

## Know your library

(User-orientation programme of ISAC Library)

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## Synopsis

- **Introduction**
- **Broacher & Manual**
- **Slide presentation**  
A birds-eye-view of  
(i) how to use services & collection  
(ii) how library is organised with demo of Library Home page consisting of digital library, Online catalogue (OPAC), information services and book marked Internet resources
- **Guided tour**
- **Demonstration**
- **Flip & tip charts**
- **Training**
- **Programmed instruction (self exploration)**
- **Individual assistance**

### Goals

- Create awareness
- Make you comfortable & at ease
- Save your time
- Eliminate frustrations, if any
- Maximise use
- Build customer relationship
- Impart elementary **consumption skills**
- Initiate & encourage self-dependence & exploration

### Consumption Skills

- New products & services *attract & stimulate*, but soon become *disinteresting* if consumption skills are inadequate
- Service economy is characterised by *'specialty-enabling logic'*
- Low-skill activity like watching TV does not require, but *high-skill activity* like appreciating art, reading, searching database, etc. do require adequate consumption skills

## Scope

### Levels of User Education

- **Orientation/ induction**
- **Bibliographic instructions**
- **Managing personal information system**
- **Advanced consumption skills for specialised services**

### Types of Information covered

- **Professional & work-related**
- **For academic attainment**
- **Business, economic, social & general**
- **Recreational & cultural**

### Ranked Sources of Information for Engineers

1. Intra-personal reserve  
- Memory, experience
2. Informal  
- Peers, technological gatekeepers
3. Personal files
4. Internal reports
5. Departmental collection
6. Formal & public sources like library

### Some Favorite Formal Sources of Information for Engineers

- **Technical & trade journals**
- **Reports**
- **Standards & patents**
- **Suppliers/ trade information**
- **Data books & data sheets**
- **Hand books & text books**

### Ways of Discovering Relevant Information

- **Regular browsing**
- **Specific subject search**
- **Known item search**
- **Accidentally**

## ISAC Library collection & Its Use

	COLLECTION		USE		
	AN. ADDITION	TOTAL	INHOUSE	LENTOUT	TOTAL
• Books	1372	40948	172200	28118	200318
• Reports			403	296	699
Paper copy	124	15379			
Microfiche	2979	139340			
• Journals			47200	4411	51611
Bound	711	23469			
Current	3381				
• Standards			403	79	482
Paper copy	53	8470			
Microfiche	0	32000			
• Others (reprints & NBM)	204	3531	2510	430	2940
<b>TOTAL</b>	<b>8824</b>	<b>263137</b>	<b>222716</b>	<b>33334</b>	<b>256050</b>

Universal Decimal Classification Scheme		
000	Generalities	01 Bibliography, Catalogues 02 Libraries, Librarianship 03 Encyclopedia, Dictionaries
100	Philosophy	159.9 Psychology
200	Religion	
300	Social Sciences, Economics, Law, Government, Education	
400	Philosophy, Linguistics, Language	
500	Mathematics and Natural Sciences	
600	Applied Sciences, Medicine, Technology	
700	The Arts, Recreation, Sports, etc.	
800	Literature, Belles Letters	
900	Geography, Biography, History	

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500 Mathematics and Natural Sciences		
510	Mathematics	511 Arithmetic 512 Algebra 513 Geometry
520	Astronomy, Surveying, Geodesy	521 Theoretical Astronomy 522 Practical Astronomy 525 The Earth 528 Geodesy, Surveying 528.8 Remote Sensing
530	Physics and Mechanics	531 Mechanics 535 Optics 536 Heat, Thermodynamics 538 Magnetism, Electromagnetism
540	Chemistry, Crystallography, Mineralogy	
550	Geology, Meteorology	
560	Palaeontology	
570	Biology, Anthropology	
580	Botany	
590	Zoology	

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600 Applied Sciences, Medicine, Technology		
610	Medical sciences, Health and safety	
620	Engineering and technology	621 Mechanical and Electrical Engineering, Machinery 621.3 Electrical Engineering 621.3.04 Circuits 621.38.04 Electronic circuits 621.38.1 Analog / digital IC's 621.39 Telecommunication
630	Agriculture, Forestry, Stock breeding, Fisheries	
640	Domestic science, Household economy	
650	Commercial, office, business techniques. Management, Communication, Transport	
660	Chemical industry, Chemical technology	
670	Manufactures, industries and crafts	
680	Specialized trades, crafts and industries	681 Precision mechanisms, Apparatus and Machines 681.3 Data processing machines and equipment 681.3.01 Data processing principles 681.3.06 Programs and programming aspects 681.35 Networking
690	Building industry, materials, trades, construction	

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Digital Contents (Full Text e-resources)		
<b>A. Owned/ held (born-digital)</b>		
	<i>CDs</i>	<i>Floppies</i> <i>Total</i>
• books	779	340 1119
• journals	654	41 695
• reports	37	1 38
• standards	1	7 8
• Others	6	- 6
<b>Total</b>	<b>1477</b>	<b>389 1866</b>
<b>B. Not owned (Cyber copies)</b>		
• e-journals		145
• e-books / reports		3
• Online books stores		57
<b>C. Specially digitised collection</b>		
• Internal reports		
• Papers of ISACians		
• In-house Technical Journal JST at <a href="http://www.j-gate.informindia.co.in">www.j-gate.informindia.co.in</a>		

**Non-book materials**

- Video cassettes 120
- Motion pictures 35
- Maps 78
- Charts 12
- Slide sets 6
- Globes 2
- Audio files 108

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### Synopsis Revisited

- **Introduction**
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[CLICK HERE TO CONTINUE SLIDE PRESENTATION](#)

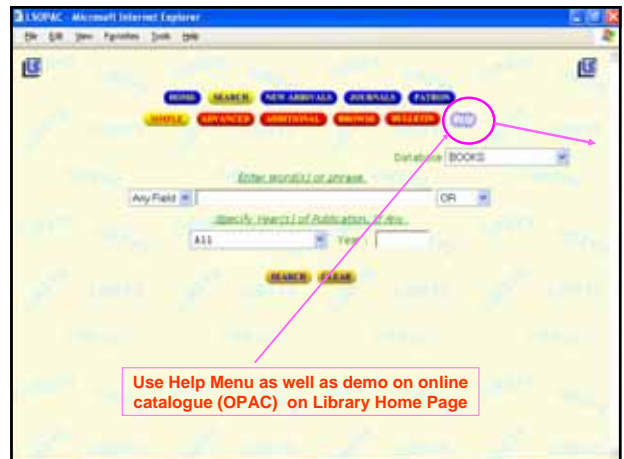
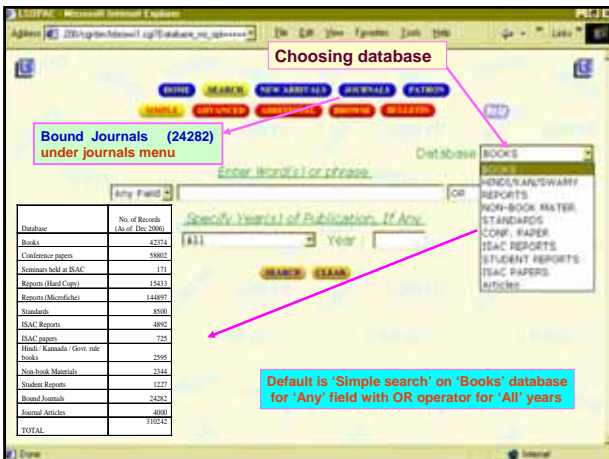
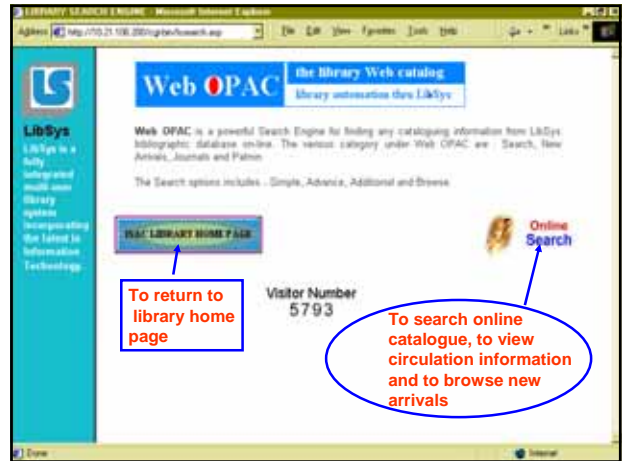
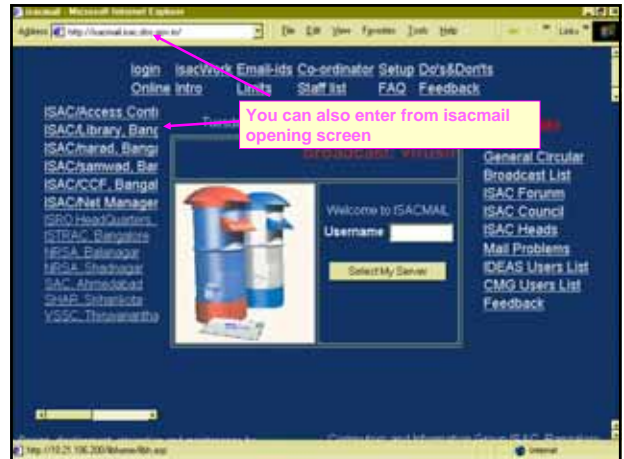
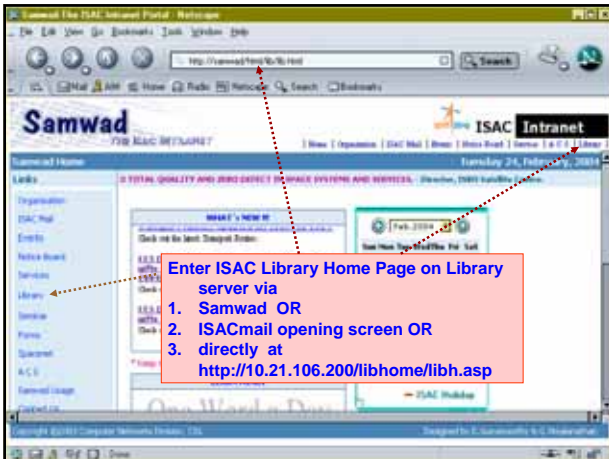
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### Synopsis of Services on library home page

*Library homepage* is accessible via **Intranet** on 1200+ nodes and on **SPACENET** through out ISRO

- **Web OPAC** ( Library Catalogue using **LIBSYS v 4.0**)
- **Digital library** (Six sub-collections developed using web library version of **Greenstone (GSDL) v2.60** (open source)
  1. **Journal of Spacecraft Technology** (since Jan 1991)
  2. **Audio recordings of lectures/ seminars** (since Jan 2003)
  3. **e-prints of ISAC Authors**
  4. **ISAC Internal Reports**
  5. **Newspaper Clippings**
  6. **Satellite News Digest**
- **Book marked/ catalogued Internet resources**
- **Information services**

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HELP MENU

## Web OPAC

What is Web OPAC?

Web OPAC is a powerful search engine to find information available in online databases.

How to access Web OPAC?

LIBRARY presents Web OPAC based access providing the extensive LIBRARY searching online capabilities. The options offered by WEB OPAC are: **Services (Simple, Advanced, Additional & Special), Documents, Journals & E-books.** The search results are listed under title with author, publication year and call number. Complete details including number and status of reports are displayed. **Options are there to see linked resources such as images, audio etc.** The search works restricted to a particular type of material, and narrowed further by specifying date of publication.

**Simple search:** Enter a word(s) from any of the searchable fields such as author, title, subject etc. The search may also be restricted to a specific field with an option to form a phrase. You may also widen your search with the 'OR' operator or narrow it with the 'AND' operator.

**Advanced search:** This option is given for development of complex search strategies using boolean operators OR, AND, and AND NOT between keywords in various fields.

**Additional search:** Another interface to develop search strategies using word(s) from various searchable fields with an applied AND operator.

**Home:** This facility permits user to locate the Author, Title and Subject catalogues, as well as Publisher and Conference Title database. Enter the initial character of the required word and click on GO to position the catalogue on the display screen.

## DOCUMENT LOCATION GUIDE

BOOKS / JOURNALS / REF. ORG.

### LOCATION GUIDE TO BOOKS

Call Number	Location (How on A-B side & Top no.)	Subject
001-004	How No. 01	General office Bibliography, Catalogues, Lists or Lists, Encyclopaedia, Dictionaries etc., Philosophy, Theology, Sociology, Public science, Economics, Law, Public Administration, Education, etc.,
001-025, 500-5000	0101	
025-500, 5001-510	0102	
510-572	0103	
573-519, 520-572	How No. 02	
573-509	0201	
501-5000, 11	0202	
5100-11-54707	0203	
54708-54709	0204	
54709-548.5	0205	
548.6-548.925	0206	
549-572, 573-572, 573	How No. 03	
573-575, 575-575, 575-575, 575-575	0301	
575-575, 575-575, 575-575	0302	

## DOCUMENT LOCATION GUIDE

BOOKS / JOURNALS / REF. ORG.

### LOCATION GUIDE TO REPORTS

ACRONYMS	EXPANSION FORM	LOCATION
AAE	Aeronautical and Astronautical Engineering	75A1
AAS	Australian Academy of Sciences	75A1
ACC	Aerospace Communications Corporation	75A1
AD	ASTM Document	75A1
AD A	ASTM Document A	75A1
AFAL	Air Force Aeronautics Laboratory	75A1
AFAPL	Air Force Aero Propulsion Laboratory	75A1
AFEDL	Air Force Flight Dynamics Laboratory	75A1
AFGL	Air Force Graphics Laboratory	75A1
AFIT	Air Force Institute of Technology	75A1, 75A2
AFOSR	Air Force Office of Scientific Research	75A2
AFRPL	Air Force Rocket Propulsion Laboratory	75A2
AFWAL	Air Force Wright Aeronautics Laboratory	75A2
AGARD	Advisory Group for Aerospace Research and Development	75A2

## DOCUMENT LOCATION GUIDE

BOOKS / JOURNALS / REF. ORG.

### LOCATION GUIDE TO JOURNALS

TITLE	LOCATION
21ST CENTURY SCIENCE & TECHNOLOGY(1991-)	1A
ACM SIG Newsletter(11 Titles)	1A
ACM TRANSACTIONS ON COMPUTER SYSTEMS(1963-2000)	1A
ACM TRANSACTIONS ON DATABASE SYSTEMS(1979-2000)	1A
ACM TRANSACTIONS ON GRAPHICS(1984-2000)	1A
ACM TRANSACTIONS ON MATHEMATICAL SOFTWARE(1983-2000)	1A
ACM TRANSACTIONS ON OFFICE INFORMATION SYSTEMS(1981)	1A
ACM TRANSACTIONS ON PROGRAMMING LANGUAGE AND SYSTEMS(1980-2000)	1A
ACTA AERONAUTICA(1978-)	1A
ACTA INFORMATICA(1978)	1A
ACTIVE AND PASSIVE ELECTRONIC COMPONENTS(1984-1988)	1A
ADMINISTRATIVE SCIENCE QUARTERLY(1972-)	1A
ADMINISTRATIVE SCIENCE QUARTERLY(1981-1989)	1A
ADVANCED BATTERY TECHNOLOGY(1982-)	1A
ADVANCES IN VIBRATION ENGINEERING	1A
AERONAUTIQUE ET AERONAUTIQUE(1978-1988)	1A

Simple search

Simple search allows for entering a word(s) from any of the searchable fields (author, title, subject); The search may also be restricted to a specific field with an option to form a phrase. You may also widen your search with the 'OR' operator or narrow it with the 'AND' operator.

Choosing field

Title & Author: Use, if you know the exact beginning of the title or surname of the author for specific and mostly known documents; Browsing title/ author dictionary helps retrieving specific as well as all books from any known or vague word in the title/author

Subject search requires standardised keyword: Choose standardised exact keyword either by browsing the inverted dictionary or by consulting printed NASA thesaurus kept near terminal; Any field may retrieve too many documents

**Narrow down search with year of publication**

Use Year of publication to narrow down the query; Use for documents published during a specific year or over a range of years

**Advanced search**

Advanced search is for developing complex search strategies using Boolean operators 'OR', 'AND', and 'AND NOT' among keywords in various fields; for documents on specific/ narrow/ interdisciplinary topic; to avoid browsing too many hits and when you need small set of documents on specific topic; Keyword here is any significant word in any searchable fields; You can restrict search to year/s of publication of document and word to any searchable field;

**Additional search**

Additional search is alternative template to Advanced Search; It has predefined fields for developing search strategies using keyword(s) from various searchable fields and Boolean operators for documents on specific/ narrow/ interdisciplinary topic.

**Browse mode** has additional access by 'Classified', 'Place' and 'Publisher'; They are used for different purposes in each database

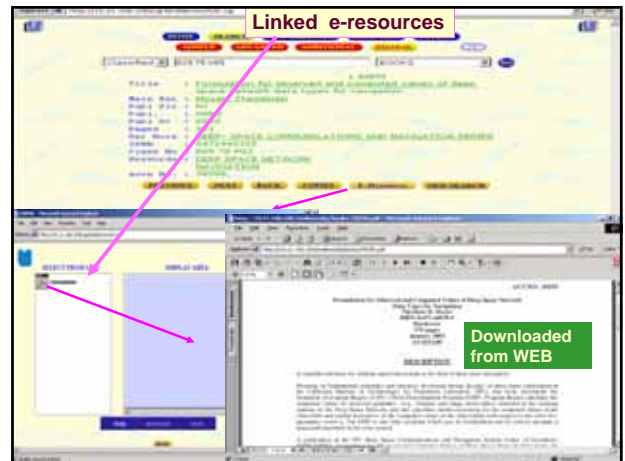
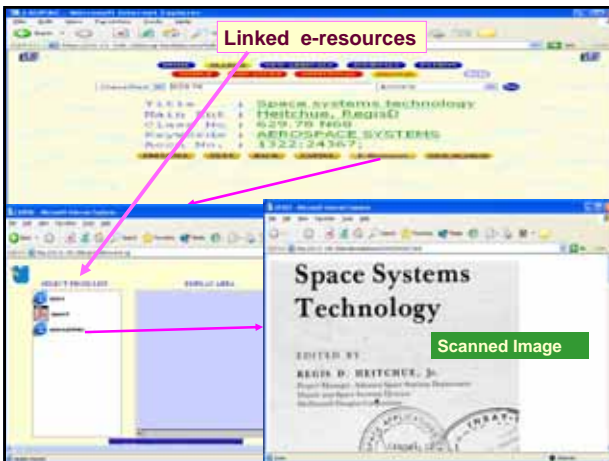
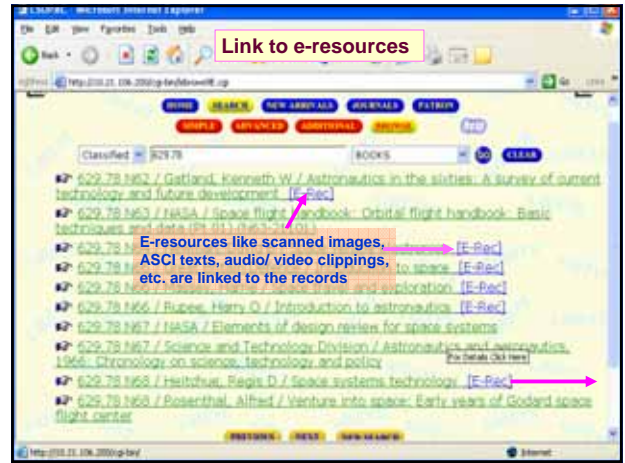
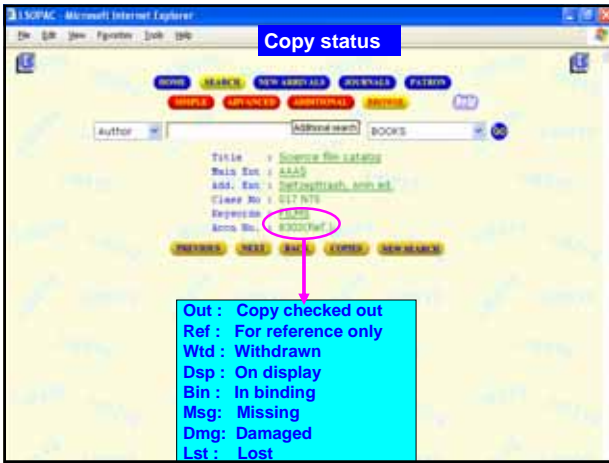
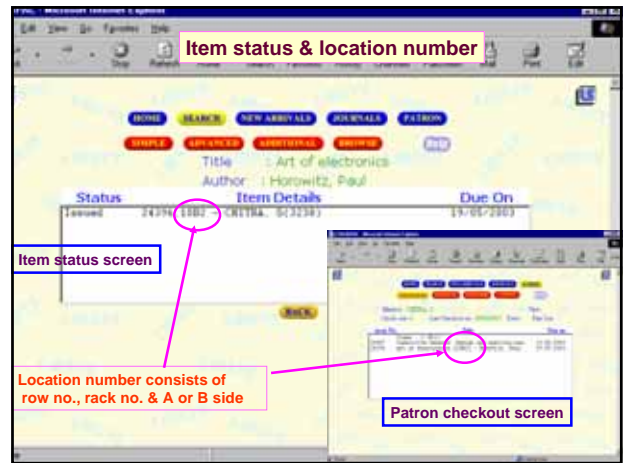
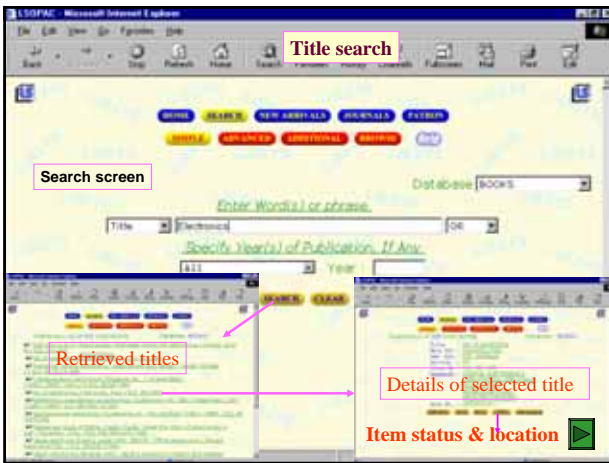
Classified in case of Books

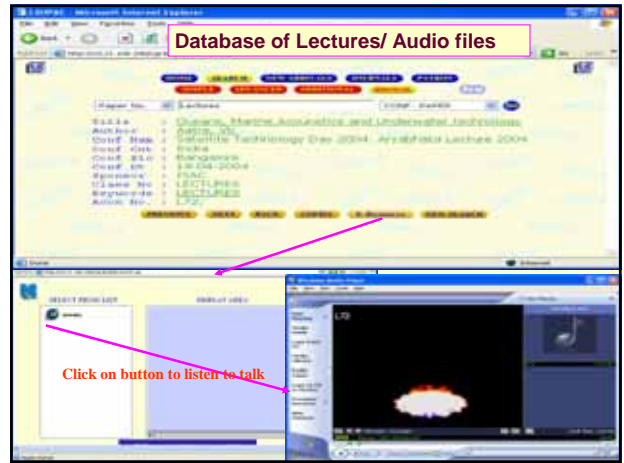
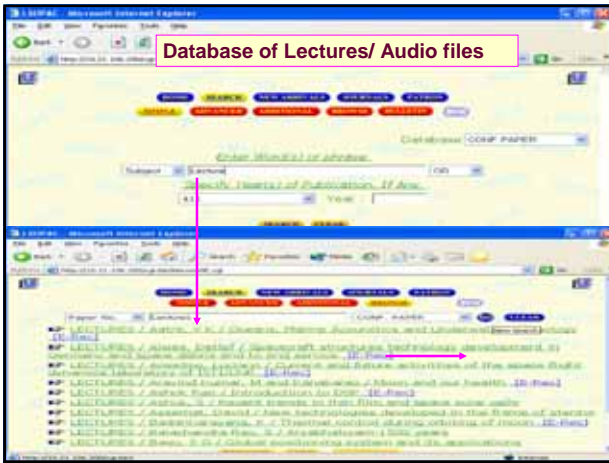
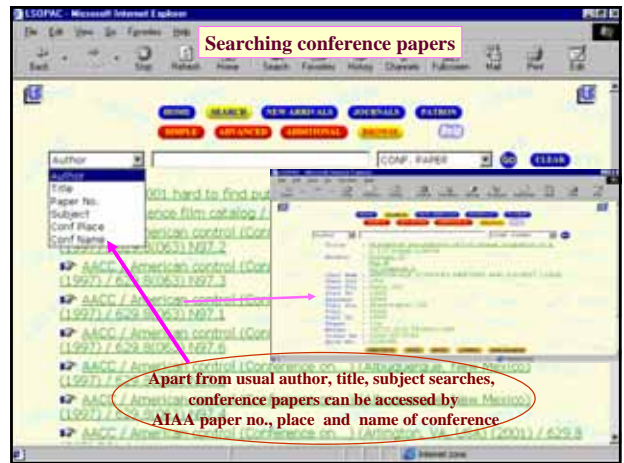
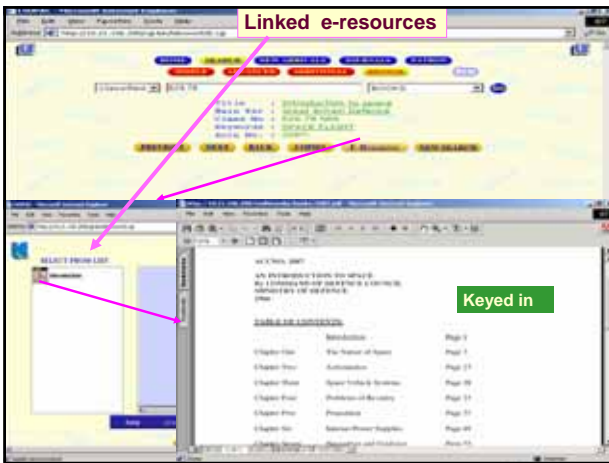
**Group name in case of ISAC reports**

**Any word in the title of Hindi books**

**Guides & University/ College in case of Student reports**

**Conference place in case of Conference papers**





Information about user/ patron  
*To know what Items are borrowed & reserved by you*

Password can be assigned by you for first time or contact Mrs. P. Kantha at 4455

Password maintenance

Status of documents borrowed

Status of reserved documents

WELCOME TO ISAC LIBRARY HOME PAGE

SEARCH

Home Number 88942

The collection comprises of six sub collections:

- Journal of Spacecraft Technology
- Lectures and Seminars held at ISAC
- Newspaper Clippings
- Papers published by ISACIAN
- Internal reports
- Satellite News Digest

Visitor Number 3006

*Dublin core metadata standard is adopted with provision for cross collection search*

ISRO Satellite Centre  
 Welcome to Digital Collection of ISAC Library

Journal of Spacecraft Technology, ISACIAN, Internal Reports, Satellite News Digest

preferences

Search preferences

You can check and alter preferences on this page

User-orientation: ISAC Library

HOME HELP PREFERENCES search

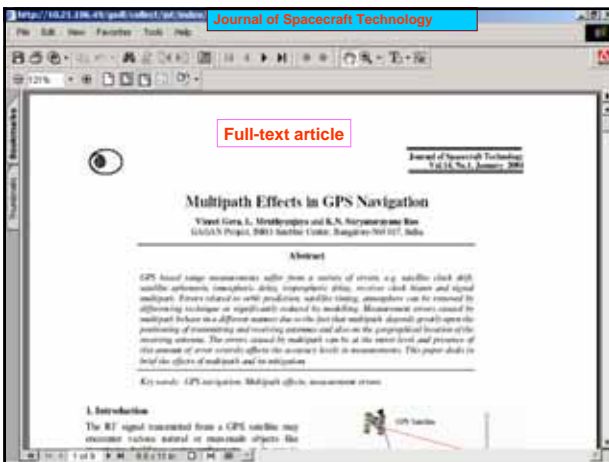
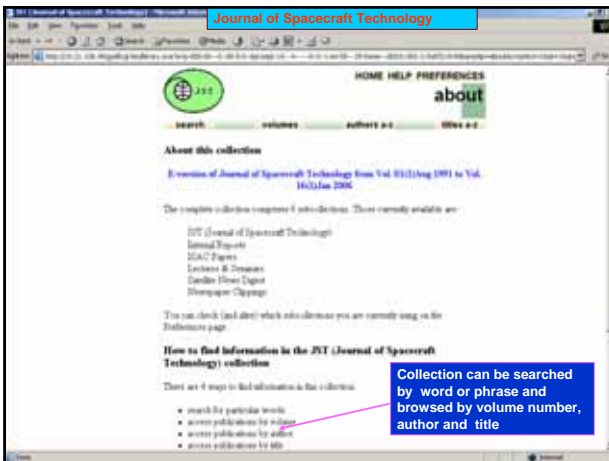
Search

Click on 'MP3' to listen to talk

Cross collection search among sub collections

User-orientation: ISAC Library





**Lectures & Seminars**

Collection can be searched by word or phrase and browsed by the name of speaker, title of the topic, date and seminar title

**Lectures & Seminars**

**Newspaper Clippings**

Searched by the word or phrase and browsed by date, name of the newspaper and category of news (i.e., DOS news or S&T news)

**Newspaper Clippings**

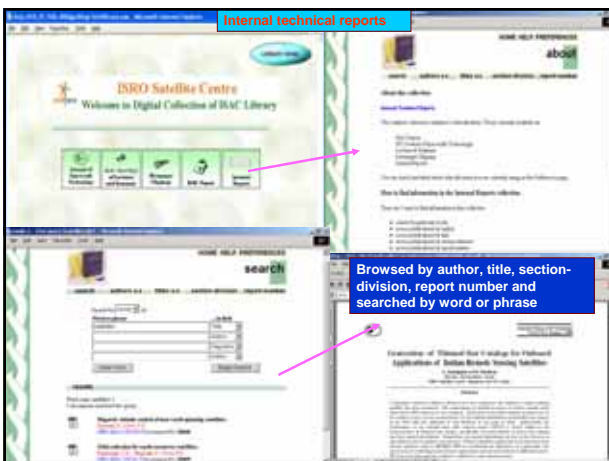
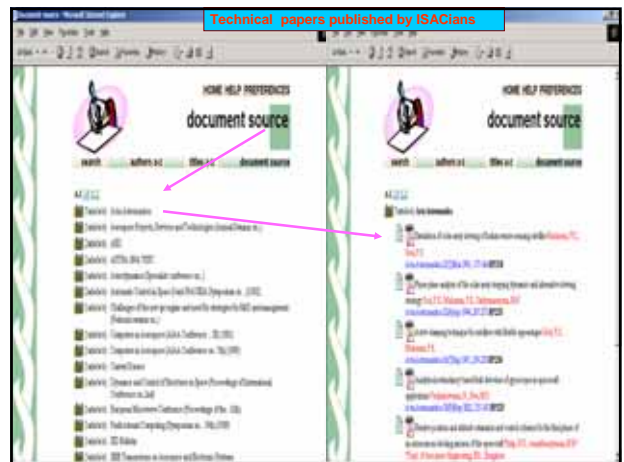
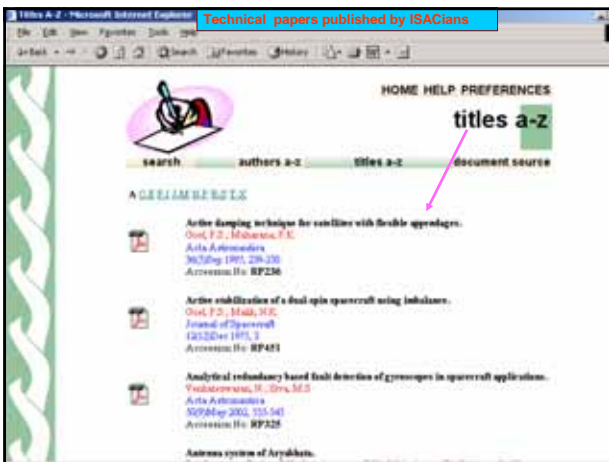
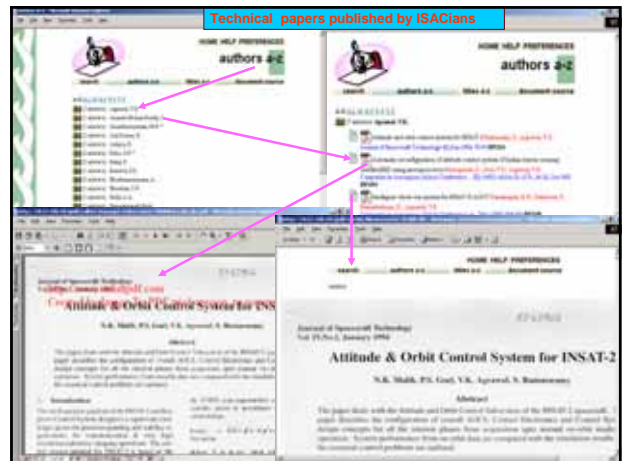
US curbs against firms go

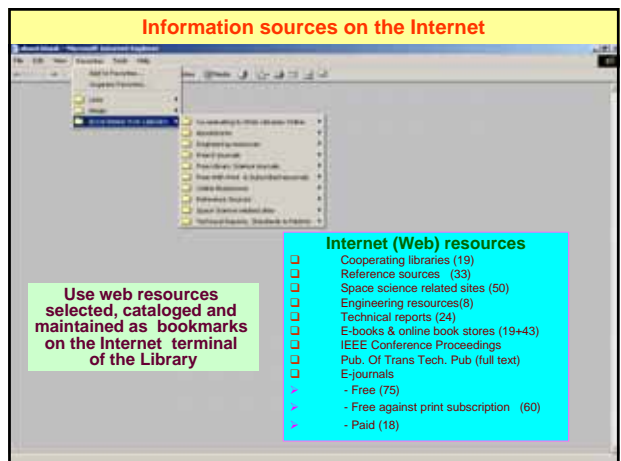
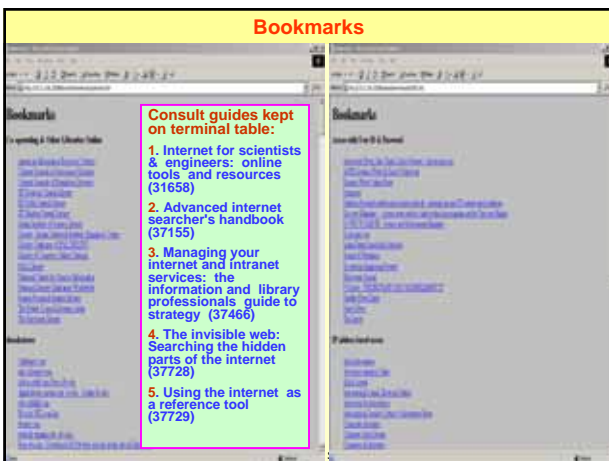
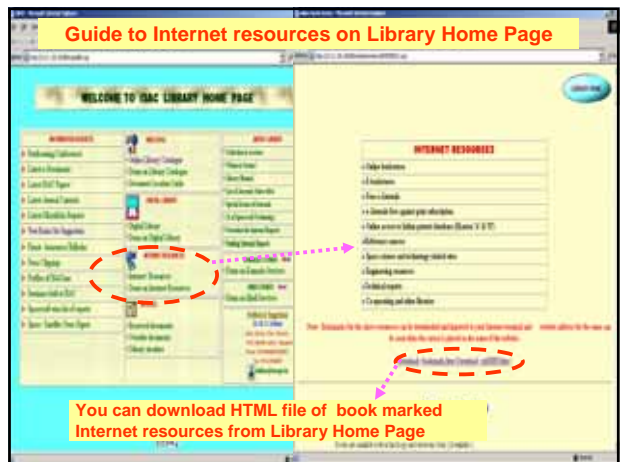
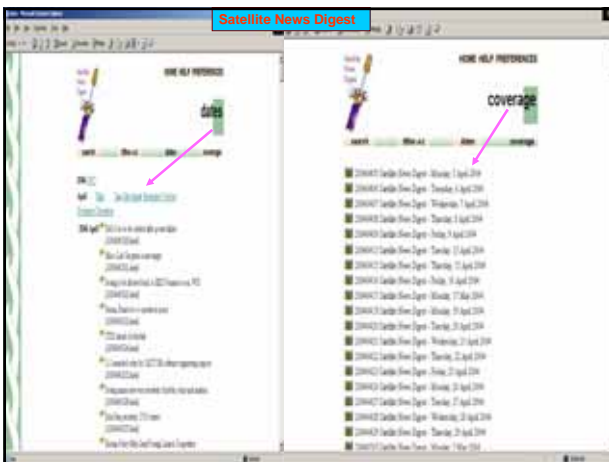
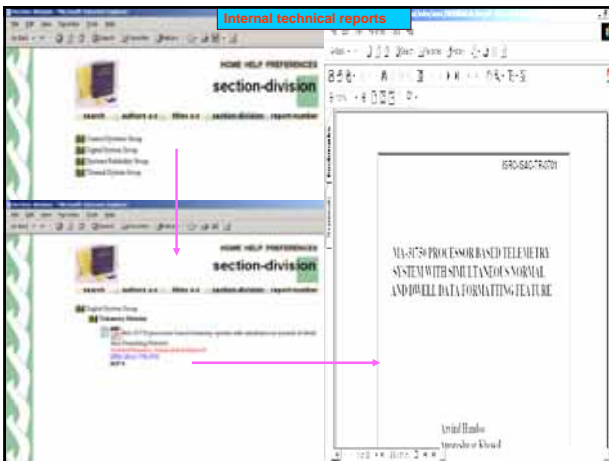
**Newspaper Clippings**

US eases export control orders on ISRO

**Newspaper Clippings**

US curbs against ISRO entities off





### Cooperating libraries

Use bookmarks to access sites of other libraries for holdings of journals, online public access catalogs, etc. Inter-library borrowing, if not available in ISAC Library, is possible

Tickets of ADA, HAL, ISRO HQ, IIMB, IISc, NAL & British libraries can be had from library counter

### E-book stores

Browse / read new books / e-books & suggest them to library for procurement

### Online book stores

Browse / read new books / suggest them to library for procurement

### Engineering resources

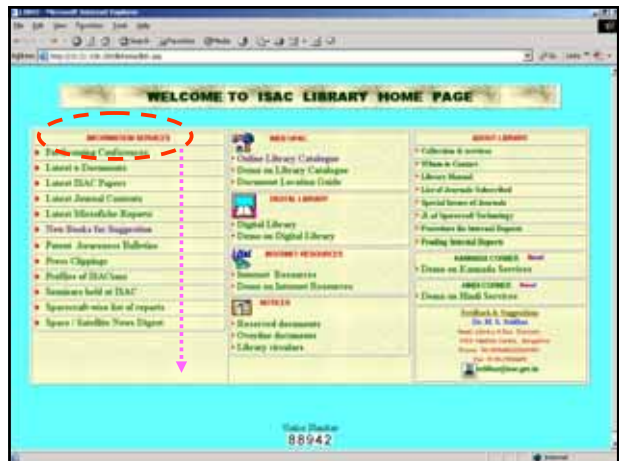
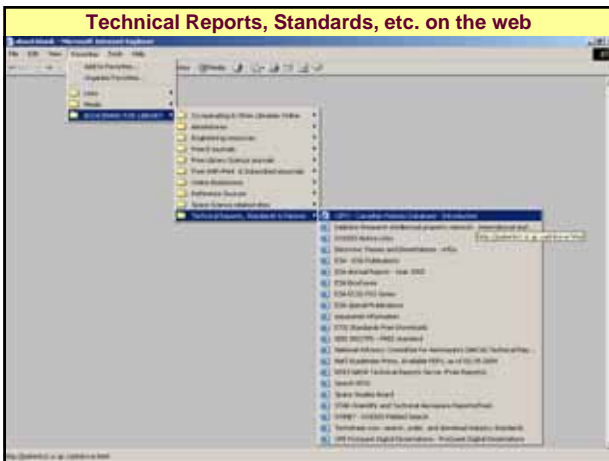
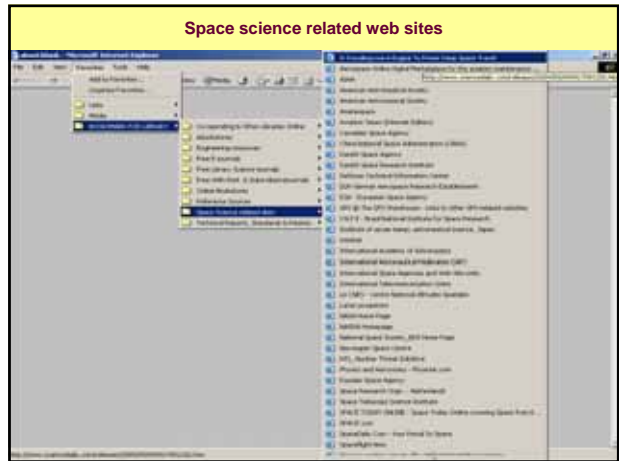
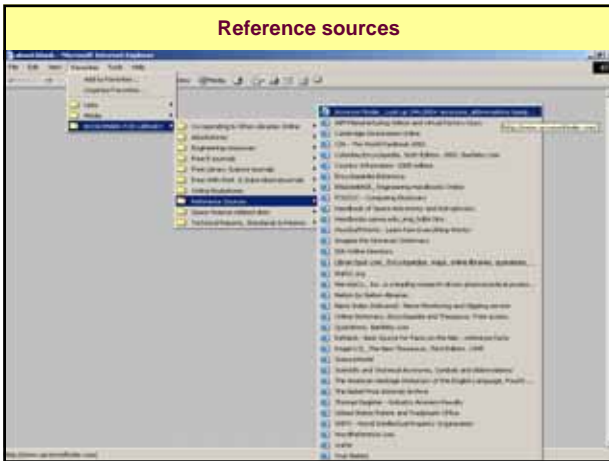
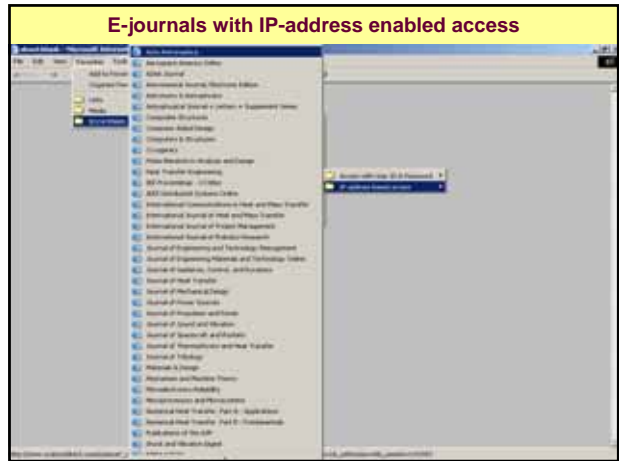
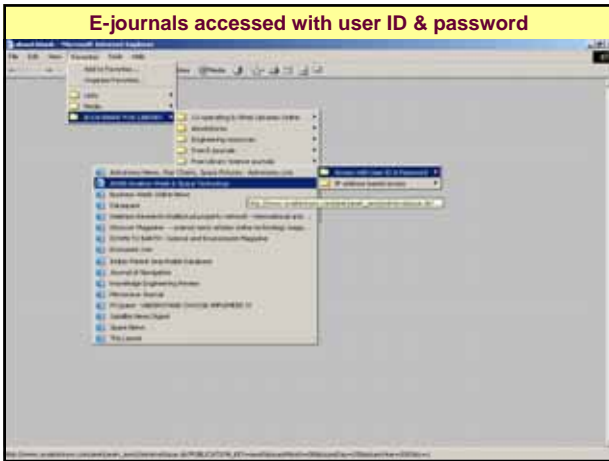
Access these sites to know latest developments in the field

### Free e-journals

Use bookmarks kept on Internet terminal to access these free e-journals.

### Free with print & subscribed e-journals

Can be accessed from any Internet terminal of ISAC: Use bookmarks kept on library terminal



ASAC - Conferences / Workshops - Microsoft Internet Explorer

LIBRARY HOME

### Forthcoming Conferences & Workshops

Joint IAS  
 Research research & Membership programs for students and teachers 2007

Announcement  
 Joint IAS - IAS Announcement  
 University Science Education

RAST 2007  
 14-16 JUNE 2007  
 2nd International conference on Research in Astronautics and Space Technology

ISAC/ITI - Microsoft Internet Explorer

LIBRARY HOME

### LATEST e-DOCUMENTS

Click here to view full text internal reports (Unrestricted reports)

Click here to view list of internal reports (Restricted reports) available at ISAC Library for reference

RF/Microwave Library selected excerpt by Mike RF/Microwave Lib

INDUSTRY MEET ON SATELLITE NAVIGATION

Practical Circuit Design & Manufacture July 2006

IEEE Xplore: An overview and tutorial

List of Restricted Internal Reports available in a form	
Report No.	Report Title
RF-MIC-2006-01	RF/Microwave Library selected excerpt by Mike RF/Microwave Lib
RF-MIC-2006-02	INDUSTRY MEET ON SATELLITE NAVIGATION
RF-MIC-2006-03	Practical Circuit Design & Manufacture July 2006
RF-MIC-2006-04	IEEE Xplore: An overview and tutorial

SciTech Publishing - Microsoft Internet Explorer

RF/MICROWAVE CD TRAINING LIBRARY

Course Index  
 Price List  
 Special Offer  
 Catalogue  
 Place an Order  
 About SciTech

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 World-leading publisher of technology and physical science materials

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RF/MICROWAVE CD TRAINING LIBRARY

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 Special Offer  
 Catalogue  
 Place an Order  
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The RF/Microwave CD Library  
 A Comprehensive Training System for RF Engineers

Noble Training and Software, a Division of SciTech Publishing and a world leader in RF/Microwave gives you the opportunity to train your team using our **interactive RF/Microwave CD Library**. Each CD-ROM session contains 45-60 minutes of **practical lectures and demonstrations by leading engineers** including Les Baxsar, Steven Bick, Ted Gritsch, Steven Harsh, Randy Prida, Jerry Savick, and Robert Wenzel. **Train new engineers at their own pace for a fraction of the cost of off-site short courses. Review concepts as often as needed. This is the most comprehensive system of timeless principles for RF/Microwave training available today.** Information will NEVER go out of date! Empower your team today!

Click on a course below to see a brief description of the course with an excerpt:

- RF Circuit Fundamentals I - Les Baxsar, Instructor
- RF Circuit Fundamentals II - Les Baxsar, Instructor
- RF/Microwave Transistor Amplifier Design - Les Baxsar, Instructor
- Microwave Transmission Lines - Steven Harsh, Instructor
- Introduction to Antennas - Steven Bick, Instructor
- Microwave Filters & Couplers - Robert Wenzel, Instructor
- High-Frequency Coupler Design - Randy Prida, Instructor
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NEW

IRS-P6 orbit determination and achieved accuracy during early phase

Vigoterson, N.V.; Anaya Sotony; Sidermanova, B.; Prasad Kumar Sood  
 Acta Astronautica, Vol. 2007, 79-87p; Aerospace no. 89725

10.1016/j.actaastr.2007.07.005

http://10.1016/j.actaastr.2007.07.005 - Microsoft Internet Explorer

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### IRS-P6 orbit determination and achieved accuracy during early phase

N.V. Vigoterson<sup>a</sup>, Anaya Sotony<sup>b</sup>, Sidermanova Sidermanova<sup>b</sup>, Prasad Kumar Sood<sup>c</sup>

<sup>a</sup> NASA Marshall Space Flight Center, Huntsville, AL 35894-0001, USA; <sup>b</sup> Institute of Space Research, Russian Academy of Sciences, Moscow, Russia; <sup>c</sup> Indian Institute of Space Science and Technology, Thiruvananthapuram, India

Received 1 December 2005; accepted in revised form 11 May 2006; available online 11 October 2006

Abstract

The IRS-P6 satellite launched by the Indian Space Research Organisation (ISRO) is equipped with a state-of-the-art GPS receiver operating in L1 and L2 bands with enhanced capabilities in the precision and accuracy. The orbit determination system for IRS-P6 is based on GPS receiver data. The orbit determination system is based on the GPS receiver data. The orbit determination system is based on the GPS receiver data. The orbit determination system is based on the GPS receiver data.

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3	2006	IEEE ANNALS OF THE HISTORY OF COMPUTING / IEEE.	28(4) : Nov-Dec,2006
4	2006	IEEE CIRCUITS AND SYSTEMS MAGAZINE / IEEE.	31(4) : 2006
5	2006	IEEE CONTROL SYSTEMS MAGAZINE / IEEE.	30(4) : Nov,2006
6	2007	IEEE DESIGN AND TEST OF COMPUTERS / IEEE.	

IEEE Transactions on Multiscale - Microsoft Internet Explorer

IEEE Transactions on Computational Biology and Bioinformatics  
Volume: 3 Issue: 4 Date: Oct - Dec, 2006

Cover1

Pages: 41-41  
Guest Editor's Introduction to the Special Issue on Computational Biology and Bioinformatics - Part 1  
Cassidy, R.  
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Using Max Cut to Enhance Rooted Trees Consistency  
Dai, C., Han, S.  
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Carpenter, G., Goodwin, B., Jansen, J., Havelka, T., Vozniak, V., Vozniak, V., Vozniak, V., Vozniak, V.  
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4	2006	IEEE CONTROL SYSTEMS MAGAZINE / IEEE.	30(4) : Nov,2006
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1.3-CBE Advanced Processing Fast Packet Switch Developed / 1995  
IEEE-65491622P (ACC\_001024077)

Future satellite communications applications will require a packet-switched advanced satellite processing system to route packets at very high speeds from various beams to different downlink beams. The rapid emergence of point-to-multipoint services, and the important role of satellites in a national and global information infrastructure, adds the multiplex function essential to a fast packet switch (FPS). NASA Lewis Research Center's Digital System Technology Branch has been studying possible architectures for high-speed advanced-processing satellite systems. As part of this research, COMST Laboratory developed a broadband integrated services digital network (B-ISDN) fast packet switch for Lewis that was delivered on December 1994. The fast packet switch consists of eight inputs and eight outputs that can receive and transmit data, respectively, at a rate of 110 Mbps. The switch features multiple priorities (three) and multiple-size (three) satellite channel cells that are similar to ATM cells in length (52 bytes). In addition, the fast packet switch features a congestion-control algorithm that allows users to set different thresholds for individual terminating ports, thus throttling back the traffic from the terminating ports.

1.3-ACS Astronomical Telemetry Experiment (ATEX-3) / 1995  
IEEE-65491622P (ACC\_001024077)

During the month of 1994, the performance of an experimental ATEX-3

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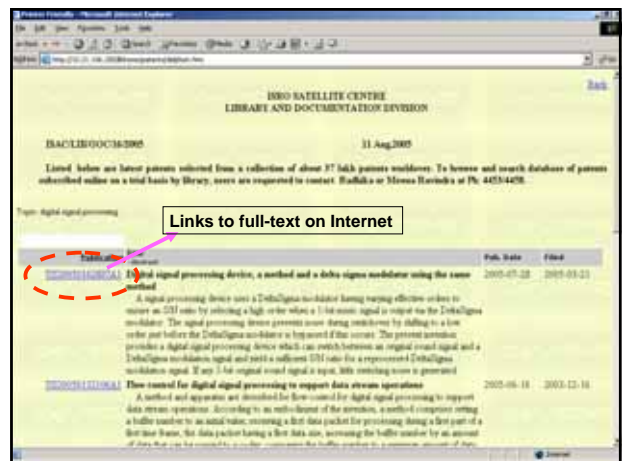
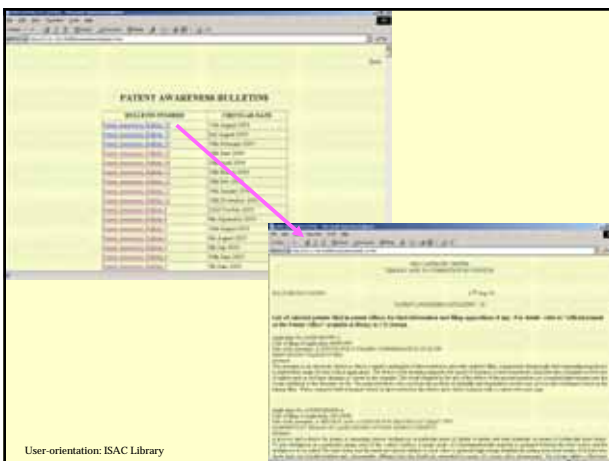
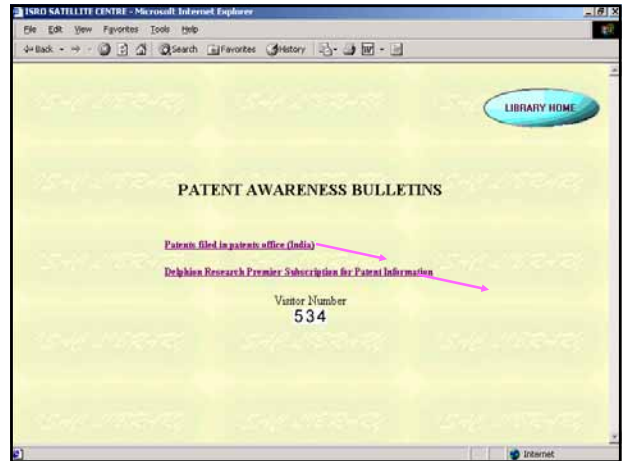
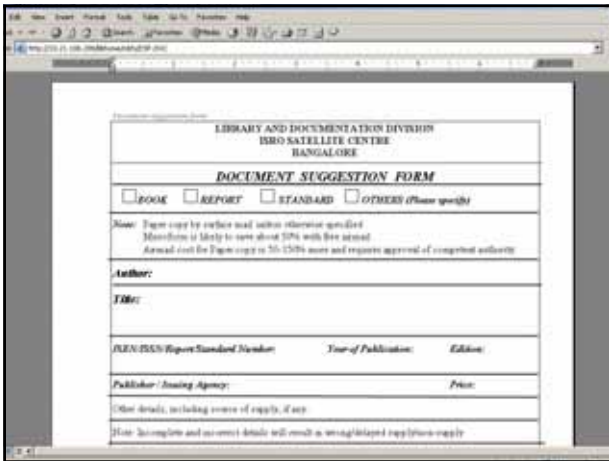
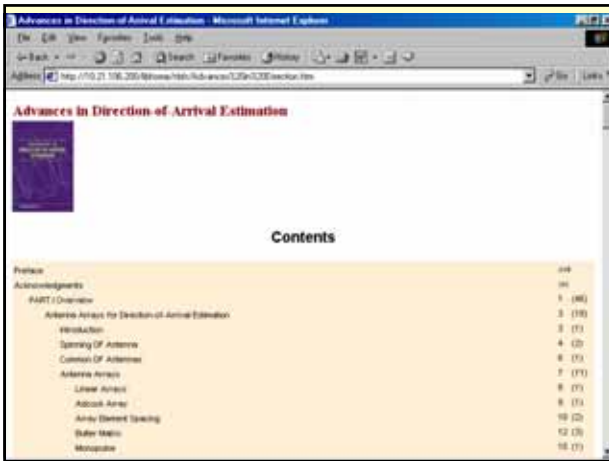
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Pub Title:	01/2006	
Pub Author:	B. Baruch, M. Soderstrom	





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**BIOGRAPHY OF DR. K.N. SHANKARA**  
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**ISRO SATELLITE CENTRE**  
**SPACE APPLICATIONS CENTRE**  
**BANGALORE, INDIA**

After obtaining P.E. in Electrical Communication Engineering from Indian Institute of Science, Bangalore, he joined Indian Space Research Organisation in 1971 at Ahmedabad.

He was Director, Space Applications Centre - which is involved in SATCOM applications, Remote Sensing applications and technology development for both Communication and Remote Sensing satellites. He is also Regional Director for Disaster Management Support (RDSMS), Bangalore. He has made extensive contribution in development of communication payloads for ISAT satellites and significant contribution in application programmes for Telemedicine. Tele-education and Disaster Management. At present, he is Director, ISRO Satellite Centre, Bangalore and Centre involved with building of Indian spaceport.

He is a fellow of the Institution of Telecommunication Engineers, India, the member of Astronautical Society of India, the member of International

Year	Journal Title	Journal
1972	'Attitude Determination of Small Spinning Satellites'	Indian Journal of Radio and Space Physics, Vol.2, pp 11-32, March 1972.
1975	Active Stabilisation of Dual Spin Spacecrafts using Inertialance	Journal of Spacecrafts and Rockets, Vol.12, pp 774-776, Dec. 1975.
1978	Magnetar Attitude Control of New Earth Spinning Satellites	Journal of Binah Interplanetary Science, Vol. 31, pp 164-167, May 1978.
1978	Fluxes Minor Concentrators for Observational Satellites	Proc. European Symp. on Photovoltaic Converter in Space, ESA, SP-140, pp 243-245, Nov. 1978.
1979	Magnetar Attitude Control of Momentum Biased Satellites in Near Equatorial Orbits	Journal of Guidance and Control, Vol.2, pp 334-335, July 1979.
1979	Optimal Attitude Error Computation for Automatic	IEEE Transactions on Aerospace and Electronic Systems, Nov. 1979.

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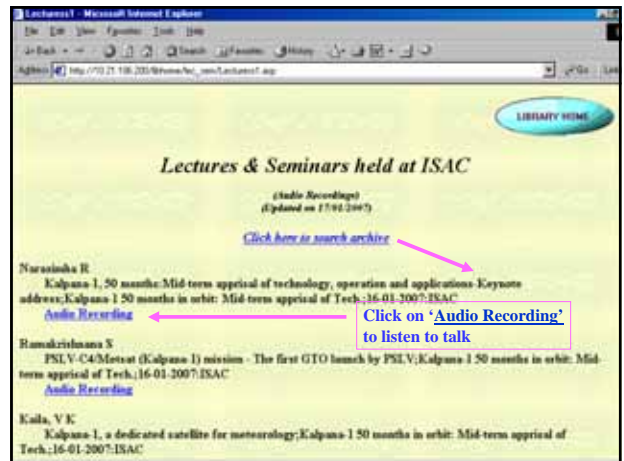
**Dr. Agnwal, V.K.**  
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 Central Systems Group

**Dr. Anandharaj, M.**  
 Program Director  
 Chandrayaan-1

**Dr. Arun Bhatt**  
 Group Director  
 Navigation & Communications Group

**LIST OF PUBLICATIONS**

Sl. No.	Authors	Title	Journal
1.	P.S. Goel	Attitude Determination of Small Spinning Satellites	Indian Journal of Radio and Space Physics, Vol.2, pp 11-32, March 1972.
2.	P.S. Goel and H.C. Mallik	Active Stabilisation of Dual Spin Spacecrafts using Inertialance	Journal of Spacecrafts and Rockets, Vol.12, pp 774-776, Dec. 1975.
3.	S. Rajaram and P.S. Goel	Magnetar Attitude Control of New Earth Spinning Satellites	Journal of Binah Interplanetary Science, Vol. 31, pp 164-167, May 1978.
4.	S.P. Kosta, P.S. Goel and A.V. Palla	Fluxes Minor Concentrators for Observational Satellites	Proc. European Symp. on Photovoltaic Converter in Space, ESA, SP-140, pp 243-245, Nov. 1978.
5.	P.S. Goel and S. Rajaram	Magnetar Attitude Control of Momentum Biased Satellites in Near Equatorial Orbits	Journal of Guidance and Control, Vol.2, pp 334-335, July 1979.
6.	P.S. Goel, P. Palanisathan, S. Murgovan, C. Ramaswara Rao	Optimal Attitude Error Computation for Automatic	IEEE Transactions on Aerospace and Electronic Systems, Nov. 1979.



**Classified List of Satellites Launched**

No.	Name of Satellite	Date Launched	Weight	Launch Vehicle & Place	Objective
1.	INSAT-1A	19-04-1982	1350	SLV-3 (SROSS) SHARADA	Communication
2.	INSAT-1B	10-01-1984	1350	SLV-3 (SROSS) SHARADA	Communication
3.	INSAT-1C	17-07-1984	1350	SLV-3 (SROSS) SHARADA	Communication
4.	INSAT-1D	17-07-1984	1350	SLV-3 (SROSS) SHARADA	Communication
5.	INSAT-1E	03-03-1986	1350	SLV-3 (SROSS) SHARADA	Communication
6.	INSAT-1F	03-03-1986	1350	SLV-3 (SROSS) SHARADA	Communication
7.	INSAT-1G	03-03-1986	1350	SLV-3 (SROSS) SHARADA	Communication
8.	INSAT-1H	03-03-1986	1350	SLV-3 (SROSS) SHARADA	Communication
9.	INSAT-1I	03-03-1986	1350	SLV-3 (SROSS) SHARADA	Communication
10.	INSAT-1J	03-03-1986	1350	SLV-3 (SROSS) SHARADA	Communication
11.	INSAT-1K	03-03-1986	1350	SLV-3 (SROSS) SHARADA	Communication
12.	INSAT-1L	03-03-1986	1350	SLV-3 (SROSS) SHARADA	Communication
13.	INSAT-1M	03-03-1986	1350	SLV-3 (SROSS) SHARADA	Communication
14.	INSAT-1N	03-03-1986	1350	SLV-3 (SROSS) SHARADA	Communication
15.	INSAT-1O	03-03-1986	1350	SLV-3 (SROSS) SHARADA	Communication
16.	INSAT-1P	03-03-1986	1350	SLV-3 (SROSS) SHARADA	Communication
17.	INSAT-1Q	03-03-1986	1350	SLV-3 (SROSS) SHARADA	Communication
18.	INSAT-1R	03-03-1986	1350	SLV-3 (SROSS) SHARADA	Communication
19.	INSAT-1S	03-03-1986	1350	SLV-3 (SROSS) SHARADA	Communication
20.	INSAT-1T	03-03-1986	1350	SLV-3 (SROSS) SHARADA	Communication
21.	INSAT-1U	03-03-1986	1350	SLV-3 (SROSS) SHARADA	Communication
22.	INSAT-1V	03-03-1986	1350	SLV-3 (SROSS) SHARADA	Communication
23.	INSAT-1W	03-03-1986	1350	SLV-3 (SROSS) SHARADA	Communication
24.	INSAT-1X	03-03-1986	1350	SLV-3 (SROSS) SHARADA	Communication
25.	INSAT-1Y	03-03-1986	1350	SLV-3 (SROSS) SHARADA	Communication
26.	INSAT-1Z	03-03-1986	1350	SLV-3 (SROSS) SHARADA	Communication

**List of Reports on Bhaskara (ISRO Report)**

**INSAT-1A**  
 Launch Date: 17-04-1982  
 Weight (kg): 1350  
 Launch Vehicle: SLV-3 (SROSS) SHARADA  
 Experimental: Resource Testing

**INSAT-1B**  
 Launch Date: 10-01-1984  
 Weight (kg): 1350  
 Launch Vehicle: SLV-3 (SROSS) SHARADA  
 Mission Objective: Experimental/Resource Testing

Reg. No: ISRO/100/11/1982-83  
 Reg. No: ISRO/100/12/1982-83  
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**Japanese Government Initiates Space-Borne Hyperspectral Payload Program**

The Japanese Ministry of Economy, Trade and Industry (METI) has announced the initiation of a space-borne hyperspectral payload program. The program aims to develop and launch a hyperspectral imager (HSI) payload for the Earth Observing Satellite (EOS) series. The HSI payload will be used for various applications, including environmental monitoring, agriculture, and urban planning. The program is a joint effort between METI and the National Institute of Advanced Industrial Science and Technology (AIST). The HSI payload will be developed by AIST and will be launched on the Earth Observing Satellite (EOS) series. The program is expected to be completed by 2015.

**Satellite News Digest**

The Newsletters are accessible with updates at <http://www.sat-index.com> and can be accessed from any Internet Terminal in ISAC with User ID (i.e. 2005-54).

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December 2006

Thursday, 28 December 2006 / Wednesday, 27 December 2006 / Tuesday, 26 December 2006 / Monday, 25 December 2006 / Sunday, 24 December 2006 / Saturday, 23 December 2006 / Friday, 22 December 2006 / Thursday, 21 December 2006 / Wednesday, 20 December 2006 /

Back file with updates can be accessed at <http://www.sat-index.com>. Unlike Space news which is weekly and received after 5 days, Satellite News Digest is received every working day by e-mail. Online access to Space News is at <http://www.space.com/spacenews/>

**LAUNCHES**

SpaceX announces date for next Falcon 1 launch attempt (17 Jan 2007)

17 Jan 2007. SpaceX may make the second attempt to launch its Falcon 1 rocket from the Kapehuale Aali in the Pacific Ocean on 21 January, the company's CEO Elon Musk said.

The launch is a demonstration flight for the 11.2 Defiance Advanced Research Project Agency (DARPA) with a payload called Doves (not to be confused with other "spacebirds" of the same name owned by the first Delta IV Heavy in 2004 and the first Delta 3XL in 1998), although they all may have the same as orbit duration: nine - 14) In addition, the Falcon 1 reuses two NASA experiments: a low-cost Tracking and Data Relay Satellite System transmitter and an autonomous range-finding system package.

"We've recently completed our first major pre-launch milestone, the Flight Readiness Review (FRR). This confirmed that all Vehicle, Payload, Ground Support Equipment, and Personnel are ready for launch. Following the FRR, the Falcon 1 was rolled out to the pad and we completed our own final review, which is a full conclusion that builds approximately one month before T-0. My Musk wrote in an online update:

A static firing of the rocket is planned for 13 January, followed by a launch on 21 January. SpaceX is currently "working with the range to ensure a couple of additional days of contingency. Should we go beyond that, which is not a good probability as we work with the updated vehicle, pad, and procedures, the next available launch window is not February."

The first Falcon 1 launch attempt failed in March 2006 because of a corrupted pad that allowed fuel to leak into the main engine. The launch had a weight for and raised the rocket to 140,000 pounds after 16.5 seconds. SpaceX's second Falcon 1 launch is the only launch to include three

**SPACE NEWS**

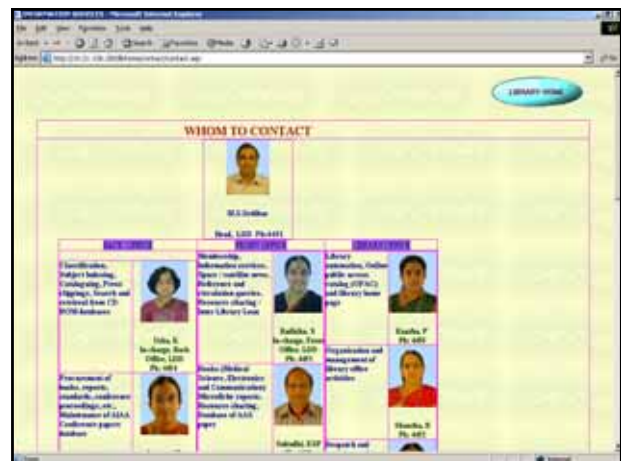
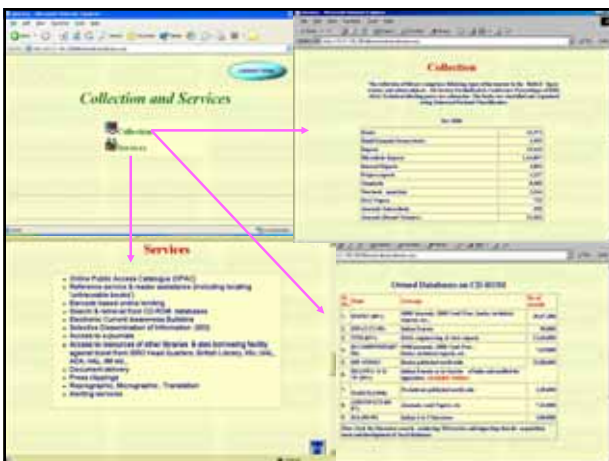
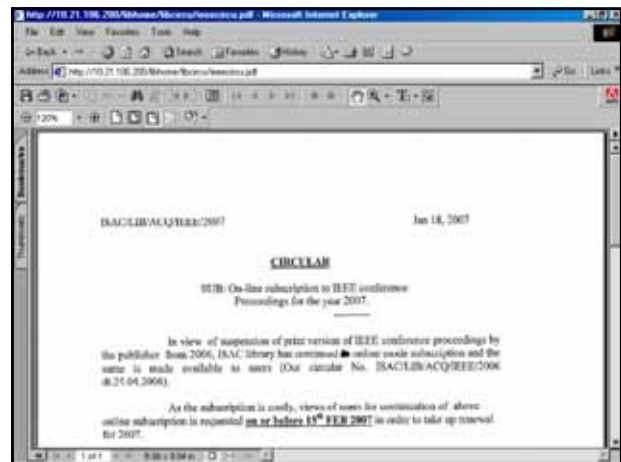
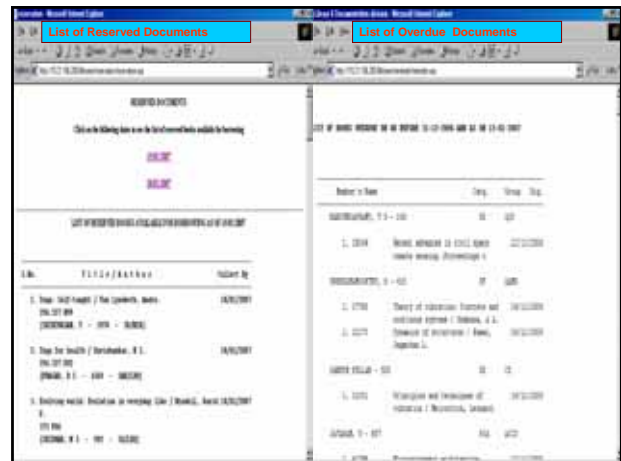
Space News (Weekly Magazine) is also accessible online at <http://www.space.com/spacenews/> and can be accessed from any Internet Terminal in ISAC with User ID (i.e. satnews@isac.gov.sg).

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Space News Briefs  
 By Warren Partridge  
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 Issued 5 January 2007

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\* Users have to leave library by 14:00 hrs for pesticide treatment to be carried out on every 4<sup>th</sup> Saturday.

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<b>B. OTHERS:</b> i.e., SA C or its equivalent grade 3 & below but not below the scale commencing at Rs. 3000- (grade 10, JRF, SRF) including retired persons*	2	2	4
<b>C. SECONDARY MEMBERS:</b> LPSC and CSD employees at Indiragarh Campus (other than Group D employees)	1	1	2
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\*Up to Rs. two lakhs per group proposal per year and upto Rs. One lakh for general reference and text books.

IS 10 Not included

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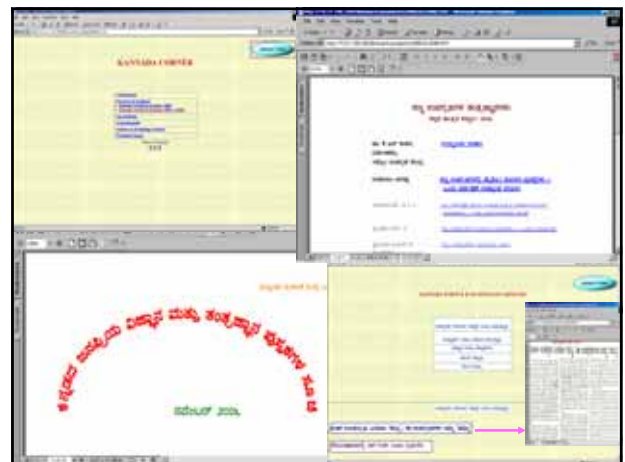
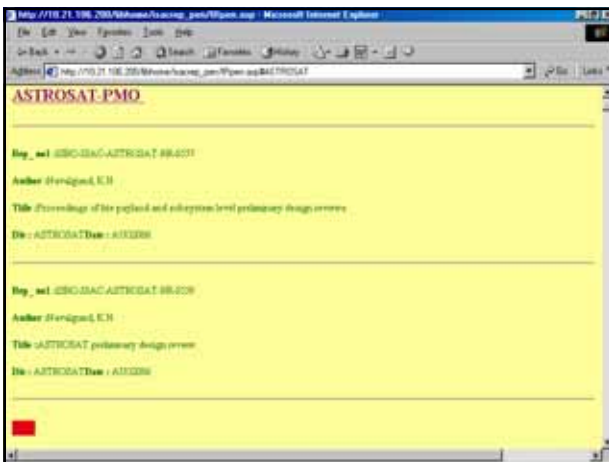
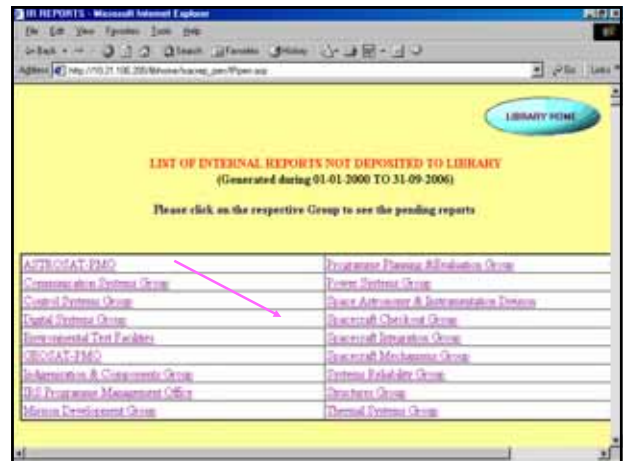
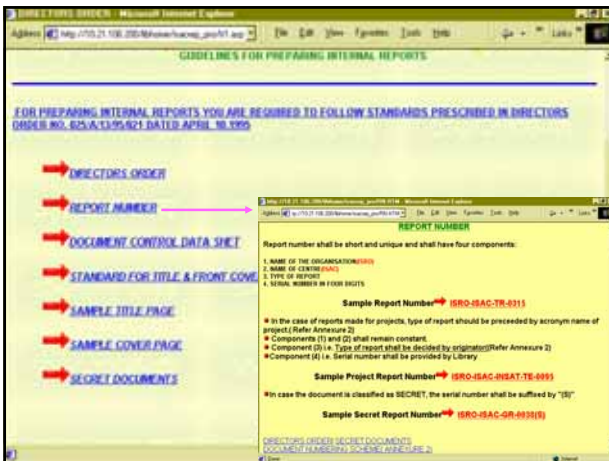
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**Feedback & Suggestions**

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**References**

1. Sridhar, M S. "Pattern of card catalogue consultation in a special library." IASLIC Bulletin 31 (1) March 1986: 9-16.
2. Sridhar, M S. "Library-use index and library-interaction index as measures of effectiveness of a special library : a case study." In : Proceedings of XXXIV All India Library Conference on Library and Information Services : Assessment and Effectiveness. Calcutta : ILA, 1988 : 449-465
3. Sridhar, M S. "Patterns of user-visit, movement and length of stay in a special library : a case study." Annals of Library Science and Documentation 36 (4) 1989: 134-138.
4. Sridhar, M S. "Non-users and non-use of libraries". Library Science with a slant to Documentation and Information Studies, 31 (3) September 1994, 115-128.
5. Sridhar, M S. "Customer participation in service production and delivery system", Library science with a slant to documentation and information studies, 35 (3) September 1998, 157-163.
6. Sridhar, M S. "Skill requirements of LIS professionals in the new e-world", Library science with a slant to documentation and information studies, 36 (3) September 1999, 141-149.
7. Sridhar, M S. "Waiting lines and customer satisfaction", SRELS journal of information management, 38 (2) June 2001, 99-112.
8. Sridhar, M S. "Library use and user research: with twenty case studies". New Delhi: Concept Publishing Company, 2002.
9. Sridhar, M S. "OPAC vs. card catalogue : a comparative study of user behaviour", The Electronic Library, 22 (2) April 2004, p 175 - 183.
10. Sridhar, M S. "Subject searching in the OPAC of a special library: problems and issues", OCLC Systems and Services: International Digital Library Perspectives, 20 (4) Winter 2004, p 183 - 191.

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