# RESOURCE SHARING THROUGH INDEST CONSORTIUM:
## a case study of IIT GUWAHATI

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**Abstract:** The emerging information technologies have brought about many changes in academic libraries. These technologies have facilitated librarians to work together in consortia to acquire and mount shared collections and provide digital library services to the users. INDEST Consortium, set up by the MHRD (Ministry of Human Resources Development), is instrumental in taking initiatives to deal with this fast emerging scenario in the country. This paper provides an overview of the approach that the INDEST consortium has taken to promote consortia based resource sharing among the member libraries. The paper also presents the infrastructure available with IIT Guwahati for delivering these benefits to its users.

## 1. INTRODUCTION:

For many centuries academic libraries were able to collect, organize, preserve materials and serve the users independently. However, factors like information explosion, price hike of reading materials and shrinking budgets are becoming more complex to organize the library services. Thus, libraries sought efficiencies through cooperation. The creation of union catalogues of the participating member libraries and copy cataloging were among the first co-operative ventures in libraries, followed by physical resources sharing of books and periodicals through interlibrary loans and joint archiving. The traditional barriers to access the information resources are progressively diminishing, thanks to the ubiquitous nature of the Internet and information technologies, which made it possible for the academic community to retrieve information through cyberspace with greater speed and economy.

This is a fascinating period in the history of academic libraries. For the first time, it is possible to build large-scale services where collection of information are stored in digital formats and retrieved over networks. The materials are stored on computers and a network connects these computers to user Pc's. In a digital library, nothing need ever reach paper. Realizing this, most of the publishers of scientific journals have moved to electronic publishing and the librarians have started working together in consortia to acquire and mount shared digital collections.

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## 2.INDEST CONSORTIUM:

In India, ventures in this direction are also underway and INDEST Consortium is one of them. The consortium headquarters located at New Delhi, functions under a *National Steering Committee* with the responsibilities of ensuring inter-institutional co-ordination, monitoring licenses for electronic resources, ordering and payment for subscribed services. The consortium formed Work Groups on different subjects to improve the functioning of consortium as well as to identify new resources and evaluate the existing resources; and propagating the consortium to attract new members in it. The Ministry has also set-up a *National Review Committee* that have the overall responsibility of making policies, monitoring the progress, coordinating with UGC and AICTE for promoting the activities of INDEST Consortium.

MHRD has provided necessary financial supports for the consortium-based subscription to the electronic resources (full text as well as databases) for 38 core beneficiary institutions including the IITs, IIMs, IISc, NITs, and other INDEST Consortium Members. Besides that, 60 Government or Government-aided engineering colleges and technical departments in universities have joined the Consortium with financial support from the AICTE. At the time of preparation of this paper, total 26 other Engineering Colleges and Institutions have also joined the Consortium on payment basis.

### 2.1 OBJECTIVES OF THE INDEST CONSORTIUM:

1. To subscribe electronic resources for the members of the consortium at highly discounted rates of subscription and at the best of terms and conditions
2. To extend the benefit of consortia-based subscription beyond the core members to other engineering and technological institutions.
3. To impart training to the users and librarians of the member institutions on subscribed electronic resources with an aim to optimise the usage of electronic resources
4. To find more avenues of cooperation and interaction amongst members libraries
5. To increase interactions amongst member institutions and
6. To increase scientific productivity of member institutions in terms of quality and quantity of publications.

### 2.2 E-resources subscribed by the INDEST Consortium

#### 2.2.1 Full-Text E-Resources:

1. **ACM Digital Library :** The ACM Digital Library incorporates digital versions of works published by ACM since its inception. The major components of the resource is an enhanced version of the ACM Digital Library plus an extended bibliographic database, consisting of more than a quarter-million citations of core works in computing. The ACM Digital Library hosts over 103,000 full-text articles from ACM journals, magazines, and conference proceedings and half million bibliographic Records with about 2,50,000 links to full bibliographic information and 70,000 further links to full text resources.

2.  **ASCE Journals :** The American Society of Civil Engineers (ASCE) is recognized globally for their significant contribution and dedication to the advancement of science and education in the civil engineering profession. The ASCE publishes 30 journals, periodicals and transactions that cover a comprehensive range of the civil engineering profession.

3.  **ASME Journals & A M R :** The American Society of Mechanical Engineers is a non-profit educational and technical organization serving a worldwide community of mechanical engineers. The ASME promote and enhance the technical competency and professional well-being through quality programs and activities in mechanical engineering, better enable its practitioners to contribute to the well-being of humankind through its publications that include 19 journals.

4.  **Elsevier's Science Direct:** ScienceDirect is the web-based interface to the full-text database of Elsevier Science journals and Academic Press (Ideal), one of the world's largest providers of scientific, technical and medical (STM) literature. The ScienceDirect offers a rich electronic environment for research journals, bibliographic databases and reference works. The database offers more than 1700 scientific, technical and medical peer-reviewed journals, over 59 million abstracts, over two million full-text scientific journal articles, an expanding suite of bibliographic databases and linking to another one million full-text articles via CrossRef to other publishers' platforms.

5.  **IEEE / IEE Electronic Library Online (IEL) :** The IEEE/IEE Electronic Library (IEL) provides The IEEE/IEE Electronic Library (IEL) covers almost one third of the world's current electrical engineering and computer science literature, providing unparalleled access to publications from the Institute of Electrical and Electronics Engineers (IEEE) and the Institution of Electrical Engineers (IEE). The resource covers more than 950,000 documents from over 12,000 publications, including 120 journals, transactions, magazines, conference proceedings, IEEE Standards. More than 25,000 new pages are added per month. It provides access to more than two million full-page PDF images, including all original charts, graphs, diagrams, photographs, and illustrative material.

6.  **Indian Standards:** The entire collection of 18,000 odd Indian Standards is included in this Database. The search engine allows one to identify, view and print Indian Standards by Standards Number, Standards Title, Text in the Scope of the Standards, and search-in-search (Nested search). Searches can be made for New and Revised standards. Segments of Indian Standards are Civil Engineering, Chemical Engineering, Electrotechnical, Food and Agriculture, Electronics and Telecommunication, Basic and Production Engineering, Medical Equipment and Hospital Planning, Management & System, Mechanical Engineering, Petroleum, Coal and Related Products, Metallurgical Engineering, Water resources, Transport Engineering and Textile.

7.  **Nature:** One of the most worldwide famous weekly scientific journal, Nature is a magazine of Nature Publishing Group ( NPG).

8.  **ProQuest Science:** This database provides indices and full abstracts to more than 556 key science and engineering titles, plus full-image of 160 titles. All titles are indexed from 1994 onward and updated monthly.

9.  **Springer Verlag's Link :** The Springer's Link is the online e-books and e-journals service from Springer Verlag, one of the world´s leading scientific publishers. Key subject areas include: Mathematics, Computer Science, Physics, Astronomy, Geosciences, Chemistry Engineering and Medicine. The resource includes over 400 current journals of the highest quality, as well as more than 20 book series. Currently over 3,40,000 full-text articles are available in Springer Link.

**2.2.2 Bibliographic Databases:**

1. **COMPENDEX on EI Village:** The Compendex is the most comprehensive bibliographic database of engineering research available today, containing almost seven million references and abstracts taken from over 5,000 engineering journals, conferences and technical reports. Approximately 250,000 new records are added to the database annually from over 175 disciplines and major specialties within engineering. Compendex is updated weekly to ensure access to critical developments in different field.

2. **INSPEC on EI Village:** The INSPEC, from the Institute of Electrical Engineers (IEE), is the world's leading database in the fields of physics, electronics and electrical engineering, computers and control, and information technology. Primary coverage is of journal articles and papers presented at conferences, although significant books, technical reports, and dissertations are also included in the database's 7.3 million records. Sources include more than 4,200 journals and more than 2,000 conference proceedings, books, and reports.

3. **J-Gate Custom Content for Consortia (JCCC):** JCCC is a virtual library of journal literature created as customized e-journals access gateway and database solution for the INDEST consortium. It acts as one-point access to 4,000+ subscribed currently by all the IITs and IISc and available online.

4. **MathSciNet:** This is a comprehensive database covering the world's mathematical literature since 1940. MathSciNet is a comprehensive database covering the world's mathematical literature since 1940. It provides Web access to the bibliographic data and reviews of mathematical research literature contained in the Mathematical Reviews Database. The MathSciNet offers World-wide access to mathematical literature through multiple mirror sites. It offers free access to Featured Reviews, those reviews from the Mathematical Reviews database that were especially commissioned for some of the books and papers that are considered particularly important in the areas that they cover.

5. **SciFinder Scholar :** SciFinder Scholar is a Z39.50 Windows-based interface that provides easy access to the rich and diverse scientific information contained in the CAS databases including Chemical Abstracts from 1907 onwards. The SciFinder Scholar offers a variety of pathways to explore CAS databases as well as MEDLINE.

6. **Web of Science :** The ISI Web of Science provides access to information for all levels of academic, corporate, and government research. It offers a comprehensive, fully integrated platform that empowers researchers and accelerates discovery. It offers citations and cited reference searching. The ISI Web of Knowledge provides a single interface, enabling natural-language searches across multiple content sources: journal articles; proceedings papers; patents; chemical reactions and compounds; and content from preprint, funding information, and research activity Web sites.

## 3. COMPUTER/NETWORKING INFRASTRUCTURE AVAILABLE AT IIT GUWAHATI:

IIT Guwahati has an unique distributed networking arrangement spread through the length and breadth of its campus, virtually enabling all the users to access the available electronic resources. All the computing infrastructure is maintained and monitored by the Computer Centre of IIT Guwahati. The Centre has all the flavors of Unix and Windows operating system.

The center possesses the HP workstations and Sun servers, which are used for high-end computation. A powerful system called ''Silicon Graphics'' is used for generating high-end graphics. There are also a large number of Intel based Linux servers used as computer servers, mail servers, proxy servers, name servers etc.

Currently the Institute has the campus-wide network on optical fibre backbone to all the departments, offices and hostels which terminates at the central network switch housed in the Computer Centre. In order to provide Internet connectivity the Centre has two microwave-linked leased circuits which provides a total download-bandwidth of 3 Mbps, of which 2 Mbps leased line from ERNET and 1 Mbps leased line from Software Technology Park of India, Guwahati.

### 3.1 Server Set-up:
The present Central Library Web-page is hosted on a WIPRO NETPOWER SERVER having a dual CUP Pentium III processor, 2 GB RAM, 8X4 GB Hot Swap SCSI hard disk. The web-page designed by the central library, is an integral part of the Institute's intranet and internet Home Page, written on HTML and JavaScript. The Central Library web page provides the basic information about the activities of the library, its collections and links to its Web-OPAC and other associated services.

### 3.2 Links:
The library web-page provides links to all subscribed online journals. In addition it also provides links to all E-resources available through the INDEST Consortium. The publishers' / service providers' URLs are linked through the library web-page. It provides download links to different client software, e.g. SciFinder Scholar 2004, LibSys Clients, etc.

### 3.3 Accessibility:
The library users are provided with a secured and hassle-free log on procedure. The users can access all the E-Resources through the Institute's IP Ranges. This arrangement helps the users to access the resources immediately and provides a fool-proof system of security. They are free from memorizing user ID, password, publisher's URLs etc.

### 4. CONCLUSION:
In this fast changing networked environment, coming together and serving better would be a wiser and economical way of dealing with the situation. Academic libraries are already facing the resource crunch. Many of these libraries have not been able to subscribe to core scientific journals. To optimise the available infrastructure and increase the access to information, taking the consortia approach is ideal. INDEST being a national initiative, has been playing a vital role in this direction and already brought about a change in providing electronic resources to its members. The INDEST and all the participating libraries will have to work together with enthusiasm for providing more and more e-resources for the benefit of the user community.