INSTITUTIONAL ASSESSMENT AND ACCREDITATION
(Effective from July 2017)

Accreditation - (Cycle - 2)

PEER TEAM REPORT ON

INSTITUTIONAL ACCREDITATION OF ATHARVA COLLEGE OF ENGINEERING C-33761

Mumbai
Maharashtra
400095

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:	ATHARVA COLLEGE OF ENGINEERING Mumbai Maharashtra 400095
2.Year of Establishment	1999
3.Current Academic Activities at the Institution(Numbers):	
Faculties/Schools:	1
Departments/Centres:	5
Programmes/Course offered:	5
Permanent Faculty Members:	104
Permanent Support Staff:	92
Students:	2210
4.Three major features in the institutional Context (Asperceived by the Peer Team):	1. 100 daughters 100 computers social welfare scheme for the daughters of martyred soldiers. 2. Atharva Ground station for receiving signal from Pratham satellite of IITB Mumbai. Also having amodern robotics lab. 3. Greenery and Eco-friendly campus.
5.Dates of visit of the Peer Team (A detailed visit schedule may be included as Annexure):	From : 10-10-2023 To : 11-10-2023
6.Composition of Peer Team which undertook the on site visit:	

	Name	Designation & Organisation Name
Chairperson	DR. DAMODARAM AVULA	FormerVice Chancellor,Sri Venkateswara University, Tirupati
Member Co-ordinator:	DR. ASHVINI GUPTA	FormerDean,MJP ROHILKHAND UNIVERSITY BAREILLY UP
Member:	DR. CHANDRASEKHAR REDDY KAMASANI	Principal,SIDDHARTH INSTITUTE OF ENGINEERING AND TECHNOLOGY
NAAC Co - ordinator:	Dr. B.s. Ponmudiraj	

Section II:CRITERION WISE ANALYSIS
Observations (Strengths and/or Weaknesses) on each qualitative metrices 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 Metrices(QlM) in Criterion1)	
1.1	Curricular Planning and Implementation
1.1.1 QlM	**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 QlM	*Institution integrates crosscutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability in transacting the Curriculum*
1.4	Feedback System

Qualitative analysis of Criterion 1
The college has a structured curriculum planning and delivery system. The college prepares and follows an academic calendar aligned with an affiliated university, the University of Mumbai (UoM). Faculty members have been conducting a continuous internal assessment (CIA) through assignments, presentations, quizzes, and internal exams in line with the academic calendar. A process is in place to identify slow and advanced learners by the respective subject teachers based on individual student's performance. For slow learners they are conducting remedial classes and for fast learner activities are conducted. The IQAC is continuously monitoring and improving the performance of the system. More focus must be on slow learners for betterment of their academic performance.

The college has various student societies and a student council, regularly organizing socially relevant events catering to socio-cultural issues. It is observed that some of the courses in the curriculum are available to create awareness among the students about cross-cutting issues pertinent to professional ethics, gender equity, human values, environment, and sustainability. In addition, the institution conducts student induction programs for newly admitted students each year, including various sessions on human values, professional ethics, personality development, physical activities, and yoga. Many faculty members completed UHV-I and UHV-II training programs sponsored by AICTE, New Delhi, which helps further improve ethics and human values among students. |

Criterion2 - Teaching-learning and Evaluation (Key Indicator and Qualitative Metrices(QlM) in Criterion2)	
2.1	Student Enrollment and Profile
2.2	Student Teacher Ratio
2.3	Teaching- Learning Process
2.3.1 QlM	**Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences and teachers use ICT-enabled tools including online resources for effective teaching and learning process**
2.4	Teacher Profile and Quality
2.5	Evaluation Process and Reforms
2.5.1 QlM	**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 QlM	***Programme Outcomes (POs) and Course Outcomes (COs) for all Programmes offered by the institution are stated and displayed on website***
2.6.2 QlM	***Attainment of POs and COs are evaluated.*** Explain with evidence in a maximum of 500 words
2.7	Student Satisfaction Survey

Qualitative analysis of Criterion 2
The college has been promoting the students for their participation in various curricular and co-curricular activities. but participation can be enhanced. Experiential and collaborative learning mechanisms should be adopted for better educational experiences. Real-life projects must be given to students to enhance their problem-solving abilities.   The college is strictly following the university norms and guidelines for the conduct and assessment of all the exams. The internal assessment mechanism is transparent, with answer sheets being distributed to students after the answer sheets are evaluated. Students can approach the subject teacher for any grievances, which are addressed in a timely manner. Grievances related to external assessment are addressed by the affiliating university. Academic grievance redressal system must be timebound and efficient for ultimate satisfaction of the students.   Programme Outcomes (POs) and Course Outcomes (COs) are stated and displayed on the college website. Course Outcomes (COs) are also published in the syllabus books for each course. All the POs are also displayed in prominent places. All the faculty members and students should be well aware of POs and Cos.   The college has been regularly evaluating the attainment of Programme Outcomes (POs) and Course Outcomes (Cos) using direct and indirect assessment tools. However, the action taken report on low attainment of any course/program outcome needs to be clearly specified

Criterion3 - Research, Innovations and Extension (Key Indicator and Qualitative Metrices(QlM) in Criterion3)	
3.1	Resource Mobilization for Research
3.2	Innovation Ecosystem
3.2.1 QlM	**Institution has created an ecosystem for innovations, Indian Knowledge System (IKS),including awareness about IPR, establishment of IPR cell, Incubation centre and other initiatives for the creation and transfer of knowledge/technology and the outcomes of the same are evident**
3.3	Research Publications and Awards
3.4	Extension Activities
3.4.1 QlM	**Outcomes of Extension activities in the neighborhood community in terms of impact and sensitizing the students to social issues for their holistic development during the last five years.**
3.4.2 QlM	**Awards and recognitions received for extension activities from government / government recognised bodies**
3.5	Collaboration

Qualitative analysis of Criterion 3
The college has made significant progress in promoting innovation by establishing a Hi-Tech Robotics Centre equipped with a KUKA KR 16-2 C4 Industrial Robot and the e-Yantra Lab supported by IIT Bombay, i-Mac Lab, i Lab and Atharva Satellite Ground Station. Awareness programs on Intellectual Property Rights (IPR) and patent filing by experts are conducted. During the period 2017–2022, students and faculty members filed 9 patents for their inventions. The college should develop a policy to support innovation and research activities and establish an IPR cell to guide and support students and faculty members.

The college actively participates in extension activities conducted through the NSS unit and societies like the Atharva Foundation, Khushiyaan Foundation, Ummeed Foundation, and Beach Clean Mission. It has received various recognitions for its efforts.

The institute actively participates in the various extension programs conducted by the Atharva Foundation and has received multiple awards and recognitions for its valuable work in raising social and environmental awareness. The NSS unit of Atharva College of Engineering received three awards for its contribution in the University level Cleanup Premier League (CPL). They won a cash prize of 10,000 rupees for securing third place under 'Best College Award.' It also won an award for 'Best Social Media Team'. The captain of the NSS unit, Jeenal Dhuri, was felicitated with the 'Best Captain' award.

Criterion4 - Infrastructure and Learning Resources (Key Indicator and Qualitative Metrices(QlM) in Criterion4)	
4.1	Physical Facilities
4.1.1 QlM	**The Institution has adequate infrastructure and other facilities for,** • **teaching – learning, viz., classrooms, laboratories, computing equipment etc** • **ICT – enabled facilities such as smart class, LMS etc.** **Facilities for Cultural and sports activities, yoga centre, games (indoor and outdoor), Gymnasium, auditorium etc (Describe the adequacy of facilities in maximum of 500 words.)**
4.2	Library as a Learning Resource
4.2.1 QlM	*Library is automated with digital facilities using Integrated Library Management System (ILMS), adequate subscriptions to e-resources and journals are made. The library is optimally used by the faculty and students*
4.3	IT Infrastructure
4.3.1 QlM	**Institution frequently updates its IT facilities and provides sufficient bandwidth for internet connection** *Describe IT facilities including Wi-Fi with date and nature of updation, available internet bandwidth within a maximum of 500 words*
4.4	Maintenance of Campus Infrastructure

Qualitative analysis of Criterion 4

The college has adequate academic and administrative infrastructure. The institute has 24 classrooms, - out of which there are seven smart class rooms- 6 tutorial rooms with required teaching aids and ICT facilities, and 2 seminar halls with advanced technical facilities for conducting presentations, seminars, and conferences. It has 47 laboratories, including a mechanical workshop for first-year students. The institute has 607 computers for academics and research. The college provides a Wi-Fi facility and regularly updates Internet bandwidth 400 Mbps and software. The institute has also an auditorium with a capacity of 550 to conduct cultural activities. The college has a good gymnasium and swimming pool for students. However, a limited area is available for conducting outdoor games. The outdoor play ground for cricket and football is available at 3.6 KM away from the college.
 	
    The library was automated with library management software MICM in 2004, and it was upgraded to the Koha Integrated Library Management System software (version 21.05.10.000) in 2022. The library's operations are completely automated through this system. The library has an IEEE Xplore facility, DLENET e-journals, and e-books through its online platform, NPTEL-Local G (Local Guru), available to access high-quality learning material. The library is also a member of the National Digital Library (NDLI) and the central library of IIT Bombay. It has a reading room capacity of 150.
 	
    Every year, the college upgrades its IT infrastructure with essential software. The college maintained a reliable internet connection through Airtel, regularly updated annually. Additionally, Tata Internet services serve as a backup with a speed of 100 Mbps. The bandwidth has consistently improved, starting at 100 Mbps in AY 2017-18, increasing to 200 Mbps in AY 2018-19, and 300 Mbps in AY 2021-22. 400 Mbps from March 2022 onwards

Criterion5 - Student Support and Progression (Key Indicator and Qualitative Metrices(QlM) in Criterion5)	
5.1	Student Support
5.2	Student Progression
5.3	Student Participation and Activities
5.4	Alumni Engagement
5.4.1 QlM	**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
Alumni are included as members of the department advisory board committee, and a few events are conducted with the help of the alumni. A limited number of alumni meetings are arranged for interaction with the students. No financial contribution from the alumni.

Criterion6 - Governance, Leadership and Management (Key Indicator and Qualitative Metrices(QlM) in Criterion6)	
6.1	Institutional Vision and Leadership
6.1.1 QlM	*The institutional governance and leadership are in accordance with the vision and mission of the Institution and it is visible in various institutional practices such as NEP implementation, sustained institutional growth, decentralization, participation in the institutional governance and in their short term and long term Institutional Perspective Plan.*
6.2	Strategy Development and Deployment
6.2.1 QlM	*The institutional perspective plan is effectively deployed and functioning of the institutional bodies is effective and efficient as visible from policies, administrative setup, appointment, service rules, and procedures, etc*
6.3	Faculty Empowerment Strategies
6.3.1 QlM	**The institution has performance appraisal system, effective welfare measures for teaching and non-teaching staff and avenues for career development/progression**
6.4	Financial Management and Resource Mobilization
6.4.1 QlM	**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 QlM	**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 college has a governance structure with the Board of Governance (BOG) and other administrative committees. The institute has its vision and mission statements well displayed in prominent places. The HoDs are well-qualified and look after their departments well. The institution is well prepared for implementing NEP. The college has decentralization and delegates at different levels, ensuring good governance. The mentor-mentee interaction system is introduced, but the ratio has to be improved for effective implementation to address the academic and personal issues of the students. Industry persons involvement in Institutional Perspective Plan to be improved.

The college has a functional perspective plan. It has service rules and regulations for employee recruitment, appointment, promotion, and performance evaluation.

The college supports research initiatives, attracts financing from outside organizations, and promotes interactions among researchers. The college also offers financial support for conferences and paper presentations in India and overseas. The college supports additional benefits like health insurance and provident funds.

The college has a well-planned process for mobilizing and utilizing funds from various resources. Being a self-financing college, the main source of income is tuition fee from the students. The method of mobilization of funds involves multiple committees of the institute, the department heads, and the accounts officer. The college has designed some specific rules for fund usage. The finance committee is available to monitor the utilization of the funds and internal auditing. A registered chartered accountant does an external audit annually (CA S. K. Shetty & Co.).

The college has an IQAC in place. Under the umbrella of IQAC FDPs, workshops, seminars, and conferences are regularly conducted with a sufficient financial support from the management. It also monitors preparation and implementation of the timetables and academic delivery. IQAC must be more proactive.

Criterion7 - Institutional Values and Best Practices (Key Indicator and Qualitative Metrices(QlM) in Criterion7)	
7.1	Institutional Values and Social Responsibilities
7.1.1 QlM	**Institution has initiated the Gender Audit and measures for the promotion of gender equity during the last five years.** *Describe the gender equity & sensitization in curricular and co-curricular activities, facilities for women on campus etc., within 500 words*
7.1.4 QlM	**Describe the Institutional efforts/initiatives in providing an inclusive environment i.e., tolerance and harmony towards cultural, regional, linguistic, communal socioeconomic 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 QlM	**Describe two best practices successfully implemented by the Institution as per NAAC format provided in the Manual**
7.3	Institutional Distinctiveness
7.3.1 QlM	**Portray the performance of the Institution in one area distinctive to its priority and thrust within 1000 words**

Qualitative analysis of Criterion 7

The college organized various gender-sensitive programs and self-defense training sessions to empower women. The college has established a Women Development Cell and an Internal Complaint Committee to address issues like gender equity, empowerment, safety, and security. The college also has separate common rooms with all the required facilities for girls and boys and Divyangjan (differently abled persons) for both genders.

The college celebrates many national and international days, events, and festivals like Republic Day, Independence Day, International Yoga Day, Teacher's Day, Constitution Day, Marathi Diwas, and festivals

like Ganesh Utsav, Navratri, Diwali, and Christmas Day by bringing students and staff with diverse backgrounds together on a single platform for creating an inclusive environment on campus. The college also organizes the annual cultural festival "Rhythm- Ember."

The college has two best practices:

1.Title of the First Best Practice: **100 Daughters, 100 Computers**

Apart from serving the society in terms of providing the skilled and trained engineers for developing the nation in the challenging technological era. It must be noted that all the prominent scientists of ISRO – who are credited for the success of Chadrayan 3 and Aditya – are not from IITs but from less known Government engineering colleges. This institution has given to the society very much successful entrepreneurs. The institution has prime responsibility towards the society in other aspect also. As per the scheme "100 Daughters, 100 Computers" the institution looks after the families especially the wives and daughters of martyred soldiers. This scheme is applicable for soldiers for all states. The wives of martyred soldiers are facilitated in Mumbai and handed over cheques of handsome amounts. The school / college going daughters of martyred soldiers are given laptops at their residences. This is truly a wonderful and distinct practice.

2.Title of the Second-Best Practice: **AIIR (Atharva's iLab, IMac, and Robotics**).

Through which 13 students underwent training and took part in esteemed competitions such as ROBOCON 2022, the International Robotics Competition, the Flipkart Grid 3.0 & 4.0 Robotics Competition, and the Smart India Hackathon 2022. Some of them successfully transformed their ideas into startups.

Atharva Satellite Ground Station was established as a part of IIT Bombay's first students' Satellite "PRATHAM". The student satellite, Pratham, was launched by ISRO's four-stage Polar Satellite Launch Vehicle (PSLV) from the Sriharikota's Satish Dhawan Space Centre successfully on 26 September 2016 at 9.00 a.m. Atharva Ground station is one of the receiving stations to receive and process data sent by Pratham satellite. Pratham is useful for scientific studies, help in tsunami warnings and correcting errors in GPS communication. The passion of the complete ground station team for space technology and satellite communication has led to undertaking such research activities pertaining to tracking of satellites and knowledge sharing ranging from antenna designing to decoding the signals. It has been supporting for all-round development of the students to make them competent future engineers to serve the society. It is helping all the students of different branches and to make multidisciplinary projects in the field of antenna for receiving the signal from the Pratham satellite. It is encouraging all the students of different branches to participate in various activities related to space technology.

Section III:OVERALL ANALYSIS based on Institutional strengths.Weaknesses,Opportunities & Challenges(**SWOC**)(**up to 500 words**)
Overall Analysis
Strength: • The college is located in the heart of the financial capital, Mumbai.   • Well-maintained physical infrastructure with clean and green.   • Establishment of Innovation laboratories to enhance students' practical knowledge.   • Maintenance of Quality Management systems.   • Good student enrollment.

- Notable alumni who have well established and successful startups are frequently visiting the campus to support and motivate the students.

Weaknesses:

- Shortage of government/industry funded projects.
- Lack of industry-collaborated research and consultancy activities.
- Average placement opportunities for students

Opportunities:

- Innovative labs and good infrastructural facilities for enhancing research and consultancy.
- Well established IIC and ED cell can be used by the students to become successful entrepreneurs.
- Several industries/companies are available nearby the college.

Challenges:

- Obtaining grants from government/industries for research projects and consultancies
- Financial support from the alumni
- Good placement in Tier-1 companies
- Ph.D. registration for all faculty members

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)

- Increase the number of funded projects from the government and non-government organizations.

- The college has to create an ecosystem to encourage the faculty to apply for the research/consultancy.

- Improve industry-collaborated research and consultancy activities through Institute industry partnerships.

- Necessary steps should be taken to motivate faculty members to do research.

- Improve the placement opportunities for students.

- Develop strong relationships with alumni.

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. DAMODARAM AVULA	Chairperson	
2	DR. ASHVINI GUPTA	Member Co-ordinator	
3	DR. CHANDRASEKHAR REDDY KAMASANI	Member	
4	Dr. B.s. Ponmudiraj	NAAC Co - ordinator	

Place

Date

Sl.No	Name		Signature with date
1	DR. DAMODARAM AVULA	Chairperson	
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4	Dr. B.s. Ponmudiraj	NAAC Co - ordinator	

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