

A Web Based Remote Access in Tamil Nadu Agricultural University

E-Library on Overview

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Abstract: The introduction of web-based remote access to the Tamil Nadu Agricultural University (TNAU) e-library marks a significant advancement in providing enhanced access to academic and research resources. This system allows students, faculty, and researchers to access a vast range of agricultural literature, journals, e-books, and databases from anywhere, at any time, via the internet. The web-based interface eliminates the need for physical presence at the library, ensuring convenience and flexibility for users, especially those in remote or rural locations. It also supports TNAU's mission to foster academic excellence and promote agricultural research by providing real-time access to updated content, enabling researchers to stay current with new developments in the field. The system's user-friendly features, secure login mechanisms, and comprehensive database further ensure that resources are easily accessible and that data privacy is maintained. This paper provides an overview of the web-based remote access system at TNAU's e-library, highlighting its importance in improving resource accessibility, supporting research, and fostering collaboration in agricultural education and innovation.

Keywords: e- Library, Digital Library, Remote Access, TNAU Library

Introduction

Web-based remote access refers to the ability of users to access digital resources, including e-books, research papers, journals, databases, and other academic materials, from any location via the internet. This access is facilitated through a web portal or software interface, which allows students, researchers, and faculty members to connect with the e-library remotely.

The integration of technology into academic and research environments has revolutionized how information is accessed and shared. At Tamil Nadu Agricultural University (TNAU), the e-library system plays a pivotal role in providing seamless access to vast amounts of agricultural knowledge and research resources. One of the key advancements in this regard is the introduction of web-based remote access to the university's e-library, which enhances the accessibility and utility of its digital library services.

Tamil Nadu Agricultural University (TNAU)

The Tamil Nadu Agricultural University (TNAU) traces its origins to the establishment of an Agricultural School in Saidapet, Madras, in 1868, which was later moved to Coimbatore. In 1920, it was affiliated with Madras University, and by assuming full responsibility for agricultural education and research, TNAU began supporting the State Agricultural Department with innovative research outputs. Until 1946, the Agricultural College and Research Institute in Coimbatore was the sole institution providing agricultural education in South India. In 1958, it became a postgraduate center offering Master's and Doctoral degrees, marking a significant step in its academic evolution. The Agricultural College and Research Institute in Madurai was established in 1965, laying the foundation for the formation of TNAU in 1971.

In 1972, TNAU introduced separate degree programs in B.Sc. (Horticulture) and B.E. (Agriculture), with the Faculty of Horticulture being established in 1979. The 1980s saw further expansion, with the introduction of the B.Sc. (Home Science) program in Madurai and the establishment of additional colleges in Killikulam (1984) and Kumulur (1989), which later moved to Navalur Kuttappattu (Trichy) in 1992 and was renamed ADAC & RI. In 1985, the B.Sc. (Forestry) program was launched in Coimbatore. Today, the B.Sc. (Horticulture) program is offered at the Horticultural College in Periyakulam, while the B.Sc. (Forestry) degree is offered at the College in Mettupalayam. Forest The B.E. (Agriculture) program has evolved into B.Tech. (Agricultural Engineering) since 2002-2003 at the AEC & RI in Kumulur, Trichy.

TNAU has also expanded its academic offerings with specialized programs like B.Sc. (Home Science) at the Home Science College in Madurai and a B.Sc. (Agriculture) course at the Pandit Jawaharlal Nehru College of Agriculture and Research Institute, Karaikal, which is an affiliate of the university. The university's research activities span more than 32 stations across Tamil Nadu, supported by over 1,200 scientists and faculty members.

In response to global technological advancements, TNAU introduced several new degree programs to meet emerging demands. These include B.Tech. (Food Process Engineering) in 1998-99, B.Tech. (Agricultural Biotechnology) B.Tech. and (Horticulture) in 2002-2003, B.Tech. (Energy and Environmental Engineering) in 2004, and B.Tech. (Bioinformatics) in 2006. The introduction of programs like B.Tech. (Agricultural Information Technology) and B.S. (Agribusiness Management) in 2007 further expanded the university's academic offerings, contributing to its financial independence through self-supporting programs.

Tamil Nadu Agricultural University Library

The TNAU Library System consists of a central University Library and 10 affiliated college libraries, all of which support the university's teaching, research, and extension activities. The University Library holds a collection of over two lakh documents, including books, theses, journals, and compact discs, covering a wide range of subjects such as Agricultural Science, Agricultural Engineering, Horticulture, Literature, and Social Sciences. All library operations are fully automated using the Koha software, which also enables web-based access to the library's online catalog. The library system benefits from a consortiabased subscription to electronic resources, which are available to core members as well as extended to all constituent colleges, research stations, and KVKs (Krishi Vigyan Kendras) through remote access. The library is housed in a building spanning four floors and a total area of approximately 20,000 square feet, with a seating capacity for 350 readers. The facility is partially air-conditioned, offering a comfortable environment for study and research.

Electronic resources at TNAU

- ✓ Wiley E-book and journals This covers 27,000 books and 1,900 journals
- ✓ Elsevier e-Books- This covers 35,265 book
- ✓ CABI e-Books- This covers 367 books
- ✓ Astal e Books- This cover 203 books
- ✓ NIPA- TNAU library subscribed 33 books
- ✓ Springer e-books- This covers 1215 books
- ✓ Indian journals- This covers 290 journals
- ✓ Consortium of e-Resources (CeRA) e-Journals-TNAU library subscribes Agriculture that covers 21,272 Journals
- ✓ Krishikosh: The library also has access to Krishikosh E-thesis this cover 9 thesis.

Types of Remote Access

There are two forms of remote access: the first allows you to view files and information remotely, while the second allows you to access and control your personal computer remotely. The first type is used by



the library, which allows access to its resources from off-campus.

Remote Access: Advantages.

- ✓ Work Continuity from Any Location
- ✓ Eliminates Commute Time
- ✓ Automatic Synchronization of Data
- ✓ Access Network Resources without Carrying Devices
- ✓ Unified Access Control for All Resources
- ✓ One Login for All Applications
- ✓ Seamless Access to Multiple Services
- ✓ Access to External Resources and Services

Remote Access Control Methods

There are several methods available for remote access to institutional networks, each with its own set of benefits and drawbacks. One option is the Direct (Physical) Line, which establishes a dedicated connection between a computer and the institution's Local Area Network (LAN) or between a home network and the institution's LAN. While this option offers high-speed access, it tends to be costly and requires ongoing maintenance. Additionally, its pointto-point structure can limit routing flexibility. Another commonly used solution is the Virtual Private Network (VPN), which allows users to securely connect to remote networks over the internet by employing encryption and tunneling protocols. VPNs are frequently utilized by smaller organizations to provide secure access to institutional resources. Microsoft Remote Desktop Services (RDS) is another method, enabling users to remotely control and interact with a **TNAU- Remote Access- e-Library**

computer or server from their local device. Other clientless access solutions, such as Citrix Virtual Apps, VMware, and Parallels Remote Application Server (RAS), allow users to access applications and resources directly via a web browser. Additionally, traditional remote access technologies such as Integrated Services Digital Networks (ISDN), Wireless Networks, DSL (Digital Subscriber Line), and Cable Modems each offer varying degrees of speed, security, and reliability, tailored to different organizational needs.

Rules for Remote Access

Remote access to the library's digital resources is strictly intended for personal study or research purposes only. It is prohibited to use the access for commercial purposes, systematically download large volumes of data (such as entire books or journals), or store data in bulk. Sharing your user ID, password, or pin code with others is strictly forbidden, as is using the remote access in connection with unauthorized workplaces. Any misuse of the remote access, as identified by either the library or the data supplier, will result in the immediate closure of the user's access account. Additionally, all traffic related to remote access is logged and monitored by both the data supplier and the library to ensure proper usage and security.



Fig-1: Login Page



Fig-2: Home Page

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Fig-4: Request Article

Web OPAC

Web OPAC is a modern, internet-based system that enables users to search and access a library's collection from any device connected to the internet. This system allows users to search for a wide range of resources, including books, journals, DVDs, and other materials, offering a more efficient and convenient alternative to traditional card catalogs. By providing real-time access to the library's inventory, Web OPACs make it easier for users to locate and request materials, enhancing the overall library experience. These systems are user-friendly, typically offering advanced search options and filters, making it simpler for users to find specific items quickly and effectively.

Tamil Nadu Agricultural University to create web opac using following criteria:

CONSTITUENT COLLEGES	E-RESOURCES	LIST of E-BOOKS
AC&RI,Echangkottai	Digital Collections	Wiley
AC&RI,Kudumiyanmalai	TNAU Egranth	Elsevier
AC&RI,Killikulam	Krishikosh Egranth	Cabe Books
AC&RI,Vazhavachanur	Springer	Springer
AEC&RI,Kumulur	Online Library Wiley	Taylor & Francis
AC&RI,Madurai	Science Direct	ASAP Books
FC&RI,Mettupalayam	Cabe Books	
HC&RI,Periyakulam	NDLI Resource	
ADAC&RI,Trichy		

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Fig-5: TNAU OPAC Home Page

CONCLUSION

The implementation of a web-based remote access system for the e-library at Tamil Nadu Agricultural University (TNAU) marks a significant step towards enhancing accessibility and convenience for students, faculty, and researchers. This system facilitates users in accessing a wide array of agricultural resources, journals, books, and research papers from anywhere at any time, breaking the traditional barriers of physical presence and time constraints.

With the growing need for efficient information retrieval in agriculture-related fields, this web-based system ensures that TNAU's e-library resources are easily available to users, supporting academic excellence and research activities. It promotes an inclusive and flexible learning environment, especially for remote users, while also streamlining library management and services.

The remote access solution not only optimizes the use of digital resources but also contributes to the university's vision of advancing agricultural education and research through modern technology. Moving forward, continuous monitoring and upgrades to the system will be essential to maintain its efficiency, security, and user satisfaction. Ultimately, this initiative enhances the overall academic infrastructure and establishes TNAU as a leader in the integration of technology for agricultural education.

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