

Criterion 4 - Infrastructure and Learning Resources

4.1 Physical Facilities

4.1.1 The Institution has adequate infrastructure and physical facilities for teaching- learning. viz., classrooms, laboratories, computing equipment etc.

Response:

The institution policies for creating and enhancing the infrastructure facilities are framed primarily for facilitating teaching - learning process, following the norms and the guidelines of the AICTE and Anna University. Based on the details of addition in intake, new courses and change in regulation, the enhancement in laboratory equipment, built-up area, and computer facilities are created well in advance for the effective teaching and learning process, well equipped laboratories, ventilated class rooms, auditorium, library, hostel for boys and girls, gymnasium, power backup and computing facility with internet.

The institution has developed the following infrastructure for the benefit of student community.

- Industry collaborative laboratories
- Additional laboratory equipments beyond the syllabus
- New Product development through innovation center

Features at SAEC

- SAEC provides positive learning atmosphere with ICT enabled class rooms and well equipped laboratories.
- Facilitate research through University recognized research centers available in Four departments.
- Additional space established exclusively for students counseling, group discussion, mock interview, online training and evaluation.
- The institute offers adequate amenities like RO Mineral Water canteen, transport, gymnasium, playgrounds and stationery store etc.
- Auditorium can accommodate 3000 audiences with good acoustics and audio-visual facilities.
- Ambient study hall for hostel students.
- Wi-Fi facility at hostel with 100Mbps range

· 24x7 power supply to the entire campus is made available through High Tension electric supply with two 225kVA transformers ably supported by four backup captive generators of 140 kVA,62.5 KVA,50 KVA,7.5 KVA,

Curricular

The institute is endowed with excellent physical infrastructural facilities to support the teaching-learning process. All the Departments have separate self-contained structures. The institute has spacious seminar/conference halls, adequate number of classrooms, well-equipped laboratories, cabins for staff, Faculty and HoDs.

The details of the infrastructural facilities are given below:

S.No	Category	Availability
Academic Purpose		
1	Class rooms	38 rooms
2	Tutorial rooms	1
3	Laboratories	26
4	Drawing Hall	1
5	Workshop	7
6	Seminar hall	5
7	Central Library	1
Administrative Purpose		
8	Chairman Room	1
9	Principal Room	1
10	Board Room	1
11	Placement office	1
12	Exam Control office	1
13	Cabin for HODs	6
14	Maintenance	7
Additional Amenities		
15	Boys Hostel	1(124)
16	Girls Hostel	1(47)
17	Cafeteria	
18	Stationery cum Store	
19	First aid cum sick Room	
20	Auditorium	1 Hall
21	Security office	1

Co-curricular

SAEC encourages the faculty members and students to take part in co-curricular activities along with their regular academic commitments to keep them exposed to recent developments in the field of interest, through organizing and taking part in symposiums, workshops and peripheral activities such as NSS, YRC, Rotoract club etc.,

Club /Chapter/Cell	
IEEE Student Chapter	
IETE	
ISTE Student Chapter	
IE(I)	
CSI Student Chapter	
Renewable Energy Club	
Environmental Club	
Elite Club	
RMMC	
ED Cell	
MSME Incubation Centre	
Citizen Consumer Club	
NSS	
YRC	
RRC	
IPR Cell	
Photography Club	
Tamil Sangam	
Rotract club	
Institute Innovation cell	
Literary and Fine Arts Club	
ICTACT	

File Description	Document
Upload any additional information	View Document
Paste link for additional information	View Document

4.1.2 The Institution has adequate facilities for cultural activities, sports, games (indoor, outdoor), gymnasium, yoga centre etc.

Response:

The sports area includes Indoor Stadium, Gymnasium, Pavilion and Gallery. Many students have

represented the college at zonal level, state level and national level tournaments. The Institution has a regular post of Physical Director.

Girl students are motivated to participate in various inter and intra collegiate competitions. Separate play hours are allotted to them to prove their mettle in Badminton, Throw Ball and Volley Ball .Separate selection trials are conducted for girl students to select talented players for participation in Inter Collegiate tournaments.

The college conducts cultural activities periodically and our students participate in cultural competitions conducted by other educational institutions. Girl students are given opportunities to participate both in inter and intra collegiate competitions. They actively participate in various events and bring laurels to the institution.

NSS unit of our Institute is functioning with 200 (100 Boys and 100 Girls) volunteers. Special camps such as Voter's ID Awareness Camp, Blood Donation Camp, and Medical Camps are organized periodically for the benefit of society with poor background. Apart from these camps, Awareness Programs on Environment, Tree Plantation, Healthcare and Traffic Rules are also organized.

As the cultural activities are the integral part of the study, the students are permitted to

participate in various cultural activities inside and outside the campus. It provides personal growth by learning skills, to meet new people and to pass on the cultural traditions. The Institute has, Renewable Energy Club, English Literary Club, Fine Arts Club etc., through which various

competitions like oratorical, essay writing are conducted and the students are motivated to excel their skills. Students show their hidden talent by participating in the above clubs. The students actively participated in cultural activities during the annual day function organized by the Institute every year.

SAEC encourages the students to develop their personalities through participation of, sports and the available facilities are

S. No	Category
1	Cricket Ground & Practice Net
2	Volley Ball court
3	Ball Badminton court
4	Badminton court
5	Foot Ball ground
6	Gymnasium
7	Auditorium

File Description	Document
Upload any additional information	View Document
Paste link for additional information	View Document

4.1.3 Percentage of classrooms and seminar halls with ICT- enabled facilities such as smart class, LMS, etc. (Data for the latest completed academic year)

Response: 70.21

4.1.3.1 Number of classrooms and seminar halls with ICT facilities

Response: 33

File Description	Document
Upload Number of classrooms and seminar halls with ICT enabled facilities (Data Template)	View Document
Upload any additional information	View Document

4.1.4 Average percentage of expenditure, excluding salary for infrastructure augmentation during last five years(INR in Lakhs)

Response: 7.3

4.1.4.1 Expenditure for infrastructure augmentation, excluding salary year-wise during last five years (INR in lakhs)

2020-21	2019-20	2018-19	2017-18	2016-17
3.88	26.70	15.10	48.15	121.51

File Description	Document
Upload Details of budget allocation, excluding salary during the last five years (Data Template)	View Document
Upload audited utilization statements	View Document

4.2 Library as a Learning Resource

4.2.1 Library is automated using Integrated Library Management System (ILMS)

Response:

Response:**Library:**

- The entire library is automated using computer systems.
- The library is a member of DELNET and provides web access to more than 1000000 Records of books,
- Periodicals, Theses, Dissertations. It is connected to more than 2000 libraries in 33 states in India and other countries.
- Transactions are automated by using bar code reader.
- The following features can be accessed from any computer within the campus

availability of books by subject wise / author wise

- Account information like books taken and due date to return fine amount to be paid for books not returned
- Access to the e-resources /NPTEL video lectures
- Library Automation: All the data relating to the Library is computerized and barcoding has been introduced.
- OPAC: An OPAC (Online Public Access Catalogue) has been created and it is also available via LAN inside campus.
- e-Journals: Subscribes to J-GATE, IEEE, Elsevier
- Library Website: Library information is available on Institute Website.
- E-journals, E-books and NPTEL Resources through LAN connectivity.
- Total number of computers for public access: 20 computers are available for public access in the Digital library
- Internet bandwidth/speed: Internet Band Width in the library is 32 MBPS.
- Participation in Resource sharing networks/consortia (like Inflibnet): DELNET

S.No	Name of the ILMS software	Nature of automation (fully or partially)	Version	Year
1	"Flair-ERMS v7.0".	Fully	v7.0	2006

File Description	Document
Upload any additional information	View Document
Paste link for Additional Information	View Document

4.2.2 The institution has subscription for the following e-resources

- 1.e-journals
- 2.e-ShodhSindhu
- 3.Shodhganga Membership
- 4.e-books
- 5.Databases
- 6.Remote access to e-resources

Response: A. Any 4 or more of the above

File Description	Document
Upload any additional information	View Document
Details of subscriptions like e-journals, e-ShodhSindhu, Shodhganga Membership , Remote access to library resources, Web interface etc (Data Template)	View Document

4.2.3 Average annual expenditure for purchase of books/e-books and subscription to journals/e-journals during the last five years (INR in Lakhs)

Response: 15.82

4.2.3.1 Annual expenditure of purchase of books/e-books and subscription to journals/e- journals year wise during last five years (INR in Lakhs)

2020-21	2019-20	2018-19	2017-18	2016-17
13.64	9.9	14.73	25.22	15.63

File Description	Document
Details of annual expenditure for purchase of books/e-books and journals/e- journals during the last five years (Data Template)	View Document
Audited statements of accounts	View Document

4.2.4 Percentage per day usage of library by teachers and students (foot falls and login data for online access) during the latest completed academic year

Response: 25.7

4.2.4.1 Number of teachers and students using library per day over last one year

Response: 249

File Description	Document
Details of library usage by teachers and students	View Document

4.3 IT Infrastructure

4.3.1 Institution frequently updates its IT facilities including Wi-Fi

Response:

Syed Ammal Engineering College has very good IT facility and it updates its IT infrastructure periodically. Totally 591 computer systems are available in the campus as standalone and as client-server systems (as Linux server, Data base servers, File server etc.). The institute has the state of art, well-furnished computer laboratories with 562 computers exclusively available for the students.

With extended star topology, all the computer systems in the computer laboratories and in other places are inter-connected through un-manageable 1 Gbps D-Link and Digisol switches. For knowledge enrichment through the online/web contents our college has very good internet connectivity of speed above 50Mbps with Airtel Lease Line. Since all the computers in the campus connected to the LAN through Cat 6 UTP cable and optical fiber cable as a backbone, internet is accessible for all the computers.

The institute has a language laboratory with software for communication, student console and audio/video materials to develop the communication skills for both the faculty and students.

24/7 internet facility is available to the faculty and student laptops through 21 Wi-Fi outdoor access points spread across the college and hostels. These are equipped with En-genius long-range access points, Tenda long-range access points and Airgrid. These Wi-Fi hotspots provide service to students as well as to faculty community for their personal laptops for computing, communication and presentation requirements.

Open-source squid cache proxy is use as both the proxy server and as the firewall for the access control. Also the institute has CR50iNG - 10.6.3 RC-1 for the security purpose. As well as surveillance cameras are installed at strategic locations of the campus for safety and security purpose.

File Description	Document
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4.3.2 Student - Computer ratio (Data for the latest completed academic year)

Response: 1:1

File Description	Document
Upload any additional information	View Document
Student – computer ratio	View Document

4.3.3 Bandwidth of internet connection in the Institution**Response:** A. 750 MBPS

File Description	Document
Upload any additional Information	View Document
Details of available bandwidth of internet connection in the Institution	View Document

4.4 Maintenance of Campus Infrastructure**4.4.1 Average percentage of expenditure incurred on maintenance of infrastructure (physical and academic support facilities) excluding salary component during the last five years(INR in Lakhs)****Response:** 27.75**4.4.1.1 Expenditure incurred on maintenance of infrastructure (physical facilities and academic support facilities) excluding salary component year-wise during the last five years (INR in lakhs)**

2020-21	2019-20	2018-19	2017-18	2016-17
65.66	91.23	112.09	125.83	203.07

File Description	Document
Details about assigned budget and expenditure on physical facilities and academic support facilities (Data Templates)	View Document
Audited statements of accounts	View Document

4.4.2 There are established systems and procedures for maintaining and utilizing physical, academic and support facilities - laboratory, library, sports complex, computers, classrooms etc.**Response:**

With the help of the Planning Committee, Syed Ammal Engineering College fulfil the institution's emerging needs by providing enough physical infrastructure and continuously update facilities in order to offer, maintain, and use physical, academic, and support facilities.

Established Systems and Procedures:

- The Principal interacts with the Planning Committee and submits a report regarding physical,

academic and support facilities to the Governing Body for getting approval and implementation.

- The HODs, faculty, non-teaching staff, and other service personnel are charged with the upkeep of the facilities under their supervision.
- They later report to the Principal for infrastructure maintenance if they needed.
- The physical, academic, and support facilities are audited and inventoried on an annual basis for assessment and evaluation.

Maintenance of Physical Facilities

- The institution has an auditorium which is adequately used for conducting various programs like symposium, Seminars, conferences, convocations, etc.,
- The institution has a separate team of staff members, plumbers, carpenters, and electricians to maintain the infrastructure.
- The main building and physical infrastructures such as the power supply, carpentry, painting, and so on, of the classrooms and the entire campus are maintained on a regular basis throughout the year, and major repair works are completed during summer vacation.
- The college has a well-maintained generator system to ensure that power is available at all times.
- Technical requirements and other infrastructure facilities are maintained on a regular basis by a separate electrical and technical maintenance team.
- Fire extinguishers and First Aid Kits are maintained on a routine basis and are refilled before their expiry dates.
- Each department has a sufficient housekeeping staff for general cleaning of classrooms, labs, auditoriums, seminar halls, playgrounds, restrooms, and roads etc.,
- The college offers transportation to the students and faculty members. The transportation committee has been formed to address and resolve transportation challenges.
- There are sufficient parking facilities for two-wheelers and four-wheelers.
- For safety reasons, sufficient security personnel have been assigned. CCTV cameras have been installed in strategic locations for the safety of staff and students.

Maintenance of Academic facilities

Classrooms:

- Academic facilities such as classrooms and seminar halls are checked and maintained by Members of the technical team on a regular basis.
- The required classroom facilities are provided by the respective departments, and any repair or damage is identified immediately.
- Furniture and classroom equipment are cleaned and maintained on a regular basis.

Laboratory Equipment:

- The stock register is kept on each department to keep track of the chemicals, glassware, and other laboratory equipment.
- Each departmental laboratory has lab assistant and lab attendants for the proper maintenance of the laboratories.
- For any kind of maintenance or repair, the laboratory staff in-charge is informed to report to the

Head of the Department, and she/he forwards it to the Principal and the repair work is carried out by the concerned service person

- In the case of any maintenance is required, the instruments and equipment are serviced by the suppliers from whom they were purchased.
- A separate maintenance record is kept with the details of maintenance entries, such as the name of the instrument, date, and the repair description.
- First aid box and fire extinguisher are provided wherever necessary.

Sports:

- To develop the necessary sports skills, the college offers various sports facilities to the students such as necessary sports equipment, courts, grounds, etc., which is well utilized by the students and staff.
- The playground is cleaned and all the courts are marked before the start of the academic year.
- Sports facilities like gymnasium, indoor and outdoor are provided and maintained by physical education personnel.
- Stock verification of the sports equipment is conducted at the beginning of the academic year.

Library:

- The working hours of the library is from 8:55am to 5.00pm.
- All the books in the library are arranged according to their classification. The Library support staff members help in maintaining the books and the other infrastructure in the library.
- Students are allowed inside the library only after ensuring their valid identity card.
- Books are issued only on their identity card. Students are instructed to check the books while borrowing and they will be responsible for damage at the time of return.
- Books are to be returned on or before the due date stamped, if they returned after the due date, fine will be charged for the delayed period. If the books are lost, and then the students shall replace the same edition or the latest edition of the book.
- The students can access the reference books in the reference section.
- A regular stock verification process is carried out by the separate staff members. A file is maintained, which contains the stock verification reports achieved at distinct intervals.
- Physical verification of the library stock is the manner carried out every academic year. It gives the overall picture of the available books in the library.
- On request from each department, a list of required books are prepared and procured for the next academic year.
- There is a library committee which allows in guiding the library for powerful offerings. The library committee meets at regular durations for selection of books.
- The departmental library is taken care of by the staff in-charge of the library in each department and the support staff.

Computers:

- The college has an adequate number of computers. Computers are maintained by the internal faculty members.
- Each computer laboratory has a technical staff, who ensures proper handling of computers.

- All relevant softwares, such as browsers, Microsoft Office, lab software, and antivirus software, are installed and maintained by each department. All laboratories are maintained on a regular basis.
- The responsible lab programmers and system administrator manage minor technical issues that arise with computers.
- Power backup is implemented on the main server and accessories.
- The log book keeps track of how information and communication technology is used for teaching and learning.
- Students are taught to properly observe standard operating procedures when using systems in order to avoid system failure due to incorrect use.

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