**NAAC Criteria 4**

**2020-21**

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

**Response:**

Ajay Kumar Garg Engineering College campus is spread over a 1,18,313 Sq. M. with 84960.14 Sq. M. built up area. It has excellent infrastructure with well-planned complexes for each department. These department complexes have spacious laboratories, smart classrooms, department libraries, and faculty cabins. The college has state-of-the-art computing facilities with over 1400 computers networked through broadband for internet access. The institute focuses on developing good infrastructure like smart classrooms, well-equipped laboratories, a central library with 131000 books and reading rooms, a Wi-Fi campus, canteen, transport facility, playgrounds, power backup, etc. Wi-Fi enabled campus includes faculty residences and three boys and three girl’s hostels accommodating over 1500 students. Hostels have a library, TV room, canteen, general store, well equipped gymnasium as well as indoor and outdoor sports facilities. All the academic blocks have ramps/ lifts to make it convenient for physically challenged people.

**Classrooms/Tutorial Rooms:** College has spacious 87 classrooms with more than 60 sitting capacities, all classrooms are equipped with ICT facilities like smart boards, LCD projectors, and sound system.

During COVID-19, the Institution shifted to an online teaching learning process through Google classroom, and institute’s LMS (Edumarshal). Hybrid mode teaching learning also has been done during some duration from smart classrooms. Assessment and evaluation of internal examinations have been done online using Google classroom and institute’s LMS.

**Laboratories/Workshops:** The college has well-equipped 101 laboratories and 5workshops. The institute has established innovation/ development center facilities to inculcate research habits among the student fraternity.

1. Software Development Center
2. Bigdata Center of Excellence
3. Open-Source Software and R&D Center
4. Cloud Computing Cell
5. College Societies
6. Centers of Excellence

**Seminar Hall:** The college has 5 seminar halls. These halls are regularly used for conducting seminars at the college, state, and national levels.

**Computer Center:** The college has 3 computer centers with all modern configured computers with 1000 Mbps internet speed.

**Library and Reading Room:** Library System comprises a Central Library, 8 Departmental Libraries and 5 Hostel Libraries. The Central Library, housed in the Administrative Block of the College, consists of two sections spread over 1465 Sq meters with a total seating capacity for 344 users. Comfortable study space is provided for faculty, staff and students in the form of reading hall, study cubicles, digital library and faculty reading room.

The state-of-the-art facilities of central library include KOHA Open-Source Library Management Software which also has Web Based Online Public Access Catalogue (Web OPAC) from 2014, Digital Library/Institutional Repository Server on DSpace software, Membership to DELNET and National Digital Library which has a collection of more than 6 Lac resources of Engineering, Science, Humanities available for use by all the stakeholders. The library also provides access to Wiley Engineering e-journals, Springer Nature e-journals, Taylor & Francis e-journals, EBSCO, ELSEVIER: Science Direct Engineering E-journals, Emerald: Management e-journals, Taylor & Francis e-books, BSP Books Pvt. Ltd-e-books, Cambridge University Press e-books, Pearson Education e-books through Nalanda E-Consortium membership signed under AKTU. Library subscribes to more than 25 magazines and 11 newspapers.

Attachment: **4.1.1 folder**

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

**Response:**

The college is encouraging and providing facilities for students to participate in games. Dean Student Welfare supported by a team of faculty members and sports officer look after all cultural, sports, and extra-curricular activities of the college. The college also has a team that is actively undertaking social welfare activities e.g., blood donation camp.

**Sports:**

The college has always created a niche for itself in the field of sports. The college has been participating in various inter institution, state-level tournaments for a long time. In sports, our college provides facilities for both indoor and outdoor games to the students.

**Outdoor Games:** A spacious playground is available for outdoor games like Cricket, Football, Volleyball, Basketball, Badminton, etc.

**Indoor Games:** Facilities for indoor games like Badminton, Table Tennis, Chess, Carrom, etc., are provided to students on the college campus. A large number of sports activities are organized in the college aiding the students to display their talent in sports activities. One of the major sports events is the ―Ajay Kumar Garg Memorial Table Tennis Tournament. It is a state-level tournament organized by Ghaziabad District Table Tennis Association on an annual basis at the college. Participation in this tournament is all the way from Delhi, Haryana, Punjab, and Uttar Pradesh being the major contributors. The interdepartmental annual sports meet of the college, ― “SAKSHAM” is held every year in the month of September - October.

**Cultural Activities:**

The college has carved out a special niche for itself in the field of cultural activities. The students are organizing & participating in many cultural activities. Every year the college organizes an Annual cultural Function called ― Vibrations, where the students participate with zeal in many cultural activities. Some of the events at vibrations include face painting, mehndi, singing, dancing, collage making, t-shirt painting, pot painting, rangoli making. The active participation by a large number of students (boys and girls) in both sports and cultural activities has always resulted in generating a vibrant atmosphere on the campus.

**Recreational facilities, gymnasium, yoga center, etc.:**

The college provides well-furnished hostel accommodation to its students. The six campus hostels are spread over four complexes namely, the junior girls hostel complex, the girls hostel complex, the junior boys hostel complex, and the senior boys hostel complex. The hostels have a gymnasium as well as indoor and outdoor sports facilities. The gymnasium includes various equipment like rods (shoulder rods, carting rod, dumbbell rods) plates (steel & rubber) of different weights, powerlifting bullet, abs king machine, body twister treadmill, etc., The gym instructor is appointed to guide the students how to use equipment and share healthy tips. The hostels have facilities for outdoor sports like volleyball, cricket, basketball and badminton and indoor games like carrom, chess, table tennis, pool table, and music system. Yoga center is maintained in college with sufficient facilities for yoga. College celebrate Yoga Day with full enthusiasm in which faculty and students from each department participate combinedly. During Covid online Yoga Day celebration has been performed.

**Attachment:** **4.1.2 folder**

**4.1.3 Percentage of classrooms and seminar halls with ICT- enabled facilities such as smart class, LMS, etc.**

**Response:**

The college has spacious classrooms with smart boards, projectors and sound systems, proper light arrangement, and ventilation. The college has 65 classrooms and 22 tutorial rooms. All classrooms have Wi-Fi and LAN facilities.

| Number of classrooms with LCD facilities | 87 |
| --- | --- |
| Number of classrooms with Wi-Fi/LAN facilities | 87 |
| Number of smart classrooms | 68 |
| Number of classrooms with LMS facilities | 87 |
| Number of seminar halls with ICT facilities | 5 |

Number of classrooms and seminar halls with ICT Facilities = 92

Total number of classrooms and seminar halls in the colleges = 87+5=92

***Percentage of classrooms and seminar halls with ICT - enabled facilities*** = (Number of classrooms and seminar halls with ICT Facilities/Total number of classrooms and seminar halls in the college) \*100= (92/92) \*100=100

***Percentage of classrooms and seminar halls with ICT - enabled facilities = 100 %***

**Attachment: 4.1.3 folder**

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

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

**Response:**

| **Year** | **Expenditure for infrastructure augmentation (in lakhs)** | **Total expenditure excluding Salary (in lakhs)** |
| --- | --- | --- |
| 2020-21 | 1061.25 | 2455.13 |
| 2019-20 | 1293.43 | 3083.24 |
| 2018-19 | 834.19 | 2495.54 |
| 2017-18 | 439.39 | 2238.75 |
| 2016-17 | 533.89 | 1944.64 |

| **Year** | **2020-21** | **2019-20** | **2018-19** | **2017-18** | **2016-17** |
| --- | --- | --- | --- | --- | --- |
| **INR in Lakhs** | 1061.25 | 1293.43 | 834.19 | 439.39 | 533.89 |

| **Year** | **2020-21** | **2019-20** | **2018-19** | **2017-18** | **2016-17** |
| --- | --- | --- | --- | --- | --- |
| **% Per Year** | 43.22% | 41.95% | 33.43% | 19.63% | 27.45% |

**Average Percentage = 33.13 %**

**Attachment:** **4.1.4 folder**

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

**Response:**

The AKGEC Library System comprises a Central Library, 8 Departmental Libraries and 5 Hostel Libraries.

The Central Library, housed in the Administrative Block of the College, consists of two sections spread over 1465 Sq Mtrs with a total seating capacity for 344 users. Comfortable study space is provided for faculty, staff and students in the form of reading hall, study cubicles, digital library and faculty reading room.

The library system is very user friendly with sufficient resources to meet the requirements of the users. Addition of resources as per the requirements and norms is a regular feature. Sufficient numbers of qualified staff are employed to manage the activities of the library.

The state-of-the-art facilities include KOHA Open-Source Library Management Software which also has Web Based Online Public Access Catalogue (Web OPAC) from 2014, Digital Library/Institutional Repository Server on DSpace software, Membership to DELNET and National Digital Library which has a collection of more than 6 Lac resources of Engineering, Science, Humanities available for use by all the stakeholders. The library also provides access to Wiley Engineering e-journals, Springer Nature e-journals, Taylor & Francis e-journals, EBSCO, ELSEVIER: Science Direct Engineering E-journals, Emerald: Management e-journals, Taylor & Francis e-books, BSP Books Pvt. Ltd-e-books, Cambridge University Press e-books, Pearson Education e-books through Nalanda E-Consortium membership signed under AKTU.

The Departmental and Hostel libraries are managed and run by the respective departments and hostels with resources taken on loan from Central Library.

All students, faculty and staff of the College are entitled to take membership and make use of the library facilities.

Admission to the Central Library is through Identity/Library Card which is scanned at the entrance to keep record of the users. The library is under camera surveillance through ten cameras that have been installed at various locations.

The library attracts an average of 350 users on a regular working day.

**Knowledge Resources:**

The Central Library of the college has an invaluable collection of text and reference books, journals and e-books, e-journals and a variety of multi-media resources. At present, the total number of titles and volumes on Science, Technology, Humanities and Management are around one lac and thirty-one thousand respectively including book bank books (Total Book collection 131000, Lending Section Books and Reference Section Book collection 36000, Book Bank book collection 95000). The library subscribes to over 5800 E-resources/International Journals, 14000 E-books and over 106 National Journals. The digital library has a diverse collection of over 5,700 multimedia resources. In addition, the library maintains seminar reports, project reports and thesis of students. A separate section with more than 1000 books on personality development and competitive examination preparation are available. All these resources are constantly getting added and increased.

The Central Library subscribes to more than 25 magazines and 11 newspapers.

**Book Bank:**

In addition to well-maintained Circulation and Reference Sections, the college has a rich Book Bank exclusively for students. The Book Bank is very helpful in fulfilling students’ requirements for the University prescribed text books on semester basis without spending much on it.

The Book Bank, with a collection of about 95,000 books, assists the students by issuing text books on loan for the whole academic semester according to the rules framed for the purpose. Under this scheme every student is issued on loan a set of one or two books for each subject for the full semester. The books are required to be returned at the end of each semester and a set of books is issued at the beginning of next semester.

A compactor storage system has been installed recently to provide increased storage, easy access / retrieval and protection from dust etc. of a large number of books of Book Bank.

| **Item** | **Details** |
| --- | --- |
| Name of ILMS software | KOHA |
| Nature of automation (fully or partially) | Partially |
| Version | 5.018002 |
| Year of Automation | From 2003 with Alice for Window and Migrated to KOHA in 2014. |

**Attachment: 4.2.1 folder**

**4.2.2. The institution has subscription for the following e-resources**

| **Year 1 (2016-17)** | | | | | |
| --- | --- | --- | --- | --- | --- |
| **Library Resources** | **If Yes, details of memberships / Subscriptions** | **Expenditure on subscription to e-Journals, e-books (INR in Lakhs)** | **Expenditure on subscription to other e-resources (INR in Lakhs)** | **Total Library Expenditure (INR in Lakhs)** | **Link to the relevant document** |
| Books | 3920 | 1368795.00 |  | 4198207.00 |  |
| Journals | 165 | 49709.00 |  |
| e-journals | 668 |  | 2779703 |
| e-books | 380 |  |  |
| e-shodhganga | Nil | Nil |  |
| Shodhganga | Nil | Nil |  |
| Databases | 1. J-Gate Engineering, 2. Elsevier (Science Direct) 3. ASTM Digital Library Online 4. NDL(National Digital Library) |  |  |
| Local and/or Remot access to e-resouce (Specify) | 1. AnyDesk, 2. Team Viewer, 3. EzProxy-Remote Service of e-journals/digital databases |  |  |

| **Year 2 (2017-18)** | | | | | |
| --- | --- | --- | --- | --- | --- |
| **Library Resources** | **If Yes, details of memberships / Subscriptions** | **Expenditure on subscription to e-Journals, e-books (INR in Lakhs)** | **Expenditure on subscription to other e-resources (INR in Lakhs)** | **Total Library Expenditure (INR in Lakhs)** | **Link to the relevant document** |
| Books | 4025 | 1839613.00 |  | 3584006.00 |  |
| Journals | 153 | 408963.00 |  |  |
| e-journals | 622 |  | 1335430 |  |
| e-books | 380 |  |  |
| e-shodhganga | Nil | Nil |  |  |
| Shodhganga | Nil | Nil |  |  |
| Databases | 1. J-Gate Engineering, 2. Elsevier (Science Direct) 3. ASTM Digital Library Online 4. NDL(National Digital Library) |  |  |  |
| Local and/or Remot access to e-resouce (Specify) | 1. AnyDesk, 2. Team Viewer |  |  |  |

| **Year 3 (2018-19)** | | | | | |
| --- | --- | --- | --- | --- | --- |
| **Library Resources** | **If Yes, details of memberships / Subscriptions** | **Expenditure on subscription to e-Journals, e-books (INR in Lakhs)** | **Expenditure on subscription to other e-resources (INR in Lakhs)** | **Total Library Expenditure (INR in Lakhs)** | **Link to the relevant document** |
| Books | 12514 | 2679140.00 |  | 5346717.00 |  |
| Journals | 110 | 330278.00 |  |  |
| e-journals | 660 |  | 2236999.00 |  |
| e-books | 2,62,014 |  | 100300.00 |  |
| e-shodhganga | Nil | Nil |  |  |
| Shodhganga | Nil | Nil |  |  |
| Databases | 1. Elsevier (Science Direct) 2. NDL(National Digital Library) |  |  |  |
| Local and/or Remot access to e-resouce (Specify) | 1. AnyDesk, 2. Team Viewer |  |  |  |

| **Year 4 (2019-20)** | | | | | |
| --- | --- | --- | --- | --- | --- |
| **Library Resources** | **If Yes, details of memberships / Subscriptions** | **Expenditure on subscription to e-Journals, e-books (INR in Lakhs)** | **Expenditure on subscription to other e-resources (INR in Lakhs)** | **Total Library Expenditure (INR in Lakhs)** | **Link to the relevant document** |
| Books | 4716 | 3298323.00 |  | 3757203.00 |  |
| Journals | 110 | 358012.00 |  |  |
| e-journals | 660 |  | 100868.00 |  |
| e-books | 2,62,014 |  |  |
| e-shodhganga | Nil | Nil |  |  |
| Shodhganga | Nil | Nil |  |  |
| Databases | 1. Elsevier (Science Direct) 2. NDL(National Digital Library) |  |  |  |
| Local and/or Remot access to e-resouce (Specify) | 1. AnyDesk, 2. Team Viewer, 3. MyLOFT - My Library on Fingertips |  |  |  |

| **Year 5 (2020-21)** | | | | | |
| --- | --- | --- | --- | --- | --- |
| **Library Resources** | **If Yes, details of memberships / Subscriptions** | **Expenditure on subscription to e-Journals, e-books (INR in Lakhs)** | **Expenditure on subscription to other e-resources (INR in Lakhs)** | **Total Library Expenditure (INR in Lakhs)** | **Link to the relevant document** |
| Books | 12181 | 4895279.00 |  | 5430474.00 |  |
| Journals | 110 | 285195.00 |  |  |
| e-journals | 4603 |  | 250000.00 |  |
| e-books | 77,159 |  |  |
| e-shodhganga | Nil | Nil |  |  |
| Shodhganga | Nil | Nil |  |  |
| Databases | 1. Elsevier (Science Direct) 2. NDL(National Digital Library) |  |  |  |
| Local and/or Remot access to e-resouce (Specify) | 1. AnyDesk, 2. Team Viewer, 3. MyLOFT - My Library on Fingertips |  |  |  |

**Attachment: 4.2.2 folder**

**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)**

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)

**Response:**

| **Year** | **2020-21** | **2019-20** | **2018-19** | **2017-18** | **2016-17** |
| --- | --- | --- | --- | --- | --- |
| **INR in Lakhs** | 54.30 | 37.57 | 53.46 | 35.84 | 41.98 |

Average Annual Expenditure = 44.63 Lakhs

Attachment: **4.2.3 folder**

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

*4.2.4.1. Number of teachers and students using library per day over last one year Data Requirement*

| **Method of computing per day usage of library** | **Number of users using library through e-access per day** | **No of teachers and students accessing library per day** |
| --- | --- | --- |
| Register method as well as through software | 11.50 | 116.49 |

No of teachers and students accessing library per day= 116.49

Total Number of teacher and students=4606

Percentage per day usage of library by teachers and students= 2.51%

**Attachment: 4.2.4 folder**

**4.3.1. Institution frequently updates its IT facilities including Wi-Fi*.***

**Response:** The College believes in regular upgradation and maintenance of its IT facilities to keep pace with the changing needs of technology and the curriculum. The IT infrastructure at AKGEC takes into account all its stakeholders – students, faculty and staff. The College has a dedicated department called the Central Support Cell that has the responsibility of procurement and maintenance of the IT infrastructure.

The college provides 24\*7 high speed internet connection through optical fibre link. A bandwidth of 1 Gbps is subscribed to from CJ Online with two parallel fibre cables. In addition, two radio links of 100 Kbps each are installed as standby. LAN connectivity is provided in all departments, labs, faculty cabins, sections and administrative offices. Wi-fi connectivity is provided in the academic blocks, administrative block, hostels and the faculty residences. There is a total of 206 Wi-fi access points installed at various locations.

The network infrastructure of the college is supported by L3, L2 Managed and Unmanaged Switches and the Fortinet Firewall for network security with adequate policies applied.

For computing facilities, the College has 1380 Desktop Computer systems which are mostly i7, i5 and i3 systems and 131 laptops. These are in use in laboratories and departmental and administrative offices. The computing facilities are complemented with accessories including printers (laser and deskjet) and scanners.

All classrooms are equipped with ICT facilities, 68 classrooms being equipped with smartboards, Internet and audio system and 12 classrooms with LCD projectors, Internet and audio system.

The computer centres, seminar halls, conference room and Meeting room are all equipped with LCD / LED projectors, audio system and Internet. The Conference room is also equipped with an LED panel.  Two seminar halls in the College have been connected through Video Conferencing during 2020-21.

Licensed versions of relevant software in accordance with the curriculum and for administrative requirements have been purchased. The college subscribes to the Microsoft License and the Quick Heal anti-virus software. All computer systems in the College are using the Microsoft Windows 10 Operating System. An ERP system is being used for integration of all academic and administrative activities in the College.

Sufficient number of UPS systems are installed in the college to ensure uninterrupted power supply to the academic and administrative areas.

The institution has a practice of regular upgradation of the IT facilities. Desktop computers, laptops, printers and other equipment are purchased every year as per the requirement for academics as well as administrative work Existing computers are also upgraded for RAM / SSD as and when required. Printers and other equipment are also purchased regularly.

In the year 2020-21, the LAN backbone in the college has been upgraded with higher configuration switches. The wi-fi access points in the hostels have been upgraded as well as increased in number. One Boys hostel has been equipped with LAN ports in the student rooms on a 1:1 student: LAN port basis. The Internet Bandwidth has been increased to 1 Gbps.

**Attachment: 4.3.1 folder**

**4.3.2. Student – Computer ratio (Data for the latest completed academic year)**

**Response:** We have all the latest types of computers including i7, i5, and i3 with a minimum of 8 GB RAM. These computers are installed at various Labs as per requirement for students. These all are equipped with genuine operating systems and other required application software. All computers are connected to the network and Internet for the convenience of the students. The numbers of computers are both increased and upgraded from time to time as per requirement.

|  | **Year** | **Number of computers for students in working condition** | **Total Number of students** |
| --- | --- | --- | --- |
|  | 2020-2021 | 1304 | 5386 |

**Student – Computer ratio (2020-21) = (5386)/1304** = **1: 3.5**

**Attachment: 4.3.2 folder**

**4.3.3. Bandwidth of internet connection in the Institution**

**Response:** We have leased a line for internet bandwidth on fiber at our college. We also have two standby RADIOS in case of a fiber cut. We have also been in touch with C.J Online our ISP to lay a new additional fiber line at our college for better and interrupted connectivity. We have increased bandwidth every year for serving good internet to the students and faculty.

| **Year** | **Bandwidth of Internet connection** | **Bill attached (yes/no)** |
| --- | --- | --- |
| 2016-2017 | 180 Mbps on fiber and 30 Mbps on Radio Link | Yes |
| 2017-2018 | 200 Mbps on fiber and 50 Mbps on Radio Link | Yes |
| 2018-2019 | 350 Mbps on fiber and 100 Mbps on Radio Link | Yes |
| 2019-2020 | 1Gbps on fiber and 100 Mbps on Radio Link | Yes |
| 2020-2021 | 1100 Mbps on fiber and 100 Mbps on Radio Link | Yes |

**Attachments: 4.3.3 folder**

**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)**

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)

**Response:**

| **Year** | **Expenditure on maintenance of academic facilities (excluding salary for human resources) (in Lakhs)** | **Expenditure on maintenance of physical facilities (excluding salary for human resources) (in Lakhs)** | **Total expenditure excluding Salary (in Lakhs)** |
| --- | --- | --- | --- |
| 2020-21 | 192.09 | 816.20 | 2455.13 |
| 2019-20 | 317.50 | 1331.18 | 3083.24 |
| 2018-19 | 324.57 | 1153.43 | 2495.54 |
| 2017-18 | 397.50 | 1184.54 | 2238.75 |
| 2016-17 | 345.15 | 1034.03 | 1944.64 |

| **Year** | **2020-21** | **2019-20** | **2018-19** | **2017-18** | **2016-17** |
| --- | --- | --- | --- | --- | --- |
| **INR in Lakhs** | 1008.29 | 1648.69 | 1478.00 | 1582.04 | 1379.18 |

| **Year** | **2020-21** | **2019-20** | **2018-19** | **2017-18** | **2016-17** |
| --- | --- | --- | --- | --- | --- |
| **% Per Year** | 41.06 | 53.47 | 59.23 | 70.67 | 70.92 |

**Average Percentage = 59.07 %**

Attachment: **4.4.1 folder**

**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:**

**Established Systems and Procedures for Maintaining and Utilizing Computers**

1. Computers are purchased against requirements from Departments and Sections centrally by the Central Support Cell

2. All maintenance of computers and other IT equipment is the responsibility of the Central Support Cell

3. All complaints about repair are checked in house by the Central Support Cell and repair is completed in house, if possible; else the equipment is sent to the outside vendors for repair

4. Old computers and equipment are replaced on a periodic basis

**Established Systems and Procedures for Maintaining and Utilizing sports complex**

A dedicated system to ensure scheduled maintenance and repair of sports complexes and infrastructure exists in the college. The college Sports Officer is the main advisor to Dean Admin for necessary maintenance of sports associated requirements. The necessary procurement of sports items is done in consultation with Dean Hostel and Dean Students Welfare through Chief Purchase Officer.

**Established Systems and Procedures for Maintaining and Utilizing classrooms**

All the classrooms are cleaned daily and furniture is wiped off by the designated Safai Karamcharis in the morning before starting of the classes.

All the Electrical switches, fans, etc are checked and repaired on a requirement basis.

The mikes are distributed to faculty before starting each class. The distribution point has a sufficient number of charged batteries and mikes to meet the requirement. A buffer stock of batteries and mikes is maintained for quick replacement of unserviceable ones.

**Established Systems and Procedures for Maintaining and Utilizing Library**

**Library Automation:**

The library is managed by computerized automation through library management software KOHA, which is an integrated multi-user library management system that supports all in-house operations of the library with Barcode. The KOHA consists of modules on acquisition, cataloging, circulation, periodical, article indexing, and Web OPAC.

**Requisition of Books:**

Requirements of books are generated on basis of the following:

1. Requirements specified in the syllabus
2. Courses operating in colleges with a number of admitted students.
3. Requirements given by faculty/departments/students etc.

Requirements for the books from the faculty member as well as students are received on Book Requisition. The titles of books and number of copies required are sought after finding the availability of the title, number of copies in the library in consultation with Dean Library. Then approval for the purchase of the books is obtained from the Dean Library and Director-General. After that order for recommended books is prepared. Then a purchase order is placed on the book suppliers on the basis of discounts and services.

**Technical Processing of Books:**

After the bill is processed, the documents are subjected to technical processing. This includes:

a) Classification through Dewey Decimal Classification Scheme, 21st edition.

b) Feeding of book data in KOHA Library Management Software for cataloging purposes/Search.

c) Fixing book label, barcode, due date slip, and stamping on back of the title page, secrete page of the book, and Last page of the book.

d) Shelving of documents according to Classification.

**Library Membership:**

At the time of joining the college, users approach the library for membership. The user submits a form filled by them. A photograph is taken in the library by a college photographer. It is used for library cards and LMS. Based on these, the Director-General approves & a bar-coded library card is issued. Whenever a user loses his library card, he is issued a new card based on an application given by the student, and old card details are blocked and a duplicate card is activated. For this purpose, users are charged a nominal fee.

**Circulation of Books:**

The borrower requests an issue of the book using Requisition Slip and gives a library card for scanning.

Books are issued and received from students according to displayed rules. At the time of issuing a book to the borrower, the due date is stamped on the due date slip.

At the time of returning the books, library staff scans the accession number of the book and verifies the date of return. If the book is returned in time, the book is accepted without any fine.

At the time of returning the books after the due date, a fine is charged from the students according to the fine rules which are displayed on the central library notice board and a fine slip is issued for the realization of the fine due to late return of the book. In the case where a fine is not paid, the book is received and is posted in software. The software debars the students for further issue of books till deposits of the fine. The fine collected is deposited in the accounts department on a monthly basis. Such students may borrow books temporarily for consulting in the library only. The library/identity card is retained on such an issue of the book.

**Digital Library:**

**E-journals & E-books:** E-journals & E-books are utilized by the user in the following ways:-

1. Can browse on the digital library systems and anywhere in the campus and outside campus through MyLoft.
2. Can download and take a copy on Pen Drive, CD/DVD.
3. Can also send by email etc.

Report of the usage is collected from the publisher on yearly basis and after analysis a decision is taken for renewal of membership.

**CD/DVD:** CD/DVD received along with books are entered in the CD/DVD stock register and given to the student as and when they are required for viewing on the computer system.

**Question Papers and Model Solutions:**

AKGEC central library maintains a Question Papers & Model Solutions Bank consisting of previous question papers of Sessional, PUT (Pre-University Test), and University Examinations along with their model solutions prepared by the respective subject teachers. The collection is readily available for reference of students in electronic as well as print form in the central library and also in electronic form in departmental and hostel libraries for benefit of faculty and students respectively users are allowed to take the documents for making photocopies at the photocopy centre.