4.1.1 The institution has adequate facilities for teaching - learning. viz., classrooms, laboratories, computing equipment, etc.

DEI has a well-developed high-tech campus of 86 acres, with another 600 acres earmarked and notified in the Master Plan of Agra Development Authority for future expansion. It is equipped with modern facilities and learning resources to achieve academic excellence according to its vision and strategic objectives.

The infrastructure facilities and learning resources are categorized as under:

- (a) Learning Resources include resources and infrastructure required for library, laboratories, computer centre, class room teaching, events, meetings and conferences.
- (b) Support facilities include hostels, non-resident students' centres, canteens, convocation hall, seminar halls, International seminar hall complex, committee rooms, dairy, agricultural farms, biodiversity park, sports grounds and creche.
- (c) Utilities include safe drinking water, restrooms and power generators.

Classes are scheduled for optimal utilization of the available physical infrastructure.

Sophisticated equipment available in the laboratories is not redundantly duplicated and availability is ensured by judicious time-sharing.

Sharing of laboratory facilities is also encouraged between faculties. Apart from the central facilities, such as, Computer Center, Central Library, USIC and Works Department, there are many laboratories that cater to students from other faculties.

The Institute continuously strives to create and enhance infrastructure both in terms of buildings and other facilities to provide a good teaching-learning environment. The following land has been acquired by DEI for new programs in the last five years:

Particulars	Area (acres)	Date of Acquisition
Lecture Hall Complex	1.376	4-12-2013
Land East of Mughal Road	12.892	13-01-2014
River Bank Filtration Project	0.494	09-03-2015
REI Dairy Building	0.329	11-06-2015
Ayush Building	5.5	21-01-2016
Battery Room in Dairy	0.021	20-09-2017
Total	20.612	

The Libraries at DEI are integrated knowledge resource centres comprising, a Central Library, libraries in Engineering, Commerce and Education Faculties and Departmental Libraries.

To promote cutting-edge research in challenging emerging research areas, DEI has established a Research and Technology Park with state-of-the-art computing and research facilities, namely, Quantum and Nano Systems Centre, Centre for Consciousness Studies, Quantum-Jugaad Centre and Centre for Core Courses. Several advanced laboratories in thrust areas of research have been established in various Departments.

The Institute has a policy for the creation and enhancement of infrastructure in order to promote a good teaching learning environment. Some of the recent initiatives taken are as follows:

- 1. Upgradation of IT infrastructure regularly in view of the recent developments and advancements in technology to meet the teaching learning requirements.
- 2. Upgradation of Learning Management System (LMS).
- 3. Modernization and upgradation of multimedia lab, music recording studio, instrumentation lab. with XRD etc.

Establishment of new labs that include, Virtual and remote triggered labs., iNFORMATION-cOMMUNICATION-nEURO- cOGNITIVE Technologies Assisted Language Lab. (i-c-n-c-TALL), 5G and IoT lab., 3D printing lab., dairy technology lab., textile design and printing lab., footwear technology lab., Ayush labs., biomedical lab., labs on land, for providing hands on experience to the students.

Physical Infrastructure to support student amenities are as follows.

Lecture Theatres: There are large number of lecture theaters available on the main campus to accommodate a large student strength in any course.

Laboratories and Workshops: Overall, 5672 sq m of space has been allocated for laboratories and another 4673 sq m of space has been allocated to workshops for various courses.

Tinkering Labs:

DEI maintains three ATAL Tinkering Labs in the Girls and Boys Intermediate college and one.

Mini Plants:

Mini Plants are the in-campus microscopic industrial units in DEI. This is a unique feature generally unheard of. There are following plants to give real time skilling to students:

- Dairy Plant
- Solar Plant
- o In house Waste Management Plant
- Food production Plant
- o Bio Gas Plant
- Bio Mass Handling Facility
- Apparel Production and Textile Designing Facility
- Solid Waste Management and Recycling Facility

Reliable Power Supply:

To ensure regular and reliable power supply, DEI has invested in multiple solar plants at various locations with a total capacity of approximately 900KWp.

Safety and Surveillance:

The DEI security laboratory was created in 2013. It undertakes security surveillance protocols and monitors inputs from around 265 cameras 24×7 . This is a proactive measure which helps personnel to respond to situations in time and prevent mishaps. Besides the above, there is also a Seminar Hall and Convocation Hall, each of which can accommodate 300 students, a Guest House which has 16 rooms, and Staff seating space of almost 1900 sq m.

DEI has fire fighting system in place in every buildings and labs.

Creche:

DEI has a crèche for the children of its staff. This crèche is a completely green, eco-friendly bamboo building a marvel to look at.

Medical facilities:

Out-patient consultations, equipment for ultra-sonography, ECGs, ENT and clinical tests and X-rays, an emergency services center, physiotherapy, dental services, eye surgery facilities, dietitian services and a free pharmacy are available for use of students and staff alike. The students also have access to psychological counselors seven days in a week. A 20-bed hospital is available for patients who need to be admitted for observation or treatment.

AYUSH Faculty has an ambulance to cater to the medical emergency in the campus and in the close neighborhood

Student Accommodation:

Overall, 795 students of DEI avail of hostel accommodation across various locations. There are separate buildings which host girls and boys. Each hostel has a mess and a comfortable environment for students.

Guest Houses:

DEIhas one International Seminar Hall Complex cum Guest house for visiting researchers.

Soft Infrastructure Admission System:

DEI has its own indigenous admission system which handles new student applications, generation of admit cards, checking of OMR sheets, results processing and generation of merit lists, which are finally displayed on the Institution website. Course Management System The course management system is an indigenous system, which handles student course registration, evaluation and grading as well as generation of mark sheets.

Incubation Cell:

The Incubation Cell is currently being developed and it is expected to need more space in the form of fabrication laboratories.

Virtual Infrastructure:

DEI has 430 remote centers all connected to DEI. The Institute has good facilities for teaching with more than 60% classrooms having projection facility. With more than 75 eclassrooms equipped with transmission capability, DEI.

Laboratories in DEI

Curriculum Laboratories

Curriculum laboratory of the university are functional with equipment and instruments in working condition. DEI has a unique system of sharing laboratory resources between different faculties and also with intermediate laboratories to minimize the immovable infrastructure and has created a procedure sharing facilities in space and time.

Remote Labs

Under MHRD initiative on NMEICT DEI has created Remote Labs in Analytical Chemistry and Electronics.

Virtual Labs

DEI has 4 virtual Labs, two in the faculty of Science and two in the Faculty of Engineering.

Living Laboratories

Laboratories on Land-Biosphere DEI

The Dayalbagh Educational Institute has decentralized Labs on Land. This includes the Dairy Campus, fruit orchard at the Seminar Hall Complex, Biodiversity Parks at Solan, Rajaborari and Varanasi.

Renewable Energy Lab

The extensive solar infrastructure acts as a real-time curriculum labs for the students.

Links

Available Infrastructure, IOE Book (Page 104, 105):

https://www.dei.ac.in/dei/files/notices/2019/IOE.pdf

Laboratory information is on the Department Websites

(https://www.dei.ac.in/dei/index.php?option=com_content&view=article&id=38&Itemid=288)

Central Facilities

https://www.dei.ac.in/dei/index.php?option=com_content&view=article&id=181&Itemid=325

Other Details

IT Enabled Facilities:

https://www.dei.ac.in/dei/files/NAAC/4.1.3%20ICT%20Enabled%20Facilities.pdf

eJournals: https://www.dei.ac.in/dei/files/NAAC/4.2.3%20e-Journals.pdf

Proceeding of Library Committee Meetings:

https://www.dei.ac.in/dei/files/NAAC/4.2.4%20Proceedings%20of%20Library%20Commiittee%20Meetings.pdf

eContent Developed by Teachers:

https://www.dei.ac.in/dei/files/NAAC/4.2.7%20eContent%20developed%20at%20DEI%20by%20teachers.pdf

Facilities for eContent Development:

https://www.dei.ac.in/dei/files/NAAC/4.3.4%20Facilities%20for%20E-Content%20Development.pdf

Vidyaprasar

http://vp.dei.ac.in/

Quantum and Nano Computing Virtual Center

https://www.dei.ac.in/dei/quantumNano/

Library Automation

https://www.dei.ac.in/dei/library/

EdRP CMS

https://admission.dei.ac.in:8085/CMS/Flex/CMS_FLEX.html

Virtual Labs:

https://www.dei.ac.in/dei/index.php?option=com_content&view=article&id=833&Itemid=403

(i-c-n-c) TALL

https://www.dei.ac.in/dei/files/icnc-TALL.pdf

Multimedia Laboratory

https://www.dei.ac.in/dei/files/Multimedia%20Technology%20Initiatives.pdf

Digital Initiatives

 $\underline{\text{https://www.dei.ac.in/dei/files/NAAC\%20Self\%20Qualitative\%20Assessment/Digital\%20Initiatives\%20Assessment/Digital\%2$

2G-5G Lab: https://www.dei.ac.in/dei/files/tenders/2019/DEI-SC-PHY-KSD-2018-19-EOI.pdf