Training Manual
Role of Information & Communication Technology (ICT) and Library Management in Digital Era

Main Library, Ayub Agricultural Research Institute Faisalabad
Website: www.aari.punjab.gov.pk / www.digitallibrary.edu.pk/Ayub.html
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Role of Information & Communication Technology (ICT) and Library Management in Digital Era Under the Project Entitled "Up-gradation of Main Library, Ayub Agricultural Research Institute, Faisalabad through IT Interventions"

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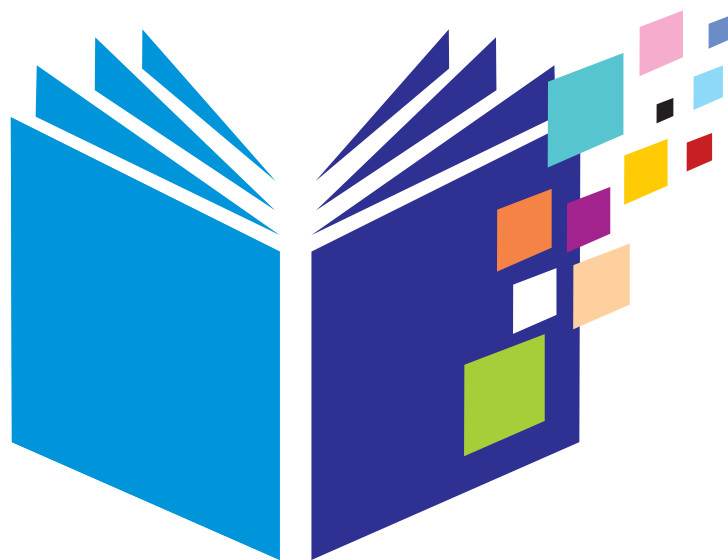

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Main Library

Ayub Agricultural Research Institute, Faisalabad

Website: www.aari.punjab.gov.pk, www.digitallibrary.edu.pk/Ayub.html

FOREWORD

During the last fifty years, the world has witnessed eminent innovations; in particular, information and communication technology (ICT) has brought about revolutionary changes in every sphere of life. Libraries have practically sensed the integral role of ICT to expedite the pace of daily operations while providing sharp services in place. Automation or computerization of libraries is a core feasible application of this worthwhile technology. It facilitates speedy library operations, quick dissemination of information and services. Here, at Main Library, AARI Faisalabad, we are going to establish IT Lab under the project titled "Up-gradation of Main Library, Ayub Agricultural Research Institute, Faisalabad through IT Interventions" for easy access of HEC National Digital Library and AARI In-House Digital Library. We have definite plan to establish 'Online Public Access Catalogue Section' to check the available resources at Main Library in both electronic and print format and also to establish the Information Resource Centre (IRC). Through IRC, Electronic Document Delivery Service is to be provided to scientists of AARI, Faisalabad and out-stations. In this context, Senior Librarian is to conduct trainings on "Role of Information and Communication Technology and Library Management in Digital Era" to familiarize scientists with managing their information in current era of digital world. It would have direct impact on the use of modern and latest research results and literature, which will not only enhance the agricultural production on sustainable basis but also be helpful in refining and polishing the skills of our agricultural scientists (in terms of publication, varietal development and crop production technology development).The target-oriented research activities will bring forth such products for the farming community that will add to its profitability. Ultimately country's GDP will be enhanced, I hope it would help our scientists to bridge the gap between national and international research to boost up pace of agriculture research.

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Faisalabad

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ACKNOWLEDGMENTS

About AARI

Ayub Agricultural Research Institute (AARI), Faisalabad is the premier institution generating agricultural technology which is acting as an engine of growth of economy of Pakistan. It is the biggest agricultural research institute in Pakistan having 26 Institutes / Directorates, 3 Sections and more than 150 research stations. AARI was originated in 1962 after the bifurcation of research and education working under the former Punjab Agricultural College and Research Institute, Lyallpur (established in 1906), being one of the prestigious research organizations of the country. Its mission is to develop technologies for food safety and sustainable generation of exportable surplus for economic safeguard, value addition and conservation of natural resources. This institute was the beacon to the green revolution in the country in late sixties and since then playing a key role in meeting the post green revolution productivity challenges and ensuring national food security.

AARI is pursuing both short and long term needs revolving around following objectives.

- Genetic improvement of crop varieties for different traits.
- Development of production technology of crops.
- Research on protection from insect's pests, diseases and weeds.
- Better understanding and utilization of soil and water relations of plants.
- Development of processing/preservation and post-harvest technology of fruits and vegetables.
- Introduction of new plants suitable for climate of Punjab.
- Regulatory aspects of inputs and dissemination of knowledge to farmers

AARI Website and its Applications

We are pleased to launch AARI website and now it is running & updated regularly regarding research activities, which goes live and is located at the address: http://www.aari.punjab.gov.pk. Our goal with this site is to provide our visitors with an easier way to learn about what the Ayub Agricultural Research Institute; Faisalabad does, why we do what we do, and how to get involved. We will be adding new research on a regular basis. We hope visitors find the AARI website has a fresh look, is easy to use and is informative.
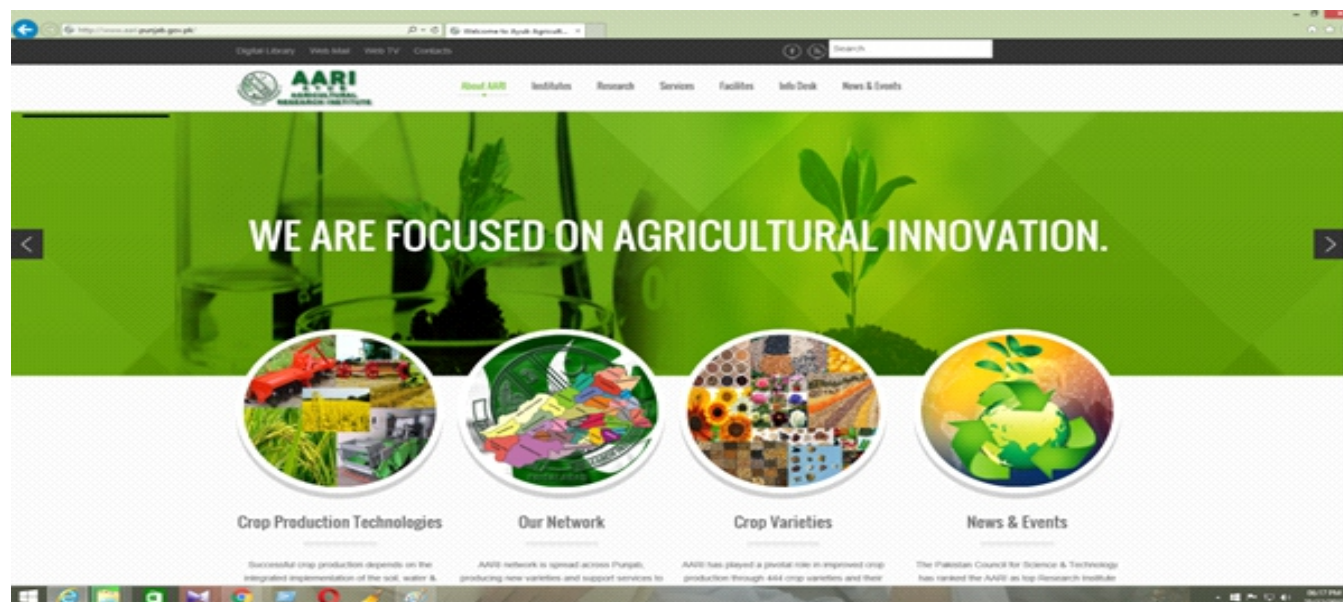
Objectives of the Project

(Up-gradation of Main Library, Ayub Agricultural Research Institute, Faisalabad through IT Interventions)

Major objective of agriculture sector is to ensure food security for the people of Pakistan. This objective can only be achieved through sustainable increase in agricultural production. Completion of this project will help in efficient utilization of HEC National Digital Library and In-House Digital Library through IT Lab and Secure library physical resources. Internal structure of the library will be improved which may result in improvement of the output of researchers in terms of publication, varietal development and crop production technology development. This will not only be helpful in bridging the gap between the international and domestic research to resolve national agricultural issues but also improve the standard of living of the farming community by increasing its profit through production enhancement, which is part and parcel for food security. Although main objective of the project is the establishment of I.T. Lab and security infrastructure in Main library of Ayub Agricultural Research Institute, Faisalabad, however other specific objectives of the project are listed below:

- Development of I.T. Lab & Security System at Main Library for capacity building of AARI scientists.
- Training of 300 scientists from all institutes of AARI in accessing latest literature through I.T. Lab.
- Digitization of 1000 valuable agricultural resources.

Mian Library

Overview

At the time of establishment of Ayub Agricultural Research Institute in the year 1962, library was setup at the top floor of Administration Block of the Institute. This library was shifted to its newly constructed building with all modern facilities for its users/visitors in 1990. Research initiatives of AARI are supported through a state-of-the-art Library and Information Resource Centre. This Main Library is a Hybrid Library which contains both digital and print collections. It has more than 40,000 Books, Periodicals, Laboratory Manuals, research articles etc. rendering it as one of the biggest Digital Libraries of Pakistan. The 25,000 print material of Library relate to various subjects including Plant Breeding and Genetics, Botany, Bio-Chemistry, Plant Pathology, Plant Physiology, Bio-Technology, Entomology, Food Technology, Crop Management, Horticulture, Floriculture, Dairy, Government publications, Gazettes, Dictionaries & Encyclopedias, Economics, Statistics, Library & Information Sciences, English Literature, Pakistan affairs, Islam, etc. The books have been classified using Dewey Decimal Classification Scheme (DDC).

Objectives of the Main Library

- To provide convenient and equitable access for all researchers of AARI to information resources to enhance the quality of research.
- To disseminate research activities of AARI scientists through Information and Communication Technology like website.
- To disseminate knowledge through electronic sources on their desk.
- To build a sustainable and scalable digital knowledge infrastructure
- To improve online learning environments.
- To meet changing expectations in a global content.

Role of Information and Communication Technology in Libraries

Computing technology, communication technology, and mass storage technology are some of the areas of continuous development that reshape the way libraries access, retrieve, store, manipulate, and disseminate information to users. ICT has impacted on every sphere of research library activity especially in the form of the library collection development strategies, library building and consortia. ICT presents an opportunity to provide value-added information services and access to a wide variety of digital based information resources to their clients. Furthermore, research libraries are also using modern ICTs to automate their core functions, implement efficient and effective library cooperation and resource sharing networks, implement management information systems, develop institutional repositories of digital local contents, and digital libraries: and initiate ICT based capacity building programmes for library users. Information and Communication Technology (ICT) has brought unprecedented changes and transformation to research library and information services, conventional LIS such as OPAC, user services, reference service, bibliographic services, current awareness services, document delivery, interlibrary loan, audio visual services, and customer relations can be provided more efficiently and effectively using ICT, as they offer convenient time, place, cost effectiveness, faster and most-up-to-date dissemination and end users involvement in the library and information services process. The impact of ICT characterized on information services by changes in format, content and method of production, and delivery of information products. Emergence of the Internet as the largest repository of information and knowledge, changed role of library and information science professionals from intermediary to facilitator, new tools for dissemination of information and shift from physical to virtual services environment and extinction of some conventional information services and emergence of new and innovational web based.

Main Library Services

I.T Lab

Established state of the art I.T Lab for agricultural scientists to use online Higher Education Commission (HEC) National Digital Library, In-House Digital Library, other Digital Databases and Online Public Access Catalogue.

Electronic Document Delivery Services

Electronic Document Delivery (EDD) is a value added service provided to the AARI scientists. It provides scanning and delivery of articles, manuals and book chapters from the AARI Hybrid Library and Digital databases. Patrons receive email notification. You can send your request with Subject and Designation at the following E-mail address: aarilibrary.edds@gmail.com. Requested available items will be delivered electronically to your account at an early.

Reference Services

Reference staff is available at AARI Main Library reference desk during scheduled hours to help Scientists locate answers to their questions and use a wide range of library resources in print and electronic formats. Computer workstations are available for users to consult library catalogs and databases and access other Internet based resources. Brief reference assistance is available to users who telephone the reference desk. E-mail reference assistance is also provided.

Indexing and Abstracting Services

Abstracting and Indexing (A&I) services provide one location for researchers in Main Library to search for articles in a subject. They present abstracts of articles and link through to the publishers' websites for the full text of the article. Journals should be included in the major A&I indexes for their subjects to provide wider reach to researchers and more points of access to the articles hence driving up readership and citations.

Face Book Page of Main Library

Face book page of Main Library (http://www.facebook.com/pages/Main-ibraryAyub-Agricultural - Research - Institute Faisalabad/ 285182304925180) has been made available online. It contains all news, interviews and latest research innovations regarding agriculture worldwide.

Display and Reading Hall

Display and Reading Hall fully air conditioned is being regularly maintained with Newspapers, latest research journals and magazine for the patrons. Display boards of each Institute are maintained in this hall for the visitors.

Books and Journals Hall

Books and Journals Hall fully air conditioned is being regularly maintained with latest Books and Journals for the patrons.

Newspaper Section

Press clippings related to agriculture are properly maintained and kept in record and sent to the concerned.

Seminar Hall

Seminar Hall is used to conduct seminar, workshops, trainings and others Departmental & National celebrations.

Information Literacy Programs and Trainings

To promote technical information dissemination through social media, book fairs, and celebrations of World Book Day and awareness seminars are arranged in the Main Library Seminar Hall. To promote use of library resources and services, orientation programs, i.e. hands on training and workshops on various instructional and research tools like Library Information Management System, ICT, Endnote, SPSS, Plagiarism, and searching techniques were arranged to use different electronic databases.

Searching Assistance

In case an item is not located on the shelf, inquiry can be made at the circulation desk. A search will then be initiated and the user will be notified when the required item is found.

Automation of Main Library and Departmental Libraries

The automation of the library has been completed to facilitate easy searching/location of required material by the users and now working on computerization of Departmental Libraries.

Main Library Portal

The Library Portal provides access to library catalogue and campus-wide access to its full-text resources. A Selective Dissemination of Information (SDI) service keeps users updated with new additions to the library collection.

HEC National Digital Library

Facility of HEC National digital library was obtained at AARI Main Library and is located at the address(http://www.digitallibrary.edu.Pk/Ayub.html).Under this facility access to more than 2200 online journals is available for the scientists.

HEC National Digital Library Mission

- To build and strengthen the research culture in Pakistan.
- Integrate Digital Library usage into the educational and research process.

HEC National Digital Library Objectives

- Ensure users knowledge and awareness about the Digital Library resources
- To Ensure users have the right training and skills to use the Digital Library
- To Ensure Researchers & Scholars utilize the resources to maximum effect
- To Build an institutional research community of Digital Library users and researchers

Expected Outcomes
- Understand and appreciate uniqueness of each Digital Library resource and its characteristics.
- Built basic search concepts.
- Understand the importance of effective searching.
- Learn and apply searching skills.
- Display knowledge of Copyright Laws and understand their implications.

Higher Education Commission digital library established in 2003 greatly enhanced the publication of research articles as shown in above graph. By using the facility HEC National Digital Library through IT Lab, output of researchers in terms of publications, varietal development and crop production technology development will be improved.

Digital Resources are Available at AARI Digital Library

❖ **Taylor & Francis Journals**

More than 1,300 titles in humanities, social sciences and applied sciences. Access URL: http://www.tandfonline.comAccess T&F User Guide:

http://www.tandfonline.com/page/librarians License Agreed: Available to all public and selected private universities and some other eligible institutes

Subject Strengths

- Arts & Humanities
- Anthropology & Archaeology
- Behavioral Science
- Business, Management & Economics
- Chemistry Criminology & Law
- Education
- Engineering, Computing & Technology
- Environment & Agriculture

- Library & Information Science
- Mathematics & Statistics
- Media, Cultural & Communication Studies
- Physics
- Politics, International Relations & Area Studies
- Public Health & Social Care
- Sociology & Related Disciplines
- Sport, Leisure & Tourism Strategic, Defense & Security Studies

❖ McGraw-Hill's Access Engineering
Access URL:
http://www.accessengineeringlibrary.com/
ACE currently includes 274 titles

- Focused around 14 major areas of engineering, Access Engineering features a new taxonomy book view offering comprehensive coverage and faster title-by-title access to engineering collection
- In addition, the McGraw-Hill Dictionary of Engineering is embedded on all search pages
- Easy and effective search or topical browse

❖ McGraw- Hill's Access Medicine
Access URL: http://www.accessmedicine.com

McGraw-Hill's AccessMedicine.com is an innovative online resource that provides students, clinicians and researchers with instant answers to their clinical questions from the most trusted sources. Updated daily by world-renowned physicians and expanding continuously.

- Diagnosis and treatment of 4,700 diseases and disorders.
- Contributions by the world-renowned authors and physicians
- Harrison's Grand Round Lecture Series - Includes audio/visual presentations
- Visual Diagnostics Images - Emergency Medicine Photo Gallery contains hundreds of high-quality images and radiographs

❖ McGraw-Hill's Access Science
Access URL: http://www.AccessScience.com

- Winner of the Gold Master Award in the Curriculum-Related Category.
- Highly recommended for all science users from high school through college, as well as users in large libraries.

- Contains full text and illustrations of McGraw-Hill Encyclopedia of Science and Technology.
- 8,500 Encyclopedia and Research Update articles by leading researchers, including Nobel Prize winners.
- 100,000+ terms from Dictionary of Scientific and Technical Terms.
- 14,000 illustrations plus animations and image galleries.
- 65,000+ hyperlinked cross-references.

❖ Wiley Online Library
Access URL: (http://onlinelibrary.wiley.com/)

Since the Blackwell-Synergy merger with Wiley-Interscience, all the journals available to HEC consortium are now available through Wiley-Interscience. Online database containing over 1,234 journals in science, technology, medicine, humanities and social sciences

❖ Springer Link
Access URL: https://link.springer.com/

SpringerLink provides access to 503 full-text Springer-Verlag Journals and 738 full-text journals formerly published by Kluwer Academic Publishing.One of the world's leading information services for Science, Technical and Medical journals.

❖ INFORMS (Institute for Operation Research and Management Sciences)
Access URL: https://www.informs.org/

The Institute for Operations Research and the Management Sciences (INFORMS) is the largest professional society in the world for professionals in the field of operations research (O.R.). INFORMS publishes 12 scholarly journals that describe the latest O.R. methods and applications

and a membership magazine with news from across the profession.

❖ **American Society of Agricultural and Biological Engineers (ASABE)**
Access URL: http://www.asabe.org/

ASABE Technical Library includes a range of content including journals, textbook materials, monographs, standards and proceedings as well as the important reference work-in-progress, Design Topics

❖ **The University of Chicago Press Journal**
AccessURL: http://www.journals.uchicago.edu/

Founded in 1891, the University of Chicago Press was conceived by President William Rainey Harper as an "organic part" of the University, extending the influence of Chicago scholars around the world. Today the Journals Division of the Press distributes nearly 50 journals and hardcover serials, presenting original research from international scholars in the social sciences, humanities, education, biological and medical sciences, and physical sciences

❖ **Cambridge Journals**
Access URL:
 https://www.journals.cambridge.org/

In line with the commitment of Cambridge University Press to advance learning, knowledge and research worldwide, the Press currently publishes over 300 peer-reviewed academic journals for the global market. Containing the latest research from a broad sweep of subject areas, Cambridge journals are accessible worldwide in print and online.
The continued expansion of our journals list is being mirrored by a programme of long-term investment in our journals business so that our continued commitment to the academic community, and in particular our society partners and customers, can be fulfilled both now and into the foreseeable future. As well as those journals owned by the Press itself, we publish on behalf of over 100 learned and professional societies and we work closely with our partners to ensure the optimum success of each journal.Delivery of journal content via the internet has led to new

markets opening up across the world. These include libraries operating together as consortia, and institutions in the developing world becoming able to access journals for the first time. Cambridge is active in all these markets and works with many organizations to bring journals to research institutions across the globe. From North America to Sub-Saharan Africa, the dedication of Cambridge University Press to advancing knowledge is visible within our journals, seven days a week, twenty-four hours a day.

❖ **IET digital Library**
Access URL: http://digital-library.theiet.org/

The IET Digital Library holds more than 190,000 technical papers from 1994 onwards for all IET journals, magazines, books, conference publications and seminar digests. Highly cited journals such as Electronics Letters are available alongside 24 research journal titles, The Journal of Engineering, the IET's new open access journal, Micro & Nano Letters, the IET's online only journal, the IET's member magazine Engineering & Technology, plus seminar digests and conference publications.

❖ **Project MUSE**
Access URL: https://muse.jhu.edu/

Project MUSE provides access to 430 full-text journals from 108 publishers in humanities and social science. MUSE pricing meets library needs around the world.

❖ **SciDEv.Net Access**
URL:http://www.scidev.net/SciDev.Net offers you:

• Access to the latest science and technology news, opinions and analysis, worldwide and in your region.
• Policy briefs providing in-depth analysis of key topics in a concise format.
• Regional gateways providing information directly relevant to your region.
• Free access to select full papers in Science and Nature normally only available through paid subscription.

Topics of focus includes:

- Agri-biotech
- Bird flu
- Biodiversity
- Brain drain
- Climate change
- Desert science
- Ethics of research
- Genomics
- HIV/AIDS

- Indigenous knowledge
- Intellectual property rights
- Malaria
- Nanotechnology
- R&D policy
- Science communication e-guide
- Science publishing
- Technology transfer
- Tsunami

In-House Digital Library and Online Public Access Catalogue

In-House Digital Library having more than 20,000 books; research papers and other materials is also available. Web OPAC (Online Catalogue) and Digital Library can be accessed through http://library in addresses bar of the browser.

To Locate a Book on the Shelves

You need to know the **DDC No** and **Author Mark** to retrieve a specific title, for example, **Agricultural Biotechnology by Purohit, S. S bears**
DDC NO: 630   Author Mark: PUR
Books are arranged on the shelves according to Dewey Decimal Classification (DDC) Scheme, being used 95% libraries worldwide.

Ayub Agricultural Research Institute Digital Library
Online Public Access Catalogue

Home   Welcome

Search
Advance Search
Digital Library
New Arrivals Books
Member Login

● Author ○ Title ○ Subject ○ DDC No
Search [   ]

[Search]   [Cancel]

DDC No	Class Name	Subjects with their Class Nos.
000-099	Generalities	004-006 Computer Sciences 005.1-005.133 Software Eng; Prog Languages 005.43 Operating Systems 006.3 Artificial Intelligence
100-199	Philosophy & Psychology	100-149 {Philosophy & Metaphysics 150-179 Psychology, Logic, Ethics 180-199 Oriental & Western Philosophy
200-299	Religion	297-297.9 Islam
300-399	Social Sciences	300-309 Political Science 320-329 Economics Political Science 330-339 Economics 350-369 Public administration
400-499	Languages	410-419 Linguistic 420-429 English 491.2 Punjabi 492.439 Urdu

DDC No	Class Name	Subjects with their Class Nos.
500-599	Natural Science & Mathematics	510-519 Mathematics, Statistics 530-539 Physics 540-599 Chemistry, Zoology, Botany
600-699	Technology (Agriculture, Applied Science & Management)	630 Agriculture and related technologies 630.2 Miscellany and scientific principles 630.7 Education, research, related topics 630.9 Agriculture--history 631 Specific techniques; apparatus, equipment, materials 631.2 Agricultural structures 631.3 Tools, machinery, apparatus, equipment 631.4 Soil science 631.5 Cultivation and harvesting 631.6 Clearing, drainage, revegetation 631.7 Water conservation 631.8 Fertilizers, soil conditioners, growth regulators 632 Plant injuries, diseases, pests 632.1 Damages caused by environmental factors
600-699	Technology (Agriculture, Applied Science & Management)	632.2 Galls 632.3 Diseases 632.4 Fungus diseases 632.5 Weeds 632.6 Animal pests 632.7 Insect pests 632.8 Virus diseases 632.9 General topics of pest and disease control 633 Field and plantation crops 633.1 Cereals 633.2 Forage crops 633.3 Legumes, forage crops other than grasses and legumes 633.5 Fiber crops 633.6 Sugar, syrup, starch crops 633.7 Alkaloidal crops 633.8 Other crops grown for industrial processing 634 Orchards, fruits, forestry 634.04 Cultivation, harvesting, related topics of orchards, of fruits, of trees 634.092 Fruit growers 634.1 Pomaceous fruits 634.2 Stone fruits 634.3 Citrus and moraceous fruits 634.4 Other fruits 634.5 Nuts 634.6 Tropical and subtropical fruits 634.7 Berries and herbaceous tropical and subtropical fruits 634.8 Grapes 634.9 Forestry 635 Garden crops (Horticulture) 635.04 Cultivation, harvesting, related topics 635.09154 Arid gardening

DDC No	Class Name	Subjects with their Class Nos.
700-799	Arts & Recreation	635.091732 Urban gardening 635.092Gardeners 635.1Edible roots 635.2Edible tubers and bulbs 635.3Edible leaves, flowers, stems 635.4Cooking greens and rhubarb 635.5Salad greens 635.6Edible garden fruits and seeds 635.7Aromatic and sweet herbs 635.8Mushrooms and truffles 635.9Flowers and ornamental plants 636 Animal husbandry 637 Processing dairy and related products 638 Insect culture 639 Hunting, fishing, conservation, related technologies 650 Management 657 Accounting 658.81 Marketing 700 Arts 710 Landscaping & area planning 720 Architecture 730 Sculpture, ceramics & metalwork 740 Drawing & decorative arts 750 Painting 760 Graphic arts 770 Photography & computer art 780 Music 790 Sports, games & entertainment
800-899	Literature	800 Literature, rhetoric & criticism 810 American literature in English 820 English & Old English literatures 830 German & related literatures 840 French & related literatures 850 Italian, Romanian & related literatures 860 Spanish & Portuguese literatures 870 Latin & Italic literatures 880 Classical & modern Greek literatures 890 Other literatures
900-999	History & Geography	900 History 910 Geography & travel 920 Biography & genealogy 930 History of ancient world (to ca. 499) 940 History of Europe 950 History of Asia 960 History of Africa 970 History of North America 980 History of South America 990 History of other areas

Please add the AARI and Digital Library website to your favorite places as you will visit here again and again to conduct your research!
http://www.aari.punjab.gov.pk
http://www.digitallibrary.edu.pk/Ayub.html
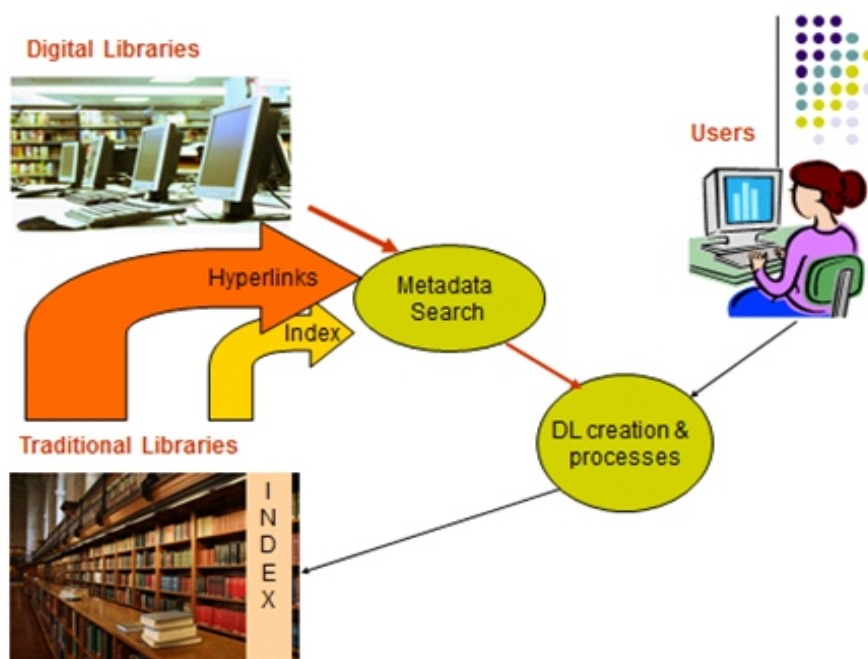
Open Access E-Resources

Below is information about electronic resources that are open access and freely available to researchers in developing and emerging countries. Please visit the specific websites for further information.

Free Digital Libraries

- **Bartleby (http://www.bartleby.com/)**

The Encyclopedia of World History and The Harvard Classics are among many free texts offered at this award-winning site. Many classic reference works are available here.

- **arXiv e-Prints (https://arxiv.org/)**

Includes e-Print "preprints" in Physics, Mathematics, Nonlinear Sciences, and Computer sciences. From Cornell University with assistance from the National Science Foundation (USA), the National Institute for Theoretical Physics (USA) and the University of Adelaide (Australia).

- **CogPrints (http://cogprints.org/)**

Cognitive Sciences Eprint* Archive - Includes a wide variety of papers in psychology, neuroscience, linguistics, philosophy, biology, medicine, anthropology and computer science. Material dates back as far as 1950, although most of it dates since 1990. Some areas of the archive require registration, to obtain a username and password.

*Eprints here are defined as the digital texts of peer-reviewed research articles, before and after refereeing. Before refereeing and publication, the draft is called a "preprint." The refereed, published final draft is called a "postprint." Eprints may include both preprints and postprints, as well as any significant drafts in between, and any post publication updates.

- **The Digital Library of the Commons (DLC) (https://dlc.dlib.indiana.edu/dlc/)**

An archive of international literature on "the commons" (i.e. that which is held in common or by a community). Many useful features for both readers and contributing authors. A full-text Digital Library, a Working Paper Archive of author-submitted papers, and links to relevant references are included. Thanks to the Andrew W. Mellon Foundation, the International Association for the Study of Common Property (IASCP) & the Indiana University Graduate School.

- **Digital Library for Earth System Education (DLESE) (http://www.dlese.org/lib/)**

DLESE Over 5,000 searchable educational resources. Items are also organized into themes or collections, broadly as environmental, geographical, geological, oceanographical and other physical sciences; space science and technology; policy and educational issues and the

philosophy of science. Resources are not archived on site but in a variety of collaborating collections. Funded by the National Science Foundation (USA).

- **Digital Library of Information Science and Technology (dLIST)**
  (http://arizona.openrepository.com)

A repository of electronic resources in Library and Information Science (LIS) and Information Technology (IT). Contains published and unpublished papers, data sets instructional and help materials, pathfinder, reports & bibliographies. So far in English only. User registration required to access some areas in HTML or PDF.

- **The E Server (https://eserver.org/)**

Bit of a mind flip might be an exaggeration, but there is certainly nothing stodgy about this large & contemporary collection of online intellectual texts & resources. Based at the University of Washington.

- **Electronic Texts On The Internet**
  (http://www.refdesk.com/factelec.html)

A useful links page with over eighty entries.

- **Internet Public Library (http://www.ipl.org/)**

Over 20,000 free books available online. The Internet Public Library's Mission Statement says: "The Internet Public Library (IPL) is a public service organization and learning/teaching environment at the University of Michigan School of Information. The IPL Online Texts Collection contains over 20,000 titles that can be browsed by author, by title, or by Dewey Decimal Classification". For questions about the online texts collection, or how to search, please see their help page.

- **National Academy Press**
  (https://www.nap.edu)

Read over 2,500 National Academy science, engineering, and health texts free online. You can also purchase print copies if you wish. These e-books represent the cream of U.S. research & policy opinion in these fields. Texts are presented in a fully-searchable "Open Book" format, which also allows for page browsing & internal links. Open Book" is HTML, & moreover the format is prepared so that you can send people an individual page reference as an URL. PDFs are also available. The U.S. National Academy of Sciences provides this site.

- **New Zealand Digital Library**
  (http://www.nzdl.org)

Collections available include historical documents, humanitarian and development information, computer science technical reports and bibliographies, literary works, and magazines. A project of the University of Waikato, variously in HTML and PDF.

- **Online Books Page**
  (http://onlinebooks.library.upenn.edu/)

This University of Pennsylvania site offers access to more than 16,000 books online.

- **Oxford Text Archive (https://ota.ox.ac.uk/)**

From Oxford University, this archive was founded in 1976. High-quality, well-documented electronic texts for research and teaching. More than 2,500 resources in over 25 different languages. A premium academic resource. Public domain texts are freely available from the on-line catalogue and may be downloaded in a number of different formats. Some texts require the user to obtain the written permission of the original depositor.

- **SAIL-eprints (http://biblioteca.bo.cnr.it/)**

Find scientific or technical documents, published or unpublished, in Chemistry, Physics, Engineering, Materials Sciences, Nanotechnologies, Microelectronics, Computer Sciences, Astronomy, Astrophysics, Earth Sciences, Meteorology, Oceanography Agriculture and related application activities. SAIL enables searching over 70 institutional open access archives around the world. NB: Downloading of e-documents is possible only if it is permitted on the original archive.

- **Soil And Health Library**
  (https://soilandhealth.org/)

Free public library offering books on holistic agriculture, holistic health, self-sufficient living, and personal development.

- **Universal Library (under development)**
  (http://www.ulib.org/)

"The principal benefit of the Universal Library will be to supplement the formal education system by making knowledge available to anyone who can read and has access." A project of Carnegie Mellon University & the governments of China & India - much of the scanning will be done in the latter two countries. The million books project will have considerable content in many Indian and Chinese languages, as well as English.

- **University of Virginia Electronic Text Center**
  (http://dcs.library.virginia.edu/)

Have more than 10,000 publicly accessible texts in thirteen languages (& over 164,000 publicly available images). These texts are available to web browsers, but in addition there are 2,000 + e-books available (in English) for MS Reader & Palm Reader.

- **Virtual Library (http://vlib.org/)**

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  Prepared by a Scot who has spent some time in the USA, this fine work helps puzzled English speaking people understand American expressions better.

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  The Online Etymology Dictionary. In HTML. This valuable, attractively presented resource is from historian and author Douglas Harper.

- **Medical Dictionary Online (http://www.online-medical-dictionary.org/)**
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- **Medical Encyclopedia (http://www.umm.edu/)**
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- **Agriculture Department of Punjab Government (http://www.agripunjab.gov.pk/)**
  It is the official site of Agri. Department of Punjab Government. It covers all the disciplines working under the umbrella of Agriculture Department.

- **Government of Sindh Agriculture Department (http://www.sindhagri.gov.pk/)**
  Development Schemes. Statistics of Different Crops and Estimate of different Crops, Kharif & Rabi (Area & Production, etc.) Projects Digest and Development funds

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- **International Rice Research Institute (http://irri.org/)**
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  NFDC is a multidisciplinary research and development organization at the federal level that integrates disciplines such as economic planning, pricing and subsidies, privatization and deregulation, production and imports, marketing and credit, agronomy and soil science, research, extension and training.
- **Pakistan Agricultural Research Council (http://www.parc.gov.pk/index.php/en/)**
  An agricultural research organization conducting and coordinating research in agricultural sciences.
- **PARB (http:/parb.agripunjab.gov.pk/)**
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The AMEDEOGroup are now making many important medical textbooks available online, free and in full-text. At 1 August 2003 650 titles were included in the service, sorted by specialty and title. FreeBooks4Doctors! Also provides a free alert service as new titles are added.

◆ **Free Medical Journals** (http://linksmedicus.com/)
The Free Medical Journals Site is dedicated to the promotion of free access to medical journals over the Internet. At 1 April 2004 it included over 1370 full-text journals sorted by subject , language, and title, as well as highlight free journals with high impact factors. There is also a mailing list to alert you as new free journals are added to their list.

- ◆ **GenBank** **(https://www.ncbi.nlm.nih.gov/)**
  Established in 1988 as a national resource for molecular biology information, NCBI creates public databases, conducts research in computational biology, develops software tools for analyzing genome data, and disseminates biomedical information - all for the better understanding of molecular processes affecting human health and disease.

- ◆ **Geneva Foundation for Medical Education and Research** **(http://www.gfmer.ch/)**
  Collection of open access and free journals in a wide range of medical disciplines.

- ◆ **Geometry and Topology (http://msp.org/)**
  Fully refereed international journal dealing with all aspects of geometry and topology and their applications. Geometry and Topology is free to access to all users in its electronic format.

- ◆ **HighWire Press** **(http://highwire.stanford.edu/)**
  Sources of free On-Line full text articles and journals HighWire Press work with scholarly societies and responsible publishers to host their content online. They do not own the material, nor do they set the journals' policies. HighWire contains over 439,456 free full-text articles as of January 2003. HighWire Press at Stanford University develops and maintains the Web versions of important journals in biomedicine and other disciplines.

- ◆ **INASP Health Links** **(http://www.inasp.info/)**
  A Gateway to selected Web sites of special interest to health professionals, medical library communities, publishers, and NGOs in developing and transitional countries. It covers General Resources (search engines, gateways, bibliographic databases, abstracts, clinical trials databases, research networks, dictionaries, glossaries, disease classifications, evidence based medicine, full-text E-books, image collections, journals, newsletters, medical education resources, news, useful email lists, and WHO sites); plus Subject Index (e.g. Anaesthesiology, Basic Sciences, Dermatology, HIV/AIDS etc.); plus Library and Publishing Support and Use of ICTs (Information for Development, Internet Skills, Medical Informatics/E-Health, Publishing Tools).

- ◆ **Indian Academy of Sciences** **(http://www.ias.ac.in/)**
  The prestigious peer-reviewed journals of the Indian Academy of Sciences are available online free to all users. The first issue of the Academy Proceedings appeared in July 1934. Publications cover the physical sciences, life sciences, physics, mathematics, chemistry, earth and planetary sciences, plant sciences, animal sciences, and modern biology, materials science, astrophysics and astronomy, genetics plus the journal Resonance, aimed at improving the quality of science education and teaching. Access to all of these journals is free and open to all users.

- ◆ **InformationR.net** **(http://www.informationr.net/)**
  The journals and newsletters listed here all include at least a sample of papers or news items that are freely accessible. Sites that simply provide the contents lists of journals that are not freely accessible are not listed.

- ◆ **International Journal of Molecular Sciences** **(http://www.mdpi.com/journal/ijms)**
  Provides an advanced forum for chemistry, molecular physics (chemical physics and physical chemistry) and molecular biology. Publishes reviews, regular research papers and short notes. Encourages scientists to publish their theoretical and experimental details in as much detail as possible - there is no restriction on the length of the papers. Free to access to all users in its electronic format.

- ◆ **Journal of Biology** **(https://jbiol.biomedcentral.com/)**
  The Journals of Biology is a new international journal, published by BioMed Central, which provides immediate open access to research articles of the highest standard, similar to those published by Nature, Science or Cell. Unlike the latter, all research articles published in Journal of Biology will be permanently available free of charge and without restrictions, ensuring the widest possible dissemination of the work.

- ◆ **Journal of the Indian Institute of Science** **(http://journal.library.iisc.ernet.in/)**
  The Journal of the Indian Institute of Science was started in 1914 with the objective of publishing quality research papers in science and engineering. Research papers and review articles are selected through a stringent peer review process overseen by the editorial board. The Journal is a multi-faceted publication with content likely to be of interest to research students as well as academic and R & D professionals.

- ◆ **Journal of Insect Science** **(www.insectscience.org/)**
  Publishes papers in all aspects of the biology of

insects and other arthropods from the molecular to the ecological, and their agricultural and medical impact. An international journal published by the University of Arizona Library. Freely available to individuals and institutions via the Web. No cost inclusion of colour figures, videos, sound and large data sets.

◆ **Molecules**
   (http://www.mdpi.com/journal/molecules)
An internet journal of synthetic chemistry and natural product chemistry. Reviews, regular research papers and notes are considered. Our aim is to encourage chemists to publish as much as possible their experimental detail, particularly synthetic procedures and characterization information. There is no restriction on the length of the experimental section. Free access to all articles to all users, online.

◆ **Multilingual Matters/Channel View Publications (http://www.multilingual-matters.com/)**
Multilingual Matters is one of the world leaders in research on multilingualism and minority language rights. Multilingual Matters/Channel View Publications are offering free electronic access to journals for institutional subscribers in countries of "low human development" as defined by the Human Development Index.

◆ **NASA Astrophysics Data System (http://ads.harvard.edu/)**
The Astrophysics Data System (ADS) is a NASA funded project that provides free access to over 300,000 free full-text articles in astronomy and astrophysics. Most of the major astronomical journals are included. In many cases articles published in the current year are not available through ADS. Articles are available in PDF, GIF, or other electronic formats.

◆ **National Technical Information Service (NTIS) (https://www.ntis.gov/)**
The US Department of Commerce, National Technical Information Service (NTIS) has begun electronic delivery of all its reports dating to 1997. Reports numbering fewer than 20 pages are free; those over 20 pages are $8.95. The scanned reports appear in Adobe PDF.

◆ **PubMed (https://www.ncbi.nlm.nih.gov/)**
PubMed, a service of the National Library of Medicine, provides access to over 12 million MEDLINE citations back to the mid-1960's and additional life science journals. PubMed includes links to many sites providing full text

articles and other related resources.

◆ **Royal College of Psychiatrists (UK) (http://www.rcpsych.ac.uk/)**
The Royal College of Psychiatrists allows free access to the online full-text version of its three journals ('British Journal of Psychiatry', 'Psychiatric Bulletin' and 'Advances in Psychiatric Treatment') to 75 different developing countries.

◆ **Library of Congress (https://www.loc.gov/)**
A good descriptive inventory of databases that produce lists of citations to scientific literature, and which are freely accessible. In addition to the major free databases such as UnCover, Agricola, Medline, etc. it also includes searchable databases from learned societies, government agencies, electronic journal publishers, and various discussion groups-all freely accessible.

◆ **SciELO - Scientific Electronic Library Online (http://scielo.org/)**
The objective of the site is to implement an electronic virtual library, providing full access to a collection of serial titles, a collection of issues from individual serial titles, as well as to the full text of articles. The access to both serial titles and articles is available via indexes and search forms.

◆ **TOXNET (https://toxnet.nlm.nih.gov/)**
A cluster of databases on toxicology, hazardous chemicals, and related areas with free to access abstracts plus links to a range of related NLM sites.

◆ **UNESCO (http://en.unesco.org/)**
The UNESCO catalog lists over 100,000 UNESCO documents and provides access to the full text.

◆ **Water Resources Abstracts (http://rdl.lib.uconn.edu/)**
Compiled from several sources for USGS abstracts on the subject of water resources since 1977, plus some earlier abstracts. The method of submitting and collecting abstracts was not foolproof and, therefore, this is not a complete set. The information you find here should be augmented with other methods of search such as Water Research Abstracts

◆ **World Development Sources (World Bank) (http://documents.worldbank.org/)**
World Development Sources (WDS) is a web based text search and retrieval system which contains a collection of over 6,000 World Bank reports most of which are scanned and are available in imaged format, which you can

access via a web browser and search through a multi-field search engine. These include Project appraisal reports, Economic and Sector Works, Evaluation reports, studies and working papers.

◆ **AcademiaJournals.com**
 (http://www.academicjournals.org/)
The vast majority of journals published in Africa today are languishing in obscurity because they are not known outside their institutions or region. Academic Journals is a broad-based publisher of peer-reviewed open access journals. It currently publishes 111 open access journals covering art and humanities, engineering, medical science, social sciences, biological sciences, physical sciences and agricultural sciences. Its collection provides valuable resources for both researchers and users inside or outside Africa.

◆ **Conservation and Society**
 (http://www.conservationandsociety.org/)
A peer-reviewed interdisciplinary journal that aims to promote work on the theory and practice of conservation. The journal is dedicated to publishing work from both natural and social sciences and covers basic and applied research. The journal is committed to disseminating information in the developing world. Free online access is available for all articles and hard copy subscriptions are highly subsidised for Asia, Africa and Latin America.

◆ **Electronic Journal on Information Systems in Developing Countries (EJISDC)**
 (http://www.ejisdc.org/)
A publication by the City University of Hong Kong in association with two Dutch universities, this journal is dedicated to the problems and opportunities in information systems in developing countries—and to assist policy makers to share knowledge and experience in the design, development, implementation, management and evaluation of such systems. Access to full-text articles is free, and which are provided as Adobe pdf files

◆ **Journal of Machine Learning Research (JMLR) (http://www.jmlr.org/)**
Provides an international forum for the electronic and paper publication of high-quality scholarly articles in all areas of machine learning. Free access to all articles to all users, online.

Citation Tools

EndNote

EndNote Web: a Web-based service designed to help researchers through the process of writing a research paper. Researchers can use EndNote Web as the perfect complement to EndNote and other desktop writing tools, as well as storing references between ISI Web of Knowledge search sessions.
What is EndNote?

EndNote X7

- Your references and referencing styles manager
- Software that allows researchers to find, import, export, store, organize, and use references to information sources
- A client program to create files of references called EndNote Libraries.
- Storage with references for full text PDF, figures, pictures, tables, etc.
- Your research database of academic and professional literature

Creating a new EndNote Library

1. From the EndNote toolbar, go to File > New
   A New Reference Library window will open prompting you to save

2. **Name** your Library menu and save to regular location
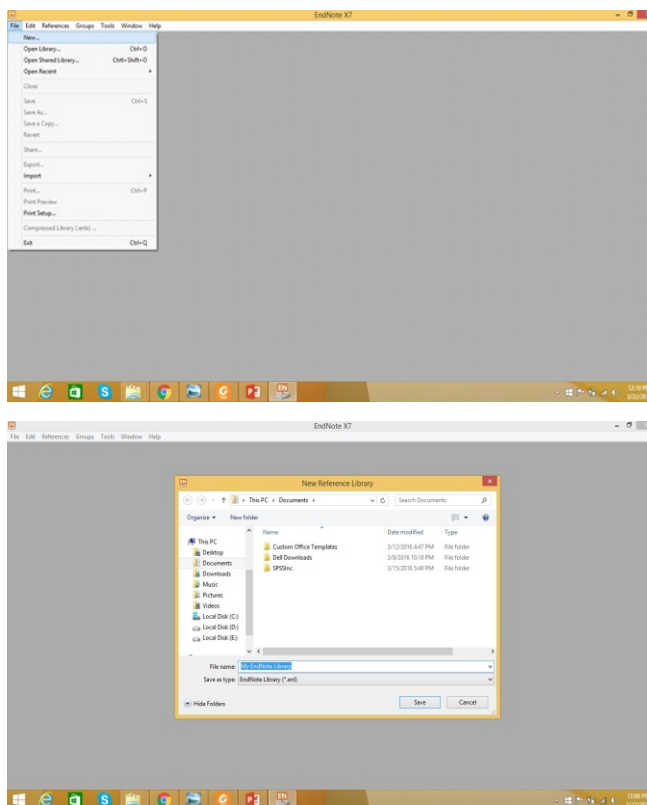
Importing references from Google Scholar

1. Open Scholar Preferences, and in the next page, scroll to the bottom

2. For Bibliography Manager, from the drop-down menu select: EndNote

Click Save Preferences

Importing references from Google Scholar

1. Under relevant result, click: Import into EndNote
2. In the File Download box, click: OK[Your default library should open. otherwise locate and open]
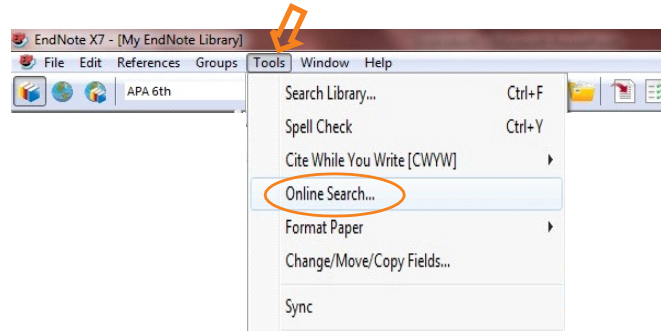3. Check your reference
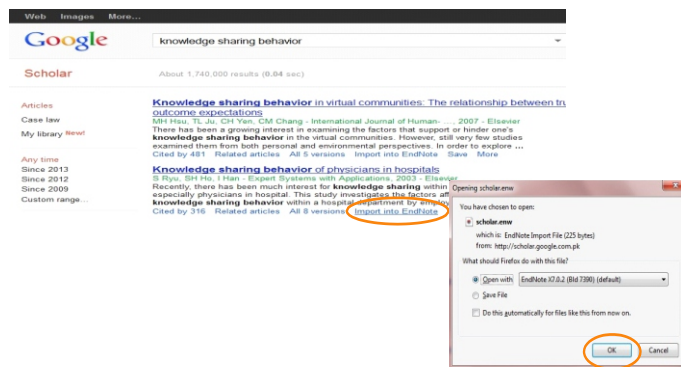
Importing references from databases

Emerald	Science
Direct	JSTOR
IEEE	PubMed

Importing from Library catalogues
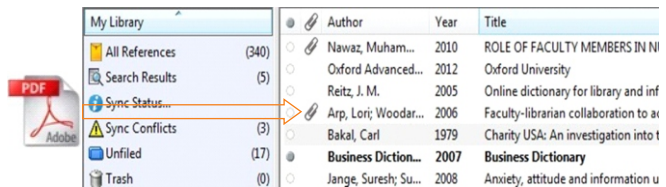
[Ensure your internet connection is active]
1. Choose Tools and select Online Search

2. Browse or search for your Library
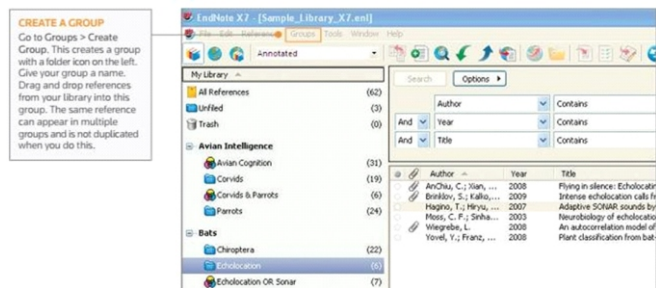
Adding a File to a Reference

1. e.g : save full-text PDF to Desktop
2. Open your library, then:
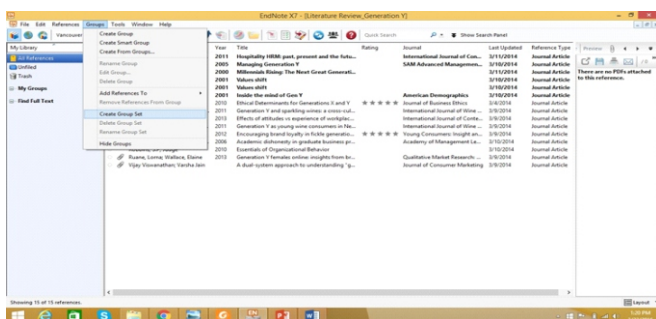3. Drag & drop the PDF onto the appropriate reference

or Open a library record, scroll-to: File Attachments, and Drag & drop the PDF File onto the field.

To open : click the icon in the reference list (or) record
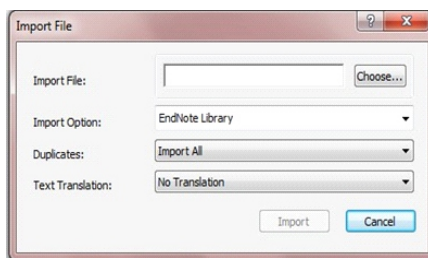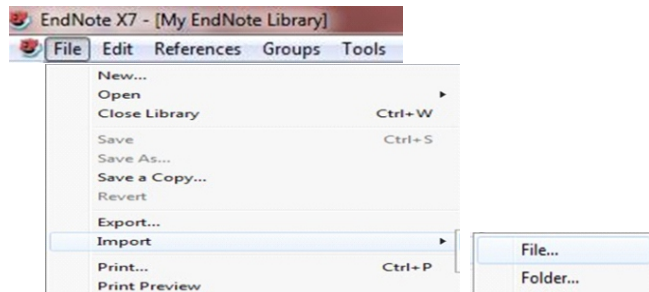
Organize Your References Into Groups

Creating a Group Set

Importing files (or folders of files)

Note: Useful for PDFs with correctly formatted DOI on the first page
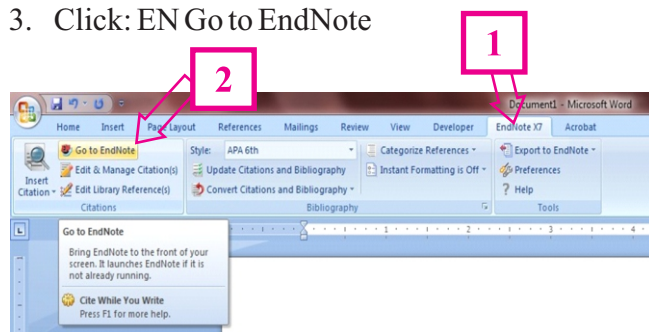
1. From the toolbar, select: **File > Import > File**
2. In the dialogue box, select: Choose to locate and pen a PDF file
3. In the dialogue box, Click: **Import**

4. Open the record to check the data and correct if necessary

Opening EndNote from Word

1. Open Word
2. Select the EndNote X7 tab to open the EndNote tools
3. Click: EN Go to EndNote

Inserting an in-text citation

1. In your document, place the cursor where you want the citation to appear
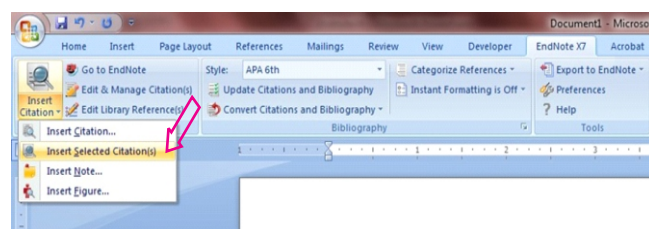
2. Click Insert Citation, then select Insert Citation
3. Enter words & Click **Find**
4. Select desired reference and click Insert
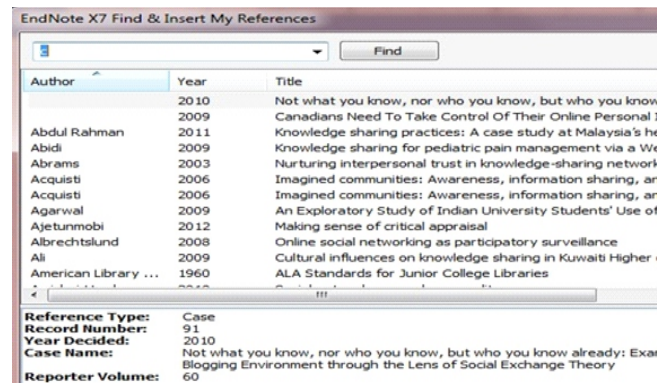
Note:
Insert drop-down options

From Citations to Bibliography

As you insert citations, the bibliography will appear at the bottom of the doc
- To enter multiple citations: use Ctrl-click to select them, then Insert
- To add a citation to another: place cursor next to first citation & click Insert
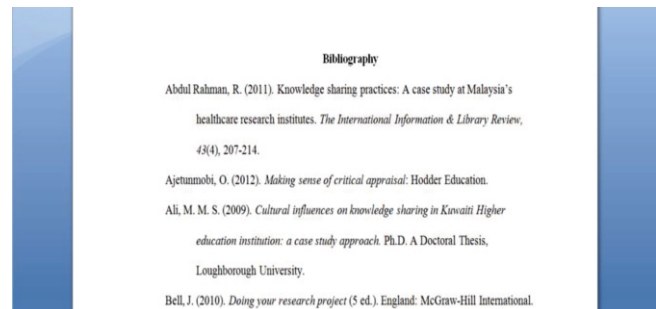
Changing bibliographic styles in Word

Expand the Style drop-down menu to select another Style
Choose Select Another Style if your style is not shown

Entering References Manually

1. On the toolbar,
   Click-on the New Reference icon
   (OR)
   Click 'References'

and Select 'New
Reference'

2. In the New Reference record,
   From the Reference Type drop-down, select a required Reference Type

Entering References Manually

Entering Author Names

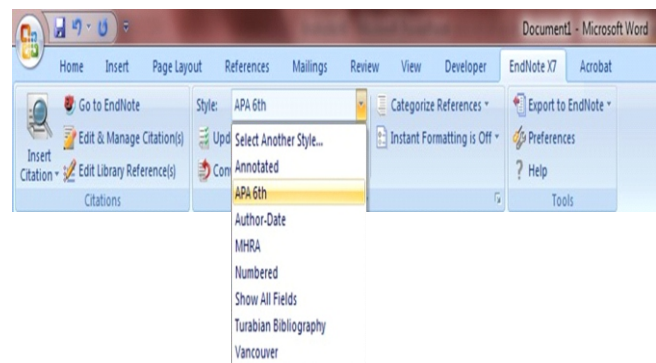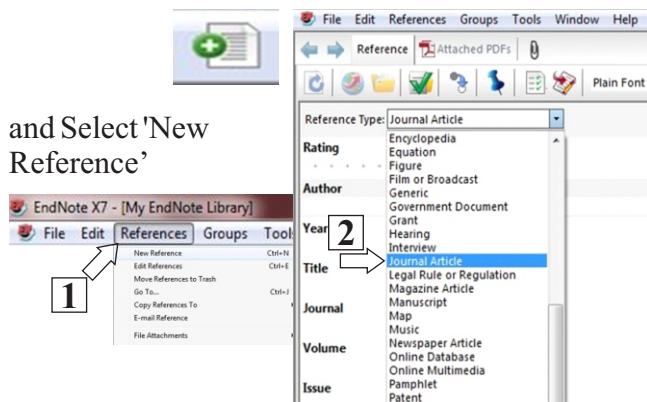Options for Personal Name:
Smith, J
Smith, John
John Smith   (no comma)
Comma after a corporate author:
Amnesty International,

If there is no author, leave blank (do not enter 'anonymous')
Use a new line for each author

Entering References Manually

Entering Titles

Enter titles on a single line without hitting enter

Enter the full journal title (no abbreviation)

Leave out a full-stop at the end of a title

Ensure there are no blank spaces after the title string

Capitalize as you would like it to appear in your bibliography

Entering References Manually

Entering Data in other Fields

Publication year: e.g. 2007 (enter the full year without brackets)

Page numbers: e.g. 123-167 (not: pp. 123-167)

URLs: include the start of the URL (http://)

Edition: e.g. 1st , not '1' or 'First'

Research Notes and label fields

Research notes: write annotations for Lit Review or collect quotes

Label: assign custom tags for searching your records e.g. unit codes, assessment items

zotero

Zotero: an easy-to-use yet powerful research tool that helps you gather, organize, and analyze sources (citations, full texts, web pages, images, and other objects), and lets you share the results of your research in a variety of ways. It has the ability to store author, title, and publication fields and to export that information as formatted references and the best parts of modern software and web applications (like iTunes and del.icio.us), such as the ability to interact, tag, and search in advanced ways. Zotero integrates tightly with online resources; it can sense when users are viewing a book, article, or other object on the web and on many major research and library sites find and automatically save the full reference information for the item in the correct fields.

citeulike

citeulike: free service for managing and discovering scholarly references. It can easily store references you find online, discover new articles and resources, automated article recommendations, share references with your peers, find out who's reading what you're reading, and store and search your PDFs.

easybib

EasyBib (Write Smart): The free version of EasyBib formats citations in the latest edition of the MLA format (currently the 7th edition). To use EasyBib's APA formatting services, sign up for MyBib Pro by clicking here: https://www-secure.easybib.com/products/easybibpro.

JabRef: an open source bibliography reference manager. The native file format used by JabRef is BibTeX, the standard LaTeX bibliography format. JabRef runs on the Java VM (version 1.5 or newer), and should work equally well on Windows, Linux and Mac OS X.

Landmarks SonOf Citation Machine™ 5.0

Son of Citation Machine: Professional researchers to properly credit the information that they use. Its primary goal is to make it so easy for researchers to cite their information sources, that there is virtually no reason not to -- because SOMEDAY THE INFORMATION THAT SOMEONE ELSE WANTS TO USE -- WILL BE YOURS!

refBASE

refbase: This web database lets you manage your academic references online, and share them with your colleagues. Using this free web service you can upload your references and see what others are reading, the database currently features 24047 records, organize and group your references, and assign keywords to them, so it's easy to get back to a reference, generate a formatted list of citations for your academic paper or CV (as HTML, RTF, PDF, or LaTeX), export references to desktop reference managers (such as Endnote, or Reference Manager) or BibTeX, and import records from common bibliographic formats and online databases.

Scholarly Search Engines and Databases

Google Scholar (https://scholar.google.com.pk/)
ISI Web of Science
(http://www.digitallibrary.edu.pk/isi.html)
Librarians' Internet Index
(http://erd.bulibtools.net/)

- ❖ **iSEEK Education (http://education.iseek.com/)** iSeek is an excellent targeted search engine, designed especially for students, teachers, administrators, and caregivers. Find authoritative, intelligent, and time-saving resources in a safe, editor-reviewed environment with iSEEK.
- ❖ **RefSeek (https://www.refseek.com/)** With more than 1 billion documents, web pages, books, journals, newspapers, and more, RefSeek offers authoritative resources in just about any subject, without all of the mess of sponsored links and commercial results.
- ❖ **Virtual LRC (http://www.virtuallrc.com/)** The Virtual Learning Resources Center has created a custom Google search, featuring only the best of academic information websites. This search is curated by teachers and library professionals around the world to share great resources for academic projects.
- ❖ **Academic Index (http://www.academicindex.net/)** This scholarly search engine and web directory was created just for college students. The websites in this index are selected by librarians, teachers, and educational consortia. Be sure to check out their research guides for history, health, criminal justice, and more.
- ❖ **BUBL LINK (http://catalog.webtoolhub.com/)** If you love the Dewey Decimal system, this Internet resource catalog is a great resource. Search using your own keywords, or browse subject areas with Dewey subject menus.
- ❖ **OAIster (http://www.oclc.org/)** Search the OAIster database to find millions of digital resources from thousands of contributors, especially open access resources.

❖ **Microsoft Academic Search (http://academic.research.microsoft.com/** Microsoft's academic search engine offers access to more than 38 million different publications, with features including maps, graphing, trends, and paths that show how authors are connected.

❖ **Google Correlate (https://www.google.com /trends/correlate)** Google's super cool search tool will allow you to find searches that correlate with real-world data.

❖ **Wolfram|Alpha(https://www.wolframalpha .com/)** Using expert-level knowledge, this search engine doesn't just find links; it answers questions, does analysis, and generates reports.

❖ **Meta Search (http://metasearch.com/)** Want the best of everything? Use these meta search engines that return results from multiple sites all at once.

❖ **MetaCrawler (http://www.metacrawler.com/)** MetaCrawler makes it easy to "search the search engines," returning results from Google, Yahoo!, and Bing.

❖ **WorldCat (https://www.worldcat.org/)** Find items from 10,000 libraries worldwide, with books, DVDs, CDs, and articles up for grabs. You can even find your closest library with WorldCat's tools.

❖ **World Wide Science (https://worldwidescience.org/)** A global science gateway—accelerating scientific discovery and progress through a multilateral partnership to enable federated searching of national and international scientific databases and portals.

❖ **Archives Hub (https://archiveshub.jisc.ac.uk/)** Find the best of what Britain has to offer in the Archives Hub. You'll be able to search archives from almost 200 institutions from England, Scotland, and Wales.

❖ **National Archives (http://www.nationalarchives.gov.uk/)** Check out this resource for access to the National Archives. Find online, public access to find historic documents, research, government information, and more in a single search.

❖ **Archive net (https://archive.org/)** An initiative of the Historical Centre Overijssel, Archivenet makes it easy to find Dutch archives and more.

❖ **NASA Historical Archive (https://history.nasa.gov/)** Explore the history of space in this historical archive from NASA, highlighting space history and manned missions.

❖ **National Agricultural Library (https://www.nal.usda.gov/)** A service of the U.S. Department of Agriculture, you can find global information for agriculture in the National Agricultural Library.

❖ **Smithsonian Institution Research Information System (http://www.siris.si.edu/)** Get access to the considerable resources of the Smithsonian Institution through the Research Information System, a great way to search more than 7.4 million records from the Smithsonian's museums, archives, and libraries.

❖ **The British Library Catalogues & Collections (https://www.bl.uk/)** Explore the British Library catalogues, printed materials, digital collections, and even collection blogs for a wealth of resources.

❖ **CIA World Fact book (https://www.cia.gov/library/publications/)** As the center of intelligence, the CIA has certainly done its job with The World Fact book, offering information on major reference information around the world. History, people, government, economy, and more are all covered in this online publication.

❖ **Open DOAR (http://www.opendoar.org/)** In the Directory of Open Access Repositories, you can search through freely academic research information with more directly useful resources.

❖ **Catalog of U.S. Government Publications (https://catalog.gpo.gov/)** Search through the Catalog of U.S. Government Publications to find descriptive records for historical and current publications, with direct links where available.

❖ **Vadlo (http://vadlo.com/)** Vadlo is a life sciences search engine offering protocols, tools, and powerpoints for scientific research and discovery. Find what you're looking for, and then stick around to check out the forums.

❖ **Online Journals Search Engine (http://www.oajse.com/)** In this free, powerful scientific search engine, you can discover journals, articles, research reports, and books in scientific publications.

❖ **Jurn (http://www.jurn.org/)** In this curated academic search engine, you'll get results from over 4,000 free scholarly e-journals in the arts and humanities.

❖ **Chem BioFinder**
(http://www.chemfinder.com/) Register with PerkinElmer to check out the Chem BioFinder and look up information about chemicals, including their properties and reactions.

❖ **Biology Browser**
(http://www.biologybrowser.org/) Biology Browser is a great resource for finding research, resources, and information in the field of biology. You can also check out their Zoological Record and BIOSIS Previews.

❖ **Athenus (http://www.athenus.com/)**
Athenus is an authority on science and engineering on the Web, sharing a directory and full-featured web search.

❖ **SciCentral (http://www.scicentral.com/)**
Use SciCentral as your gateway to the best sources in science. This site has a literature search, journals, databases, and other great tools for finding what you need.

❖ **Analytical Sciences Digital Library**
(http://home.asdlib.org/) Through the Analytical Sciences Digital Library, you'll find peer-reviewed, web-based educational resources in analytical sciences, featuring a variety of formats for techniques and applications.

❖ **Merriam-Webster Dictionary and Thesaurus**
(https://www.merriam-webster.com/) Use this online dictionary and thesaurus to quickly find definitions and synonyms.

❖ **References.net (http://www.references.net/)**
Through References.net, you can get connected with just about every reference tool available, from patents to almanacs.

**Electronic Theses and Dissertations - ETDs**
❖ **Pakistan Research Repository**
   (http://eprints.hec.gov.pk/)
   Pakistan Research Repository is a project of the Higher Education Commission to promote the international visibility of research originating out of institutes of higher education in Pakistan. The aim of this service is to maintain a digital archive of all PhD theses produced indigenously to promote the intellectual output of Pakistani institutions. It provides a free, single-entry access point to view the manuscript of research executed, and distribute this information as widely as possible.
   The repository which is currently being populated with content has already made the full-text of PhD theses available in high-quality

digitized format, whilst further theses are in process of digitization. Higher Education Commission has introduced a systematic mechanism for the collection and digitization of all the theses produced so far in Pakistan

❖ **Networked Digital Library of Theses and Dissertations (www.ndltd.org)**
Catalog of theses and doctoral dissertations contributed by some 176 universities and 27 institutions worldwide.
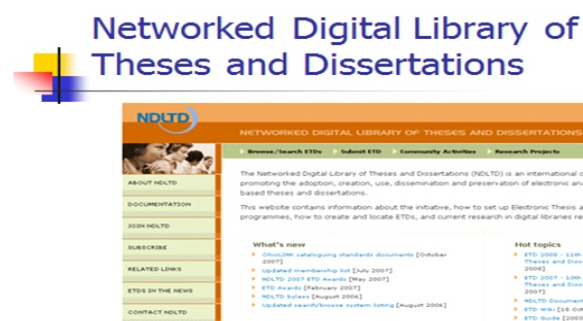
British Library EThOS
250,000+ theses of British universities

❖ **Proquest Dissertations & Theses Database**
World's most comprehensive collection of dissertations and theses with over 2.7 million titles.

❖ **LexisNexis Academic**
   (https://www.lexisnexis.com/)
   LexisNexis Academic allows users to search the news, look up legal cases, look up information about companies, and research public figures.

❖ **CORE (http://www.core-econ.org/)**
CORE aims to connect users with open access content and they're also a large aggregator of content from hundreds of Open Access repositories.

- ❖ **Center for Research Libraries (CRL) Foreign Dissertations (https://www.crl.edu/)**
  The Center for Research Libraries (CRL) Foreign Dissertations Section allows users to filter through over 800,000 doctoral dissertations from over 1,200 institutions worldwide. Searches can be done be keyword or by specific country and institution.

- ❖ **Stanford Dissertation Browser (https://nlp.stanford.edu/)**
  Stanford Dissertation Browser is an intuitive resource for browsing a database of PhD dissertations and this is, in part, due to the sites visualization of the browser, which is color-coded in an easy-to-locate manner.

- ❖ **Open Thesis (https://oatd.org/)**
  Open Thesis is an open access repository of various academic documents, theses, and dissertations. The content is user-generated, so it does depend on the authors of these works to upload their own materials.

- ❖ **Dissertations of China (DOC) (http://www.wanfangdata.com/)**
  Dissertations of China is a database of PhD dissertations from every established academic field, along with subcategories.

- ❖ **DISssertations Initiative for the Advancement of Climate Change ReSearch (DISCCRS) (http://disccrs.org/)**
  The DISCCRS, pronounced discourse, aims to advance academia by giving students access to a searchable database of PhD's, along with career-development resources. Additionally, they have links to symposiums and other useful information.

- ❖ **DART-Europe E-theses Portal (http://www.dart-europe.eu/)**
  DART-Europe E-Theses Portal is a network of research libraries and a group for improving global access to the materials.

- ❖ **Theses Canada Portal (http://www.bac-lac.gc.ca/)**
  Theses Canada is a resource for locating theses and dissertations. The theses are compiled through a variety of Canadian academic institutions and universities.

- ❖ **DATAD: Database of African Theses and Dissertations (https://www.libraries.rutgers.edu/)**
  - Database of African Theses and Dissertations helps locate theses and dissertations from African higher education networks through a powerful search engine

- ❖ **Subject Directories and Databases**
  - Also called Information Gateways and Virtual Libraries
  - Yahoo Directory
  - Google Directory
  - Librarians' Internet Index
  - About.com
  - Infomine
  - The WWW Virtual Library
  - Specialized Subject Directories
  - Abi Logic
  - Solid Crawler
  - Academic Info
  - SOSIG - Social Science Information Gateway

Writing & Research

Writing and research styles can be completely different from one discipline to the next. Where a math PhD seeker might do all her doctoral research on a computer, building models, a master of history candidate might need to spend hours digging through archives and microfiche at the library. These sites offer perspectives and tools for all types of researchers.

- ❖ **Vitae**
  Vitae is an organization based in the United Kingdom focused on professional and career development of doctoral researchers and the staffs of higher education institutions.

- ❖ **Fragment/Framework**
  Fragment/Framework is run by a Doctoral Candidate from Purdue University. The goal of the blog is to provide an environment to intuitively enrich the writing practices of students, along with professionals.

- ❖ **The Library Blog (http://libraries.ucsd.edu/blogs/)**
  The Library Blog is an online resource created by The University of Boras. The blog posts tips to writing papers and includes updates on interesting developments in the literary community.

- ❖ **Critical Thinking and Academic Research**
  The Critical Thinking and Academic Research page from University of Louisville helps foster new ideas through assisting in building better research papers. They provide tips on developing concepts, points of view, and inferences that prove helpful for academic research.

- ❖ **Organizing Creativity (http://www.organizingcreativity.com/)**
  Organizing Creativity guides users through a

series of helpful tips to better implementing ideas for creative projects. The book is available as a PDF and there is a supplementary blog as well.

❖ **The Dutch PhD Coach** **(http://www.thedutchphdcoach.com/blog/)**
The Dutch PhD Coach is run by Arjenne Louter, a teacher with 20 years' experience assisting PhD students when faced with problems relevant to writing, literature, work-life balance, motivation, and inspiration.

❖ **Explorations of Style** **(https://explorationsofstyle.com/)**
Explorations of Style informs readers on the state of academic writing in contemporary society, along with how to overcome the challenges associated with it.

❖ **Write to Done** **(http://writetodone.com/)**
Write to Done is a forum for writers to discuss techniques that have proven effective and offer tips and insight to other writers. The blog is composed of passionate authors who truly enjoy writing.

❖ **Scientific Academic Writing** **(http://www.scoop.it/)**
Scientific Academic Writing blogs about writing advice for those working on scientific research papers geared for academic journals, theses, and dissertations. The posts cover a wide variety of subjects.

❖ **Institute for Writing and Rhetoric** **(http://writing-speech.dartmouth.edu/)**
The Institute for Writing and Rhetoric is run from Dartmouth University and emphasizes the values or the Dartmouth writing program. The site gives users access to writing courses, workshops, citation assistance, and opportunities to put their skills to work through English as a Second Language and Teaching Assistantships.

❖ **Purdue OWL** **(https://owl.english.purdue.edu/owl/)**
Purdue's Online Writing Lab, better known as OWL, is a well-known resource for research and citation examples and help, subject specific resources, along with job search writing advice for those close to graduating.

❖ **Southeastern Writing Center Association** **(http://www.iwca-swca.org/)**
The Southeastern Writing Center Association advocates for advancing literacy and promoting the user of professional writing centers for students, faculty, staff and writing professionals in academic and non-academic settings.

❖ **The Cambridge Stratford Study Skills Institute** **(http://www.cambridgestratford.com/)**
The Cambridge Stratford Study Skills Institute provides Tutor Training through text and assessments, along with an online eMaster Tutor Training Course. They have orientations designed specifically for freshman, adult, and students with disabilities.

❖ **PhD Blog (dot) Net** **(http://phdblog.net/thesis/)**
PhD Blog (dot) Net is a blog for airing various ideas and issues with the process of building a thesis.

❖ **PhD Talk** **(http://phdtalk.blogspot.com/)**
PhD Talk touches on random thoughts of the PhD process, but it is presented in a lighthearted and friendly tone.

❖ **Research Buzz** **(https://researchbuzz.me/)**
Research Buzz compiles information and commentary on search engines, databases, digitization projects, and online information collections.

❖ **Research Guides** **(http://community.libguides.com/)**
Research Guides provides research sources, strategies, discussions, and guides on a variety of sources for writing your paper.

❖ **Critically Analyzing Information Sources** **(http://guides.library.cornell.edu/)**
Critically Analyzing Information Sources is run by Cornell University and allows users to evaluate physical information sources even without the physical item in hand.

❖ **University of Michigan Research & Technology Guides** **(http://guides.lib.umich.edu/)**
University of Michigan's Research and Technology Guides cover a modest range of subject, along with guides on numerous topics with varying specificity.

❖ **Writing Commons** **(https://writingcommons.org/)**
Writing Commons aims to help college students currently struggling with their writing abilities, researching, and critical thinking skills. The format is peer-reviewed and puts an emphasis on crowd-sourcing.

❖ **Thinking About Writing**
Thinking about Writing helps with writing skills for students working towards a Bachelor's Degree, along with thesis tips, and help with simple grammar and formatting errors.

Dissertation & Thesis Tips

The dissertation or thesis is a different type of project than most people have ever done before they reach grad school. There are many blogs and web pages dedicated to discussing the ins and outs of starting, and more importantly finishing, a dissertation or thesis.

❖ **Dissertation Diva**
 (http://dissertationdiva.typepad.com/)
Dissertation Diva is a blog run by Liena Vayzman, who provides advice on the PhD process. She also went through the process and often blogs about experiences and takes questions from readers.

❖ **Thesis Whisperer**
 (https://thesiswhisperer.com/)
Thesis Whisperer breaks down a variety of thesis-related subjects in a newspaper-style format. Contributors from around the world make up the extensive range of voices on the site and they also do book reviews.

❖ **DoctoralNet (https://doctoralnet.com/)**
Doctoral Net is a collection of professors who provide dissertation help services. There are study groups and advice sessions, and free registration.

❖ **Navigating the Dissertation**
 (http://dissertationedd.usc.edu/)
Navigating the Dissertation provides workshops, dissertation groups, and Dissertation Boot Camp, all to help doctoral students achieve the success they desire with their dissertations.

❖ **Electronic Thesis and Dissertation (ETD) Resource Center**
 (https://www.ohiolink.edu/)
The Electronic Thesis and Dissertation Resource Center helps all masters and doctoral students work on their thesis and better understand the electronic theses and dissertation process.

❖ **Guide to Preparing Your Masters Thesis**
 (https://grad.wisc.edu/)
The University of Wisconsin Guide to Preparing Your Master's Thesis gives detailed instructions, along with tips, for how to properly prepare and deposit your thesis upon completion.

❖ **From Tweet to Thesis**
 (https://fromtweettothesis.wordpress.com/)
From Tweet to Thesis centers its content on the thought process for PhD students coming up with their PhD topic or research question. The posts are about different ideas and processes

involved with creating ideas and putting them into reality via dissertations and theses.

❖ **ABD Survival Guide**
 (https://www.abdsurvivalguide.com/)
All-But-Dissertation Survival Guide is a monthly issue of tips and advice for helping students complete their dissertation or thesis, along with the option to apply for a dissertation coach to assist you.

❖ **Dissertating**
 (http://cgudissertations.blogspot.com/)
Dissertating helps those working on their dissertations to remain well-maintained and productive. Eating tips, workshops, and advice on defending their dissertation are provided.

❖ **Sample Dissertation Proposals**
 (http://www.ut-ie.com/s/sample_diss.html)
Sample Dissertation Proposals is a great source for gaining a better understanding of various themes and ideas in relative fields for working on a dissertation.

❖ **The Three Month Thesis**
 (http://jameshaytonphd.com/)
The Three Month Thesis blogs about helping dissertation writers power through bouts of writers blog and lack of motivation. There are pieces of advice for making the PhD process (slightly) easier.

❖ **WriteCheck Blog (en.writecheck.com)**
WriteCheck Blog is a comprehensive site for writing papers and includes plagiarism checks, grammar checks, along with professional training and other useful services.

❖ **APA Style Blog**
APA Style Blog provides clarity to those struggling to write in APA format and includes tips with examples for how to adhere closer to APA formatting.

❖ **References.net (http://www.references.net/)**
References.net is a tool for locating any sort of reference that may be needed. It categorizes tools like almanacs and dictionaries, but also the news, travel information, music, and languages.

❖ **Modern Language Association (MLA)**
 (https://www.mla.org/)
The Modern Language Association is a straight-forward guide to understanding MLA formatting and includes resources and convention information.

❖ **How to Cite Film, Video, and Online Media**
This site has great examples for incorporating a variety of multimedia sources into citations. Aside from movies, television, and radio, they also explain the significance of citing the format

- ❖ **The Elements of Style (http://www.bartleby.com/)**
  The Elements of Style analyzes different usages of literary devices and elaborates on them. They also have search tools for fiction, nonfiction, verses, and a reference search.
- ❖ **Modern English Grammar (http://papyr.com/)**
  Modern English Grammar is supplemental content for Daniel Kies, English Professor at College of DuPage, and his Modern English Grammar class. Content varies from grammar structure, to common usage errors, as well as linguistic stylistics, text analysis, and student examples.
- ❖ **The Chicago Manual of Style Online (http://www.chicagomanualofstyle.org/)**
  The Chicago Manual of Style provides recommendations on editorial style, along with publishing practice, and tips for writing in the digital age.
- ❖ **Advice on Research and Writing (http://www.cs.cmu.edu/)**
  Advice on Research and Writing compiles tips from numerous authors on subjects such as writing and publishing, research skills, speaking, career development, and more.
- ❖ **Presentation Zen (http://www.presentationzen.com/)**
  Presentation Zen blogs on professional presentation design and gives advice that forms supplementary content to his array of published books.

Academic Publishing

"Publish or perish" is the axiom many academics live by. If you aren't publishing research, you aren't making a name for yourself in your field, and your career is on thin ice. These sites on academic publishing offer varying perspectives on the publication of educational material and scholarly research.

- ❖ **Jessica Kingsley Publishers (http://www.jkp.com/)**
  Jessica Kingsley Publishers is an independent publisher aimed at publishing books for areas like Art Therapy, Autism, Disability, Education, and other areas aimed at increasing knowledge on particular issues.
- ❖ **Publishing Perspectives (https://publishingperspectives.com/)**
  Publishing Perspectives is a source for discussing news in the book community and commentary on the state of books.

- ❖ **Publetariat (http://www.publetariat.com/)**
  Publetariat is focused on the independent author. Due to the rising tide of technology, self-publishing is an increasingly popular method for the output of literature and associated works
- ❖ **Food and Agriculture Organization (FAO) Rome [Italy] http://www.fao.org/home/en/**
  The Food and Agriculture Organization of the UN leads international efforts to defeat hunger. Serving both developed and developing countries, FAO acts as a neutral forum where all nations meet as equals to negotiate agreements and debate policy.
- ❖ **Storey Publishing, LLC North Adams [United States] www.storey.com**
  Publisher of beautiful and practical non-fiction titles in the areas of Gardening, crafts, animals & pets, horses & & equestrian, agriculture, food & drink, home reference, building, nature, and well-being. Some children's non-fiction as well.
- ❖ **University Kasdi Merbah Ouargla- Algeria Ouargla [Algeria] https://www.univ-ouargla.dz/**
  It is published as a series of ten separate titles, The ten (10) periodicals accept original writings (in Arabic, English, and French) pertaining to fundamental as well as applied research. They are intended as a forum for sharing ideas and experiences with other national and foreign academic institutions; as an instrument of dialogue and exchange between academics; and as a dynamic arena.
- ❖ **Mundi-Prensa Libros, S.A. Madrid [Spain] www.mundiprensa.com/**
  Publishers and booksellers in Madrid, Barcelona and México D.F. Economics, management, environment, agriculture, life sciences, sciences and technical publications. Also: international subscriptions agency.
- ❖ **CABI Publishing www.cabi.org**
  Publishers of databases, books, and journals in the applied life sciences, including agriculture, forestry, socio-economics, veterinary science and related disciplines.
- ❖ **Practical Action Publishing Rugby [United Kingdom] practicalactionpublishing.org/**
  Publisher and distributor of books and periodicals at practical and policy levels on appropriate technology. International rural development, water and sanitation, agriculture, enterprise development, small scale construction and manufacture, energy.

- ❖ **China Agriculture Press Beijing [China]** www.chinabookshop.net/
Founded 1958. Subsidiary Rural Reading Press. It is the only large comprehensive press which gives priority to books On agricultural science, technics, and theory, textbooks for agricultural collections and universities, reference books, and ancient books.agriculture yearbook and magzine. It also publishes books on other subjects as life books;children's books and has video-audio products.

- ❖ **Cambridge University Press** www.cambridge.org/
Dating from a "Letters Patent" from King Henry VIII in 1534 to print "all manner of books," the Cambridge University Press claims to be the oldest university press and one of the oldest publishers and printers in the world. Part of the University of Cambridge, the press publishes 50,000 authors in more than 100 different countries. Its list encompasses academic, professional and school titles "from aesthetics to zoology."

  Their notable authors include poet and writer John Milton (1608 – 1674), physicist and mathematician Sir Isaac Newton (1642 -1727), philosopher Bertrand Russell (1872 – 1970), linguist and philosopher Noam Chomsky, and theoretical physicist Stephen Hawking.Cambridge University Press has more than 50 offices around the globe.

- ❖ **Oxford University Press** (https://oup.com.pk/)
Given a rivalry with Cambridge that dates back to the thirteenth century, perhaps it's no wonder Oxford also claims its University Press is the oldest in the world, citing origins dating back to 1478; presumably the year the first printing presses were set up (though the actual entity of a "university press" apparently came later).

  OUP also claims to be the world's largest university press with the widest global presence.

  The New York outpost of OUP was established in 1896 and, in the 1920s, began publishing its list. Notably, its first original publication won the 1926 Pulitzer Prize.

  Today, Oxford University Press claims a total of fifteen Pulitzer Prize-winning titles and publishes such acclaimed authors as historian Alan Brinkley, ethnologist Richard Dawkins, journalist and speechwriter William Safire, literary critic and educator Henry Louis Gates, Jr., and environmentalist Rachel Carson.For more Oxford University bookish information, learn about the school's Bodleian Library.

- ❖ **Routledge** (https://www.routledge.com/)
Compared to Cambridge University Press and Oxford University Press, Routledge is a youngster - founded in 1836; it's not even two centuries old. The publisher is part of the Taylor & Francis Group, a trading division of Informa UK Ltd.

  Routledge claims to be the world's leading academic publisher in Humanities and Social Science, publishing about 2,000 new books each year through a number of offices worldwide.

  Routledge has a backlist of more than 35,000 titles still in print and has published a number of exceptional authors such as theoretical physicist Albert Einstein, philosopher Ludwig Wittgenstein, psychiatrist and psychotherapist Carl Jung, philosopher Marshall McLuhan and philosopher, writer, activist Jean-Paul Sartre.

- ❖ **Princeton University Press** (press.princeton.edu)
Though it was begun in 1905 by a Princeton griaduate, Whitney Darrow, and got its start printing the school's Alumni Weekly, unlike most university presses owned or financially supported by universities, Princeton University Press (PUP) has always been privately owned and controlled.

  PUP began in rented quarters above Marsh's drugstore on Nassau Street in Princeton, New Jersey. Charles Scribner, a trustee of the University and a New York book publisher, contributed funds and land to the start-up.

  Notably, PUP authors include Theodore Roosevelt, Joseph Campbell, and Stephen Hawking. Princeton University Press's single most popular book is The I Ching, translated by Wilhelm / Baynes, which has more than 900,000 copies in print.

Searching and Finding Information Resources

- ❖ **Start Searching**
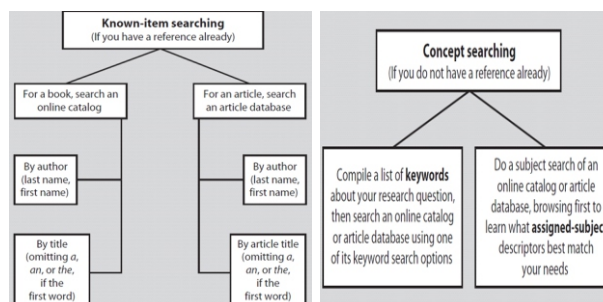
- **Formal ways**

University libraries
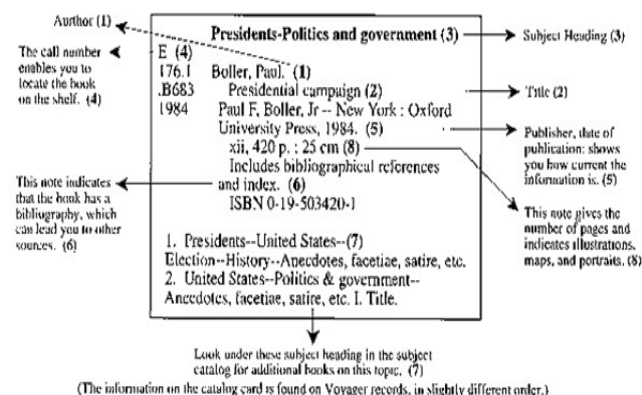Special libraries and government departments
Inter-library loan

- **Informal ways**

Authors
Personal libraries of experts
Your friends

- **Bibliographic Aids**

Library catalog
Indexing journal
Abstracting journal
Bibliography
Bibliographic database
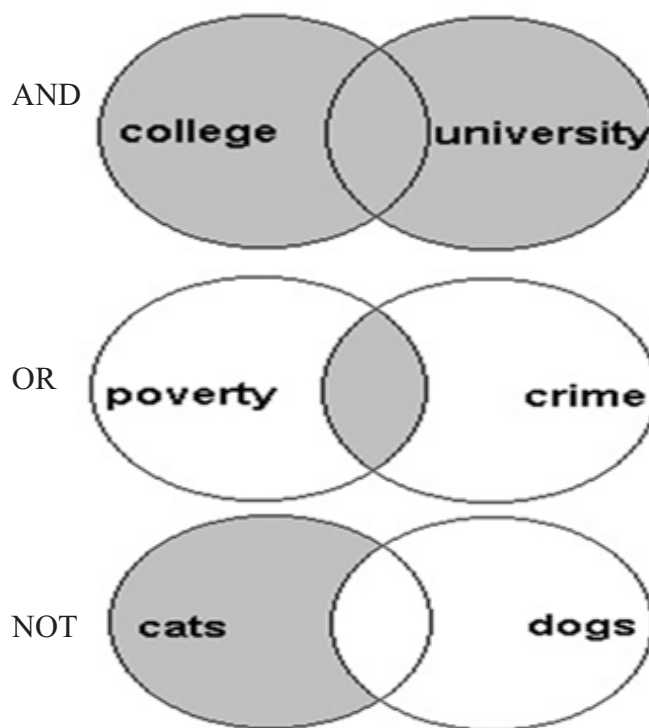People
Experts
Librarians

- **Library Card Catalog**

Online Public Access Catalogue

Online Searching Techniques

- **Boolean Operators**

Boolean operators allow you to join terms together, widen a search or exclude terms from your search results. This means you can be more precise in locating your information.

AND

OR

NOT

- **Phrase Searching**

It narrows your search down by searching for an exact phrase or sentence. It is particularly useful when searching for a title or a quotation. Usually quotation marks are used to connect the words together.

For example   "Towards a healthier Scotland"

- **Truncation / Wildcard Searching**

These search techniques retrieve information on similar words by replacing part of the word with a symbol usually a * or? However, different databases use different symbols, so check what is used.

In truncation the end of the word is replaced.

For example physiother* will retrieve physiotherapy, physiotherapeutic, physiotherapist and so on.

In wildcard searching, letters from inside the word are replaced.

For example wom*n will retrieve the terms woman and women.

- **Proximity Searching**

It looks for documents where two or more separately matching term occurrences are within a specified distance, where distance is the number of intermediate words or characters

For example
Term A NEAR Term B
Term A ADJ Term B

- **Focusing / Limiting a Search**

There are many ways to focus your search and all

search tools offer different ways of doing this. Some of the ways of limiting your search are as follows:
- Date
- Language
- Place
- Publication type
- Age groups
- Type of material e.g. you could just need to find case studies
- **Use Extension**

Use extension at end of your searching keyword Pdf, ppt, docx, xls and others

Evaluating Information Sources

i. Evaluating information sources for relevance
ii. Evaluating information sources for reliability

Evaluating information sources for relevance – Book
- Skim its index for your key words, and then skim the pages on which those words occur.
- Skim the first and last paragraphs in chapters that use a lot of your key words.
- Skim introduction, summary chapters, and so on.
- Skim the last chapter, especially the first and last two or three pages.
- If the source is a collection of articles, skim the editor's introduction.
- Check the bibliography for titles relevant to your topic.

Evaluating information sources for relevance – Article
- Read the abstract.
- Skim the introduction and conclusion, or if they are not marked by headings, skim the first six or seven paragraphs and the last four or five.
- Skim for section headings, and read the first and last paragraphs of those sections.
- Check the bibliography for titles relevant to your topic.

Evaluating information sources for relevance – Online
- If it looks like a printed article, follow the steps for a journal article.
- Skim sections labeled "introduction," "overview," "summary," or the like. If there are none, look for a link labeled "About the Site" or something similar.
- If the site has a link labeled "Site Map" or "Index," check it for your key words and skim the referenced pages.
- If the site has a "search" resource, type in your key words.
-

Evaluating information sources for reliability
Audience
What age group/education level/political affiliation/etc. is the audience?
Is this for a person with in-depth knowledge or a layperson?
Authority
Does the author's name appear on the Web page?
What are his/her credentials?
Does the author provide contact information?
Bias
Is the source objective?
Could the writer or the organization's affiliation put a different spin on the information presented?
What is the purpose of the source?
Currency
When was the work published?
When was the work last updated?
How old are the sources or items in the bibliography?
How current is the topic?
If a Web page, do the links work?
Scope
What does/doesn't the work cover?
Is it an in-depth study (many pages) or superficial (one page)?
Are sources and statistics cited?
If a site, does it offer unique info not found in any other source?

Avoiding Plagiarism in Research
Plagiarism – Definition
- Taking and using the thoughts, writings, and inventions of another person as one's own.
- Using someone's ideas without citing or quoting; thereby, receiving credit for someone else's intellectual effort.

How serious is the problem?
"A study of almost 4,500 students at 25 schools, suggests cheating is a significant problem in high school - 74% of the respondents admitted to one or more instances of serious test cheating and 72% admitted to serious cheating on written assignments. Over half of the students admitted they have engaged in some level of plagiarism on written assignments using the Internet."
Based on the research of Donald L. McCabe, Rutgers University Source: "CIA Research." Center for Academic Integrity, Duke University, 2003.

Why is this problem?
For the student
- failure to achieve academic learning outcomes
- treated as academic misconduct

For the teacher
- a waste of time

For the institution
- threat to reputation and value of degrees
- Quality assurance, regulations, and legislative context

Forms of plagiarism
- Copying from a single source
- Copying from several sources
- Paraphrasing
- Collusion

How to avoid plagiarism
Use quotes for
- Information that comes directly from any source
- Words, spoken or written, that you use directly from another person

Make sure you document the source
Paraphrase
- Write the information in your own words, but do not change its meaning or intention
- Because you are using someone else's idea, always mention the source even if you use your own words

Common knowledge
- Any information, fact, or statement that is widespread and known by a variety of people is considered common knowledge
- John Adams was the second president of USA
- The Japanese attacked Pearl Harbor on December 7, 1941
- There is no need to give credit to information that is of common knowledge

Accidental plagiarism
- Using words from another source without indicating where they came from.
- Ways to avoid accidental plagiarism
- Careful note taking
- A clear understanding of the rules for quoting, paraphrasing, and summarizing sources

When in doubt, cite
Plagiarism detection software

Penalties for Researchers
- Dismissal from service
- Demotion to the next lower grade
- Warning
- Freezing of research grants
- Promotions/annual increments of the offender may be stopped
- University may debar the offender from sponsorship of research funding, travel grant, supervision of Ph.D. students, scholarship, fellowship or any other funded program
- Offender may be "Black Listed" and may NOT be eligible for employment in any academic / research organization
- Notification of "Black Listing" of the author may be published in the print media or may be publicized on different websites
- University may debar the offender from sponsorship of research funding, travel grant, scholarship, fellowship or any other funded program

Library Information Management Systems (LIMS) for Library Automation
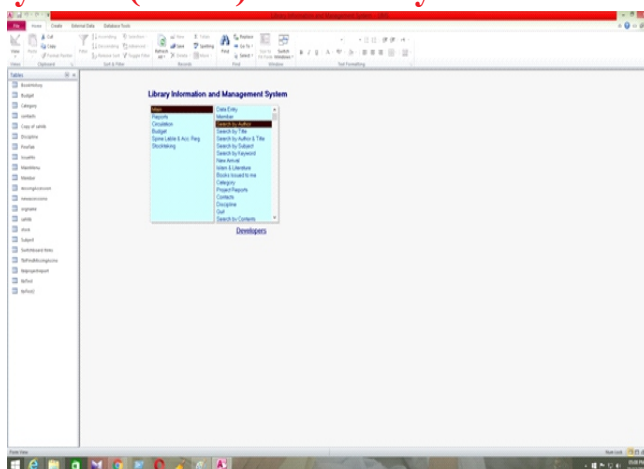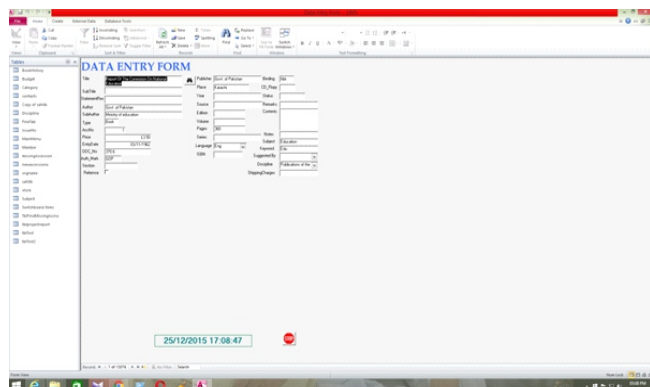

Data Entry
Select Main and double click data entry form.
New Record Entry: Click add new button for every new record, on entry or tab cursor will go to

the next field.

Edit Record:
Put the cursor in accession no field then click find button and edit the required field.

Member Entry:
Select Main and double click Member.

New member entry: Click add new button for every new member. Fill the all required fields. Give **Category** accordingly. For photo: Scan your photo and save in the "Image folder" & name should be same as Member Id and extension must be bmp (e. g. for member Id 1200 It should be 1200.bmp) . "Images" Folder is available along with the LIMS.mde database. Please don't change the name of this "Images" folder.

Give Expiry date of the Member in the "Expiry date" field.

Saving Pictures in Image folder will reduce the database size and increase the speed of the database.

New Member category:
Select Main and double click category. Here one can add or edit category according to one's requirements.

Searching the Database:
Title Search:
Select Main and double click search title. Type any word of title and click OK.

Author Search:
Select Main and double click search by author. Type any word of author and click OK.

Title and Author Search:
Select Main and double click author & title search. Type any word of title and any word of author in their respective boxes and click OK.

Subject Search:
Select Main and double click search by Subject.

Type any word of Subject and click OK.

Keyword Search:
Select Main and double click search by Keyword. Type any word of keyword and click OK.

New Arrival:
To browse books entered in the library within 30 days (last 30 days from system date). Select Main and Double click new arrival.

Browse Islam and Literature:
Transliteration varies from person to person due to absence of transliteration's standards for local languages. For the ease of users software provides the facility of browsing on said subjects. Select Main and double click Islam & Literature.

Books Issued to a Member:
Select main and Double click books issued to me type the Roll No and click OK.
Reports
All search options are available in Reports for printing of the search results in a good format.
Select reports then double click the required search criteria e.g. title, author etc.

Student Fine:
Select reports and double click student fine history type the roll no and click OK.

Book Issue History:
Select reports and double click specific book issue history type the accession no and click OK.

Reminder:
For reminder on overdue books. Select reports and double click Reminder, type number of days and click OK. If one type 30 in box, report will prepare reminders against those books which are overdue more than 30 days

Books Issued, returned today:
Select reports and double click Books Issued Today to check how many books issued today.
Similarly select reports and double click Books Returned Today to check how many books returned today.
Circulation

To Issue a Book:
Select Ciculation and double click Issue. Type accession no. of the book and press enter key or click search button. Now type member ID or Roll

No. and press enter key. A message "Book is issued successfully" will appear. Click ok or press enter key. System will give issue date from system date & due date according to the member category.

To Return a Book

Select Circulation and double click Return. Type accession no. of the book then click return button or just press enter key. A message "Book is returned from Roll No. xyz" will appear. Click ok or press enter key. The book is returned and system will fine on overdue book according to member category.

Status of a Specific Book

Select Circulation and double click Status of Specific Book. Type accession no. of the book and click search button or press enter key. For more detail of this book click the button Book Detail and for detail of member whom book is issued, click the button Member Detail.

Books Returned Today

Select Circulation and double click Books Returned Today. One can check how many books have been returned today.

Books Issued Today

Select Circulation and double click Books Issued Today. One can check how many books have been issued today.
Student Fine Today Select Circulation and double click Student Fine Today.

Spine Label and Accession Register

Spine Label for Regular Accession Numbers
Select Spine label and Acc. Reg. Double click Sticker from Regular ACCNO. Type accession no. from onward you want stickers and click ok or press enter key. Print preview of sticker will appear. Now using a specific sheet of seven stickers one can get its print.
Spine Label for Irregular Accession Numbers
Select Spine label and Acc. Reg. Double click Sticker from irregular ACCNO. Type accession nos. separating by comma (,) whose stickers are required and click ok or press enter key. Print preview of sticker will appear. Now using a specific sheet of seven stickers one can get its print.

Accession Register

Select Spine label and Acc. Reg. Double click Accession Register. Type first and last accession no. and click print sign or press enter key. Print preview will appear and one can get its print using legal size papers.

Stocktaking

Select stocktaking and double click Stocktaking. Type accession nos. of all available books. Double click Stocktaking Roport. Print preview of stocktaking report will appear. One can get its print.
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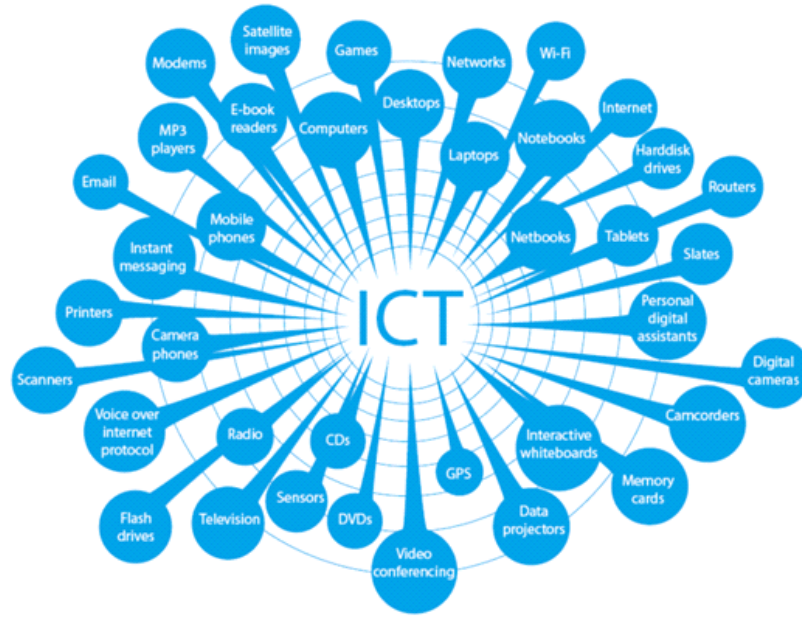
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