraulic Engineering
- ✓ Construction Techniques and Practices
- ✓ Design of Reinforced Cement Concrete Elements
- ✓ Water Supply Engineering
- ✓ Wastewater Engineering
- ✓ Design of Steel Structural Elements
- ✓ Estimation, Costing and Valuation Engineering
- ✓ Structural Design and Drawing
- ✓ Disaster Management
- ✓ Urban Planning and Development
- ✓ Maintenance, Repair and Rehabilitation of Structures

The Department offers Value added / Skill development programs in the following domains to cater the needs of industry :

- ✓ CAD 2D & 3D Modeling
- ✓ Revit Architecture & 3D Printing
- ✓ Stadd Pro Architecture
- ✓ Primavera
- ✓ GIS & Remote Sensing
- ✓ Soft skill training & Communication skills



Computer Science and Engineering is one of the popular course among engineering students. It mainly focuses on programming, computation, analysis of algorithm, program design and testing, software engineering etc for design, development and analysis of software and hardware used to solve the problem of various businesses, scientific and social issues. Computer Science and Engineering integrates both computer hardware and software and is intended to develop solid understanding of the entire computer system and its other accessories and software. It provides sophistication to the world and touches human lives in all the aspects such as education, transportation, entertainment, banking, social media, health-care and supply chain management etc. Computer Science and Engineering is an inter disciplinary course like psychology, geology science, maths, art and music with the subject like concept of science and maths, informatics, electronics, operation research etc. This study helps the students to understand how computer science fits into a mid-range of domains in the world.

The Department of Computer Science and Engineering started in 2001, offers the students an opportunity to work in both core and IT industries. The department has wide experienced and talented faculty with latest cutting edge technology infrastructure.

## Laboratory facility

The Department has 8 well equipped laboratories and 4 technology centres in the cutting edge technology to cater the hardware & software requirements.

- ✓ System Programming Lab
- ✓ Operating Systems Lab
- ✓ Database Management Systems Lab
- ✓ Mobile App Development Lab
- ✓ Software Engineering Lab
- ✓ Graphics & Multimedia Lab
- ✓ Grid & Cloud Computing Lab
- ✓ Internet Programming Lab



## Industry Oriented Technology Centers

- ▶ Robotics Process Automation center sponsored by Automation Anywhere, Bangalore
- ▶ Centre for Gaming, VR & AR supported by Mohamed Sathak Trust
- ▶ Amazon Web Services / Cloud Computing Lab supported by Amazon
- ▶ Data Science Lab supported by Mohamed Sathak Trust

The students of CSE perform the mini and major projects in the following domains :

- ✓ Image Processing
- ✓ Embedded Systems
- ✓ Data mining & Data Warehousing
- ✓ Software Engineering
- ✓ Natural Language Processing
- ✓ Neural Network and Soft computing
- ✓ Machine Learning & Deep Learning
- ✓ Gris, Green & Cloud Computing
- ✓ Big Data Analysis
- ✓ Service Oriented Architecture
- ✓ Cryptography & Network Security
- ✓ Artificial Intelligence etc.



## Department Activities

Department of CSE regularly organizes the following activities for the benefit of students to gain knowledge in event management, time management, financial management, team spirit, leadership qualities through

- ✓ National level Technical Symposium
- ✓ Faculty Development Programs & Conferences
- ✓ Department News letter
- ✓ Industrial Projects & Consultancy work
- ✓ Industrial Visit & Internship
- ✓ Various events by ICT Academy & CSI chapter
- ✓ Project competition (Inter & Intra College level)
- ✓ Community Service, Counseling / Mentoring
- ✓ Paper Publication in journals
- ✓ Seminar/ Guest Lecture/ Workshops by eminent personalities from both industry and reputed academic institutes

## Job opportunities in India and Abroad

- ✓ Job opportunities for Computer Science and Engineering available over 50% around the globe of all available jobs in engineering. In India 60% of jobs are available in IT sector (both private and public sector).
- ✓ In public sector such as Railways, Airport, Defence, ONGC, Remote Sensing and Banking Sector, etc.
- ✓ In MNC's such as TCS, Infosys, CTS, Wipro, HCL Technology, Tech Mahindra, Zoho, Intel, Accenture, IBM, FSS, Sutherland, Hexaware, CapGemini, Virtusa etc.
- ✓ In product sector Amazon, Microsoft, Google, Zoho, Dell, Samsung, Oracle, Logitech, Paypal, etc.



The major core Curriculum for B.E- CSE includes the following subjects :

- ✓ Computer Architecture & Networks
- ✓ Programming in Python, C & Java
- ✓ Mobile App Development
- ✓ Cryptography & Network Security
- ✓ Grid & Cloud Computing
- ✓ Database Management System
- ✓ Design & Analysis of Algorithm
- ✓ Theory of Computation
- ✓ Software Engineering
- ✓ Multicore Architecture
- ✓ Internet Programming
- ✓ Operating Systems
- ✓ Distributive Systems
- ✓ Data Structure
- ✓ Big Data Analysis
- ✓ OOPS & OOAD
- ✓ Discrete Mathematics
- ✓ Compiler Design
- ✓ Artificial Intelligence

**The Department conducts Value added / Skill development programs to improve the employability for the students :**

- ✓ Coding in Python, Java and 'C' certified by Code Thantra approved by AICTE
- ✓ C#, .Net concepts and Mobile App Development
- ✓ CCNA Certification by CISCO, USA
- ✓ Big Data Analysis - Hadoop certified by Code Thantra approved by AICTE
- ✓ Robotic Process Automation Certification by Automation Anywhere, Bangalore
- ✓ Network Security by Palo Alto
- ✓ Cloud Computing & AWS by Amazon
- ✓ Data Science (AI, ML & DL)
- ✓ Software Testing - Selenium certified by Code Thantra approved by AICTE
- ✓ Gaming, AR & VR
- ✓ Soft skill training & Communication skills



# Electronics and Communication Engineering (ECE)

Electronics and Communication Engineering as the name implies, deals with the use of electronics concepts and principles to transfer the information from one place to other place. Electronics and Communication Engineering utilizes science and mathematical concepts applied to the practical problems opening new avenues to create new product to make the human lead a comfortable life.

The development of Information and Communication Technology (ICT) and its penetration has now revolutionized the new area such as health care, automation, remote sensing, advanced communication etc. This program prepares the student for both hardware and software industries such as system engineers, academicians, software Engineers, network engineers, maintenance engineers and experts in research and development etc.

The Department of ECE started in 2001, has a team of qualified and experienced faculty members. The department has excellent infra-structure, it place emphasis on sound practical knowledge and nurturing creativity in the student community.

## Laboratory facility

The Department has 8 state of the art laboratories to cater the needs of both academic and research, in addition 4 industry oriented technology centres to bridge the gap between institute and industry.

- ✓ Electronics Lab
- ✓ Integrated Circuits Lab
- ✓ Communication Lab
- ✓ Digital System and VLSI Design Lab
- ✓ Microwave & Optical Communication Lab
- ✓ Microprocessor and Microcontroller Lab
- ✓ Digital Signal Processing Lab
- ✓ Embedded Systems Lab



## Industry Oriented Technology Centers

- ▶ Lab view Academy Supported by National Instruments, USA.
- ▶ CISCO Network Academy supported by CISCO, USA.
- ▶ E Yantra Lab supported by MHRD, Govt. of India and IIT Bombay.
- ▶ Humanoid Robots and Drones Lab supported by Mohamed Sathak Trust.

The students of ECE take up their mini and major projects in broad spectrum of areas including :

- ✓ Signal & Image Processing
- ✓ Sensor Networks
- ✓ Robotics
- ✓ VLSI Design
- ✓ Cryptography
- ✓ Speech Processing
- ✓ Embedded Systems
- ✓ Wireless Communication
- ✓ Antenna Design
- ✓ Artificial Intelligence and IOT



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Department of ECE regularly organizes the following activities for the benefit of students to gain knowledge in event management, time management, financial management, team spirit, leadership qualities through

- ✓ National level Technical Symposium
- ✓ Industrial Visit and Internship
- ✓ Publishing department News letter
- ✓ Community Service, Counseling / Mentoring
- ✓ Project competition (Inter and Intra College level)
- ✓ Faculty Development Programs and Conferences
- ✓ Paper Publication in journals
- ✓ Activities through professional societies IETE, CSI, IEEE and RIOT Club
- ✓ Seminar/GL/Workshops by eminent personalities from industry & reputed academic institutes
- ✓ Industrial Projects & Consultancy work

## Job opportunities in India and Abroad

- ✓ Defence, space and large research organization employ electronics engineers in design and development of complex device and systems for signal processing and communication.
- ✓ Industries are also involved in design and fabrication of device, integrated circuits, embedded system and IOT for various applications.
- ✓ Public sector such as Railways, BSNL, Electricity board, BEL, HAL, ONGC, DRDO, ISRO, SAIL, GAIL etc. Provide job opportunities to Electronics and Communication Engineers.
- ✓ In addition, MNC's under IT Sector namely TCS, INFOSYS, CTS, HCL, WIPRO, ACCENTURE, IBM, INTEL, CSS Corp, Maruthi Suzuki, Q Spiders etc.



The major core curriculum for B.E-ECE includes the following subjects :

- ✓ Basic Electrical Engineering
- ✓ Digital Signal & Speech Processing
- ✓ Digital Image Processing
- ✓ Electronic Devices & Circuits
- ✓ Electromagnetic Theory
- ✓ Biomedical Instrumentation
- ✓ Circuit Analysis
- ✓ Wireless Communication & Networks
- ✓ Analog and Digital communication
- ✓ Micro Processor and Micro Controllers
- ✓ Transmission lines & Antenna
- ✓ RF and Microwave Engineering
- ✓ Computer Networks
- ✓ Computer Architecture
- ✓ Python Programing and OOPS
- ✓ Linear Integrated Circuits
- ✓ Digital System and VLSI Design
- ✓ Embedded System
- ✓ Satellite Communication
- ✓ Artificial Intelligence
- ✓ Signals & Systems
- ✓ Electromagnetic Interference and Compatibility
- ✓ Network Security and Cryptography

**The Department conducts Value added / Skill development programs to improve the employability :**

- ✓ Coding in Python, Java and 'C' from Code Thantra
- ✓ C#, .Net concepts and Mobile App Development
- ✓ CCNA Certification from CISCO, USA
- ✓ Robotic Process Automation Certification from Automation Anywhere, Bangalore
- ✓ Embedded and IOT
- ✓ Network Security by Palo Alto
- ✓ Cloud Computing & Amazon Web Services by Amazon
- ✓ Robotics and Drone Development
- ✓ CLAD certification for Lab view by National Instrument, USA
- ✓ Soft skill training & Communication skills



# Electrical and Electronics Engineering (EEE)

Electrical Engineering is an engineering discipline concerned with the study of designing, installing and operating the equipments and machines ranging from small motors to heavy generators and turbines. Electrical engineering jobs represent over 25% of all available jobs in engineering. In India 30% of the government jobs are from electrical engineering sectors. E&E engineers can enter into the job market of CSE, ECE, ICE, Robotics, Mechanical Engineering, Healthcare sectors etc. But engineers from other branches cannot enter into electrical engineers job market. Other than conventional electrical engineering jobs like power generation, transmission, distribution, manufacturing and utilization sector are well positioned to address a variety of crucial engineering issues faced today. With an expected boom in electric vehicle sector in the near future, the demand and contribution of electrical engineers in the development of India and Indian economy will be tremendous. The Government of India has developed policies and set targets for the implementation of renewable energy sources like solar, wind, tide and biofuel to reduce carbon foot print and boost economy. This program is grounded with Science and Maths. When these subjects are enjoyed then it becomes a rewarding field of study with many opportunities to solve real time problems. The Department of EEE, started in 2005, has the best infra-structure facilities with qualified and dedicated team of faculty members. The department imparts quality education to the students through sound practical knowledge and latest teaching aids.



## Laboratory facility

The Department has 10 state of the art laboratories and 4 industry oriented technology centres cater to the needs of academics, industrial training requirement and research activities.

- ✓ Engineering Practices Lab
- ✓ Electrical Machines Lab
- ✓ Control Systems Lab
- ✓ Electric Circuits Lab
- ✓ Electronics Lab
- ✓ Microprocessor & Microcontroller Lab
- ✓ Measurements & Instrumentation Lab
- ✓ Power Electronics & Drives Lab
- ✓ Integrated Circuits Lab
- ✓ Power Systems Lab

## Industry Oriented Technology Centers

- ▶ E-Vehicle Lab supported by ISIE India
- ▶ Godrej Skill Development Centre developed by Godrej
- ▶ Renewable Energy Resources Lab sponsored by Mohamed Sathak Trust
- ▶ Embedded and IOT Lab sponsored by Mohamed Sathak Trust

The students of EEE take up their mini and major projects in the following key areas :

- ✓ Power Electronics
- ✓ Embedded and IOT
- ✓ Industrial/ Home Automation
- ✓ Renewable Energy
- ✓ Power Systems
- ✓ Medical Electronics
- ✓ Artificial Intelligence and Neural Network



## Department Activities

Department of EEE regularly organizes the following activities for the benefit of students to gain knowledge in event management, time management, financial management, team spirit, leadership qualities through

- ✓ National level Technical Symposium
- ✓ Industrial Visit and Internship
- ✓ Publishing department News letter
- ✓ Community Service, Counseling / Mentoring
- ✓ Project competition (Inter and Intra College level)
- ✓ Faculty Development Programs and Conferences
- ✓ Paper Publication in journals
- ✓ Activities through professional societies IETE, CSI, IEEE and Energy Club
- ✓ Seminar/GL/Workshops by eminent personalities from industry & reputed academic institutes
- ✓ Industrial Projects & Consultancy work

## Job opportunities in India and Abroad

- ✓ Manufacturing Sectors of Electrical motors and Generators, Manufacturing, Consultancy (Electrical Engineering), Electrical appliances, Electrical components companies, Lighting & luminaries, Power Generation, Electric wires & Cables, Electrical exporters, Measuring Instrumentation, Power Distribution, Transformers, Manufacturing Industries, Automobile Sectors, Green Energy Companies in India and Abroad.
- ✓ In Public sector General electrical, Godrej, Electricity Boards, Railways, Power Plants, BHEL, BEL, , GE Also Thom, L&T, SAIL, NLC, FLSMIDTH, SANMAR, SAINT Gobain etc.
- ✓ In IT sector CTS, TCS, HCL, WIPRO, CAPEGEMINI, IBM, HEXAWARE, TECH MAHINDRA etc.



The major core Curriculum for B.E-EEE includes the following subjects :

- ✓ Circuit Theory
- ✓ Electromagnetic fields
- ✓ Electrical Machines
- ✓ Digital Logic Design
- ✓ Power Electronics
- ✓ Solid State Drives
- ✓ Power System
- ✓ Special Electrical Machines
- ✓ Microprocessor and Micro Controller
- ✓ Embedded Systems
- ✓ Digital Signal Processing
- ✓ Power Systems Operation and Control
- ✓ Renewable energy Resources
- ✓ High voltage Engineering
- ✓ Electronic Devices and Circuits
- ✓ Transmission and Distribution
- ✓ Power Plant Engineering
- ✓ Linear Integrated Circuits
- ✓ Switchgear and Protection
- ✓ Utilization of Electrical Energy
- ✓ Medical Electronics
- ✓ Control Systems
- ✓ Measurement and Instrumentation

The Department offers Value added / Skill development programs in the following domains cater to the needs of industry :

- ✓ Coding in python, Java and 'C'
- ✓ C# and .Net concepts and Mobile App Development
- ✓ CCNA Certification
- ✓ Robotic Process Automation Certification
- ✓ Embedded and IOT
- ✓ Network Security by Palo Alto
- ✓ Cloud Computing & Amazon Web Services
- ✓ Robotics and Drone Development
- ✓ CLAD – Lab view National Instrument Certification
- ✓ Soft skill training & Communication skills



# Mechanical Engineering (MECH)

Mechanical engineering is the oldest and 2nd largest engineering discipline. Mechanical engineering provides a solid foundation for professional engineering practices and is concerned with design, development, manufacture, and operation of many types of plants, machinery and Mech –products. This branch of study develops the students ability to apply scientific principles in the design and analysis of manufacturing, automobile, production and energy conversion systems. Students are challenged with design problems in most of the major course which provide opportunities of developing creativity in solving industrial & societal problems. New areas like Robotics, Cryogenic Engineering, Composite Materials, Nano Materials & Technology, Renewable Energy Resources etc, have tremendous growth in future. At the outset the students will be able to create innovative ideas to find solution to real world problems with new perspective, good practical skills using science and maths concepts, organising ability, practicing ability to get on well with people of all types, ability to keep them under pressure and technically to work in a manufacturing area are an asset in the fields.

The Department of Mechanical Engineering started in 2005, it is well structured with fully equipped laboratories, focuses on imparting theoretical and practical knowledge in design, development, operation and maintenance of process involving various technologies of mechanical engineering.

## Laboratory facility

The Department has 8 state of art lab facilities and 4 technology centres to fine tune the students to meet the industrial and societal needs.

- ✓ Manufacturing Technology Lab
- ✓ Thermal Engineering Lab
- ✓ Strength of Materials Lab
- ✓ Metrology & Measurement Lab
- ✓ Fluid Mechanics Lab
- ✓ CAD and CAM Lab
- ✓ Dynamics Lab
- ✓ Basic Workshop and Engineering Practices Lab



## Industry Oriented Technology Centers

- ▶ Centre for Computer Aided Engineering (CAE)
- ▶ Advanced Digital Manufacturing (3D Printing)
- ▶ Industrial Robotics
- ▶ Computer Aided Manufacturing (CAM)

The students of Mechanical Engineering take up their mini and major projects in the following domains :

- ✓ Thermal Engineering
- ✓ Automobile Engineering
- ✓ Robotics and Automation
- ✓ Mechatronics
- ✓ Engineering Design
- ✓ Manufacturing Technology
- ✓ Composite Materials
- ✓ Energy Engineering



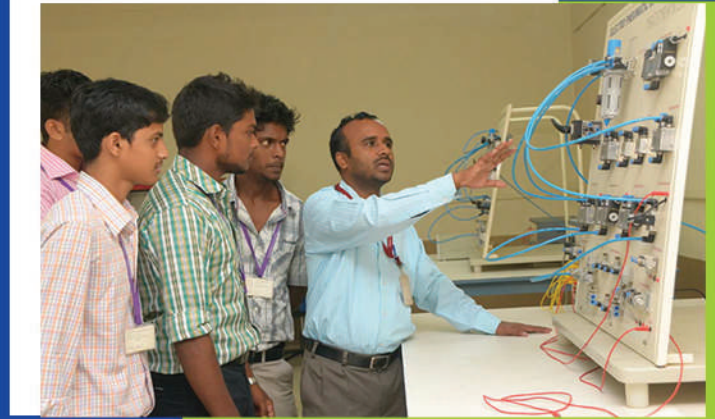
## Department Activities

Department of Mechanical Engineering regularly organizes the following activities for the benefit of students to gain knowledge in event management, time management, financial management, team spirit, leadership qualities through

- ✓ National level Technical Symposium
- ✓ Faculty Development Programs & Conferences
- ✓ Publishing department News letter
- ✓ Industrial Projects & Consultancy work
- ✓ Industrial Visit & Internship
- ✓ Various technical activity by SAE & ISHRAE
- ✓ Project competition (Inter & Intra College level)
- ✓ Community Service, Counseling / Mentoring
- ✓ Paper Publication in leading journals
- ✓ Seminar/ Guest Lecture/ Workshops by eminent personalities from both industry and reputed academic institutes.

## Job opportunities in India and Abroad

- ✓ In manufacturing sector large number of job opportunities available in Automobile, Petroleum, Oil & Gas, Transport, Airport, Aircraft, Defence, Railways, Steel Industries, Power plants, major Public and Private Sectors in India and Abroad.
- ✓ In Engineering services L&T, Caterpillar, WABCO, FLSMIDTH, Sundram Fasteners, Brakes India, Valeo, Adani, Titan, etc.
- ✓ In Automobile sector Daimler, Ashok Leyland, Hyundai, Renault Nissan, Royal Enfield, MRF, Ford, Mahindra, Yamaha, TVS Group, etc.



The major core curriculum for B.E – Mechanical Engineering includes the following subjects :

- ✓ Fluid Machines and Mechanics
- ✓ Manufacturing Technology
- ✓ Strength of Materials
- ✓ Dynamics of Machine Elements
- ✓ Finite Element Analysis
- ✓ Thermal Engineering
- ✓ Design of Machine Elements
- ✓ Automobile Engineering
- ✓ Engineering Mechanics
- ✓ Thermodynamics
- ✓ Mechatronics
- ✓ CAD/ CAM
- ✓ Gas Dynamics
- ✓ Robotics
- ✓ TQM etc.

The Department offers Value added / Skill development programs in the following domains cater to the needs of industry :

- ✓ Hyper Mesh-Structural/ CFD/ Thermal Analysis
- ✓ CNC Programming
- ✓ CATIA
- ✓ Auto CAD (2D & 3D Modeling)
- ✓ 3D Printing
- ✓ E-Vehicle
- ✓ HVAC & Home Appliances courses by Godrej
- ✓ Industrial robotics
- ✓ Multi Body Dynamics (Robotics & Aero Modeling)
- ✓ Soft skill training & Communication skills



The role of Information Technology is vital in every aspect of human life. However, if you aren't in the field of IT, you might not know how IT just touches our life. The Information Technology is the study and use of system for storing, retrieving and processing information. With the introduction of computers, the business world has changed forever; using computers ensure smooth running of the business. Information technology helps the business world to view changes in the global markets faster than they usually do. Due to the development of this technology, globalization has increased and the world is brought closer. Information is stored and shared quickly and easily across the globe. Communication has become easier and cheaper. Using internet, Skype, people can speak to each other all over the globe. Social media and mobile devices make the people closer to each other. The key field includes Machine Learning, Deep Learning, Data Science, Artificial Intelligence, Cloud Computing, Networking, Mobile computing, Block Chain and so on have tremendous job opening.

The Department of Information Technology started in 2001, has industry relevant hardware & software infrastructure with rich experienced faculty.

## Laboratory facility

The Department has 8 well equipped laboratories and 4 technology centres in the cutting edge technology.

- ✓ Code Thantra Programming Lab
- ✓ Networking Lab
- ✓ Data Structure Lab
- ✓ Web Technology Lab
- ✓ OOAD Lab
- ✓ Security Lab
- ✓ FOSS Lab
- ✓ Information Technology Essentials Lab



## Industry Oriented Technology Centers

- ▶ CISCO Network Academy
- ▶ Network Security Lab supported by Palo Alto Systems
- ▶ Centre for Mobile & Web Development supported by Mohamed Sathak Trust
- ▶ Centre for Embedded & IOT supported by Mohamed Sathak Trust

The students of IT perform the mini and major projects in the following domains :

- ✓ Computer Networks & Cyber Security
- ✓ Data Science
- ✓ Machine & Deep Learning
- ✓ Speech & Image Processing
- ✓ Big Data Analysis
- ✓ Embedded and IOT
- ✓ Block Chain Technology
- ✓ Grid, Green and Cloud Computing
- ✓ Mobile App Development
- ✓ Artificial Intelligence
- ✓ Wireless sensor Network
- ✓ Neural Network and Soft Computing
- ✓ Service Oriented Architecture



## Department Activities

Department of IT regularly organizes various activities for the benefit of students to gain knowledge in event management, time management, financial management, team spirit, leadership qualities through

- ✓ National level Technical Symposium
- ✓ Faculty Development Programs & Conferences
- ✓ Department News letter
- ✓ Industrial Projects & Consultancy work
- ✓ Industrial Visit & Internship
- ✓ Events by ICT Academy & CSI
- ✓ Project competition (Inter & Intra College level)
- ✓ Community Service, Counseling / Mentoring
- ✓ Paper Publication in journals
- ✓ Seminar/ Guest Lecture/ Workshops by eminent personalities from both industry and reputed academic institutes

## Job opportunities in India and Abroad

- ✓ Job opportunities are available in various MNC's in Product and service domains as System Engineers, Software Professional, Network Engineers, System Analyst, System Administrator, Project Leader, Education sector, System Architect and Academician.
- ✓ In IT service sector CTS, TCS, Infosys, IBM, Accenture, WIPRO, L&T Infotech, CapGemini, Hexaware, Tech Mahindra, Verizon, Sutherland, HCL, Banking sectors.
- ✓ In product sector Amazon, Microsoft, Google, Zoho, Dell, Samsung, Oracle, Logitech, Paypal, etc.
- ✓ In public sector such as Railways, Airport, Defence, ONGC, Remote Sensing and Banking Sector, etc.



The major core Curriculum for B.Tech - IT includes the following subjects :

- ✓ Computer Architecture & Networks
- ✓ Programming in Python, C & Java
- ✓ Mobile App Development
- ✓ Cryptography & Network Security
- ✓ Grid & Cloud Computing
- ✓ Database Management
- ✓ Design & Analysis of Algorithm
- ✓ Theory of Computation
- ✓ Software Engineering
- ✓ Multicore Architecture
- ✓ Internet Programming
- ✓ Operating Systems
- ✓ Distributive Systems
- ✓ Data Structure
- ✓ Big Data Analysis
- ✓ OOPS & OOAD
- ✓ Discrete Maths
- ✓ C & Java
- ✓ Artificial Intelligence & Machine Learning  
Image and Speech Processing

**The Department conducts Value added / Skill development programs to improve the employability for the students as follows :**

- ✓ Programming in Python, C & Java certified by Code Thantra approved by AICTE
- ✓ C#, .NET & Mobile App Developments
- ✓ Data Science (AI, ML & DL)
- ✓ Big Data Analysis - Hadoop certified by Code Thantra approved by AICTE
- ✓ Software Testing - Selenium certified by Code Thantra approved by AICTE
- ✓ CCNA certification by CISCO, USA
- ✓ Network Security certification by Palo Alto
- ✓ Cloud Computing & AWS by Amazon
- ✓ Robotic Process Automation Certification by Automation Anywhere, Bangalore
- ✓ Soft skill training & Communication skills



# Student Facilities

## Hostel

MSAJCE have well-furnished separate hostels for men and women, also provides an environment of virtually home away from home. Every room accommodates only 2 person with A/C and Non A/C facility. MSAJCE hostel is Wi-Fi enabled.



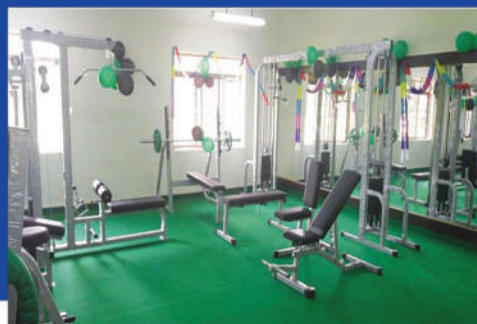
## Transport

MSAJCE has plenty of buses to transport day scholars and faculty members from various points in the city and also from the suburbs like Ennore, Pattabiram, Thiruvallur, Red Hills, Chengleput, Poonamalle, Thiruvottiyur, Kancheepuram, Kalpakkam etc. to the campus and back. This facility has been provided to ensure that classes start in time. All the buses reach the campus before 8.00 a.m. The buses leave the campus at 4 p.m., which helps all the students to reach home early and safely. For the benefit of those students who are attending special classes, using internet facility, library etc., special buses are arranged everyday which leave the campus at 5.30 p.m.



## Power Back up

MSAJCE has 3.3KVA / 110V LT power supply with two numbers of 500KVA and 250KVA transformers.



✓ The College has 250KVA and 125KVA D.G. sets and the hostel has a separate 100KVA D.G. set are used during power shutdown for the whole campus.

✓ All computer systems are connected to "ON LINE" UPS units with total capacity of 193KVA



## Auditorium

A large 1000 seated non A/C Auditorium, 350 seated sophisticated A/C auditorium, 100 seated A/C conference hall is in place in the campus. Multiple events such as symposium, workshop, national and international conference and graduation day etc. are held. The auditorium has large podium with well equipped audio system, well illuminated and ventilated.





## Health Care

The college always gives special attention to the health and welfare of its students, faculty and staff. Hence, it has a first-aid centre to handle the emergency situation. The exclusive ambulance vehicle with a driver is available in the campus 24x7 to take the needy persons to hospitals on emergency. Doctor & Psychiatrist / counsellor visit college once a week.

## Canteen & Cafeteria

MSAJCE has a canteen with a seating capacity of 100. It offers hygienic beverages, snacks and food along with RO purified water. A department store is also attached. A take away cafeteria is also available in the college.

## RO Plant

The entire college and hostel campus is facilitated with two R O drinking water plants of capacity 2000 liters per day and 1000 liters per day with water cooler in every floor to the need of pure and safe drinking water.

## Library

The Library has an excellent collection of more than 25,000 books on curriculum and non-curriculum topics in science, engineering, technology, humanities, social sciences, management and competitive exams and is augmented on continuous basis. It also has specialized journals, periodicals and magazines. It maintains separate collections of Reference Books, Bound volumes of journals, Technical Reports, Thesis, Video Cassettes, and Compact Discs. The library is in the process of using Autolib OPAC (Online Public Access Catalogue) wherein the users can search the Library Online Catalogue by author's name and subject title, and other keywords available on the campus LAN. The other highlights of the library are:

- ✓ Well-equipped Digital Library
- ✓ Online Journal database link with, National Digital Library, World Digital Library
- ✓ E-books, NPTEL course materials
- ✓ MSAJCE library is an institutional member with British Council, MALIBNET, IITM, Anna University





## Higher Education Cell

MSAJCE provides guidance & facilities for the students to pursue Postgraduate education in India & Abroad. Students are given opportunity to study the courses on GRE / IELTS / GMAT & GATE examinations on campus. Seminars / Talks are arranged for students with faculty from foreign universities, the consulates of countries providing information about Overseas Education & Scholarship Opportunities. Every year some of our students are pursue their Master's program in top Universities in US, UK and other countries. In order to support this Japanese, German and French classes are arranged on request by the students. The partial list of Universities with MSAJCE students currently studying PG courses are as follows :

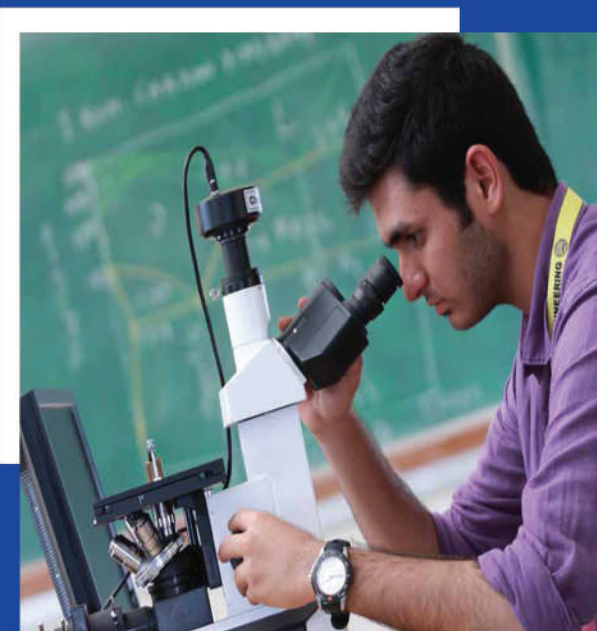
- ✓ Glasgow Caledonian University, Scotland UK
- ✓ James Cook University, Singapore
- ✓ Stafford Shire University, UK
- ✓ Middlesex University, London UK
- ✓ Ontario University, Canada
- ✓ TU Darmstadt University, Germany
- ✓ Stanford University, USA
- ✓ University of California, USA
- ✓ University of Massachusetts, USA
- ✓ University of British Colombia, USA
- ✓ Coventry University, UK

## Consultancy, Research & Development

MSAJCE R&D cell aims to instill and encourage the industrial consultancy, and research activity among the faculty and students to enhance the ideas into useful products/ solutions, by providing proper road map. Under academic research every year our faculty and students publish around 50 to 100 papers in reputed Scopus indexed / UGC / SCI journals regularly. In the year 2019-2020 our team of students and faculty have undertaken consultancy work from Sona Comstar Chennai, Mando Chennai, Frontline Electronics Salem, Levergent Technologies Chennai, Propeller Technologies Chennai, Openwave Computing Pvt Ltd. Chennai.

One of the students team got selected for final round in Smart India Hackathon (SIH) 2020, 3 teams actively participated in Microprocessor Challenge organized by AICTE, IITM and CDAC. Our students regularly participate in TNSCST students project contest and win prizes. 5 teams shortlisted in Innovative Project Contest organized by Innovation Cell, MHRD Govt. of India. Some research proposals have been submitted to various funding agencies of India.

1	PhD Qualified faculty to support research activity		12
2	Faculty pursuing PhD		11
3	PG Qualified faculty		73
4	Paper Published in Reputed Journals	2018-2019	34
		2019-2020	52
		2020-2021	50
5	No of International Conference Organized 2019-2020		04
6	No of Paper Received for the Conference		317
7	No of Paper Published in the Conference		193
8	No of Patent filed		03
9	No of Copy Rights filed		20
10	No of Consultancy work undertaken 2019-2020		10
11	No of Projects selected for Smart India Hackathon		01
12	No of Projects selected in TNSI 2020		05
13	No of Projects selected in India Innovation Contest		03
14	No of Projects selected in Microprocessor Innovation Contest organized by IIT madras and CDAC		03





## Professional Societies & Clubs

The campus life of Mohamed Sathak A. J. College of Engineering is made vibrant through various clubs and professional societies has been established also to entertain the students and fulfill the co-curricular and extra-curricular activities.

- ✓ Indian Society for Technical Education (ISTE)
- ✓ The student Branch of Institute of Electrical and Electronic Engineers Inc (IEEE)
- ✓ The Student Forum – Institute of Electronics and Telecommunication Engineers (IETE)
- ✓ Indian Society of Heating, Refrigeration and Air conduction Engineers (ISHRAE)
- ✓ Society of Automobile Engineers (SAE)
- ✓ Computer Society of India (CSI)
- ✓ Indian Concrete Institute (ICI)
- ✓ Robot and IOT Club (RIOT)
- ✓ Energy Club
- ✓ Nation Service Scheme (NSS)
- ✓ Unnat Bharat Abiyan (UBA)
- ✓ Youth Red Cross (YRC)
- ✓ Tamil Mandram
- ✓ English Literary Club
- ✓ Science Club
- ✓ Photography Club
- ✓ Coding Club
- ✓ Fine Arts Club



## Innovation, Incubation and Entrepreneurship Development Cell

**Dr. A.P.J. Abdul Kalam Innovation Cell** is set up to channel the technical skills with creativity for development of innovative products for the benefit of Society and Industry. The innovation cell signed an MOU with MHRD, Govt. of India & AICTE Institute Innovation cell in the year 2019 enlighten various initiatives and motivate the students to participate in various competition and activities. The cell has self-sufficient space, infrastructure and facility for mentoring the students to convert their intellectual ideas into product.

**MSAJCE Incubation cell** supports budding entrepreneurs from our student community as well as students from other Colleges. The cell regularly organizes various motivational programs such as how to develop the Project Proposal, Awareness about Financial Resources and Schemes and mentoring to develop the final product. The cell has initiated the process to sign an MOU with MSMEs to provide seed funding for startups / budding entrepreneurs.

**MSAJCE Entrepreneur Development Cell** aims to promote and develop the spirit of Entrepreneurship among the students. The cell regularly organizes Awareness workshops on Entrepreneurs in association with DST – NIMET Scheme. In addition the cell also conducts series of workshops / seminars about Patent Filing, IPR, Copy Rights and Trade Marking in association with various Central / State Government funding agencies and industries.



# Scholarship

## Merit Scholarship

MSAJCE offers scholarship to support meritorious students and students from economically weaker sections, as part of Institute Social Responsibility (ISR) to make education accessible to students of all economic category. It is based on the academic performance in the qualifying exam for first years and in the case of senior students the performance during the previous year.

## Sports Scholarship

This scholarship is awarded for students with an outstanding performance in sports at State level and National level.

## Full Tuition Fee Waive Off

It is offered to the following category of students

- ✓ Toppers from rural Govt. Higher Secondary School
- ✓ Top Ten Rank Holders of any State Board/ CBSE/ ISE in the +2 Examination

## PG Scholarship

To support research and encourage meritorious students to pursue PG studies, scholarships are awarded to the candidates qualified in TANCET/ good academic performance in UG level.



**Apart from this institutional Scholarship, the Government of India offers a various scholarships as follows**

- ✓ Pragati Scholarship Scheme offered by AICTE for Only Two Girl Child in the family and parent income is less than 8 lakh.
- ✓ Saksham Scholarship for Specially Abled students and parent income is less than 2.5 lakh.
- ✓ Merit based scholarship for Minority students – 50% mark in final examination and parent income is less than 2.5 lakh.
- ✓ Central Sector Scheme by MHRD, Govt. of India, for the students scoring 80% marks in final examination and parent income is less than 8 lakh.
- ✓ Financial Assistance for Beedi/ Mine/ Cine workers for the students parent income is less than 10,000/month.
- ✓ Government of Tamil Nadu offers First graduation scholarship whose parent income is less than 2.5 lakh.
- ✓ Government of Tamil Nadu offers SC/ST scholarship whose parent income is less than 2.5 lakh.

### **Condition for Continuation of Scholarship in subsequent years for the above category**

Progress of students awarded scholarship for academic year in subsequent years shall be reviewed after end of 2nd semester for continuation, based upon his/her performance in the 1st and 2nd semester. For continuation of scholarship student shall be required to :

- ✓ Maintain a minimum pass in both semesters without any backlog
- ✓ Have 75% attendance in all courses in each semester
- ✓ Applicants should not have been suspended for any grave act of indiscipline by the institute
- ✓ No disciplinary action against the applicant is established or pending in case of ragging or eve teasing
- ✓ The applicant should not be receiving any other scholarship from any other source whatsoever, for which a certificate signed by student & parents is to be provided



## Incentives for Faculty and Students for the AY 2020 - 2021

S.No	Achievement	Eligibility Criteria	Reward	Sections
1	Overall Class Topper ( CGPA Based )	8.5 CGPA and Above	Rs 5000 /-	
		8.0 CGPA and Above	Rs 3000 /-	
		7.5 CGPA and Above	Rs 2000 /-	
2	Current Semester Class Topper ( GPA Based )	8.5 CGPA and Above	Rs 2000 /-	
		8.0 CGPA and Above	Rs 1500 /-	
		7.5 CGPA and Above	Rs 1000 /-	
3	Sports Achievements	Team Event - Winner -Zonal	Rs 6000 /- Per Team	
		Team Event - Runner -Zonal	Rs 3000 /- Per Team	
		Individual Events - 1st Prize	Rs 1000 /- Per person	
		Individual Events - 2nd Prize	Rs 750 /- Per Person	
		Individual Events - 3rd Prize	Rs 500 /- Per Person	
4	Research Publications	UGC Journal	Rs.1000 /- Per Paper	
		Scopus Journal	Rs.1500 /- Per Paper	
		Copy Right	Rs.500 /- Per Paper	
		Patent Filing	Rs.2000 /- Per Patent	
		NPTEL - Elite Gold Certification	Rs.500 /- Per Course	
5	Competition like SIH / Industrial Hackathons	Winner	Rs 2000 /- Per Team	
		Participated in final Round	Rs 1000 /- Per Team	
6	100 % Attendance		Rs 1000 /- Per Student	
7	Faculty Produced 90% and above Result		Rs 1000 /- Per Subject	
8	University Rank Holders		Rs 10000/-	
9	University Gold Medal		Rs 15000/-	
10	College Topper		Rs 5000/-	

## Alumni Association

Our Alumni are vastly spread across different professions and regions of the world. Most of our Alumni are working in top MNC's. Some are pursuing higher studies and few of them have become Entrepreneurs. Our Alumni Association is registered as per registration of Societies/ Association Act. We are lucky to have a dedicated Alumni network who share their knowledge, experience and help deserving students with monetary support or jobs. Usually our alumni meet twice a year, but lately due to the COVID-19 lockdown meetings are arranged online every quarterly .





## Facility for Digital Initiatives: Smart / Self Learning



The National Programme on Technology Enhanced Learning (NPTEL) was initiated by seven Indian Institutes of Technology (Bombay, Delhi, Kanpur, Kharagpur, Madras, Guwahati and Roorkee) along with the Indian Institute of Science, Bangalore in 2003. Five core disciplines were identified, namely, Civil Engineering, Computer Science and Engineering, Electrical Engineering, Electronics and Communication Engineering and Mechanical Engineering and 235 courses in web/video format were developed and is made available to students and faculty. Now IIT's are conducting on line certification for various courses.



SWAYAM is India's own MOOCs platform offering online courses on all disciplines viz. Engineering, Law, Management, Humanities & Social Sciences and Professional Courses. It is designed to achieve the three cardinal principles of Education Policy - Access, Equity and Quality. SWAYAM is an indigenously developed Cloud based IT platform that facilitates hosting of all the courses, taught in classrooms from 9th standard till Post-Graduation to be accessed by Anyone, Anytime, Anywhere free of cost. All the courses are interactive, prepared by reputed teachers in the country and accessible through computers / mobile phones.



SWAYAM PRABHA is an initiative to provide 32 high quality educational channels through DTH (Direct to Home) across the length and breadth of the country on 24X7 basis. This would enable to deliver e-education in a most cost effective & inclusive manner.



National Digital Library of India (NDL India) provides a framework of virtual repository of learning resources with a single-window search facility. 24x7 learning resource, Accessible by any one, from anywhere and anytime, Single window search facility with filters through which users can personalise. More than 3.8 Crore e-books / journals / audio books / question banks. Contents are available in 200 + Languages. Registrations : 52 lakh +. Number of institutions: 13,352. Mobile App downloads : 14.1 Lakhs.



Virtual Labs provides a fully interactive simulation environment to perform experiments, collect data, and answer questions to assess the understanding of the knowledge acquired. In order to achieve the objectives of such an ambitious project, it is essential to develop virtual laboratories with state-of-the-art computer simulation technology to create real world environments and problem handling capabilities. IIT Delhi as the Nodal Institute with other 10 institutes is understanding this initiative.



AWS Training and Certification helps the students to build and validate your cloud skills so that one can get more out of the cloud. Our content is built by experts at AWS and updated regularly to keep pace with AWS updates, so one can be sure of learning the latest and keeping one's cloud skills fresh.





E-Yantra enable the effective education across engineering colleges in India on Embedded Systems and Robotics. The training for teachers and students is imparted through workshops where participants are taught basics of embedded systems and programming. Engagement of teachers and students in hands-on experiments with robots by way of competition or event is another innovative method of problem-solving with out-of-box solutions. e-Yantra also helps colleges to set-up Robotics labs/clubs to make it a part of their routine training curriculum. More than 275 colleges across India have benefited with this initiative. All the projects and code are available on the e-Yantra web-site [www.e-yantra.org](http://www.e-yantra.org) as open source content.



FOSSEE promotes the use of open source software in educational institutions (<http://fossee.in>). It does through instructional material, such as spoken tutorials, documentation, such as textbook companions, awareness programmes, such as conferences, training, workshops and Internships. Textbook Companion (TBC) is a collection of code for solved examples of standard textbooks.

## Other Certificate / Value Added / Online Courses

These modules educate students on the importance of work experience and career development activities that are undertaken each year.

There are number of courses that span across several technology tracks to help students equip themselves for the industry. These courses are curated as well as administered by senior academicians of reputed organizations and industry experts.

They feature quizzes, hands-on learning in labs and engaging activities. For each module track that a student completes, he/she will earn a certificate of completion from Industry & Government Organization.

**Value Added Courses offered at our Technology Centres - certified and recognized by various reputed Agencies and Industries**

Branch	Sem 1	Sem 2	Sem 3	Sem 4	Sem 5	Sem 6	Sem 7
CIVIL	Python Programming	CAD - 2D & 3D Modelling	3D Printing	Revit Architecture	Staad Pro	PrimaVera & PPM	GIS - ARCGIS
			Mobile App - Web Development				
MECH		Computer Aided Engg Drawing - GD & T	Computer Aided Modelling & 3D Priniting	E- Vechicle	Computer Aided Design & Assembly - CATIA	Industrial Robotics Multi Body Dynamics / Aero Modelling	Hyper Mesh - Structural /CFD/ Thermal Analysis
			Mobile App - Web Development		Godrej Skill Development	Computer Aided Manufacturing	
CSE & IT		C Programming	JAVA Programming & C# and .NET	RPA	DATA Science		AWS/ Cyber Security/ AR & VR
				CCNA	Hadoop - Big DATA Analytics / Selenium		
ECE				CCNA & LAB VIEW	RPA & Embedded IOT	Godrej Skill Development & Robotics & Drone Technology	
	EEE						E - Mobility



# Placement & Training

The Placement & Training cell plays an integral role in guiding the students to achieve their career goals. The cell facilitates the training activities with the help of industrial experts, alumni and corporate trainers to train the students for campus drive. The cell collaborates with the leading industries which provide job opportunities to our students to excel in their career life. Inplant Training, Industrial visits, Industrial Projects and Consultancy Work, Career guidance program, reasoning tests, Puzzle Solving, Group Discussions, Mock Interviews, etc., are organized on regular basis in order to motivate and develop the personality of the students. The Placement Cell also works to empower students with life-long learning, decision-making skills, assist different companies in recruiting candidates as per their requirements and also help students in obtaining final placement in reputed companies.

In addition, the Placement and Training Cell regularly conducts soft skills and communication training and year-long Personality Development Programmes. Over the years, the department has maintained symbiotic, vibrant and purposeful relationship with industries across the country and as a result, has built up an impressive placement record both in terms of percentage of students placed, and the number of companies visiting the campus.



Year	No of Students			Annual Salary		
	Registered	Placed	Percentage	Highest Salary	Lowest Salary	Average Salary
2017-2018	230	195	85	4.5 LPA	1.75 LPA	3.0 LPA
2018-2019	240	198	83	5.2 LPA	2.17 LPA	3.6 LPA
2019-2020	160	142	88	7.2 LPA	1.75 LPA	4.4 LPA

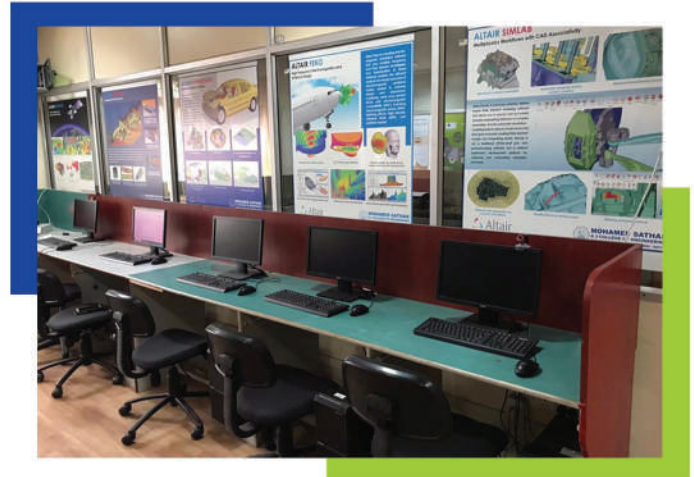
Year	Single Offer	Multiple Offers	IT Sector	Core Industries	Engg Service Industry	Internship
2017-2018	144	51	93	82	20	73
2018-2019	140	58	85	97	16	125
2019-2020	160	142	70	60	12	105



# Technology Centre / Skill Development Centre

In pursuit of MSAJCE vision and mission to make the students deployable and equip them with the upcoming emerging industrial demands, various Technology Centres to educate, train and up-skill students in niche technologies have been established in the year 2019-2020. The courses and training are designed based on the recommendations of AICTE and India Skill Report 2020. The Technology Centers were established with state of the art facility & provide an ambient learning environment for research and innovation. Each centre is collaborated with industry / government organizations to provide certifications, onsite / offsite projects and internships. The list of industries include Automation Anywhere, , Godrej Inc, Ford, Palo Alto systems, Amazon Web Services, National Instruments, CISCO Academy, Altair, Open wave computing, Levergent Technologies, Propeller Technologies. All courses are handled by Industry trained faculty.

- ✓ Centre for Computer Aided Manufacturing (CAM)
- ✓ Centre for Advanced Digital Manufacturing
- ✓ Centre for Computer Aided Engineering (CAE)
- ✓ Centre for Industrial Robotics
- ✓ CISCO Network Academy
- ✓ Centre for Mobile & Web App Development
- ✓ Centre for Robotic Process Automation
- ✓ Centre for Gaming, AR & VR
- ✓ APJ Abdul Kalam Innovation Cell
- ✓ Centre for Drone and Aero Modeling
- ✓ Centre for e Yantra
- ✓ Centre for Embedded and IOT
- ✓ Centre for Bentley's Building Information Modeling
- ✓ Centre for Lab view Academy
- ✓ Centre for E-Vehicle/ Mobility
- ✓ Centre for Coding Learning Centre (Python/ Java/ C)
- ✓ Godrej –Disha Skill Development Centre
- ✓ Centre for Data Science (AI, ML & DL)
- ✓ Centre for Amazon Web Services & Cloud Computing
- ✓ Communication Language Learning Centre (Japanese, German & French)
- ✓ Centre for Renewable Energy





# Students Activities

## Social Service

Mohamed Sathak AJ College of Engineering students have been actively involved in promoting / participating / conducting various socially relevant issues. Through NSS and UBA various awareness programs are planned and conducted in health, education, social rights, women rights and empowerment etc. Under UBA MSAJCE adopted 5 villages Karanai, Siruseri, Puzhuthivakkam, Perumbakkam and Thazhambur located in and around the college. In these villages it is planned to conduct various activities like Medical Camp, COVID -19 Awareness Programs, Technical Training / Skill Development activities for the school dropouts to improve their livelihood. Our NSS unit in association with Rotract Club regularly organizes Blood Donation Camp, Flood Relief Camp, Campus Cleaning, Rally's in Social Importance, Maintain Cleanliness and Avoid Plastic Camp, Computer Literacy Programs for Schools and Public.

## Sports

Sports activities help the students to keep them fit mentally, physically, emotionally and intellectually. The college has best sports infrastructure which comprises of :

- ✓ Well equipped Gym facility
- ✓ **Indoor Sports facilities** : Chess, Carrom, Table Tennis
- ✓ **Outdoor Sports facilities** : Basketball, Cricket, Volleyball, Badminton, Archery, Kabaddi and Track Events

The college regularly organizes inter and intra collegiate sports activities, Annual sports meet, Anna University Zonal meets and Inter Zonal Tournaments. The MSAJCE have an impressive record of performance in State level and National level sports events. Sports events for MNCs are given access to indoor & outdoor sports facilities to improve industry institute connect.



Inter Engineering Cricket Tournament held at MNM Jain College - Runners



state level Chess Tournament held at St. Josephs college of Engineering - Third Place



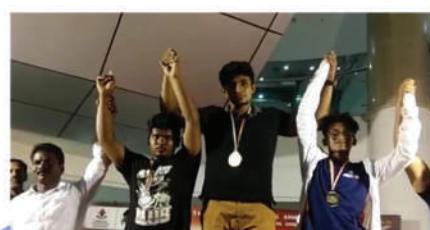
Mohamed Asif secured Gold Medal in National equipped/unequipped championship



Chennai International Youth Fest Archery - R. Dhinakaran Gold Medal & R. Nirmal Silver Medal



Anna University Zone III Basketball Tournament held at SSN College of Engineering- Third Place



B.Mohamed Asif secured Gold Medal in Tamilnadu state bench press championship



BSM Inter college Cricket Tournament at our Campus - Winners



State Level Volleyball Tournament held at Bharath University - Third Place



State Level Volleyball Tournament held at SSN College of Engineering - Runners



## Tech Jamboree Technical Festival 2019-2020



Tech Jamboree - A State Level Project Exhibition is an initiative taken by our Institution. This initiative is to motivate students of Higher secondary level and create a platform to learn the new technologies trending in the global scenario. We are inviting young generation into this scenario, to provide awareness and hands on training in various "Technology Centres". This helps the students to enhance Technical Knowledge, Design Projects, Plan for Higher Studies etc.



S.No	Description	Total No of Events	Total No of Students Participated
1	Events Organized for 10, 11 and +2 Students	85	10,000 +
2	Events Organized for Polytechnic Students	15	800 +
3	Events Organized for other Students	04	200 +
4	No of School Participated	75	10,000 +
5	No of Polytechnic college Participated	25	800 +
6	No of Events Organized during Lockdown	140	15,000 +

## Students Achievements



### GOLD MEDAL

Mr. R Yaswanth received Gold medal 2019 from the Governor of Tamilandu in the Convocation held at Anna University.



### GOLD MEDAL

Ms. Tharani received Gold medal 2019 from the Governor of Tamilandu in the Convocation held at Anna University.



### GOLD MEDAL

Ms. Subhalakshmi received Gold medal 2018 from the Higher Education Minister of Tamilandu in the Convocation held at MSAJCE.



### GOLD MEDAL

R. Dinakaran IV Year Mechanical Gold Medal in Archery at Chennai International Youth Fest 2018.



### BEST STUDENT

Mr. Arun Prasanth received Best Student of the Year-2019 by Indian Society of Technical Education (ISTE) Tamil Nadu Chapter.



### BEST STUDENT

Ms. Afrin Fathima received Best Student of the Year-2019 by Indian Society of Technical Education (ISTE) Tamil Nadu Chapter.



# Alumni Speak



**Ms. HARINI RAMAN** (2002-2006)  
Software Testing Engineer in IBM

Hai! This is Harini Raman 2006 passed out from CSE department. Presently I am working as Software Testing Engineer in IBM. MSAJCE gave me excellent platform to enrich my knowledge in Technologies, made us to cross hurdles during interviews and helped us to shape our career. We had very good faculties who helped always reach top level. They engrossed and dedicated themselves in creating good future for the students. I am proud to be an Alumni of MSAJCE.

**Mr. ANBAZHAGAN** (2001-2005)  
CISCO - Chennai



Hai this is Anbazhagan completed B.Tech IT in 2005. Currently I am working in an MNC in Chennai. I have fourteen years of experience. MSAJCE has given very good career not only for me but for the entire batch who completed in 2005. All my friends are well settled in MNCs across the globe. I am proud to be a part of MSAJCE.



**Mr. KARTHIKEYAN SELVAMANI** (2002-2006)  
STERIA, Royal Bank of Scotland

Hello friends my name is Karthikeyan selvamani. I have graduated in 2006 from B.E.CSE. In fact we were the first batch of student to follow the curriculum of Anna University. The real transition for the faculty to upgrade with the syllabus which was competitive and tougher than Madras University syllabus. So I must thank the institute for arranging excellent faculty during that time who understood the concepts of engineering which included the format, structure and the questions. Presently I am working as HR person. I have worked with STERIA, Royal Bank of Scotland and now I am with Inter Trust Group. I am thankful to the college for shaping my career.

**Mr. M.R. KRISHNA KUMAR** (2005-2009)  
Country Head , 3D Image Processing



Hai I am Krishna Kumar alumni of ECE department belonging to 2005 batch I have rich experience in Industrial Automation. Presently I am with team head for vision ,mission for 3D image processing. This gave me the confidence to perform competitive market. Engineering technology is moving towards cutting edge were Industry 4.0, machine learning, data science and Robotics. I wish all the future engineers are trained towards this platform to get high pay and good jobs in future.



**Mr. SARAVANAN PERUMAL** (2001-2005)  
WIPRO Technologies

Hai all, This is Saravanan Perumal 2005 passed out from MSAJCE. Currently I am attached with WIPRO Technologies and has 14 years of experience working in companies in India and US. The knowledge that I gained is all through the faculty members and the education system at MSAJCE. My stay at MSAJCE groomed my career path. We also could get exposure through industrial visits and campus interviews. The Alumni meet on Jan 26th 2020 gave us a connect and we could see how the college has evolved.

**Mr. RAVICHANDRAN** (2013-2017)  
Civil Engineering



Hailam Ravichandran student of Civil Engineering department belonging to 2017 batch. What I liked most in college is the atmosphere and Infrastructure. Labs, Library, hostel, Transport are all super. Students are all given exposure to Internship and IV. This exposure helped me to gain good knowledge over leading technology. Placement was provided to me through this college. All the faculty members are friendly and help in clearing the doubts any time. I am proud to be a part of MSAJCE team.



# Activities 2019-2020 Glimpse



Tamil Mantram Events  
Inaugurated on 13-01-2020



Pongal Celebration 13-01-2020



NSS-Mass Cleaning Programme at  
Siruseri Sipcot conducted on 23-01-2020



Alumni Meet conducted on 26-01-2020



1<sup>st</sup> Batch RPA Essential Certification  
Completed on 28-01-2020



Workshop on Geotechnical Engineering  
delivered by Dr. Derek Victor Morris on 31-01-2020

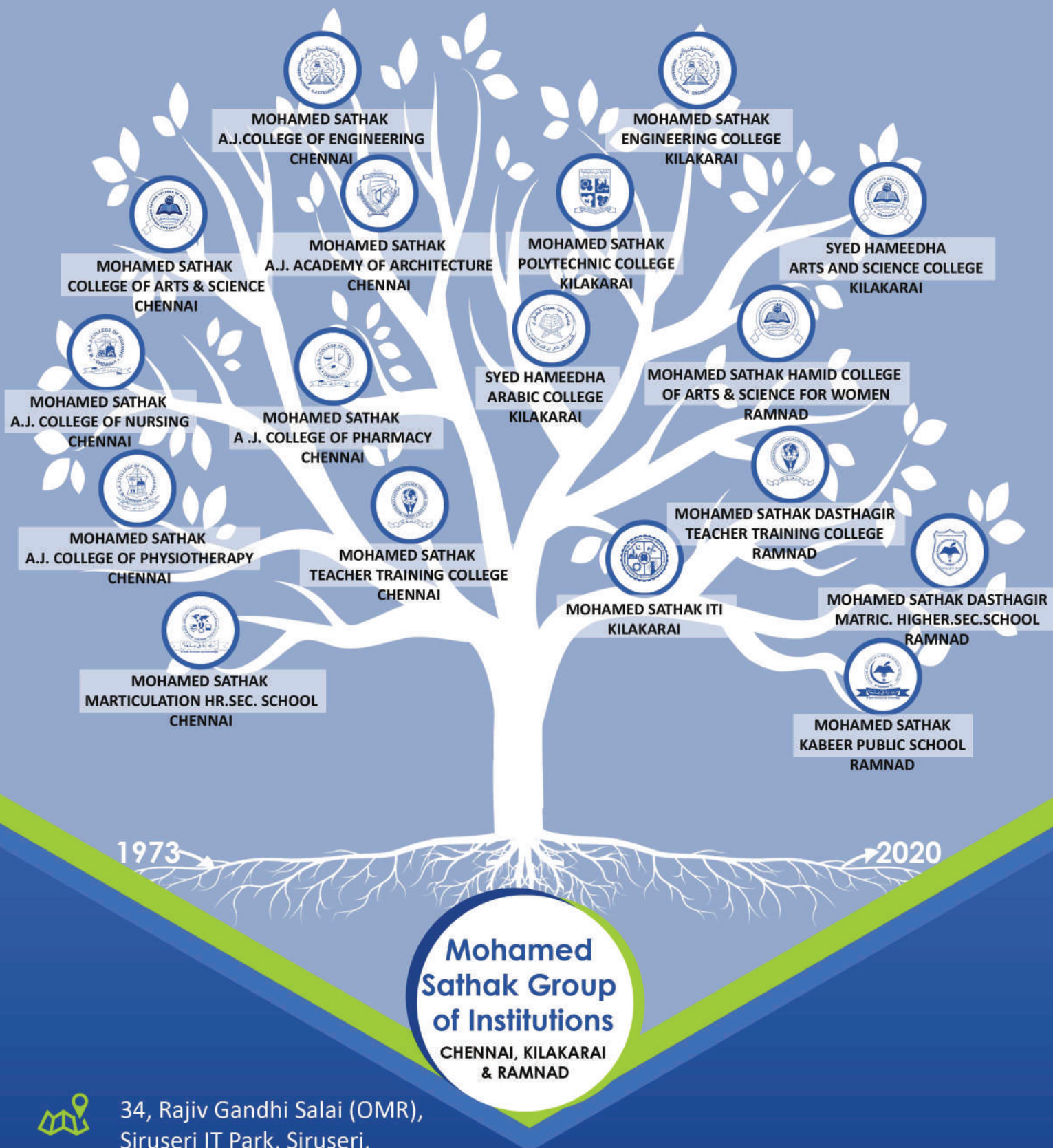


DST Sponsored Entrepreneurship Awareness  
Camp organised on 06-02-2020



Inauguration of SAE India Collegiate Club  
on 21-02-2020





34, Rajiv Gandhi Salai (OMR),  
Siruseri IT Park, Siruseri,  
Chennai - 603103.



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