IT Usage in Scientific Information Resource Centre (SIRC) at RRCAT

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Introduction

Scientific Information Resource Centre (SIRC) at RRCAT, earlier conventionally it was known as Library, started functioning concurrently with initiation of scientific activities of the centre. It was a modest beginning with few hundred numbers of scientific and technical books and subscription to a small number of relevant journals During the last twenty seven years, SIRC has grown to a sizeable entity playing very crucial role of providing access to scientific and technical literature. In course of time it has become an invaluable knowledge resource for scientists, engineers, researchers, faculties and students of the centre. It has built a robust collection of over 10,500 books and has been subscribing to around 172 core national and international journals related to the area of research of the centre. Access to the SIRC collection is through our online catalogue which contains records for books, journals, reports, standards, patents and CD/DVD etc. Digital collections of e-books, e-internal reports, e-jouranal articles, e-thesis and dissertation and e-newspaper clippings, digital photos and videos & educational multimedia resources are accessible through digital repository of SIRC. The collection of SIRC supports the R&D activity of the center and its principal subject areas reflect the center's research programes in Accelerators & Lasers. The collection also includes related areas in physics and engineering.

With progress of time, it has amalgamated technical advancements in its approach and working to manage these scientific information/knowledge resources and services. Complete functioning of SIRC revolves around this integrated information management software package, practically covering all routine functions. The system has been recently upgraded to web-centric RFID based system, easing out user operations and increasing efficiency. Self-Check-In and Check-Out Kiosk has substantially enhanced user convenient and the system has also simplified annual stock checking considerably.

Brief History

CAT Library was first automated in the year 1989 using an in-housely developed software using Unify, a RDBMS on Unix Operating System(OS). It was shifted to the commercial software LibSys 3 in the year 1995 on Unix OS and later on Sco-Unix. LibSys 4 was introduced in the year 2005 on LINUX. In the year 2011 it was upgraded to LibSys 7, a web based advanced version of LibSys-4. RFID technology was implemented with it (LibSys-7) same year 2011.

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IT tools used in SIRC

- Software

  - In-House
  - Commercial
  - Open-Access
- Hardware
- Back end databases
- OS
- Networks
- Internet
- Infonet
- Web Portal
- E-mail

Commercial Software

- LibSys7: Web based library management system
- Ls-Smart: RFID client
- ABBY Fine Reader: Overscanning and refining
- Adobe Acrobat

In-House Software

- DILL
- OBSSys

Open-Access Software

- dSpace
- Lim-Pha

Hardware

- RFID KIOSKS
- RFID Staff Station
- MyFare Card Reader
- Overhead Scanner
- Colour Scanner
- Digital Photocopier
- Server
- Computer Terminals

Back end databases

- Oracle
- PSQL
- SQL

OS

- LINUX
- Windows -7 & XP

Network

- Gigabit Ethernet. Remote access has been provided using DSL technology.

Internet

- 100 Mbps leased link over OFC.
- 1 Gbps NKN leased link over OFC.
- 34 Mbps/ 4 Shared leased Link over OFC.
- 34 Mbps/ 2 ERNET leased Link over OFC.

Infonet

RRCATInfonet information portal is accessible to all employees on RRCAT local area network and it is a very strong and popular means for dissemination of information. Data from various information management systems is made available to users under two access schemes, open access and authenticated access

Web Portal

- Web-OPAC
- SIRC Homepage
- E-mail

E-mail

- Cluster based web-enabled E-mail Collaboration Facility

Scientific Information Resources using IT

- Online Scientific Resources

  On-line Journals

  On-line Indexing, Abstracting and Citation database

- Network Version of Standards

- Digital Collections

- Reprographic Services

Information Services using IT

- RFID based Self Issue/Return
- Stock Verification using Wi-Fi Inventory Reader
- EAS Security Gates
- Photocopy Request/Digital Document Delivery
- Online Book Request
- Online Catalogue

Future IT use in SIRC

- State of art 24x7 Digital Learning Centre
  - EBook Reader
  - Educational Audio-Visuals
  - Learning Theater
- Federated Search of Scientific Information Resources of DAE on ANUNET(DAE Network)
  - EBESCO
  - Fed-Gate
- LibSys on Cloud (DAE Union Catalogue)
- Protocol for on-line DILL services on ANUNET
- Consortium based access to electronic resources
- Off campus access to online resources through EZProxy/Open Athens

THANK YOU