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ABSTRACT

The Ministry of Human Resource Development (MHRD) has set-up a "Consortia-based Subscription to Electronic Resources for Technical Education System in India" on the recommendations made by the Expert Group appointed by the ministry. The consortium is named as the Indian National Digital Library in Science and Technology (INDEST) Consortium. The INDEST Consortium has commenced its operation since Dec., 2002 through its headquarters at the IIT Delhi. The Consortium subscribes to full-text electronic resources and bibliographic databases for 38 leading engineering and technological institutions in India including IITs (7), IISc (1), NITs / RECs (17), IIMs (6) and a few other institutions directly funded by the Ministry of Human Resource Development (MHRD). While the expenditure on electronic resources proposed for subscription under the consortium for these 38 institutions are being met from the funds made available by the MHRD, the consortium being an open-ended proposition, welcomes all other institutions to join it on their own for sharing benefits it offers in terms of highly discounted subscription rates and better terms of agreement with the publishers. Moreover, beneficiary institutions may also subscribe to additional electronic resources through the consortium that are not being funded by the MHRD. This article introduces the INDEST Consortium, its activities and services.

KEYWORDS: Electronic Resources, Consortia, Consortia-based Subscription, INDEST, Technical Education System, Pricing Models, License Agreement

0. INTRODUCTION

Cooperation amongst institutions for sharing their library resources is being practiced for decades. Traditionally, primary purpose of establishing a library consortium is to share physical resources including books and periodicals, amongst members. However, the mode of cooperation has gone under a transformation with infusion of new information technology from print-based environment to digital environment. The emergence of Internet, particularly, the World Wide Web (WWW) as a new media of information delivery triggered proliferation of Web-based full-text online resources. Increasing number of publishers are using the Internet as a global way to offer their publications to the international community of scientists and technologists. The technology provides an unparalleled media for delivery of information with greater speed and economy. The libraries and information centres, as heavy consumers of electronic

journals and online databases, stand to benefit greatly from this technology-driven revolution. The availability of IT-based electronic information products are exerting ever-increasing pressure on libraries, which, in turn, are committing larger portions of their budgetary allocation for either procuring or accessing Web-based online full-text search services, CD ROM products and online databases. The libraries with their diminishing or at the best static financial allocations, have to consider new ways to consolidate global resources amongst them in order to maximize their limited financial resources. The combination of these developments have resulted in development of “shared subscription” or “consortia-based subscription” to journals everywhere in the world.

Shared subscription or consortia-based subscription to electronic resources through consortia of libraries, on the one hand, permits successful deployment and desktop access to electronic resources at a highly discounted rates, on the other hand, it meets with the increasing pressures of diminishing budget, increased user’s demand and rising cost of journals. The library consortia, on the basis of sheer strength of number of institutions, offer healthy business growth opportunities to the electronic publishers and thus attract the best possible price and terms of agreement. With this welcome change, the libraries all over the world are forming consortia of all types and at all levels with an objective to take advantage of current global network to promote better, faster and more cost-effective ways of providing electronic information resources to the information seekers. GALILIO (Potter et al, 1996), OhioLINK (Kohl, 1997), TexShare (Martin, 1996), VIVA (Perry, 1995) and SUNYConnect (1999) are some of the well-known library consortia.

In view of the facts mentioned above, the Ministry of Human Resource Development (MHRD), Govt. of India appointed an expert group to discuss elaborately on the e-resources with the publishers and evolve a working model for execution of the INDEST Consortium. The Expert Group after contemplating facts and figures gathered by it on the subscription amount payable by the individual institutions and the consortium was convinced that consortia-based subscription is the only alternative to increase the access to electronic resources across Institutions at a lower cost. The Expert Group reiterated that the timings and environment for the consortia-based subscription to electronic resources was perfect. On the recommendation of the Expert Group, the Ministry has set-up the “Indian National Digital Library in Science and Technology (INDEST) Consortium”. The INDEST Consortium has commenced its operation from Dec. 2002 through its headquarters at the IIT, Delhi.

This article introduces the INDEST Consortium, its genesis, needs and benefits. It describes criteria used for selection of e-resources, and their evaluation. The article provides a detailed analysis of electronic resources being subscribed for various categories of institutions. It presents an analysis on expenditure according to category of institutions, type of resources, and ratio between list price vs consortium price. The article deliberates on important terms of license agreement for subscription to e-resources proposed by the consortium. Lastly, the article describes activities and services of Consortium and its future plans.

1. THE GENESIS

The proposal for consortia-based subscription to electronic resources was first discussed at length at the “National Seminar on Knowledge Networking in Engineering & Technology Education and Research” held at the IIT Delhi between December 1 and 2, 2000. On the recommendations of one of the work group of this Seminar, a preliminary proposal on consortia-based subscription to electronic resources was prepared and circulated to all IITs, IISc and RECs. On the basis of feedback obtained from these institutions, a revised draft proposal was prepared which encompassed other engineering colleges and institutions as beneficiary of this initiative. The Ministry, based on the last draft proposal, appointed an expert group in April, 2002 for “Consortia-based Subscription to Electronic Resources for Technical Education System in India” under the chairmanship of Prof. N. Balakrishnan, IISc Bangalore to discuss elaborately on the e-resources with the publishers and aggregators and evolve a working model for execution of the consortium. The Expert Group submitted its report in Sept., 2002 (1).

2. THE NEED FOR A CONSORTIUM

Access to resources is now considered more important than collection building especially, if the access is perpetual in nature. The consortium facilitates the libraries to get the benefit of wider access to electronic resources at affordable cost and at the best terms of licenses. A consortium, with the collective strength of resources of various institutions available to it, is in a better position to address

and resolve the problems of managing, organizing and archiving the electronic resources. Moreover, the technology has changed expectations of researchers, their patience, and their willingness to accept services that are available on demand. The Web-based electronic resources is an apt answer to the expectations of researchers.

A very high degree of correlation has been observed between the number of journals available to researchers in a given scientific organization and the scientific productivity of researchers and research organization in terms of number of research articles produced. Our country has witnessed a sharp and persistent decline in number of research journals subscribed by educational and research institutions across the country for past two decades due to increase in the cost of journals, devaluation of Rupees against major foreign currencies, static library budgets, etc. As a result, the total research productivity of the country, in terms of number of research articles produced by our researchers has declined by more than 2% in past one decade where as research productivity of other Asian countries like, China and South Korea has actually increased by 2 – 3% during the same period. It can be ascertained that these countries have increased their subscription base substantially in past two decades.

3. THE BENEFITS

The electronic resources being subscribed through the INDEST consortium would greatly benefit the member institutions in terms of increase in the number of electronic resources accessible to each institution. The consortium is also expected to trigger a new culture of inter-institutional cooperation leading to remarkable increase in sharing of library resources amongst participating institutions. Some of the important benefits of the proposed library consortium are as follows:

- Consortia-based subscription to electronic resources provides access to wider number of electronic resources at substantially lower cost;
- The consortium, with its collective strength of participating institutions, has attracted highly discounted rates of subscription with most favourable terms of agreement. Most e-publishers responded positively to the call of the INDEST consortium. The rates offered to the consortium are lower by 50% to 90% depending upon the category of institutions. It may be noted that full-text resources and databases proposed for subscription for various categories on institutions in the consortium would have costed Rs. 164 crores as per their list price, while through the consortium, the total cost comes to Rs. 18.60 crores for all institutions being considered under the consortium, a total overall saving of Rs.145.60 crores;
- The research productivity of all institutions is expected to improve with increased access to international databases and full-text resources;
- The consortium is expected to trigger remarkable increase in sharing of both print and electronic resources amongst participating library through J-GATE Custom Contents for Consortia (JCCC) proposed for subscription for all IITs (7) and IISc Bangalore with access to NITs / RECs;
- The consortium is proposed to be an open-ended proposition wherein other institutions can join and get the benefit of not only highly discounted subscription rates but also the favourable terms of licenses
- Members of the consortium will also have the benefit of cap on the annual increase in the rates of subscription. While the usual increase in price of e-resources vary from 10 to 15%, the consortium would enjoy the cap on increase in price ranging from 5% to 9%;
- The consortium have been offered better terms of licenses for use, archival access and preservation of subscribed electronic resources, which would not have been possible for any single institution; and

Since the subscribed resources would be accessible online in electronic format, the beneficiary institutions would have less pressure on space requirement for storing and managing print-based library resources. Moreover, all problems associated with print media such as their wear and tear, location, shelving, binding, organizing, etc. would not be an issue for electronic resources.

4. METHODOLOGY

Soon after the appointment of the expert group by the Ministry, the members of the group started interacting amongst themselves under the Chairmanship of Prof. N. Balakrishnan, to zero down on the electronic resources that the consortium may consider for subscription in its first phase of activity. The expert group established the criteria for selection of resources based on inputs and feedback from members, present practices and international trends. Once the electronic resources proposed for subscription were zeroed-down, proposals were invited from the electronic publishers / their authorized representatives for these resources. Electronic publishers / their representatives were invited for preliminary discussions on their products and services in July, 2002 in a meeting held at the MHRD, Shastri Bhavan, wherein they were informed about the expectations and terms of references for subscription to electronic resources in the consortia mode. The electronic publishers / their representatives were requested to work upon the technical and financial details of their proposal and submit their proposals to provide their best terms of references to the consortium in the meeting that was held in August, 2002 at the Indian Institute of Science, Bangalore.

In the mean time, members of the experts group were asked to evaluate each electronic resources selected for consortia-based subscription for i) its qualitative and quantitative contents; ii) coverage; iii) their availability on different platforms and their comparative advantages / disadvantages; and iv) rates applicable for the resources to other consortia.

These evaluation reports were presented at the meeting of the expert group members held at the Indian Institute of Science, Bangalore followed by elaborate discussions with electronic publishers on technical and financial details of their respective proposals. The publishers, aggregators / their representatives were asked to submit their revised proposals based on discussions that took place in the meeting. The revised proposals were discussed at length before the expert group made their recommendations.

5. CRITERIA FOR SELECTION OF RESOURCES

The electronic resources proposed for consortia-based subscription were selected based on the following criteria:

- Well-established multi-disciplinary resources with broad coverage were preferred over highly specialized sources targeted for specialists;
- The electronic resources already on subscription in the beneficiary institutions were preferred over those which are not being used in any of the beneficiary institutions;
- Resources that are 'electronic-only' were preferred over those that are print-based unless completely unavoidable;
- Resources that are very important but highly cost-intensive were preferred over those which are less important or less-used but low cost;
- Resources where electronic versions are made available free on subscription to their print versions were avoided as far as possible; and

- Selections were made on their usage / suitability to their respective institutions, e.g. Applied Science & Technology Plus (ASTP) is selected for category I & II institutions while Web of Science was selected for category I institutions.

6. RESOURCES SUBSCRIBED BY THE CONSORTIUM

The consortium negotiated with the publishers for subscription to the electronic resources mentioned below. The expert group appointed by the Ministry recommended to provide differential access to electronic resources based on their usability and suitability to various beneficiary institutions:

Electronic Resources Subscribed by the Consortium				
Full-text Sources	Publisher	Subscribers		
		No.	Category	
Full-text Electronic Resources				
1.	EIL Online	IEEE / IHS	38	All Categories
2.	Science Direct	Elsevier Science	08	I
3.	Ideal Library	Academic Press	08	I
4.	Link Information	Springer Verlag	31	I, II & III
5.	ABI / INFORM	ABI / INFORM	15	I, IIMs, IIITM & NITIE
6.	ACM Digital Library	ACM	16	I, IIMs, IIITM & NITIE
7.	Applied Science & Technology Plus	Wilson / UMI	23	II & III
Bibliographic Databases				
8.	EI COMPENDEX on EI Village	EI, Inc.	08	I
9.	INSPEC on EI Village	IEE / INSPEC	08	I
10.	Web of Science	ISI	08	I
11.	SciFinder Scholar	CAS	08	I
12.	MathSciNet	AMS	08	I
13.	JCCC (Informatics India)	Informatics India	28	I & II
14.	JGATE (Informatics India)	Informatics India	28	I & II

7. MEMBERS OF CORE GROUP, THEIR CATEGORIES AND RESOURCES SUBSCRIBED FOR THEM

Categorization of institutions recommended by the Task Force on Human Resource Development in Information Technology was followed to provide differential access to electronic resources to various institutions depending on their education and research activities. As such, all IITs and IISc (eight institutions) are considered as Category I institutions, RECs / NITs (17), ISM, Dhanbad, SLIET and NERIST fall under category II institutions, and IIIT (Allahabad), IIITM (Gwalior) and NIFFT are considered category III institutions. IIMs are considered as a category in themselves, and NITIE and IIITM (Gwalior) are also included with IIMs for electronic resources to be provided to the IIMs. The category of institutions are basically used to denote the level of usage of electronic resources, conceived to be highest amongst institutions in Category I, modest for institutions in Category II and lowest amongst the institutions under category III. Further, usage of electronic resources proposed for subscription requires ICT infrastructure, while all category I institutions have well-developed ICT infrastructure, most category II and III institutions have atleast modest ICT infrastructure. The rates of subscription, number of simultaneous users and number of resources offered to various categories of institutions are worked out based on their usage / suitability to the respective categories of institutions.

The Ministry of Human Resource Development (MHRD) has allocated funds required for providing differential access to selected electronic resources for a core group of institutions directly funded by the Ministry. These institutions are:

7.1 Institutions in Categories I

Indian Institutes of Technology at Bombay, Delhi, Guwahati, Kanpur, Kharagpur, Madras and Roorkee and Indian Institute of Science, Bangalore. The resources subscribed for these institutions include:

Electronic Resources for Institutions in Category I	
Sl. No.	Resource
Full-text Sources	
1.	IEL Online
2.	Science Direct and Ideal*
3.	Springer Verlag* \$
4.	ABI / INFORM
5.	ACM Digital Library
Bibliographic Databases	
6.	COMPENDEX + and INSPEC
7.	Web of Science
8.	SciFinder Scholar
9.	MathSciNet
10.	JCCC
11.	JGATE (Free for the first year)

7.2 Institutions in Categories II

All Regional Engineering Colleges (RECs) / NITs (17), Indian School of Mines, Dhanbad, North Eastern Regional Institute of Science and Technology, Itanagar and Sant Longowal Institute of Engineering & Technology, Chandigarh. The resources subscribed for these institutions include:

Electronic Resources for Institutions in Category II (20)	
Resource	
Full-text Sources	
IEL Online	
Science Direct (On trial)	
Springer Verlag	
ASTP	
Bibliographic Databases	
JCCC	
JGATE (Free for the first year)	

7.3 Institutions in Categories III

Indian Institute of Information Technology (IIITM), Allahabad and National Institute of Foundry and Forge Technology (NIFFT), Ranchi. The resources subscribed for these institutions include:

Electronic Resources for Institutions in Category III (3)	
Resource	
Full-text Sources	

IEL Online
Springer's Link
ASTP
Bibliographic Databases
JCCC

7.4 Indian Institutes of Managements, NITIE & IITM

Indian Institutes of Management Ahmedabad, Bangalore, Calcutta, Indore, Kozhikode and Lucknow, National Institute of Training in Industrial Engineering, Bombay and Indian Institute of Information Technology and Management (IIITM), Gwalior. The resources subscribed for these institutions include:

Electronic Resources for IIMs, NITIE and IIITM, Gwalior (8)
Resource
Full-text Sources
IEL Online
ACM Digital Library
ABI / INFORM

8. EXPENDITURE ON CONSORTIA-BASED SUBSCRIPTION TO ELECTRONIC RESOURCES

8.1 Expenditure by IITs and IISc as Individual Institutions and Additional Expenditure on e-Resources under the Consortium

Most institutions, especially IITs and IISc, are already subscribing to several electronic resources that are now being subscribed under the consortium mode. While some of these resources are subscribed on CD ROM covering only a few years of data, the others are being subscribed with various limitations in terms of number of years covered or number of simultaneous accesses. No individual institutions could afford to subscribe to full spectrum of any electronic resource because of exorbitant cost involved. The table given below provides combined existing expenditure being committed by the institutions in category I individually and the additional funds required for consortia-based subscription.

Sl. No.	Existing / Additional Expenditure	Amount in Rupees	Percentage (%)
1.	Existing Expenditure	4,11,66,917.50	36.88
2.	Additional Expenditure (IITs & IISc)	7,04,51,847.00	63.11
3.	Total Amount Required	11,16,18,764.50	100.00

8.2 Electronic Resources & Expenditure on them under the INDEST Consortium

The total expenditure of subscription to electronic resources under the consortium for core group of institution under various categories is Rs. 18.60 crores. The consortium subscribes to equal number of full-text resources and online databases. Of total 14 resources proposed for subscription for various categories of institutions, seven are full-text resources and seven are online databases. While the full-text resources accounts for 62.5% of total expenditure, the online databases accounts for the balance 37.5%. The actual expenditure to be committed on two types of resources is given below in the table.

Sl. No.	Resource	Total Annual Subscription in Rupees	Percentage (%)
1.	Full-text Sources	11,62,72,670.00	62.53%
2.	Bibliographic Databases	6,96,59,742.99	37.47%
	Grant Total	18,59,32,412.99	100%

8.3 Expenditure according to the Category of Institutions

Of total expenditure of Rs. 18.60 crores, 60.57% is being spent on institutions in category I, 34.76% on category II, 3.34% on IIMs and 1.33 % on category III. It would seem that the maximum benefit of consortium goes to the institutions in category I, however, with J-GATE Custom Contents for Consortia (JCCC) installed at all category I institutions and access made available to all Category II and III institutions, the benefit of resources subscribed by the institutions in category I would easily percolate down to the category II and III institutions. Moreover, it may also be noted that subscription rates charged for Category I institutions is much higher than Category II and III for the same sets of e-resources.

Sr. No.	Category	Expenditure in Rupees	% of Total Expenditure
1	Category I	11,16,18,764.30	60.03
2	Category II	6,40,54,085.80	34.45
3	Category III	24,59,562.87	1.32
4	IIMs, NITIE & IIITM	78,00,000.00	4.20
	Total	18,59,32,413.00	100.00

9. CONSORTIUM LICENSING

The INDEST Consortium leveraged its union strength to negotiate with the publishers of electronic resources for best possible subscription rates and terms of licensing. The following three types of licensing strategies were negotiated with the publishers:

9.1 Consortium Licensing for the Core Group

The expenditure on electronic resources recommended for subscription by the expert group for 38 institutions mentioned above are being met from the funds allocated by the Ministry of Human Resource Development (MHRD) to the Consortium Headquarters at the IIT Delhi. A number of resources subscribed under the consortium are exclusively negotiated only for the core group. The rates of subscription and terms of licenses agreement for these resources would be applicable only to the core group. These resources are not open for others to join. These resources include:

ISI's Web of Science, Elsevier's Science Direct, Academic's Ideal Library and CAS's SciFinder Scholar.

9.2. Consortium Licensing for the Other Institutions

The Consortium, being an open-ended proposition, invites other AICTE-accredited engineering colleges and institutions and UGC-affiliated universities and colleges to join the Consortium to take advantage of highly discounted rates of subscription and favourable terms of license agreement that are negotiated with the publishers of subscribed resources. The Consortium has negotiated with a number of publishers wherein other engineering colleges and institutions can join the Consortium. The rates of subscription applicable to these institutions for various resources are either the same as paid for the core group of institutions or even lower. The resources that are open for other institutions to join include:

EIL Online, Springer's Link, UMI's ABI/INFORM, ACM Digital Library, UMI's Applied Science & Technology Plus, EI COMPENDEX and INSPEC on EI Village, AMS's MathSciNet, Informatics' JGATE and JCCC.

10. IMPORTANT TERMS OF LICENSE AGREEMENTS

The license agreement for the electronic resources are signed between the electronic publishers (called licensor) and subscribing libraries or consortium of libraries (called licensee). Most publishers have their standard terms of agreement, which are generally signed by the libraries. However, since the INDEST Consortium is subscribing to electronic resources worth Rs.18.60 crores, it was possible to introduce a few vital terms of reference favourable to the consortium as well as to the subscribing libraries. The INDEST Consortium proposed the following terms of agreements to the publishers for inclusion in the license agreement. Although all publishers did not agree to all the terms listed below, however, some of the terms were accepted. These terms are, however, reproduced below for the benefit of readers.

10.1 Authorized users of the library should include full time & part-time students, faculty and employees. Walk-in visitors including alumni members and corporate members of the library who are physically present at the Licensee's site should also be allowed to use the resources;

10.2 Licensee may charge a fee to cover the costs of copying or printing portions of licensed material for authorized users;

10.3 Archival backup: All publishers should agree to provide perpetual access to the subscribed resources on termination of subscription for the period for which the subscription was paid. In addition, the licensor should provide the backup on CD / DVD or any other electronic media, in a format suitable for further processing by the licensee. For electronic journals, the data should include both metadata and the full text of each article. In case of subscription discontinuity or cancellation, Licensor should permit and assist the licensee to host the content on a local server for intranet access or Internet access, restricted to the participating consortia members and subscription period. Licensor should also permit the licensee to carry out experiments with cache based local archiving solutions like LOCKSS and adopt the same, if found suitable.

10.4 Electronic links: Licensee may provide electronic links to the licensed materials from Licensee's Web page at journal level or at article level and publisher should provide help in doing so.

10.5 Inter-library Loan: Licensee may be allowed to fulfill requests from other institutions using electronic copy of article downloaded from the licensor's Web site.

10.6 Support of Training and Promotion: The Licensor will offer help in activation and installation of their services at all subscribing institutions. The licensor would also offer training in use of their resources and supply appropriate promotional material.

10.7 Usage Data: The Licensor should provide to licensee statistics regarding the usage of licensed material to the licensee. The data should be provided in a format amenable for further processing.

10.8 Protection on Increase of Price: The licensor should provide protection on increase in price of subscribed resources. The increase should not be more than 5%.

10.9 Compensation for Downtime and for Unavailability of Promised Features and Services: The licensor should offer suitable compensation, if they fail to deliver promised features or for downtime exceeding 5%.

10.10 Download Records for In-house Database: Licensor should be allowed to download bibliographic records and abstracts in their local database (especially records for publications from their own faculty, staff and students) and full-text articles of their faculty and staff to their Institute's e-print archives.

10.11 INDEST Consortium endorses the "Statement Of Current Perspective And Preferred Practices For The Selection And Purchase Of Electronic Information" of the International Coalition Of Library Consortia (ICOLC) (available at <http://www.library.yale.edu/consortia/statement.html>), and encourages the licensor to move towards conformance to the recommendations of the statement.

10.12 Dispute Resolution: In the event of dispute or controversy arising out of or relating to the agreement, the parties agree to exercise their best efforts to resolve the dispute as soon as possible. The parties shall, without delay continue to perform their respective obligations under this agreement which are not attended by the dispute. If the two parties fail to resolve their dispute between themselves, they may appoint a mutual arbitrator to resolve the conflict.

11. PRICING MODELS

Unlike subscription to print-based information resources and to electronic resources for single institutions, subscription to electronic resources for consortium of libraries involves negotiation on pricing and terms of licenses between the consortium representatives and the publishers or aggregators. The INDEST Consortium negotiated for the following pricing models:

11.1 Base Print Price Plus Consortium Premium

The most common form of pricing for consortium is based on collective cost of the subscription held by the members of the consortium. The collective cost called "base price" to which a certain percentage, ranging from 5 to 10% is added as "Consortium Premium" or annual license fee". The payment of annual license fee entitles consortium members to access complete collection of the electronic journals including the non-subscribed by the publishers. The INDEST Consortium has signed license with Science Direct on this basis.

11.2 Discount Pricing

The Consortium can obtain highly discount pricing for a number of resources. The INDEST Consortium obtained highly discounted subscription rates for several resources including ABI / Inform, ASTP, Compendex and INSPEC, SciFinder Scholar, etc.

11.3 Group Pricing

The INDEST Consortium negotiated “group pricing” for some resources wherein all institutions in a given category were offered a price for all its members. Subscription rates for individual members were not specified. Such resources include “Web of Science” and ACM Digital Library. Moreover, instead of assigning a fixed number of simultaneous access to every member institution, “Web of Science” provides a complete chunk of 40 simultaneous accesses that can be used by all IITs / IISc from their respective campuses.

11.4 Deep Discount with Restriction on Journals accessible and Limits on Download

The Springer Verlag has offered deep discount on consortia-based access to electronic resources on Link information to the INDEST Consortium wherein there is a restriction on number of journals that can be accessed (300) as well as restriction on number of downloads that members of consortium can take although there is no restrictions on simultaneous accesses.

11.5 Discounted Price with Limits on Simultaneous Access and Discount on Print Subscription

The IEL Online has offered variable subscription rates depending upon category of institutions and number of simultaneous accesses. Moreover, IEL has also offered highly discounted rates for their print package to the members of consortium.

11.6 Discounted Price Depending upon Number of Members of the Consortium

The IEL has also offered prices wherein subscription rate would vary depending upon number of total members joining the consortium for IEL.

12. OPERATION

The Consortium would operate through its headquarters set-up at the IIT Delhi. The Ministry of Human Resource Development (MHRD) has allocated funds required for i) subscription to electronic resources for institutions directly funded by it and listed at 7.1; and ii) operation cost of the consortium. All electronic resources being subscribed shall be available from the publisher’s Website. Local hosting of resources has not been considered at this stage. The consortium headquarters, functions under a National Steering Committee set-up under the Chairmanship of Prof. R.S. Sirohi, Director, IIT Delhi with the following responsibilities:

- Ensuring inter-institutional co-ordination;

- Examination of terms of licenses for electronic resources being subscribed under the Consortium;

- Firm-up terms and conditions of ordering and payment for the electronic resources through the consortium;

- Looking into the possibility changes in access rights, mode of subscription and last minute changes in the number of licenses etc.

before the actual placement of the orders for subscription;

- **Establish Work Groups on different subjects with an aim to improve the functioning of consortium as well as to identify new resources and to evaluate the existing resources; and**
- **Take all measures to propagate the consortium with an aim to attract new members in the consortium;**

Besides, the Ministry has also set-up a National Review Committee under the Chairmanship of Shri V S Pandey, Joint Secretary (Technical Education). The Committee would have the overall responsible for making policies, monitoring the progress, coordinating with UGC and AICTE for promoting the activities of INDEST Consortium. The National Review Committee will have the following specific responsibilities:

- **Review the progress of the Consortium at various stages of implementation;**
- **Take stocks of strategies adopted by the consortium headquarters to enroll new members for the consortium and to suggest better strategies, if need be;**
- **Examine financial requirements and recommend allocation of funds;**
- **Identify issues, such as network connectivity and bandwidth availability that are crucial to implementation and usage of e-resources subscribed under the Consortium;**
- **Review progress on other related issues like discontinuation of print journals etc.;**
- **Take decisions on future plans and projects that may be implemented through the consortium approach.**

13. CONSORTIUM HEADQUARTERS AND ITS FUNCTIONS

The consortium headquarter, would function under a National Steering Committee for inter-institutional coordination and for taking decisions on policy issues under the overall policy direction of the Government. The consortium headquarter would be allocated operational budget for steering its activities. The important activities of the consortium headquarter would be as follows:

- **To act as nodal agency for increasing the cooperation amongst participating institutions;**
- **To coordinate all activities concerned with subscription of e-resources on behalf of consortium;**

- To liaison with electronic publishers to provide training and technical help to participating member institutions specially NITs / RECs;
- To coordinate with MHRD and participating institutions for subscription to resources;
- To organize the meeting of the National Steering Committee and to decide upon the policy issues;
- To set-up Work Groups on different subjects and organize their meetings with an aim to improve the functioning of consortium as well as to identify new resources and evaluate the existing resources;
- To maintain a Web site for the Consortium for the benefit of its members and to encourage sharing of resources in an online mode;
- To propagate the consortium with other institutions and enroll new members in the consortium; and
- To organize annual meetings of the consortium members.

14. INDEST CONSORTIUM: AN OPEN-ENDED PROPOSITION

The expenditure on electronic resources proposed for subscription for the MHRD consortium especially for category I, category II and selected institutions in category III is being met from the funds made available to the Consortium headquarters proposed to be set-up at the IIT Delhi. The consortium, being an open-ended proposition, welcomes institutions who would like to join the consortium on their Own for the benefits it offers in terms of highly discounted subscription rates and better terms of reference. Although institutions can join the consortium at any level of category depending upon their usage profile, the maximum benefits are available to the institutions in category III. The subscription rates for category III institutions are available for the following electronic resources:

Electronic Resources available for Subscription to other		
Institutions through INDEST		
Full-text Sources		Publisher
Full-text Electronic Resources		
1.	EIL Online	IEEE / IHS
2.	Link Information	Springer Verlag
3.	ABI / INFORM	ABI / INFORM
4.	ACM Digital Library	ACM
5.	Applied Science & Technology Plus	Wilson / UMI
Bibliographic Databases		
6.	EI COMPENDEX on EI Village	EI, Inc.
7.	INSPEC on EI Village	IEE / INSPEC
8.	MathSciNet	AMS
9.	JCCC (Informatics India)	Informatics India
10.	JGATE (Informatics India)	Informatics India

14.1 Who is Eligible to Join?

Membership of the consortium is open to any Private or Government-funded Engineering / Technological / Educational institutions / Universities for one or more electronic resources. The new members would be required to sign an agreement with the INDEST Consortium as well as with the publishers of electronic resources that they wish to subscribe. The consortium would charge nominal annual fee.

14.2 Why should Other Institutions Join?

The consortium offers the best possible price advantage ranging from 25% to 95% (Average > 80% +) through its pricing agreements with publishers as well as terms of agreement for various electronic resources. Moreover, the consortium would also provide technical help and arrange for in-house training for optimal usage of resources subscribed.

15. CONCLUSION

The consortium, with its collective strength of participating institutions, has attracted highly discounted rates of subscription coupled with most favourable terms of agreement. Most e-publishers responded positively to the call of INDEST Consortium. The consortium was offered very attractive prices from the vendors not only because of combined strength of its members, but also due to the eagerness of publishers to enter the Indian market. The rates offered to the consortium are lower by 50% to 90% depending upon the category of institution. It may be noted that full-text resources and databases proposed for subscription for various categories of institutions in the consortium would have costed Rs. 164 crores as per their list price, while through the consortium, the total cost comes to Rs. 18.60 crores for all institutions being considered under the consortium, a total overall saving of Rs.145.60 crores.

The INDEST Consortium would, directly or indirectly, benefits most of the engineering and technical institutions in India. The access to e-resources for the beneficiary institutions under the INDEST Consortium has increased from the present level of access to e-journals from 100 to 500 to more than 4000 journals in case of IITs and IISc which is comparable to world class institutions like MIT. Similarly, access level for Category II institutions (NITs / RECs etc.) have increased to around 780 e-journals from almost no access at present. Similar increase in access can be witnessed in other categories of institutions. Moreover, centralized funding to consortium through the Ministry would assure sustenance of electronic resources.

The consortium is expected to trigger remarkable increase in sharing of both print and electronic resources amongst participating library through its Web site and through J-GATE Custom Contents for Consortia (JCCC) being subscribed for all IITs (7) and IISc Bangalore. The consortium headquarter would be assigned to function as a resource center with an aim to cater to the needs of its members for resources not accessible to them in electronic media or are available in print media. Moreover, with subscribed resources accessible online in electronic format, the member libraries would have less pressure on space requirement for storing and managing print-based library resources. Moreover, all problems associated with print media such as their wear and tear, location, shelving, binding, organizing, etc. would not be an issue for electronic resources.

The INDEST Consortium, being an open-ended initiative invites other institutions to join it for the benefits it offers. The consortium thrives on the strength of members it has. With increase in number of participating members the consortium would be able to get higher rates of discount for various resources and better terms of licenses. Future plans of INDEST Consortium would include setting-up mirror servers, local hosting and to obtain national licenses for important e-resources with access spread out to as many educational institutions as required. Access to resources is now considered more important than collection building especially, if the access is perpetual in nature. The Consortium should negotiate with publishers to license their resources with terms for perpetual access in case of discontinuation of subscription.

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