

UNIVERSITY LIBRARY & INFORMATION TECHNOLOGY



Chapter – VII



7.1 University Library

The University Library acquaints services to the scholars, scientists and extension activists under 8 constituent colleges and polytechnics as well as research stations and extension education centers of Junagadh Agricultural University, Junagadh.

Collection:

The University Library possesses around 57000 books. These books are very valuable and helpful in studies, research and preparation for competitive examinations. It provides around 16000 back volumes, 3400 theses, 10 newspaper, 800 e-books.

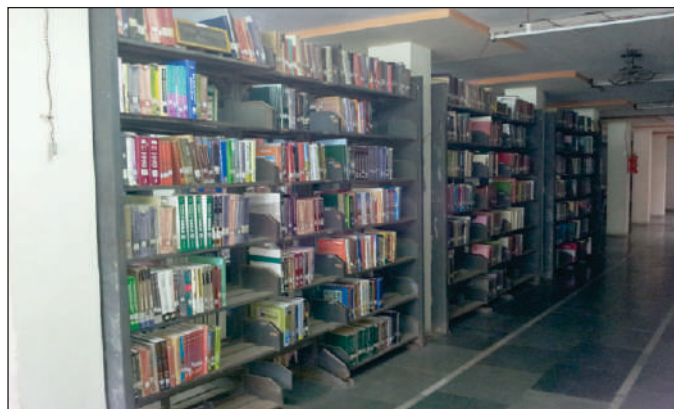
Services:

Cyberary with 100 mbps LAN connectivity facilitates users to access online database like J-Gateplus (Complete) online which has full text journals. Commodities (CMIE) which as economical data. Our library has 800 e-books and this year we have subscribed 85 more e-books, Facility by ICAR for foreign Journals through Online Access of Journals through Consortium for e-Resources in Agriculture (CeRA) and KRISHIKOSH are available and CD-ROM databases like CAB, AGRICOLA, AGRIS. The University Library is fully automatized after the implementation of RFID system. Full time internet, scanning and CD writing facilities are available for the students in the Cyberary in which there are 40 work stations with internet access. These facilities are being extensively utilized by both faculty and students on an average of daily 50 to 300 users for about 12 hours per day. Students are provided with books of their concerned subject of their respective semesters through BOOK BANK facility, 11 more books were purchased of horticulture faculty for the book bank. The Library runs through RFID with the software KOHA & LIBSYS.

The library renders its services to the users from 8:00 to 18:30 h. A separate Air Conditioned Reading Room is developed with the best facilities as well as good ventilation and aeration. This AC reading room

accommodates approximately 100 students. The Reading Room remains open for its users from 8.00 to 23.00 hours on working days whereas 8.00 to 13.00 hours on holidays.





7.2 Information Technology



The Junagadh Agricultural University has advanced significantly in its use of internet technology for management, education, research and extension education activities. The Directorate of Information Technology is responsible for centrally managing the information technology (IT) services provided to university students, faculty, research scientists, extension personnel, and other administrative staff. The university's information technology unit employs cutting-edge technology and highly qualified staff. There is high-speed internet access available everywhere on campus as well as at satellite locations away from the university's main campus.

The university's website, www.jau.in, is a valuable resource for information because it contains current material that students can use to see themselves as university students. The website also includes answers to questions scientists were asked by farmers, weather-based agricultural advice, agricultural education, a video gallery and other things.

Through the portal "Online JAU" the internally generated and other online materials are grouped under a single umbrella. The IT Cell also manages a centre that offers support to students applying for financial aid under the "Mukhyamantri Yuva Swavalamban Yojana (MYSY) and Scheme of Developing High Quality Research (SHODH)," a scholarship initiative started by Government of Gujarat. IT Cell has created an online system for registration and user management for the Government

eMarketplace (GeM) in order to facilitate university purchases made through GeM.

1. IT infrastructural facilities at IT Cell

High-end technology and computing tools, including servers, workstations, firewalls, routers, computer systems and a range of other resources, are available at the Information Technology Cell. The IT Cell also has a well-equipped university video conference room that is equipped with three large interactive monitors and top-notch video conferencing equipment.

2. High-speed Internet Access

There are a total of 305 Mbps dedicated 1:1 Internet Lease Line (ILL) connections available at JAU, which are provided by different internet service providers. Out of which 100 Mbps 1:1 Internet Leased Line (ILL) is provided by Railtel under the National Knowledge Network (NKN), which encourages the use of specialised applications and allows sharing of high-performance computing facilities, e-libraries, virtual classrooms, and large databases. For uninterrupted redundant internet connectivity, a stand by 25 Mbps 1:1 ILL is provided by BSNL.

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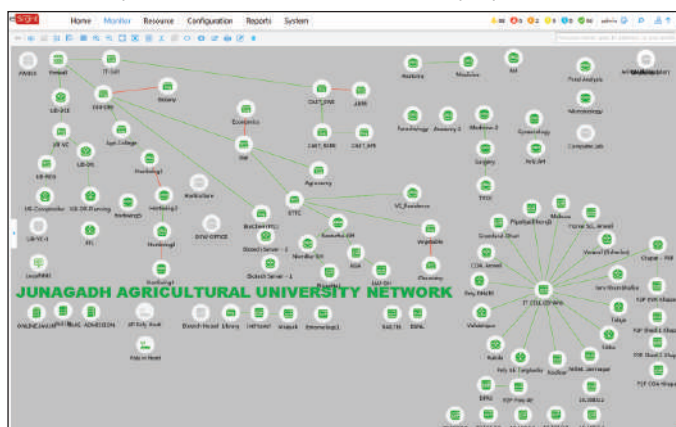
Twenty-five (25) University sub-centers are connected to the campus network through WAN (Wide Area Network) using 180 Mbps 1:1 ILL provided by Private Firm. Sub-center management is thus centralised under the control of the IT Cell.

3. JAU IT Network and Surveillance Setup

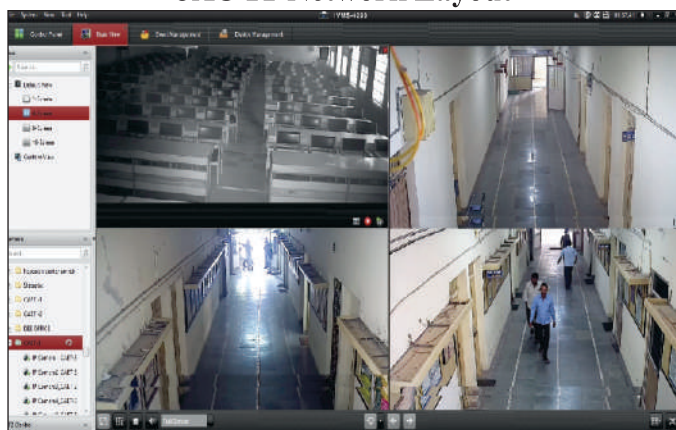
A firewall, IDS (Intrusion Detection System), analyzer, content filtering, and other security measures are all part of the university's highly secure network design. With more than 1100 network points and more than 75 wireless access points distributed

over the campus, the University Campus Network provides extensive coverage for easy internet access. Network monitoring, issue detection, and problem-solving are all done with the help of Network Management Software (NMS). In order to provide high-speed network connectivity, more than 6500 metres of fibre optic cable have been installed across the campus. To access online government programmes and services, the University is also connected by optical fibre cable to "Gujarat State wide Area Network (GSWAN), Gandhinagar," Asia's largest network.

More than 800 CCTV cameras with a central and distributed monitoring system are part of the university's well-established security system.



JAU IT Network Layout



CCTV Surveillance System

4. Network Services

More than 75 wireless access points are used to give secure Wi-Fi access at various colleges, departments, dormitories and university canteens.

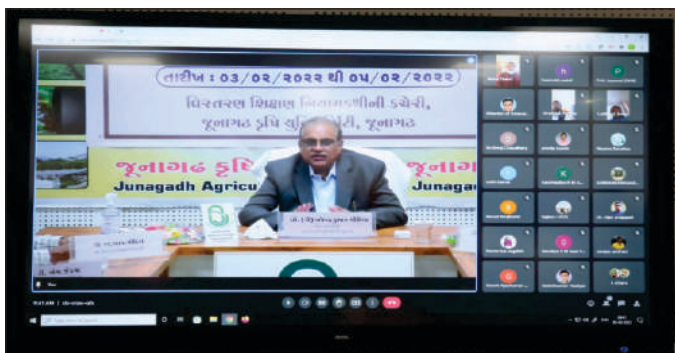
Users of the university can now access a number of online services via an intranet, including online circular management systems, billing and accounting, HRD/tour management systems, provident fund (PF) management solutions, salary management, IT asset management, IT grievance system, online management for the government of India's "Mera Gaon Mera Gaurav (MGMG)" scheme, information retrieval systems (IRS), job application systems, online fee collection system, eLearning solution for student, online placement solution, online alumni management system, online mock test system and centralised network solutions using WAN (sub centres connected with main campus).

Additionally, the IT Cell administers a number of Google Apps, which allow users to access a lot of Google services, including Gmail, Google Drive, and video conferencing via Google Meet and many others.

An online system that provides services to farmers includes online weather updates, an online system for distributing seeds, an online system for allocating coconut saplings, FAQs, etc. A portal is being created to display various activities carried out under the "Junagadh Janvani" programme as well as to archive the programmes broadcast through JAU's Community Radio Station (*Junagadh Janvani* 91.2 MHz). The portal is accessible at any time to view these archived programmes. Farmers are given information about agriculture through a number of kiosks located at "*Krusha Darshamalay*".

5. Video Conference Room

Virtual meetings are now almost as effective as in-person meetings due to video conferencing technology. Face-to-face communication is possible almost anywhere in the world due to the university video conferencing infrastructure created by the IT Cell. A dedicated conference room is completely furnished with a video conferencing solution that is both software-based and hardware-based, including HD Cameras, a full duplex voice communication system, flat panel monitors, and an acoustic space. At the newly constructed Video Conference Room during COVID-19 epidemic scenarios, more than 100 university-level video conferences were organised.

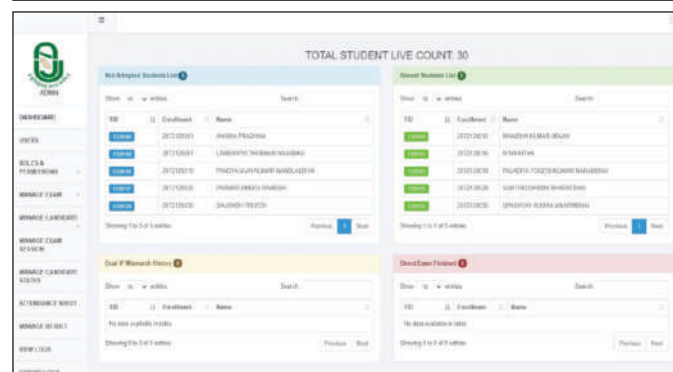
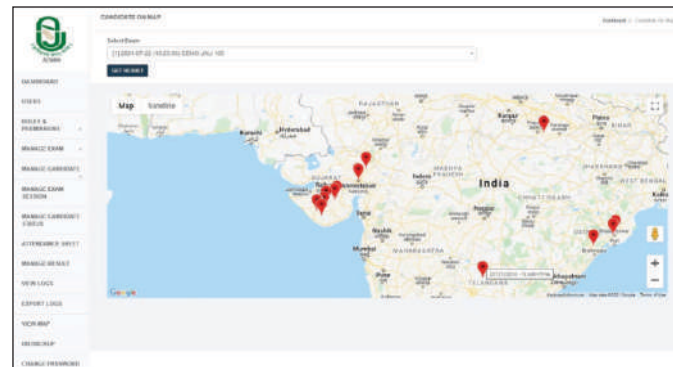


University Video Conference Hall

6. Online Examination System

Online tests, also known as e-exams (electronic exams), have advanced significantly and are now widely used in higher education institutions around the world. Due to the COVID-19 pandemic's rapid emergence, their preference spread quickly. Online exam management is chosen as the best method of evaluation to ensure the students' safety and wellbeing. During and after the COVID-19 epidemic,

many colleges of Junagadh Agricultural University held more than 700 exams for undergraduate, post graduate, and polytechnic degrees with a total enrolment of 32,000+ peer students under virtual supervision. IT Cell is in charge of this online exam system portal. The students from all over India actively participated in the online exam from their homes.



JAU Online Examination System

In-house Developed Programmes:

| Programme | Description | Beneficiary |
|---|--|---|
| “Junagadh Janvani” Radio Station (91.2 MHz): | A portal (janvani.jau.in) is developed to archive all the broadcasted programmes and to display various activities carried out under “Junagadh Janvani” programme. This archived programmes are accessible at any time by visiting the portal. | Farmers and All related community |
| Online Fee Receipt Software | Accurate accounting is available at the college, and students can acquire digital receipts. | Students, Account Section of each college of university |
| Information Retrieval System (IRS): | By continually updating an employee's research publication-related information, the Information Retrieval System (IRS) enables the institution to analyse new data and effectively utilise it. | Research Scientist and Data collection committee |



| Programme | Description | Beneficiary |
|---|---|--|
| Online IT Asset Management Solutions | Technical recommendations for the purchase, repair, and write-off of IT products are now made online, which speeds up the procedure. | Purchase/Store section of each department of university |
| JAU Information Online App: | Farmers are given information about agriculture through a number of kiosks located at " <i>Krusha Darshanalay</i> ." These information are additionally made available online via the "JAU Information Online" portal. Additionally, it offers agro-advisories depending on the weather, education in the field of agriculture, a video collection, and solutions to problems that farmers have posed to scientists. | Farmers, Students and all related stake holders |
| Online allocation system for Coconut Saplings & Seed Sales | Every year, the Agricultural Research Center (Fruit Crops), Mahuva raises and distributes hybrid coconut DxT seedlings, and the Mega Seed, JAU, Junagadh sells produced seed. Management of online application system Administration of the online application and notice for these distributions. | Farmers (Who are seeking seed or sapling) |
| Online Salary Management Software: | On the university campus and off campus, there are roughly 58 withdrawal and payment officers from various offices. These officers were frequently required to visit the Office of the Comptroller to approve adjustments to the salaries of their staff members. These officers can complete this process online via the correct channel with the help of the Online Salary Management System. As a result, the process of approving salary bills got along more quickly and required less travel. Additionally, the facility is included in this online system to view individual salary slip by using their login information. | DDOs and Comptroller of Office, Employee (For view salary slip and related report) |
| Online Grievances Redressal | Online grievance redressal mechanism is established for the repair of IT hardware/software items as well as campus area network. More than 260 hardware and more than 175 software related queries were resolved by IT Cell during the year 2021-22. | JAU faculties, who are making |
| Online Mock Test Examination System | For university students preparing for competitive examinations like NET/ARS, GATE, etc., this online programme is highly helpful. | Students |

5. Reference Services

Through a local area network, UG/PG students working on research projects and university staff doing research and teaching activities have access to agricultural e-Resources like CAB, AGRIS, and AGRICOLA. Over the entire university network, users can browse and search for national and international journals using an online access to the Consortium for eResources in Agriculture (CERA). Additionally, users have access to J-Gate database as well as Krishikosh, an online doctorate theses service offered by the All India Agricultural Universities.



e-Resources facilities for UG/PG students

6. Beneficiaries

For smooth IT access for University teachers, staff, and students for educational, research, and extension education activities as well as for other administrative purposes, a user-friendly network access environment with wired and wireless network connectivity has been built. The colleges and polytechnics also use the university examination hall for online examinations and for placement activities. The Online Examination System (OES) service are frequently used for JAU's recruitment of various positions, which is more transparent because results are announced in real-time.

7. Training

The IT Cell regularly conducts various trainings on the use of computers and internet connections for

the rural women and youth to disseminate agricultural information. Faculty and students are also given training on how to use the resources made available by network services.

When the University implements new digital initiatives, the IT Cell also provides additional trainings for university staff. Trainings, that have been offered are on how to use online salary systems, online fee collection systems, online admission systems, the government e-marketplace (GeM), etc.

8. University Web Site

The IT Cell manages and hosts the university's website, www.jau.in, which is frequently updated. It includes details about academic matters like admission, academic rules, scholarships, library services, student results, medals, etc. Also, the content, which is routinely updated on this site includes important announcements and events, university circulars, tenders, advertisements, RTI, Farmers' Corner, current news, and forthcoming and previous activities. This website provides on research, research recommendations, newly released varieties, university publications, memoranda of understanding and other extension education activities. The website is regularly updated and maintained throughout the year.

The information in the local language is also posted on the university website with the intention of informing farmers about the many agricultural-related activities of the university. As a result, farmers are able to make appropriate and timely use of the information that is made available.

9. Qualified Personnel

The university's competent and trained IT staff administer all the services at the IT Cell.

10. Visitors

Many distinguished individuals have visited the IT Cell and have praised the initiatives. As part of their project work, the IT students from different colleges in Junagadh city regularly visit the IT Cell.