



INSTITUTIONAL ASSESSMENT AND ACCREDITATION **(Effective from July 2017)**

Accreditation - (Cycle - 1)

PEER TEAM REPORT ON **INSTITUTIONAL ACCREDITATION OF** **MOHAMED SATHAK ENGINEERING COLLEGE** **C-26795**

KILAKARAI
Tamil Nadu
623806

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL
An Autonomous Institution of the University Grants Commission
P.O. Box No. 1075, Nagarbhavi, Bengaluru - 560 072, INDIA

Section I:GENERAL INFORMATION

1.Name & Address of the institution:	MOHAMED SATHAK ENGINEERING COLLEGE KILAKARAI Tamil Nadu 623806	
2.Year of Establishment	1984	
3.Current Academic Activities at the Institution(Numbers):		
Faculties/Schools:	1	
Departments/Centres:	13	
Programmes/Course offered:	13	
Permanent Faculty Members:	184	
Permanent Support Staff:	93	
Students:	1183	
4.Three major features in the institutional Context (Asperceived by the Peer Team):	1. Provision of Higher Education to students from rural region 2. Eco friendly Green Campus 3. Appreciable research initiative	
5.Dates of visit of the Peer Team (A detailed visit schedule may be included as Annexure):	From : 12-04-2023 To : 13-04-2023	
6.Composition of Peer Team which undertook the on site visit:		
	Name	Designation & Organisation Name
Chairperson	DR. POULOSE JACOB KIZHAKATTATHU	FormerPro-Vice Chancellor,COCHIN UNIVERSITY OF SCIENCE AND TECHNOLOGY
Member Co-ordinator:	DR. PROF. VASDEV MALHOTRA	Professor,J C Bose University of Science and Technology YMCA Faridabad
Member:	MR. P SRINIVASA RAO	FormerProfessor,JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY
NAAC Co - ordinator:	Dr. Vishnu Mahesh K R	

Section II: CRITERION WISE ANALYSIS

Observations (Strengths and/or Weaknesses) on each qualitative metrics of the key Indicator under the respective criterion (This will be a qualitative analysis of descriptive nature aimed at critical analysis presenting strength and weakness of HEI under each criteria)

Criterion1 - Curricular Aspects (Key Indicator and Qualitative Metrics(QIM) in Criterion1)	
1.1	Curricular Planning and Implementation
1.1.1 QIM	The Institution ensures effective curriculum planning and delivery through a well-planned and documented process including Academic calendar and conduct of continuous internal Assessment
1.2	Academic Flexibility
1.3	Curriculum Enrichment
1.3.1 QIM	Institution integrates crosscutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum
1.4	Feedback System

Qualitative analysis of Criterion 1

Mohamed Sathak Engineering College (MSEC) is approved by AICTE and affiliated to the Anna University, Chennai. MSEC is offering 13 UG Programs, 9 PG Programs in Engineering & Technology and a Research program in Science and Humanities. The Institute follows the curriculum approved by the BoS of Anna University and implements the syllabus with course objectives and evaluation schemes for every course. Faculty members also participate at various bodies of the University such as Academic Council, Board of Studies (BOS), and subject chairman who contribute in framing of syllabus regularly. Institute has an Academic Administration Committee (AAC) comprising of Principal, Heads of the Department (HoD's) and Internal Quality Assurance Cell (IQAC) that are responsible for planning, monitoring and implementation of overall academic activities like preparation of timetable, identification of learning gaps, industry expectations, emerging skills, knowledge enhancement, faculty training and designing of new courses. The Program coordinator monitors the conduct of the academics. Academic calendar is prepared to fulfil the objectives of the curriculum delivery. The Institution Academic Calendar is finalized in alignment with the University calendar. Based on Academic Advisory Committee inputs, Co-curricular and extra-curricular activities are planned in the academic calendar. Annual Calendar of events is prepared which consists of plan for Internships, Field visits and projects. Lectures are scheduled for connecting the requirements of industry and academics. Before the start of every academic session, Principal conducts meeting with Vice- Principal, , Heads of all the Departments, and finalize the academic activities. Teaching Load Distribution (theory and practical) is appropriately allotted among the faculty members. Competency mapping is undertaken at department level to ensure that most suitable teachers handle the courses based on their specialization and experience. Time table is prepared as per the teaching scheme of Anna University by the Time-Table Committee. Time table is prepared at the Department level - teacher wise - class wise as a matrix structure. Students are made aware of commencement of semester through notice and SMS.

The Anna University curriculum includes value added courses such as Gender equality, Environmental consciousness and sustainability, Human Values and Professional Ethics into the regular Curriculum. Institute organizes various activities like awareness programme on Human Values and Environmental Sustainability. Final year students are encouraged to take projects which address issues viz. Green energy, clean and green manufacturing, eco-friendly and sustainable manufacturing, low cost green houses, etc.

Professional Ethics and Human Values courses are offered as per regular curriculum of Anna University to all

branches of Engineering, with focus on human values and discusses engineering ethics, safety and risk factors.

MSEC gives equal opportunities to both the genders in terms of admissions, training, placement, cocurricular and extra-curricular activities, NSS, NCC, Sports and Cultural Clubs. The institute has constituted various committees including Women Empowerment Cell, Women Grievance & Redressal Committee. These committees help in promoting issues/programs on gender equity, promoting leadership qualities in women and also handle issues related to safety and security of girl students and lady staff.

Courses files are prepared by all faculty members which include Syllabus, Academic calendar, Teaching Plan, Tutorial Plan, Program Outcomes, Program specific outcomes and Courses Outcomes, CO-PO(s), CO-PSO(s) Mapping & Attainment, Tutorial Sheets, Class Assessment Tests (CAT) question Bank, Assignment Questions, University Question Papers & model solution, Support for Academically slow students etc.

Criterion2 - Teaching-learning and Evaluation (Key Indicator and Qualitative Metrics(QIM) in Criterion2)	
2.1	Student Enrollment and Profile
2.2	Student Teacher Ratio
2.3	Teaching- Learning Process
2.3.1 QIM	Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences using ICT tools
2.4	Teacher Profile and Quality
2.5	Evaluation Process and Reforms
2.5.1 QIM	Mechanism of internal/ external assessment is transparent and the grievance redressal system is time- bound and efficient
2.6	Student Performance and Learning Outcomes
2.6.1 QIM	Programme Outcomes (POs) and Course Outcomes (COs) for all Programmes offered by the institution are stated and displayed on website and attainment of POs and COs are evaluated
2.7	Student Satisfaction Survey

Qualitative analysis of Criterion 2

The main objective of Mohamed Sathak Engineering College is to impart quality education to the students of all sections in the Society. The Outcome Based Education (OBE) model was initiated during the academic year 2018-2019. Advanced learners are provided an opportunity to choose for self-learning courses, summer internships, academic projects and online courses. The programme made available to them for their all-round development range from human rights and gender equity to life skills and leadership skills, self-defense, yoga, sports, communication skills and soft skills. Student exchange programme with Sisters institution provide exposure and experience in increase one's horizon and building self-confidence. A student-centric learning process is followed as stated by the University. Renowned persons from premier institutes and industry from various fields are invited to deliver guest lectures to supplement the curriculum. The College has a effective mentoring system in place. Professional counseling is given to those students who need help in all extends. The college has ICT-enabled classrooms and so called "Centre of Excellence" in various disciplines that enable effective teaching and learning process. The pass percentage has considerably increased during current assessment period. The average experience of the teaching faculty is 10 years. The Teachers quality is improved by organizing and participating various Faculty Development Programme, Workshops, Seminars, and Conferences. Teachers with Ph.D / NET / qualification have been increased from to 32.6% during the current assessment period. The teaching learning process is monitored by the concerned organizational hierarchies such as the Principal, IQAC coordinator, Head of the Department, Class Committee, and Faculty

Advisor. The main objective of Mohamed Sathak Engineering College is to impart quality education to the students of all sections in the Society.

Environment and Sustainability. Many Projects are undertaken by final year students relating to environmental issues like climate change, water pollution, sewage treatment, air pollution, rain water harvesting, modelling, flood prediction, disaster management and green concrete etc. Topics related to these issues are also taken up for quiz and debates during the National Science Day, Earth Day celebrations and the Independence Day function. MSEC students go to rural areas and educate rural people about the environmental based activities and educate them.. There are multiple Rain Water Harvesting percolating structures in the campus which keep the ground water charged during rainy season This is a Plastic-free green campus implementing Swatch Bharat Abhiyaan. Tree plantation and various environment-related awareness seminars are conducted on regular basis to inculcate the importance of the environment to the student community. Several FDP, Seminar, Workshops have been organised at regular intervals.

Criterion3 - Research, Innovations and Extension (Key Indicator and Qualitative Metrics(QIM) in Criterion3)

3.1	Resource Mobilization for Research
3.2	Innovation Ecosystem
3.2.1 QIM	Institution has created an ecosystem for innovations and has initiatives for creation and transfer of knowledge
3.3	Research Publications and Awards
3.4	Extension Activities
3.4.1 QIM	Extension activities are carried out in the neighborhood community, sensitizing students to social issues, for their holistic development, and impact thereof during the last five years.
3.4.2 QIM	Awards and recognitions received for extension activities from government / government recognised bodies
3.5	Collaboration

Qualitative analysis of Criterion 3

The faculty members and students are encouraged to participate in seminars, workshops, conferences, publication and patents. Institution has a dedicated team of research oriented teachers. College Citation index is 1691, h-index is 25 and i-10 index is 58. Faculty members and Undergraduate/ postgraduate students are provided with adequate resources to encourage research in their respective field of interest. Students are encouraged to try taking up research projects under the supervision of the faculty members Several workshops/ seminars are conducted. During project expo, students are displaying their gadgets to encourage young minds who visit the expo. The Institution has 45 Ph.Ds holders, 33 pursuing Ph.D. and remaining faculty members are working collaboratively. This 41 faculty members have completed PhD in the last five years. Research grant has been received from various funding agencies viz., AICTE, SERB, TNSCST, FIST etc tuned to Rs. 65.5 Lakhs. 20 consultancy work has been taken received from 03 industries / government The faculty members pursuing research are encouraged by providing them the required equipment, books, leave for research work, financial assistance for conferences participation , computer facilities, Wi-Fi etc. The college provides incentives to the faculty for their research contribution. The department of chemistry is recognized as “Research Centers” by he Anna University. 06 faculty members are recognized supervisors of Anna University and other Ph.D holders are motivated to obtain supervisor recognition. The faculty members who do not possess Ph.D degree are advised to register for research work. The institution has a well-defined

code of ethics to check malpractices and plagiarism in research. 64 patents have been applied/ published/ awarded by faculty members and students 179 Research papers have been published in the UGC recognized journals. 82 papers have been presented in national/international conferences. 23 books/ book chapters have been published. 10 so called “center of excellence” has been established, likewise 04 incubation centers have been established. Institution has an Industry Institute Partnership Cell (IIPC) which has signed 48 MoUs, though not all of them are active. 04 industrial seminars/ workshops are conducted. Several industrial linkage program such as internship, field trip, on-job training and research have been organized. Students have participated in Ideathon/ Hackathon/ Design contests conducted at state and national levels. Recognition and awards are received for various extension activities from University, State level agencies and NGOs. Periodic blood donation camps have been organized to create an awareness on blood donation theme. Extension and outreach programs were conducted for the benefit of society through NSS, YRC, Rotract, clubs and societies. Institution has adopted 05 villages (Mayakulam, Chinnamayakulam, Mulluvadi , bharathi nagar and kangirankudi) under Institutional Social Responsibility scheme.

The institute has the special branch of Marine Engineering with Ship-in Campus facility for training the student on ship maneuvering and control. Various training programmes for the benefit of the fishermen community in the area also have been organised.

Criterion4 - Infrastructure and Learning Resources (Key Indicator and Qualitative Metrics(QIM) in Criterion4)

4.1	Physical Facilities
4.1.1 QIM	Availability of adequate infrastructure and physical facilities viz., classrooms, laboratories, ICT facilities, cultural activities, gymnasium, yoga centre etc. in the institution
4.2	Library as a Learning Resource
4.2.1 QIM	Library is automated using Integrated Library Management System (ILMS), subscription to e-resources, amount spent on purchase of books, journals and per day usage of library
4.3	IT Infrastructure
4.3.1 QIM	Institution frequently updates its IT facilities and provides sufficient bandwidth for internet connection
4.4	Maintenance of Campus Infrastructure

Qualitative analysis of Criterion 4

The college has adequate classrooms, laboratories and seminar halls for the conduct of the courses for all the UG and PG programmes. In addition, faculty rooms, rest rooms exclusively for girls and auditorium for organizing students’ events centrally, such as entrepreneur programmes etc., separate halls for the conduct of examinations are available. The Internet facility is available for all faculty and students in campus. For ease of access, the entire campus has been made Wi-Fi enabled with about 24 Wi-Fi points spread over the entire campus. The classrooms are equipped with roof mounted LCD projector, white screen facilitating the teacher to project teaching material. Thus, the ICT resources are extensively used in the campus. In-house staff look after the maintenance of computers and the networking. The power is supplied by the Electricity Board with a peak load of 95 kVA, and it is augmented by six diesel generators capable of giving a backup power of 430 kVA. The generators are maintained as and when the repair occurs, on a call basis; the day-to-day maintenance is done by the technical staff attached to the substation.

ICT-enabled Class Rooms, well equipped Laboratories, Tutorial Rooms, Department HoD Rooms and faculty Cabins are available, supplemented by Air-conditioned ICT Enabled seminar halls, Board Rooms, GD & Interview Rooms, which adequately support the teaching learning process..A large Auditorium with 1750

capacity is available. Adequate number of computers supported with 500 Mbps Internet bandwidth is available. Laundering facilities in College and hostels are provided. Modern Gym facilities separately for girls and boys Availability of indoor and outdoor sports facilities Establishment of Health Centers with qualified Physicians City Union Bank ATM, Postal Service inside the Campus Maintenance of campus facilities through qualified engineers and managers. Smart Class room available for Special coaching and Guest Lectures.

The institute has 3 hostels out of which 2 are for boys with capacity 450 and 1 for girls with 250 capacity, both wi-fi enabled. Canteen facility is also available. Transport facility with around 40 buses is also available. Economically weaker students use the facility free of charge.

The institution has a well established library with 120789 volumes and good number of e-journals

Criterion 5 - Student Support and Progression (Key Indicator and Qualitative Metrics (QIM) in Criterion 5)

5.1	Student Support
5.2	Student Progression
5.3	Student Participation and Activities
5.4	Alumni Engagement
5.4.1 QIM	There is a registered Alumni Association that contributes significantly to the development of the institution through financial and/or other support services

Qualitative analysis of Criterion 5

The institution provides necessary financial assistance to the students, meaningful experiences for learning at the campus and to facilitate their holistic development. Besides academic, the institution motivates the students to participate in various sports and cultural activities. Also, necessary guidance and assistance for the betterment of the students and the institution are provided.

Scholarship section of the institution provides valuable guidance to get financial assistance from various government schemes like SC/ST Scholarship, BC/MBC Scholarship, First Generation Scholarship, Minority Scholarship, etc. Besides government schemes, necessary assistance is provided to get financial support from non-government scholarship schemes like Mohamed Sathak Trust Scholarship, Tamilnadu Muslim Association of Greater Chicago Scholarships schemes, etc. Various capacity building initiatives for the students to improve their soft skills, communication skills, ICT skills and their life skills, are provided. Mechanisms like Anti-ragging cell, Women Empowerment Cell, Student grievance redressal cell provide various welfare measures to support the students. The Institution has a well structured, organized guidance and counseling system in place. The Training & Placement Cell is working towards equipping the students with employability skills and to get success in placement drives. Sustainable good practices and effective support, improves confidence level the students to attend various on-campus & off-campus placement drives and they get placed in reputed companies. Also, we motivate and guide the interested students to pursue higher studies. The placement and higher education average during the last five years is 73.81%. We provide necessary guidance for the interested students to prepare for the competitive exams. We facilitate vertical movement of students from one level of education to the next higher level or towards gainful employment. Besides academic activities, we motivate the students to take part in extra-curricular activities and the students participated in various sports and cultural events at an average of 25.5 events per year. We are having ample infrastructure to train the students in sports and cultural domain. The students attain some high levels and received 28 awards and medals in sports and cultural events during the last five academic years. The Institution has the best practice of encouraging the collaborative work with Alumni who are having a life

long association with the institute and who think and act better in the welfare of the institution. The Alumni Association has been registered as a Society under Tamilnadu Government Society Registration Act with the Registration Number: 36/2014. Alumni Members are invited for various knowledge transformation programs for the mutual benefit. They are also invited to attend alumni meet where they are felicitated and invited to put forth their suggestions.

Criterion6 - Governance, Leadership and Management (Key Indicator and Qualitative Metrics(QIM) in Criterion6)	
6.1	Institutional Vision and Leadership
6.1.1 QIM	The governance and leadership is in accordance with vision and mission of the institution and it is visible in various institutional practices such as decentralization and participation in the institutional governance
6.2	Strategy Development and Deployment
6.2.1 QIM	The functioning of the institutional bodies is effective and efficient as visible from policies, administrative setup, appointment and service rules, procedures, deployment of institutional Strategic/ perspective/development plan etc
6.3	Faculty Empowerment Strategies
6.3.1 QIM	The institution has effective welfare measures and Performance Appraisal System for teaching and non-teaching staff
6.4	Financial Management and Resource Mobilization
6.4.1 QIM	Institution has strategies for mobilization and optimal utilization of resources and funds from various sources (government/ nongovernment organizations) and it conducts financial audits regularly (internal and external)
6.5	Internal Quality Assurance System
6.5.1 QIM	Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing the quality assurance strategies and processes. It reviews teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals and records the incremental improvement in various activities

Qualitative analysis of Criterion 6

The Mohamed Sathak Engineering College, was established in the year 1984 at Kilakarai, Ramanathapuram District, Tamilnadu by the Mohamed Sathak Trust which is a registered charitable and educational organization established in 1973. It endeavours to spread technical and management education at all levels of society, particularly among the backward communities in the rural area where the institution is situated.

The Institute's focus and tenets are well reflected in its Vision and Mission statements, documented in precise and objective terms, supplemented by its Quality Policy as well. Academic excellence at UG, PG and research levels appear to be the stated goal.

The Governing Council of MSEC is constituted as per the norms of AICTE, New Delhi, Affiliating University (Anna University) & Govt. of T.N., with due representation to the members of the board of management. The GC meets twice a year to deliberate on the activities and to approve the minutes of the several committees which are required to report to the GC. All important decisions on policy matters as well as academic issues are debated and decided in the GC. like the fee structure, budget proposals and new initiatives for the future regarding new programmes, intake changes of existing program etc. Management gives adequate importance to its focal theme as enshrined in its Vision and Mission statements.

The Principal and the HoDs periodically meet to take decisions on academic matters. The HoD decides on the activities of the department and delegates responsibilities to the faculty. Transparency is maintained at all levels of the academic and administrative processes, including self-appraisal for faculty as well as students feedback systems. These reports are adequately attended to. Faculty Development Programs and encouraging participation of faculty in various activities of the institution help to empower the faculty. Good Financial management is in practice through Department budget and Institution Budget with regular Internal and external audits. Community services like Blood donation camps, Medical check-up camps, etc., are rendered by the NSS unit functioning in the institution

Criterion7 - Institutional Values and Best Practices (Key Indicator and Qualitative Metrics(QIM) in Criterion7)	
7.1	Institutional Values and Social Responsibilities
7.1.1 QIM	Measures initiated by the Institution for the promotion of gender equity and Institutional initiatives to celebrate / organize national and international commemorative days, events and festivals during the last five years
7.1.4 QIM	Describe the Institutional efforts/initiatives in providing an inclusive environment i.e., tolerance and harmony towards cultural, regional, linguistic, communal socioeconomic diversity and Sensitization of students and employees to the constitutional obligations: values, rights, duties and responsibilities of citizens (Within 500 words)
7.2	Best Practices
7.2.1 QIM	Describe two best practices successfully implemented by the Institution as per NAAC format provided in the Manual
7.3	Institutional Distinctiveness
7.3.1 QIM	Portray the performance of the Institution in one area distinctive to its priority and thrust within 1000 words

Qualitative analysis of Criterion 7

The institution has adopted various measures to maintain a green campus which helps in developing an eco friendly environment inside the campus with trees and lawns. Usage of solar panels, rainwater harvesting, sewage water treatment plant, drip water sprinklers, energy saving measures etc., are demonstrated well in the campus. The institution also ensures environmental consciousness in the minds of the students by conducting environmental awareness programmes from various clubs like YRC club, NSS etc., The two best practices that the institution follows are the skill development for enhancing employability and promotion of Entrepreneur Eco System through Orientation Programme, Creative Thinking Workshop etc. Also Voluntary Blood Donation camp are conducted regularly under National Service Scheme (NSS) in association with the Tamil Nadu State Blood Transfusion Council & Tamil Nadu State Aids Control Society and Meenakshi Mission Hospital & Research Centre, Madurai. School outreach programme in association with District School Education department is being conducted every year for the HSC students of most backward and rural areas of the district. This programme helps to get better marks in HSC examinations and to face the examinations without fear and stress. Awareness about higher education is imparted to the school students. Various options in higher studies, latest trends of professional courses such as M.B.B.S , Paramedical courses , B.E., B.Tech., B.Arch, Arts & Science, and scholarship schemes available for different categories of students have been very well exposed. Institution promotes the green house farming activities for the farmers in the vicinity of Institution as well as adopted villages which helps to improve earning of farmers. The Institution offers skill development programmes for youth to gain the employment as well as to improve the income of youth farmers viz awareness of Agri business , block chain , food processing , flooring culture bio fertilizers etc.

Medical facility with support of doctor and nurse is available for students.

Section III:OVERALL ANALYSISbased on Institutional strengths.Weaknesses,Opportunities & Challenges(SWOC)(up to 500 words)

Overall Analysis

Strength:

1. Well laid-out campus with adequate infrastructure
2. Located in rural area and meeting the socio-economic needs of the society
3. Good retention of faculty
4. Support for research
5. Welfare provisions for supporting staff

Weaknesses:

1. Inadequate industry institute interactions
2. Minimal use of online credit based courses like MOOCs etc .
3. Improvisation of outcome based education
4. Less International exposure to faculty and students
5. No detail budgeting for the University

Opportunities:

1. Contribution to the increase of GER
2. Providing Higher education to the rural students
3. Promotion of agriculture programme for the region
4. Enhancing Training and consultancy opportunities.
5. Induction of skill based programmes for U.G and P.G students

Challenges:

1. Attracting the students from other parts of India and abroad.
2. Mobilization of funds through research, consultancy and training projects from Government and different funding agencies
3. The students have poor socio-economic background
4. Availability of girl students for professional programmes is less.
5. Strengthening of academia linkage

Section IV: Recommendations for Quality Enhancement of the Institution

(Please limit to **ten major ones** and use telegraphic language) (It is not necessary to indicate all the ten bullets)

- Optimum utilization of MOOCs courses etc to be encourage
- Online learning programme for skill development may be introduced
- Grievances redressal mechanism to be strengthened
- Conduct periodic upgrading of critical lab equipment
- Infrastructure which show signs of aging are to be attended to for make over
- External academic and administrative audit to be conducted
- Display information about Internal Complaints Committee and anti ragging committee prominently in the campus
- Industry collaboration to be strengthened
- Facility for differentially abled to be strengthened

I have gone through the observations of the Peer Team as mentioned in this report

Signature of the Head of the Institution

Seal of the Institution

Sl.No	Name		Signature with date
1	DR. POULOSE JACOB KIZHAKEATTATHU	Chairperson	
2	DR. PROF. VASDEV MALHOTRA	Member Co-ordinator	
3	MR. P SRINIVASA RAO	Member	
4	Dr. Vishnu Mahesh K R	NAAC Co - ordinator	

Place

Date