



**INFLIBNET**

# Newsletter



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**Developing National Ranking for  
Indian Universities: Moving towards World Class Universities**

Jagdish Arora, Director and Kruti Trivedi, Scientist - B (LS)

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## From Director's Desk



The second quarter of the year and first quarter of the Financial Year 2014-15 started on a good note with receipt of funds for two prestigious projects namely, Integrated e-Content Portal and Vidwan funded by the National Mission on Education through ICT.

The project on Integrated e-Content Portal proposes to host and provide integrated and structured access all content created under the NME-ICT on a long-term basis beyond the active period of NME-ICT. The Vidwan project proposes to host profiles of experts in various subject disciplines working in universities and research institutions in India as well as Indian experts working abroad. The Centre received first instalment of funds for both the projects. Work is going-on in full swing on both the projects.

The proposal to provide plagiarism detection software to the universities who have signed MoU with INFLIBNET Centre finally materialised. 90 universities who have signed MoU with INFLIBNET Centre on Shodhganga were given access to two plagiarism detection software called Turnitin and iThenticate. A National Workshop on Plagiarism: Issues & Challenges was organised at Jawaharlal Nehru University, New Delhi in collaboration with INFLIBNET Centre wherein issues and challenges on plagiarism and deterrent measures and policies implemented the world over were discussed in detail. Shri Ashok Thakur, Secretary, Higher Education, MHRD, Government of India inaugurated the Workshop. He appreciated the initiatives taken by the INFLIBNET Centre for setting-up of Shodhganga repository and for providing plagiarism detection software to universities in India. He proposed that the centrally funded technical institutions should also join Shodhganga initiatives and be given access to plagiarism detection software under a suitable scheme. A demonstration of Turnitin and iThenticate was organised for the benefits of participants of the workshop.

Imparting training to manpower working in the university and college libraries in the use of IT is an important objective of the Centre. With availability of adequate physical, computing and networking infrastructural facilities in the Centre, due emphasis is being given to this activity. The following four training programmes / workshops were organised during the quarter under report: i) INFLIBNET Regional Training Programme on Library Automation, M S University of Baroda, 17th to 22nd June, 2014; ii) User Awareness Programme for UGC-Infonet Digital Library Consortium, Tezpur

University, Tezpur, 19th to 20th May, 2014; iii) National Workshop on Plagiarism: Issues and Challenges, Jawaharlal Nehru University, New Delhi 23rd April, 2014; and iv) National Workshop on Creation and Management of Digital Collection, INFLIBNET Centre, Gandhinagar, 19th to 23rd May, 2014.

The activities of content creation continued with greater vigour and zeal under e-PG-Pathshala project funded by the NME-ICT. A Workshop on e-content development for paper on “Information Sources, System and Services of Library and Information Science” was organised by the INFLIBNET Centre at the Institute of Life Long Learning, University of Delhi South Campus, New Delhi on 20th and 21st June, 2014 essentially for recording self-learning modules.

With setting-up of Data Centre at the INFLIBNET Centre, the Centre extends its support to academic and research institutions for setting-up of their institutional repositories and hosting them at the Data Centre. Ganapat University was the first university to take the services of hosting their institution repository at INFLIBNET Centre on payment basis.

The Centre also took a project on website designing of Central University of Gujarat and for administering their Online Admission Process for the year 2014-15 which was completed successfully. The work on Website designing of CUG is in progress.

During the period under report, Shri Praveen Prakash, Mission Director, NME-ICT and Joint Secretary, MHRD visited the Centre on 8th May, 2014. He interacted with scientists of the Centre on various aspects of presentations made to him on activities and services of the INFLIBNET Centre. He also took review of the progress made in the projects entitled “Integrated e-Content Portal” and Vidwan assigned to the Centre. Shri Praveen Prakash also visited the Data Centre and made suggestions about its improvement.

The J-Gate@UDLC, launched in September, 2013, has successfully been implemented with new features and functionalities. A regional training programme on J-Gate@UDLC for the Western Region was organised at the Tata Institute of Social Science, Mumbai on 30th June, 2014. The programme was well attended and number of suggestions was made by the participants on its further improvement.

This issue of the Newsletter carries a new feature on open source software in library and information science. This issue carries a gist of open source software available in the field of LIS. The next issue would concentrate on detailed account of individual open source software mentioned in this issue of the Newsletter. The article of the quarter is entitled (“Developing National Ranking for Indian Universities: Moving towards World class Universities”) by Dr. Jagdish Arora and Ms. Kruti Trivedi, Scientist-B (LS). I hope, you would enjoy going through the content of this issue.



(Jagdish Arora)

# INFLIBNET Regional Training Programme on Library Automation

INFLIBNET Regional Training Programme on Library Automation, M. S. University of Baroda, Vadodara, 17th-22nd June, 2014.



**Prof. Uma Joshi, Dean, Faculty of Family and Community Sciences, Ms. Jyoti Bhatt, Assistant Librarian, Dr. Mayank Trivedi, University Librarian, MSU, Dr. Jagdish Arora, Director and Ms. Kruti Trivedi, Scientist B (LS), INFLIBNET Centre along with Participants of the IRTPLA Programme at M. S. University of Baroda, Baroda**

The Centre organised five-day Regional Training Programme on Library Automation (IRTPLA) in collaboration with M. S. University of Baroda, Vadodara from 17th-21st June, 2014 at Smt. Hansa Mehta Library. Prof. Uma Joshi, Dean, Faculty of Family and Community Sciences, MSU, and Dr. Jagdish Arora, Director, INFLIBNET Centre were Chief Guests at inaugural function. Dr. Mayank Trivedi, University Librarian, welcomed the guests and participants. He briefed about IRTPLA Programme and its importance and relevance in present scenario. Dr. Trivedi proposed to Dr. Arora to promote Smt. Hansa Mehta Library as Centre of Excellence (Information sources in Western India) in the context of E-content as recommended by Hon'ble Prime Minister of India about National E-

Library. Dr. Jagdish Arora elaborated on INFLIBNET Centre's services & activities and how universities and colleges were benefited through various projects of the Centre.

Ms. Jyoti Bhatt, Assistant Librarian, spoke about achievements of Smt. Hansa Mehta Library and its future projects. Prof. Uma Joshi shared her reminiscence about Smt. Hansa Mehta Library from her days as student at the university and as a teaching faculty at the university. She expressed happiness about the fact that university library is among top 22 university libraries in providing Document Delivery Service to the academic communities across India. She congratulated Dr. Mayank Trivedi and his entire team for their

contribution in the development of the Library. Mrs. Celine Joseph, Technical Assistant, Smt. Hansa Mehta Library extended a warm vote of thanks at the end of the session.

Prof. R G Kothari, Professor and Dean, M. S. University of Baroda delivered a lecture during valedictory session. Mr. Manoj Kumar K, Scientist D (CS) delivered

concluding remarks at the end of programme. Participants also gave their feedback on the format of training programme. 26 participants and 20 library staff members participated in the training programme.

Details of Lectures delivered by experts during the five days training programme are as follows:

Topics	Name of Lecturer and Institution
INFLIBNET Activities	Ms. Kruti Trivedi, Scientist B (LS), INFLIBNET Centre
Library Automation & Cyber Security	Mr. Vishwas Raval, Assistant Professor, Dept of Computer Sci & Eng, Faculty of Technology & Engineering, MSU
Creation of digital library using DSpace	Dr. Ranjita Dash, Librarian, Babaria Institute of Technology, Vadodara Mr. Bharat Chaudhary, Assistant Librarian, Pandit Dindayal Petroleum University (PDP), Gandhinagar
Networking Fundamentals	Dr. Apoorva Shah, Honorary Director, Computer Centre, MSU
Emerging trends in Librarianship	Dr. H Anilkumar, Librarian, IIM, Ahmedabad
HTML Basics	Mr. Vijay Parmar, Programmer, Smt Hansa Mehta Library, MSU
DSpace Installation	Mr. Bharat Chaudhary, Assistant Librarian, Pandit Dindayal Petroleum University, Gandhinagar
Evidence based Librarianship	Dr. K H Shukla, Director, Learning Resource Centre, Sumandeep Vidyapith University, Waghodia
SOUL Module and Hands on experience	Mr. Swapnil Patel, Scientist B (CS), Mr. Vijay Shrimali, STA (CS) and Mr. Kamlesh Vegad, Project Officer (LS), INFLIBNET Centre
Information Security	Mr. Yatrik Patel, Scientist D (CS), INFLIBNET Centre
Semantic Web / Ontology	Mr. Manoj Kumar, Scientist D (CS), INFLIBNET Centre
Quality of Research	Prof. R G Kothari, Dean, Faculty of Education & Psychology, MSU

# Training Programme on SOUL 2.0 at the INFLIBNET Centre

## 113th SOUL 2.0 Training Programme on Software Installation & Operations, INFLIBNET Centre, Gandhinagar, 16th-21st June, 2014

The INFLIBNET Centre organized five-day training programme on SOUL 2.0 Installation and Operations for SOUL 2.0 users from across the country from 16th to 21st June, 2014 at INFLIBNET Centre, Gandhinagar. The programme was inaugurated by Dr. Jagdish Arora,

Director, INFLIBNET Centre. While theoretical lectures were delivered in the morning sessions, afternoon sessions were dedicated to the “hands-on” practical sessions on different modules of the SOUL 2.0 software. 19 library science and computer science professionals from across the country participated in the programme. Mr. H G Hosamani, Scientist C (LS), INFLIBNET Centre coordinated the training programme.



Participants of 113th Training Programme on SOUL 2.0 with Technical Staff of the INFLIBNET Centre

# User Awareness Programmes on UGC-INFONET Digital Library Consortium

## User Awareness Programme under UGC-INFONET Digital Library Consortium, Tezpur University, Tezpur, 19th -20th May, 2014

Two-day User Awareness Programme on E-resources under UGC-INFONET Digital Library Consortium was organized by Tezpur University in collaboration with INFLIBNET Centre, Gandhinagar from 19th -20th May, 2014 at Council Hall, Tezpur University, Tezpur. Chief Guest Padma Shri Prof. Rajpal S. Sirohi, Former Director, Indian Institute of Technology Delhi and Former Vice-Chancellor, Barkatullah University, Professor of Eminence, Department of Physics, Tezpur University lighted the ceremonial lamp followed by Guest of Honour, Dr. Jagdish Arora, Director, INFLIBNET Centre, Prof. Charu Lata Mahanta, Dean,

Research & Development and Dr. Mukesh Saikia, Librarian, Tezpur University during the inaugural function. Dr. Saikia coordinated the programme. He welcomed the guests, dignitaries and participants and highlighted the objectives of the programme. He mentioned that the successful and popular initiative of UGC- Infonet facilitates access to more than 8,500+ e-journals and good number of databases of well-known publishers for the benefit of students, research scholars and faculty of universities.

Dr. Jagdish Arora, in his inaugural speech, gave a brief account of the activities of INFLIBNET Centre and e-resources available for the benefit of students, research scholars and the faculty in universities all over the country. He said that INFLIBNET Centre takes the



**Prof. Charu Lata Mahanta, Dean, Research & Development, Padma Shri Prof. Rajpal S. Sirohi, Former Director, Indian Institute of Technology Delhi and Former Vice-Chancellor, Barkatullah University, Professor of Eminence, Department of Physics, Dr. Mukesh Saikia, Librarian, Tezpur University and Dr. Jagdish Arora, Director, INFLIBNET Centre on the dais during the inaugural session at Tezpur University, Tezpur**

responsibility of hosting, maintaining and making the digital repository of theses and dissertations accessible to the entire world through open access channel [<http://shodhganga.inflibnet.ac.in>]. The repository also facilitates better access to the Indian research all over world. He further emphasized the need of using plagiarism software to check plagiarism and thereby improving the quality of Indian research. He also highlighted the need for providing access to full-text doctoral theses submitted to various Indian universities.

Prof. Charu Lata Mahanta, in her speech, said that Librarians have to work as knowledge workers and have to be more analytical and possess the subject knowledge. She further said that Librarians have to do the value addition to the content possessed by their libraries or what they get through the Web. She appreciated efforts of the central library to make users of the University aware of e-journals and databases of different publishers that are available from a single platform.

Padma Shri Prof. Rajpal S. Sirohi appreciated the efforts of the INFLIBNET Centre and University Library. He also emphasized the need of such programmes in the present changing scenario of publications trends and users attitudes. He said that expectations from libraries are increasing day by day since libraries are becoming more and more digital. He said that there is a greater need to find out as how the library services can become better, how can we remain effective in the present day scenario. He further said that libraries of the future would increasingly possess ebooks, databases that would require new innovative library services & programmes. He also discussed about the initiative of

UGC-INFONET Digital Library Consortium and INDEST-AICTE Consortium. Dr. Monawwer Eqbal, Deputy Librarian, Tezpur University extended a warm vote of thanks to the guests of inaugural function. Nearly 140 participants from university including invited speakers, experts and delegates ranging from academicians, LIS professionals, corporate managers and publishers attended the programme. The programme was marked by lively talks, interesting product presentations and lively discussions.

Dr. Jagdish Arora delivered keynote speech on INFLIBNET Centre's activities and services. Representatives of the publishers including Mr. Charley Thomas, Balani Infotech (P) Limited, Noida, Mr. Vishav Sharma, Elsevier-Science & Technology, Gurgaon, Mr. Jayanta Guha, Oxford University Press India Ltd, Kolkata, Mr. Rahul Dasgupta and Mr. Mohit Pabby, Wiley India, New Delhi, Mr. Soumya Chakraborty, Springer (India), New Delhi, Mr. Yogesh Chinchwade, Sci-Edge Information, Pune and Mr. Rajendra Kumar, Nature Publishing Group, Gurgaon made presentation on their respective e-resources. Dr. Mukesh Saikia emphasized optimum utilization of resources available at Tezpur University.

The valedictory function started with a welcome address. Dr. Mukesh Saikia presented a brief report of the programme. Prof. Chandana Goswami, Department of Business Administration, delivered the valedictory address. Dr. Biren Das, Registrar, Chief Guest of Valedictory Function distributed certificates to the participants. Dr. Mukesh Saikia, Librarian extended a warm vote of thanks to the participants, university authorities and INFLIBNET Centre.

## User Awareness Programmes on Shodhganga

### User Awareness Programme on Shodhganga and Anti-Plagiarism Software, Guru Nanak Dev University (GNDU), Amritsar, 19th May 2014

One-day Workshop on Shodhganga Awareness and Anti-Plagiarism Software was organised at Guru Nanak Dev University, Amritsar on 19th May, 2014. Mr. Naresh Nandan, System Manager, welcomed the guests and participants. Prof. (Dr.) A. S. Brar, Vice-Chancellor, Guru Nanak Dev University, Amritsar inaugurated the programme in the presence of Mr. Manoj Kumar K., Scientist-D (CS), INFLIBNET Centre and other dignitaries. Prof. A.S. Brar, in his inaugural speech, introduced software named "Turnitin and iThenticate" and cautioned the research scholars regarding plagiarism. Dr. H. S. Chopra, University Librarian coordinated the programme and explained the merits of

Shodhganga and use of anti-plagiarism software. He told that researcher's uploaded theses on Shodhganga if suffers from plagiarism can be very harmful to their academic career. Mr. Naresh Nandan extended a warm vote of thanks during the inaugural programme. Mr. Manoj Kumar K., Scientist-D (CS), INFLIBNET Centre gave an overview of Shodhganga & Shodhgangotri and also gave detailed introduction of Shodhganga, submission of theses, authentication, backup, role and responsibilities of University Coordinator. Mr. Pushpinder, Representative from Balani Infotech, gave demonstration of Turnitin and iThenticate anti-plagiarism software and also explained steps for uploading the theses. The workshop proved very useful for researchers. More than 325 faculty members, research scholars and students of the university attended the programme.



Prof. (Dr.) A. S. Brar, Vice-Chancellor, Dr. H.S. Chopra, University Librarian, Mr. Naresh Nandan, System Manager, Guru Nanak Dev University, Amritsar and Mr. Manoj Kumar K., Scientist D (CS), INFLIBNET Centre on the dais during the Inaugural Session at Guru Nanak Dev University, Amritsar

# National Workshop on Plagiarism: Issues and Challenges, Jawaharlal Nehru University, New Delhi, 23rd April, 2014

Jawaharlal Nehru University (JNU), New Delhi in collaboration with INFLIBNET Centre, Gandhinagar organized one-day workshop on Plagiarism: Issues and Challenges on 23rd April, 2014. The National Workshop provided a forum to the experts and researchers to deliberate upon the various issues related to plagiarism. The inaugural session was graced by Prof. S. K. Sopory, Vice-Chancellor, Jawaharlal Nehru University, Mr. Ashok Thakur, Secretary, Higher Education, Government of India, Prof. K. L. Chopra, President, IIT Kharagpur, Dr. Jagdish Arora, Director and Mr. Manoj Kumar K., Scientist-D (CS), INFLIBNET Centre.

Dr. Ramesh C. Gaur welcomed the delegates and dignitaries and apprised them of the content, aims and objectives of the workshop. He said that workshops of such kind are necessary to sensitize the students, researchers and faculty members to the importance of proper academic conduct.

Prof. S. K. Sopory, Vice-Chancellor criticized the different forms of academic misconduct (fabrication, falsification of data and plagiarism) which was growing

in higher education. He also said that textual plagiarism, self plagiarism duplicate publications were equally unacceptable in the scholarly world. He mentioned that science or research is based on trust which should never be breached. He emphasized that students, researchers



**Prof. S.K. Sopory, Vice-Chancellor, Jawaharlal Nehru University lit the traditional lamp in presence of Mr. Ashok Thakur, Secretary, Higher Education, Government of India, Prof. K. L. Chopra, President, IIT Kharagpur, Dr. Ramesh C. Gaur, Librarian, JNU, Dr. Jagdish Arora, Director and Mr. Manoj Kumar K., Scientist D (CS), INFLIBNET Centre during Inaugural Session at JNU, New Delhi**

and faculty members must be made aware that academic or research misconduct is betrayal of everything science or research stands for. Prof. Sopory elucidated that career pressures on students, researchers and faculty members, linking of peer reviewed publications to Academic Performance Indicators (API) and promotions could not be excuses for academic misconduct, integrity, sincerity and trust are the corner stones of science and must not be ignored

at any cost. Ethical conduct must be strictly adhered to or else the researchers will lose credibility in the public.

Mr. Ashok Thakur said that India had the dubious distinction of producing the largest number of plagiarized papers after china. The UGC has introduced API system across the universities for evaluating the performance of teachers and promoting them. The universities also have responsibility of ensuring authentic research and its dissemination through peer reviewed publications. He stressed that use of plagiarism detection services should be mandated in the universities. He further elaborated upon the importance



**Participants of National Workshop on Plagiarism: Issues and Challenges**

of open access in general and Shodhganga in particular. He observed that open access facilitated detection of plagiarism and thus prevents it.

Dr. Jagdish Arora gave a brief account of Shodhganga and Shodhgangotri. He expressed concern over the different forms of academic misdemeanour. Dr. Arora apprised the students of plagiarism detection software tools which were offered to all universities through INFLIBNET Centre. Students could use these anti-plagiarism software tools i.e. "Turnitin and iThenticate" to improve upon the quality of their research. He emphasized on importance of spreading awareness among the students, researchers and faculty members on the issue of academic conduct. Mr. Manoj Kumar

extended a warm vote of thanks to all concerned on the occasion.

Prof. Chopra expressed his concern over the issue of academic misconduct which was rampant all across the higher education in the country. He said that the heads of the various educational institutions turned a blind eye towards the problem of academic misconduct, instead of taking steps, formulating policies to combat and prevent plagiarism. He mentioned that the problem had assumed gigantic proportions that a blog named "Retraction watch" had been launched by some enthusiasts, which kept a tab on plagiarism and retractions and reports them. Prof. Chopra was of the firm opinion that the plagiarists should be exposed and stringent action should be taken against them. Prof. Chopra also shared his experiences of blatant instances of plagiarism which he had come across as president of Society for Scientific Values. In order to combat fraud, plagiarism and other forms of academic misdemeanour, lot of mentoring was required. Discussions, case studies and seminars should be conducted in order to spread the message of academic integrity across the students, faculty and scientists. He further suggested that all educational institutions should constitute ethics committee to ensure compliance to ethics and norms of scholarly writing. He cited the case of IIT Kharagpur which had formulated the guidelines for ensuring academic integrity in the institution.

The first session was chaired by Prof. Karmeshu, School of Computer Sciences, JNU who also emphasized on the importance of academic integrity. In this session, Prof. Raghuram, Guru Gobind Singh Indraprastha University, New Delhi gave an elaborate talk on attitude of people towards plagiarism. He deplored the bad state of affairs of plagiarism which existed at the different levels of education in the country. He also dwelt upon various factors which caused the menace to grow. Prof. Raghuram mentioned that there was no statutory body in the country to deal with the cases of plagiarism. In

absence of such a body, plagiarism cases were dealt with in an ad hoc fashion. At times, it was also observed that the various stakeholders like employers and editors were completely reluctant to look in to the instances of plagiarism and also highlighted the high profiles cases of plagiarism which also led to retractions. He also referred to T.A. Abhinandan's analysis of 69 retracted papers of Indian authors, which found that the country's retraction rate (44 per 1,00,000 papers) was higher than the world average of 17 per 1,00,000 for all retractions. He urged the students, researchers, faculty members to ensure academic conduct as per the norms and ethics of the scholarly world. He also elaborated upon the reasons which led students, researchers, faculty members and scientists to cut corners and plagiarize. He said it was tough to publish original research and the scientists and faculty members were under pressure to publish in order to get promotions and grants. He observed that the very Internet technology which facilitates cut and paste and plagiarism, also offers a counter in parallel which facilitates detection of cut and paste and plagiarized content. So even if the perpetrator escaped the immediate abomination, he was at the risk of being caught any time in future.

The second technical session was chaired by Mr. Manoj Kumar, Scientist D (CS), INFLIBNET Centre. He elaborated upon the plagiarism detection services (software tools) which were made accessible to all the universities across the country through INFLIBNET Centre. He urged the students, researchers and faculty members to use them and provide their valuable feedback to the INFLIBNET Centre.

This session witnessed presentations on "Turnitin and iThenticate". The representatives of the software tool explained in detail how to use these plagiarism detection software tools in order to check plagiarism and improve upon the quality of research reports or articles or theses and dissertations.

Dr. Manorama Tripathi, Deputy Librarian highlighted

the differences between "Turnitin and iThenticate". She elaborated that these services provided support to teachers in identifying instances of plagiarism; but these certainly cannot replace human judgment. The originality reports generated by these software tools should be interpreted properly in order to enhance the quality of academic or research writing.

In the post lunch session, which was chaired by Dr. R. C. Gaur, Dr. Sanjay Mishra, Director, CEMCA dwelt upon on how to write a literature review which is a central part of any dissertation work. He explained how to conduct, write and organize a literature review. Dr. Mishra also underlined that bibliographic management tools like Zotero, Mendeley and ENDNOTE are of immense importance and help in carrying out research work in an organized and systematic fashion. He further advocated that the students and researchers should be taught about different referencing and bibliographic styles which would help them in avoiding inadvertent plagiarism.

Dr. Usha Mujoo Munshi, Librarian, Indian Institute of Public Administration elaborated upon how to be a smart writer. She explained how to lay down a framework before starting the actual writing work. She elucidated on the techniques of writing a good abstract. She also explained the different kinds of papers like argumentative, descriptive and analytical, etc.

References and citations are important in any kind of research writing or reporting. They direct the readers to additional information pertaining to the concept or idea which has been presented or discussed. References also help the readers to evaluate and ascertain the authenticity and accuracy of the analysis, interpretation and conclusion. It has often been observed that the unintentional plagiarism results because the students and researchers lack referencing skills.

Mr. Sanjeev Kumar Sunny, Assistant Librarian gave a presentation on Mendeley, which is a free reference

manager and tool for academic social network. It helps researchers organize their research, collaborate with others online and discover the latest research. He showed by giving illustrations how researchers could organize, manage and edit their references and citations by using Mendeley.

Mr. Alok Jha, representative of Thomson Reuters, talked about ENDNOTE, which is another software tool for publishing and managing bibliographies, citations and references. ENDNOTE Basic is available to the user community of the university through Web of Science.

The last technical session was chaired by Dr. Satyanarayana. He said that the different forms of misconduct like falsification, fabrication of data and plagiarism existed because there was no policy or rules to deal with such cases. The need of the hour was to lay down robust policies which would deter, discipline and prevent academic misconduct.

Mr. R. K. Kotnala, Chief Scientist, National Physical Laboratory elaborated upon the importance of norms and ethics of scholarly communication. He stressed that concerted efforts should be made to ensure compliance to proper academic conduct. There should be a Research Ethics Committee at the university level in order to promote and ensure proper adherence to ethical norms of research and its communication. He reiterated upon the importance of good research practices in general and on ethics and norms which needed to be followed in nanoscience in particular. He elucidated the different forms of research misconduct which was all pervasive and explained how to control and prevent the same.

Dr. Nabi Hasan, Deputy Librarian, IIT, Delhi shared his experiences of implementing IPR laws and anti-plagiarism services at IIT, New Delhi. He gave an account of best practices which IIT followed to ensure compliance to ethics and norms of academic conduct.

Ms. Anjali Gulati, Senior Lecturer, Isabella Thoburn College, Lucknow gave a presentation on APA style, which is the style introduced by American Psychologists Association for writing research papers. APA is the largest scientific and professional organization of psychologists with 130,000 researchers, educators, clinicians, consultants and students as its members. This style was developed in 1929 by a group of social scientists for clear, consistent communication of research in the field of social sciences. Ms. Gulati dwelt upon APA style of formatting abstracts, term papers, research reports, empirical studies, literature review, articles and case studies. She explained in detail how to use the five heading levels of APA, put in text citations and references at the end.

At the end of the workshop, the following recommendations were given:

- ❖ An ethics committee be constituted at the university level and entrusted with the responsibility of ensuring compliance to academic conduct.
- ❖ Honour code or Guidelines be formulated to acquaint the researchers with what constitutes plagiarism or other forms of academic misconduct or otherwise. The honour code should be put on the website for all to access and browse.
- ❖ More programmes and workshops should be conducted on a regular basis in order to spread awareness and educate the researcher community on the issue of academic conduct and integrity.

# National Workshop on Creation and Management of Digital Collection, INFLIBNET Centre, Gandhinagar, 19th-23rd May, 2014

The INFLIBNET Centre organized five-day National Workshop on “Creation and Management of Digital Collection” from 19th to 23rd May, 2014. The Workshop was inaugurated by Mr. Ashok Kumar Rai, Scientist-D (CS), INFLIBNET Centre. This Workshop aimed at equipping the participants with skills for developing and managing their own digital collection

and for creating awareness in new developments in the field of library and information science like managing information sources in digital environment, building institutional repositories, networking and social media, management of e-resources, with theoretical lectures and hands-on training by experts. 16 library and computer professionals participated in the Workshop.



**Participants of National Workshop on Creation and Management of Digital Collection with Technical Staff of the INFLIBNET Centre and Dr. T S Kumbhar, Librarian, IIT Gandhinagar**

Mr. Ashok Kumar Rai and Mr. Yatrik Patel, Scientists D (CS), Mr. H G Hosamani and Mr. Kannan P. Scientists C (LS), Mr. Abhishek Kumar, Scientist C (CS), Mr. Divyakant Vaghela and Mr. Swapnil Patel, Scientists B (CS), Mr. Mitesh Pandya, Scientist B (LS) from INFLIBNET Centre and Dr. T S Kumbhar, Librarian, IIT Gandhinagar served as

resource persons for the Workshop. Mr. Yatrik Patel, Scientist D (CS), Mr. Swapnil Patel, Scientist B (CS), Mr. Vijay Shrimali, STA (CS), Mr. Ramiz Malek, Sr. Project Officer (CS) and Mr. Kamlesh Vegad, Project Officer (LS) assisted in practical sessions.

## E-Content Development under e-PG Pathshala

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### **Workshop on E-content Development for Paper on “Information Sources, System & Services of Library & Information Science”, South Campus, University of Delhi, New Delhi, 20th-21st June, 2014**

Two-day workshop on E-content Development for the Paper on “Information Sources, System & Services” was organised by INFLIBNET Centre, Gandhinagar at Institute of Life Long Learning, University of Delhi South Campus, New Delhi from 20th to 21st June, 2014. The workshop was the part of e-content development activities of e-PG Pathshala Project funded by MHRD under its National Mission on Education through ICT (NME-ICT). The purpose of the workshop was to assess the progress of e-content development, review the modules and voice recording of self-learn script by the content writers for the paper “Information Sources, System and Services”. Dr Renu Arora, Paper Coordinator, e-PG Pathshala and Former Head,

Education and Training, Mrs. C. M. Anand, Scientist F (Retd.), Dr. M. Natarajan, Sr. Principal Scientist, Dr. R. K. Verma, Former Chief Scientist, NISCAIR, Dr. Praveen Babbar, Dy. Librarian, Jawaharlal Nehru University, Dr. Shalini Lihitkar Waghmare, Sr. Assistant Librarian and HOD, Department of Library and Information Science, Rastrasant Tukadoji Maharaj Nagpur University, Nagpur were participated in the workshop. The workshop started with a presentation on overview of e-PG Pathshala project and progress by Mr. Kannan P, Scientist C (LS), INFLIBNET Centre. The workshop continued with the group discussion of content writers on respective modules. Voice narration of the individual content writer was recorded for the respective module to prepare self-learn component. Mr. Kannan P, Scientist C (LS) coordinated the workshop as the INFLIBNET Centre representative with the support of Institute of Life Long Learning Team, University of Delhi South Campus, New Delhi.

## Dspace Hosting Service to Ganpat University, Mehsana, Gujarat

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INFLIBNET Centre supports academic and research institutions to establish Institutional Repository. Extending the service further, INFLIBNET Centre has now started hosting service for DSpace and other projects at newly established Data Centre.

Ganpat University, Mehsana, one of the reputed

universities in Gujarat state has opted service for DSpace Installation, DSpace Basic Customization and DSpace Hosting service at INFLIBNET Centre on payment. For inquiry and further details you may contact on [yatrik@inflibet.ac.in](mailto:yatrik@inflibet.ac.in) and [swapnil@inflibnet.ac.in](mailto:swapnil@inflibnet.ac.in)

## Visit of Mr. Praveen Prakash, Mission Director, NME-ICT and Joint Secretary, MHRD

Mr. Praveen Prakash, Mission Director, NME-ICT and Joint Secretary, MHRD visited INFLIBNET Centre on 8th May, 2014. He interacted with scientists of the Centre on presentation made to him on various activities and services of INFLIBNET Centre. He also took a review of

progress made in the project entitled “Integrated e-content Portal & Vidwan database”, the projects funded by NME-ICT. Mr. Praveen Prakash visited Data Centre of INFLIBNET Centre and made few suggestions about its improvement.

## Western Regional Training Programme on J-Gate@UGC-Infonet, TISS, Mumbai, 30th June 2014

One-day Western Regional Training Programme on J-Gate@UGC-Infonet was organised by Informatics India Ltd, Bangalore, in collaboration with INFLIBNET Centre, Gandhinagar and Tata Institute of Social Science at Sir Dorabji Tata Memorial Library, TISS, Mumbai on 30th June 2014. The programme was Chaired by Dr. Satish Kanamadi, Acting Librarian, Dr. Mallikarjun Angadi, Deputy Librarian, TISS, Mr. Saroj

Kumar Panda, STA (LS) and Ms. Kruti J. Trivedi, Scientist B (LS), INFLIBNET Centre. Dr. Satish Kanamadi welcomed the invitees and participants, Dr. Mallikarjun Angadi also addressed the participants. Ms. Kruti Trivedi briefed about the INFLIBNET Centre, UGC-Infonet Digital Library Consortium and the earlier version of JCCC@UGC-Infonet.



**Dr. Satish Kanamadi, Acting Librarian, Dr. Mallikarjun Angadi, Deputy Librarian, TISS, Ms. Kruti Trivedi, Scientist B (LS), Mr. Saroj Kumar Panda, STA(LS), INFLIBNET Centre during the Inaugural Session of Western Regional Training Programme on J-Gate@UGC-Infonet at TISS, Mumbai**

The practical session was started with presentation by Mr. Sanjay Grover, CEO, Informatics India Ltd, Bangalore. He showcased the new features and functionalities available in the new interface named as J-Gate@UGC-INFONET and their benefits to end users and the library administrators. He also highlighted various products like FedGate, Koha, EzProxy, BGate which can help the libraries achieve their vision of digital library.

Mrs. Jyothi, Informatics India Ltd, demonstrated each and every functions of J-Gate@UGC-Infonet. She demonstrated use of admin module (rights and access management system), configuration of library subscribed journals, procedure for fulfilling Document Delivery Request & generation of various reports.

Mr. Saroj Kumar Panda extended a warm vote of thanks to authorities of TISS, Mumbai, team of Informatics India Ltd, Bangalore and participants at the end of training programme. 57 participants included librarians, information professionals, network administrators, students and faculty from various colleges and universities attended the training programme. During the interactive session, number of questions raised by the participants was answered by experts from Informatics India Ltd. and INFLIBNET Centre which made the training programme very interactive and interesting.

**INFLIBNET Centre**  
Information and Library Network Centre  
Infocity Gandhinagar

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### Welcome to INFLIBNET Centre

a gateway to India's academic and research Communities

Information and Library Network (INFLIBNET) Centre, Gandhinagar is an Autonomous Inter-University Centre (IUC) of University Grants Commission (UGC) of India. It is a major National Programme initiated by the UGC in March 1991 with its Head Quarters at Gujarat University Campus, Ahmedabad. Initially started as a project under the IUCAA, it became an independent Inter-University Centre in June 1996. [more details](#)

**Shodh**  
a reservoir of Indian theses

Access to Fulltext Ph.D Theses submitted to universities in India. [Shodhganga](#) | [Shodhganga@in](#)

**UGC INFONET**  
Digital Library Consortium

Extending access to e-journals /ebooks to universities/colleges [details](#) | [HLIST](#)

**SOUL**  
Software for University Library

State of art Integrated Library Management System [details](#) | [SOUL Updates](#)

**indCat**  
Union Database

Online Union Catalogue of Indian Universities [details](#) | [GuCat](#)

**Events Calendar**

« May 2014 »

S	M	T	W	T	F	S
				1	2	3
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- e-PGPathshala
- Vidwan Database
- Research Project Database
- INFOPORT
- IR@INFLIBNET
- University Directory
- e-Education
- Honors & Awards

**What's New @ INFLIBNET**

[PLANNER 2014 | ETD 2015](#)

Due to Lok Sabha election Code of conduct the written Test/Personal Interviews for the post of Scientist B(CS) which was scheduled to be held on Friday, 28th March 2014 from 10.00 AM onwards is **POSTPONED TILL FURTHER NOTICE**. Inconvenience is deeply regretted

Three days training programme on "Bibliometrics and Research Output Analysis" scheduled to be held at INFLIBNET Centre, Gandhinagar, Gujarat from 23rd -25th April, 2014 is **Postponed till further announcement**

# Open Source Software in LIS

A number of open source software are available to manage; the day-to-day activities of the library as well as for managing various digital resources such as preprint articles, subscribed resources, institutional repositories, bibliographies, static web pages, etc. Various agencies and non-for-profit organisations put great efforts to develop open source software for the benefit of scholarly community. The open source software are developed with compliance to internationally accepted standards, supported by the community and promoted by reputed organisations that provides authenticity to chose the software and enable the user to customise and

rectify the issues in an effective way. Choosing the open source software for various library operations and services can prove to be a smart move to save the manpower, money and time. We have listed some of the widely used open source software in various functional areas such as library automation, content management, e-book management; bibliographic management, digital library management, learning management software and federated search are listed below. The next issue of Newsletter will carry detailed features and functionality of selected open source software.

## 1. Library Automation

Software	License	Language	Developed by	URL
ABCD	GNU	Php	Latin American and Caribbean Centre on Health Sciences, also known by its original name Regional Library of Medicine (BIREME, acronym in Portuguese)	<a href="https://sites.google.com/site/abcdlibraryautomationsoftware/">https://sites.google.com/site/abcdlibraryautomationsoftware/</a>
Evergreen	GNU GPL	Perl, C, JavaScript	Georgia Public Library System	<a href="http://evergreen-ils.org/">http://evergreen-ils.org/</a>
Koha	GNU GPL	Perl, Java, JavaScript		<a href="http://www.koha.org/">http://www.koha.org/</a>
Newgenlib	GNU GPL	Java SE	Verus Solutions Pvt Ltd. Domain expertise is provided by Kesavan Institute of Information and Knowledge Management in Hyderabad, India	<a href="http://www.verussolutions.biz/web/">http://www.verussolutions.biz/web/</a>
Openbiblio	GNU GPL	Php	OpenBiblio development team	<a href="http://obiblio.sourceforge.net/">http://obiblio.sourceforge.net/</a>
Phpmymlibrary	GNU GPL	Php	Phpmymlibrary team	<a href="http://sourceforge.net/projects/phpmymlibrary/">http://sourceforge.net/projects/phpmymlibrary/</a>

## 2. Content Management System

Software	License	Language	Developed by	URL
AContent	GNU GPL	Php	Government of Ontario	<a href="http://www.atutor.ca/acontent/">http://www.atutor.ca/acontent/</a>
Drupal	GNU GPL	Php	Drupal Community	<a href="https://www.drupal.org/">https://www.drupal.org/</a>
Joomla	GNU GPL	Php	Open source Matters	<a href="http://www.joomla.org/">http://www.joomla.org/</a>
Omeka	GPL	Php (Linux)	Roy Rosenzweig Center for History and New Media, George Mason University.	
Wordpress	GPL	Php	Wordpress Team	<a href="http://wordpress.org/">http://wordpress.org/</a>

### 3. Digital Library Software

Software	License	Language	Developed by	URL
Dspace	BSD (Berkeley Software Distribution)	JAVA	MIT and HP Labs	<a href="http://www.dspace.org/">http://www.dspace.org/</a>
Eprints	GPL	Perl	University of Southampton	<a href="http://www.eprints.org/">http://www.eprints.org/</a>
Fedora	Apache	Java	Duraspace	<a href="http://www.fedora-commons.org/">http://www.fedora-commons.org/</a>
Greenstone	GNU GPL	Perl	University of Waikato	<a href="http://www.greenstone.org/">http://www.greenstone.org/</a>

### 4. Learning Management System

Software	License	Language	Developed by	URL
Atutor	GNU GPL	Php	Government of Ontario	<a href="http://www.atutor.ca/atutor/">http://www.atutor.ca/atutor/</a>
Moodle	GNU GPL	Php	Martin Dougiamas	<a href="https://moodle.org/">https://moodle.org/</a>
.LRN (dotlearn)	GNU GPL	OpenACS	Philip Greenspun	<a href="http://dotlrn.org/">http://dotlrn.org/</a>

### 5. E-book Management Software

Software	License	Language	Developed by	URL
Calibre	GNU GPL	Python, C (Qt), CoffeeScript, JavaScript	Centre Source Interactivity Agency	<a href="http://calibre-ebook.com/">http://calibre-ebook.com/</a>

### 6. Federated search/Discovery Services

Software	License	Language	Developed by	URL
Blacklight	Creative Commons Attribution-Share Alike 3.0 United States License.	Apache Solr Ruby on Rails Engine plugin	Community	<a href="http://projectblacklight.org/">http://projectblacklight.org/</a>
eXtensible Catalog	GPL	Php	XC Organization	<a href="http://www.extensiblecatalog.org/">http://www.extensiblecatalog.org/</a>
VUfind	GPL	Php	Villanova University	<a href="http://vufind.org/">http://vufind.org/</a>

## 7. Bibliography Management Software

Software	License	Language	Developed by	URL
Aigaion	GPL	Php	Aigaion developers	<a href="http://sourceforge.net/projects/aigaion/">http://sourceforge.net/projects/aigaion/</a>
JabRef	GPL	Java	JabRef Delelopers	<a href="http://jabref.sourceforge.net/">http://jabref.sourceforge.net/</a>
Zotero (Free / Online storage free up to 300 MB)	AGPL	Firefox extension	Center for History and New Media at GMU	<a href="http://www/zotero.org">http://www/zotero.org</a>

## New Projects and Consultancies@INFLIBNET Centre

### Integrated e-content Portal

The Integrated e-content Portal is a web-based portal consisting of all e-content developed and funded under the National Mission of Education through ICT. More than 55 projects were awarded to various institutions, universities and colleges in India wherein e-content is being developed with funding from NME-ICT in various subject disciplines including science, arts, engineering, social science, etc. The portal would facilitate search, browse and navigation through all e-content hosted on the portal. A learner would be able to access desired material including audio / video learning material, textual material, multimedia enriched materials, etc. through a single integrated interface. Moreover, features of faceted search, syllabus-based search, usage statistics, personalized learning experience with provision for "my account" and "my space", etc would also be incorporated in this portal.

### Website Development of Central University of Gujarat and Admissions 2014-15 assigned to the INFLIBNET Centre

The INFLIBNET Centre and Central University of Gujarat (CUG) has signed an MoU for the development of CUG website. To begin with, the Centre has developed and hosted online interface for CUG entrance examination 2014-15. Applications for 20 PG / MPhil courses of CUG were received and processed under the MoU. A new layout design of the CUG website is being developed in consultation with faculty of the University.

## Visitors

### Dr. T S Kumbhar, Librarian,

IIT Gandhinagar

### Mr. Bhim Dhoj Shrestha,

Head, Central Dept of Library and Information Science,  
Tribhuvan University Central Library,  
Kathmandu, Nepal

### Dr. Mohan Raj Pradhan, Professor,

Central Dept of Library and Information Science,  
Tribhuvan University,  
Kathmandu, Nepal

### Dr. Manaswini Patra, Librarian (I/C),

Berhampur University,  
Berhampur, Odisha

# Developing National Ranking for Indian Universities: Moving towards World Class Universities

Dr. Jagdish Arora, Director and Ms. Kruti Trivedi, Scientist B(LS)

This article describes important university ranking systems along with indicators and methodology deployed by them for ranking universities. The shortcomings of these ranking systems are highlighted. The article describes I-UGR system of ranking developed for ranking universities in Spain and elaborates on its formula. Finally, the article describes why I-UGR system of ranking universities could also be used for ranking universities in India.

## 1. Preamble

The Higher education system in India is large and complex. India has the third largest higher education system in the world, behind China and the United States comprising of more than 700 universities, 39,000 affiliated colleges, 7 lakhs professors and 15 crores students including 17 lakhs post-graduate and 1.18 lakhs research students. The total enrolment has increased from a meager 0.1 million in 1947 to 13.64 million in 2010. Colleges, affiliated to 131 affiliating universities, constitute the bulk of the higher education system in India contributing around 86.88 % of the total enrolment.

The higher education system in India is in need of infusion of quality and clarity on the approach of building world-class university in the Indian context and environment. New benchmarks of quality need to be defined and put in place to help overall system to move up on the quality spectrum. Research assessment and national ranking of Indian universities can play an important role in improving performance and quality of academic institutions.

In view of global world Class University ranking, India's higher educational institutions figure poorly. None of the Indian higher education institutions were able to position top 200 in reputed ranking such as Times Higher Education World University Rankings, Academic Ranking of World Universities compiled by Shanghai Jiao Tong University, and Quacquarelli Symonds World University Rankings. Total four Indian institutes figure in the Times Higher Education (THE) World University Rankings 2013-14. Panjab University ranks between 226-250 while, four Indian Institute of Technology (IIT) namely IIT Delhi, IIT Kanpur, IIT Kharagpur and IIT Roorkee rank between 351 -400. Around 11 Indian institutes figure in the top 800 in QS World University Rankings 2013 with the highest ranking of IIT Delhi which is placed at 222 positions. IIT Bombay ranks 233 and IIT Kanpur ranks 295. The other Indian institutes figure in the top 800 list of QS World University Rankings 2013 includes IIT Madras (313), IIT Kharagpur (346), IIT Rourkee (401), Delhi University (441), IIT Guwahati and Mumbai University both at (601) and University of Pune and Kolkata at (701). Indian Institute of Science (IISc) is the only institution that figures between 301 and 400 in the Academic Ranking of World Universities (ARWU) compiled by Shanghai Jiao Tong University for 2013.

Robinson-García, et al (2013) observed dominance of the United States and the United Kingdom which alone represent more than a third of the universities included in the ranking (37.6%), followed by Germany and Canada as

the next with the highest number of universities included. The only exception being Japan (University of Tokyo), which is included amongst top 20 universities in the world ranking. Robinson-Garcia further observed high visibility of Anglo-Saxon universities in rankings leaving little space for other countries that are working towards a successful university model. In fact, most ranking system are incapable of giving justification to ranking of national university systems with exhaustiveness since most of them restrict themselves to rank 500 to 1000 universities.

As such, the existing international rankings do not offer a complete view of our national higher education systems, preventing policy makers, funding agencies and other regulatory bodies to assess the real state of education in the country and have glimpses of accurate picture of the state of country's university system and colleges affiliated to them. As such, there is a need to develop tools with higher levels of granularity and accuracy and to rank universities and colleges in India. However, it is important that a well-balanced, multidimensional approach, combining qualitative and quantitative indicators is deployed for ranking universities in India consisting of optimal numbers of performance indicators.

This article describes important university ranking systems along with indicators and methodology deployed by them for ranking universities. The shortcomings of these ranking systems are highlighted. The article describes I-UGR system of ranking developed by Robinson-García, et al (2013) for ranking universities in Spain and elaborates on its formula. Finally, the article describes why I-UGR system of ranking universities in Spain could also be used for ranking universities in India.

## 2. World Rankings of Universities

There are a number of reputed globally-recognized rankings of the world universities. A brief description of these ranking system and indicators used by them is given below.

### 2.1. Shanghai Jiao Tong University Academic Ranking of World University (ARWU)

The Academic Ranking of World Universities (ARWU) is first published in June 2003 by the Centre for World-Class Universities and the Institute of Higher Education of Shanghai Jiao Tong University, China, and updated on an annual basis. The ranking compared 1,200 higher education institutions worldwide and publish 500 of them.

Criteria	Indicators	Weight
Quality of Education	Alumni of institution winning noble prizes and field medals	10%
Quality of Faculty	Staff of institution winning noble prizes and field medals	20%
	Highly cited researchers in 21 broad subject categories	20%
Research Output	Article published in Nature and Science	20%
	Article indexed in Science Citation Index-expanded and Social Science Citation Index	20%
Per Capita Performance	Per Capita Performance	10%

### 2.2. QS World University Rankings

The QS World University Rankings is a ranking of the world's top 500 universities by Quacquarelli Symonds since

2004. The QS rankings were originally published in collaboration with Times Higher Education, and was known as the THE-QS World University Rankings. QS assumed sole publication of the existing methodology and Times Higher Education split in order to create a new ranking methodology in 2010, which became the THE World University Rankings.

Criteria	Indicators	Weight
Public Perception	1. Academic Reputation Survey	40%
	2. Employer Reputation Survey	10%
	3. Reputation Ranking by Faculty / Subjects	
Faculty Student Ratio	Score based on Student-Faculty Ratio	20%
Citation per Faculty	Research Performance factored against size of researchers	20%
International Faculty	Proportion of International Faculty	5%
International Students	Proportion of International Students	5%

### 2.3. Times Higher Education World University Rankings

The Times Higher Education World University Rankings is an international ranking of the world's top universities published by Times Higher Education (THE). A publisher of international education rankings since 2004, THE split from its original partner Quacquarelli Symonds in 2010, creating a new ranking methodology whose citation database information is compiled in partnership with Thomson Reuters. The additional World Reputation Rankings which are independent of the main rankings have also been released starting from 2011.

Criteria	Indicators	Weight
International Outlook (7.50%)	International / Total Students Ratio	2.50%
	Total Academic Ratio	2.50%
	Scholarly papers with at least one International Author / Total Papers	2.50%
Research- Volume (30%)	Publications Scholarly Papers/Academic & Research Staff	30%
Teaching - Learning	Staff-to-Student Ratio Ph.D. / UG Degrees Awarded	30%
Environment	Ph.D. Awarded / Academic Staff	
Research Impact - Citations	Total Citations Average Citations	30%
Industry Income	Industry Income	2.50%

### 2.4. The Leiden Ranking

The Centre for Science and Technology Studies (CWTS) at Leiden University has developed a ranking system of universities entirely based on its own bibliometric indicators. The work focuses on all universities worldwide with more than 700 Web of Science indexed publications per year. About 1000 largest (in terms of number of publications) universities in the world are covered.

Criteria	Indicators
Impact indicators	Mean citation score
	Mean normalized citation score
	Proportion of top 10% publications
Collaboration indicators	Proportion of inter institutional collaborative publications
	Proportion of international collaborative publications
	Proportion of collaborative publications with industry
	Mean geographical collaboration distance

## 2.5. Webometrics

Webometrics, an initiative of the Cybermetrics Lab (Spain), has produced the 'World Universities Ranking on the Web' since 2004, measuring the web presence of universities around the world and comparing the size and scale of their web presence against expectations based on other rankings. The Webometrics ranking is updated every six months, with data collection occurring in January and July, and the results of the data analysis are published a month later. Important changes have been introduced in the Webometrics ranking methodology in 2012. The indicators correlate web measures with traditional scientometric and bibliometric indicators used in other rankings.

Indicators	Meaning	Weight
Impact	Number of backlinks (from Majestic SEO)	50%
	Number of backdomains (from Majestic SEO)	
Presence	Number of (all) web pages from Google	20%
Openness	Number of papers from Google Scholar (2007-11) <i>pdf, doc, docx, ppt</i>	15%
Excellence	Number of papers belonging to the top 10% of cited papers from the SCImago database (2003-10)	15%

## 2.6. NTU Ranking

The Performance Ranking of Scientific Papers for World Universities, introduced in 2007, was a ranking system of 500 world universities by scientific paper volume, impact, and performance output. The ranking was published by the Higher Education Evaluation and Accreditation Council of Taiwan (HEEACT). After 2012, HEEACT Taiwan Ranking of Scientific paper was known as National Taiwan University Ranking. The NTU Ranking evaluates and ranks performance in terms of the publication of scientific papers for the top 500 universities worldwide using data drawn from SCI and SSCI.

Criteria	2012 Overall Performance Indicators	Weight	
Research productivity	Number of articles in the last 11 years (2001-2011)	10%	25%
	Number of articles in the current year (2011)	15%	
Research impact	Number of citations in the last 11 years (2001-2011)	15%	35%
	Number of citations in the last two years (2010-2011)	10%	
	Average number of citations in the last 11 years (2001-2011)	10%	
Research excellence	h-index of the last two years (2010-2011)	20%	40%
	Number of Highly Cited Papers (2001-2011)	15%	
	Number of articles in the current year in high-impact journals (2011)	15%	

## 2.7. The SCImago Institutional Rankings (SIR)

The Scimago Institutions Rankings, launched in 2009, was developed by SCImago Research Group, a Spain-based research organization consist of members from the Spanish National Research Council (CSIC), University of Granada, Charles III University of Madrid, University of Alcalá, University of Extremadura and other education institutions in Spain. The ranking covers only research at higher education institutions and other research establishments. The ranking measures areas such as: research output, international collaboration, normalized impact and publication rate. The ranking can be customized on the basis of needs and interests.

Indicators	Explanation
Output (O) International	Number of scientific papers published in scholarly journals Proportion of articles whose affiliations include more than one country address
collaboration (IC) Normalized impact (NI)	Normalized impact indicator values show the ratio between the average scientific impact of an institution and the world average impact of publications for the same time, document type and subject area
High quality publications (Q1)	Ratio of publications of an institution which are published in the journals ranked in the first quartile (25%) in the SCImago Journal Rank (SJR) indicator
Specialization index (SI)	This indicator is calculated in the same way as the Gini index in economics (see below). The value of the Gini index is between 0 and 1. Here, the value 1 means that the institution has publications in one field only, i.e. it is absolutely specialized; small index values mean that the institution is a comprehensive one
Excellence rate (ER)	The indicator value is the proportion of an institution's journal publications included in the 10% most cited papers in the same scientific field
Scientific Leadership	Indicator value is the number of papers in which the corresponding author belongs to the institution

SCImago country rankings enable countries to be compared using each of the following indicators:

- ❖ Total count of documents = total publication output of a country including citable and non-citable documents;
- ❖ Count of citable documents;
- ❖ Citations count;
- ❖ Self-Citations count;
- ❖ Citations per Document; and
- ❖ h-index.

### 3. Flaws in World University Ranking Systems

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Major flaws in World university ranking systems are as follows:

- i) Major responsibility of universities is to inform, inspire and engage students.
- ii) The idea of quality of education is too intangible to measure. All rankings use proxies for these qualitative indicators.
- iii) Indicators used by all rankings include research articles, citation counts, faculty size, graduation rates and institutional reputation that are proxy to quality.
- iv) Emphasis is on research over teaching. None of the ranking consider factors like social responsibilities of universities or student and alumni opinions.
- v) Some of the indicators used in world ranking are not even remotely applicable to Indian universities for example Nobel Prize Winners amongst alumni and faculty, articles published in Nature and Science, International faculty, etc.
- vi) There are approx. 16,000 universities in the world. Most rankings consider top 500 or 800 universities.
- vii) International rankings cannot reflect the state of national higher education systems as they usually cover just the top universities of each country. India itself has 700+ universities. Most small but high quality universities do not even qualify for preliminary rounds of measurements.
- viii) Most international rankings have Anglo-Saxon bias. 37.6% universities in Shanghai Ranking are from USA and UK.

### 4. I-UGR Ranking Formulae for Ranking Universities

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I-UGR formula was developed considering the fact that in 2013 editions of various world ranking of universities only 19 out of 74 universities (25.68%) figured amongst world class universities. It is believed that various countries are poorly represented in the international rankings because of limited number of universities that are considered as World-Class universities. Robinson-García, et al (2013) believed that limited coverage of Spanish universities do not offer a complete picture of the university system in Spain for policy makers. As such, a national ranking system is required to complete fragmented picture of the Spanish higher education scenario.

IFQ<sup>2</sup>A Index was developed as an indicator to measure the quantitative and qualitative dimensions of the research outcome of a group of institutions in a given field. It is based on the following six primary bibliometric indicators that reflect upon research activity, impact and visibility of universities:

**Quantitative Indicators (QNIF):** Size-dependent measures

- i) NDOC: Number of citable papers published in scientific journals
- ii) NCIT: Number of citations received by all citable papers
- iii) H: H-Index

$$QNIF = \sqrt[3]{NDOC \times NCIT \times H}$$

**Qualitative Indicators (QLIF):** Size-independent, relative measures of impact and visibility

- i) %1Q: Ratio of papers published in journals in the top JCR quartile
- ii) ACIT: Average number of citations received by all citable papers
- iii) TOPCIT: Ratio of papers belonging to the top 10% most cited papers calculated within all institutions

$$QLIF = \frac{\sqrt[3]{\%1Q \times ACIT \times TOPCIT}}{IFQ^2 A = QNIF \times QLIF}$$

#### 4.1. Why to Use I-UGR Ranking for Ranking Indian Universities?

The formula used by I-UGR takes care of most of the limitations that exist in international ranking system. Indicators used in the I-UGR are not restrictive to few universities. In contrast, these indicators apply to all universities. For example, number of Nobel prize winners may not be applicable to any university in India, likewise number of articles published in Nature and Science as an indicator to measure research excellence may be applicable only to very few universities in India. Indicators used in I-UGR formulae measure both quantitative as well as qualitative dimensions of the research outcome of universities. I-UGR is size-independent since it uses bi-dimensional index, which takes into account raw counts of papers and citations as well as relative measures that benefit small institutions which produce high quality papers.

I-UGR takes into account the disciplinary focus and multi-dimensional nature of universities, an important feature considering the fact that India has discipline focused educational institutions such as IITs, IISERs, IISc, NITs, AIIMS, IIITs, IIMs and several others discipline special universities.

In order to give equal treatment to older and new institutions, I-UGR takes a window of most recent 5 or 10 years so as to give equal treatment to newer and older institutions. 5 to 10 years time span also offer stable results. Merits of I-UGR ranking are as follows:

- i) The formula is transparent and replicable.
- ii) International rankings cannot reflect the state of national higher education systems as they usually cover just the top universities of each country.
- iii) Most international rankings have Anglo-Saxon bias. 37.6% universities in Shanghai Ranking are from USA and UK.
- iv) Indicators used in I-UGR formulae measure both quantitative as well as qualitative dimensions of the research outcome of universities.
- v) I-UGR is size-independent since it uses bi-dimensional index which takes into account raw counts of papers and citations as well as relative measures which benefit small institutions that produce high quality papers.

- vi) I-UGR takes into account the disciplinary focus and multi-dimensional nature of universities.
- vii) Indicators used in the I-UGR are not restrictive to few universities. It applies to all universities. For example No. of Nobel prize winners and no. of articles published in Nature and Science as an indicator to measure research excellence may or may not be applicable to most of the universities in India.
- viii) I-UGR takes a window of most recent 5 or 10 years so as to give equal treatment to newer and older institutions. 5 to 10 years time span also offer stable results.

## 5 Conclusion

The paper explores the possibility of National Ranking of Indian Universities using IFQ2A index. It can be seen that most of the international rankings focus predominantly on indicators related to the research performance of universities. 40% to 60% weightage is given to research performance indicator. It is therefore meaningful in the initial exercise to focus on the research contributions of higher educational institutions (HEIs) in India. The IFQ2A Indexes address a comprehensive research analysis of the university system of a country. Using IFQ2A Ranking at national level, India can focus on quality and quantity of research at Indian Institutes which is the highly weighted indicators in World University Ranking.

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## Staff News

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**Dr Jagdish Arora, Director**

Dr. Jagdish Arora attended round table meeting on OER policy & related implementation organised by NME-ICT, New Delhi on 26th May, 2014.

**Mr. Yatrik Patel, Scientist D (CS)**

Mr. Yatrik Patel was invited to deliver a lecture on "Institutional Repository using DSpace" during training programme on "Technology Implementation in Libraries in New Era" organized by Sardar Patel Institute of Public Administration (SPIPA), Ahmedabad on 3rd June, 2014. He also delivered a lecture on "INFLIBNET Centre's Activities & Services in Higher Education in India" at Academic Staff College, Gujarat University, Ahmedabad on 20th June, 2014.

**Mr. Swapnil Patel, Scientist B (CS)**

Mr. Swapnil Patel was invited to deliver a lecture on "Institutional Repository using DSpace" during training programme on "Technology Implementation in Libraries in New Era" organized by Sardar Patel Institute of Public Administration (SPIPA), Ahmedabad on 3rd June, 2014.

**Mr. Abhishek Kumar, Scientist C (CS)**

Mr. Abhishek Kumar was invited as an expert for delivering a detailed technical presentation on e-PG Pathshala during one-day Workshop under e-PG Pathshala Project for the subject 'Philosophy' at University of Pune, Pune on 15th May 2014.



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**एटी-प्लेडजरिजम विषय पर वर्कशॉप**  
 अमृतसर। गुरु नानक देव यूनिवर्सिटी की भाई गुरदास लाइब्रेरी की ओर से सोमवार को एटी-प्लेडजरिजम (साहित्य चोरी का आदि के विरोध में) विषय पर वर्कशॉप का आयोजन गुरु नानक भवन ऑडिओथियेटर में किया गया।  
 यह वर्कशॉप यूजीसी की स्थापित संस्था इन्फानेशन एंड लाइब्रेरी नेटवर्क अहमदाबाद के सहयोग से करवाई गई। इसमें 350 शोधार्थियों और अध्यापकों ने भाग लिया। इस मौके पर वीसी प्रो. अजायब सिंह बराड़ मुख्य-मेहमान थे। इन्फानेशन एंड लाइब्रेरी नेटवर्क अहमदाबाद के सीनियर विज्ञानी मनोज कुमार और

**प्रान्त करें थैला भर के आम**  
 ड्यो स्टेशन 94.3 माय एफएम पर कार्यक्रम में आसान से सवाल का जवाब देकर प्रान्त। जानकारी देते हुए आरजे रहल ने बताया हम मई का पूरा महीना चलेगा। सुबह 7 से 9 पेश होने वाले कार्यक्रम सलाम अमृतसर 9 कायक्रम के संबंध में सवाल पूछे जाऐ। 11 यही कार्यक्रम शाम 5 से रात 9 बजे 1 और पूछेगी आसान से सवालों के जवाब। ल का जवाब देगा, उसे आमां का भरा हुआ। कायक्रम के दौरान पूछे जाने वाले सवालों 5050943 पर संपर्क किया जा सकता है। आमां से भर थैला, सुनने के लिए सुनते रह से। यह कार्यक्रम बटाला रोड स्थित देव ग ज रा है।

**निशांन पर होटल-रेस्टोरेंट मुलाजिम**  
 घर वापसी के वक्त होती है लूट, मजीठा रोड में वारदात के चक्कर में दो पकड़े  
 लगाई है। पोसी शराम ने बताया कि अमृतसर की होटल और रेस्टोरेंट

**Arrests four persons**  
 from their possession 10 capsules and 880 capsules. The police official said the accused had been booked under Narcotics Drugs and Psychotropic Substances Act and further investigations had been started after taking their police remand.

**ay workshop**  
 sional from AI Instru-ments and National Instruments Bangalore conducted this two-day workshop. Principal, ACET, Dr Vijay Kumar Banga, said the institute had set up a new research lab for Ph/D Tech and B Tech students in the area of wireless and mobile communication.

**नाटक के माध्यम से एड्स से बचने की सलाह दी**  
 आचार्य अंबेडकर, अमृतसर। एमएलए के नेतृत्व में नाटक के माध्यम से एड्स से बचने की सलाह दी। नाटक के माध्यम से एड्स से बचने की सलाह दी। नाटक के माध्यम से एड्स से बचने की सलाह दी।

**श्रीसेज लिखते समय ध्यान से करें काम : प्रो. बराड़**  
 अमृतसर, अमृतसर। श्रीसेज लिखते समय ध्यान से करें काम : प्रो. बराड़। अमृतसर, अमृतसर। श्रीसेज लिखते समय ध्यान से करें काम : प्रो. बराड़।

**एटी-प्लेडजरिजम विषय पर वर्कशॉप**  
 अमृतसर। गुरु नानक देव यूनिवर्सिटी की भाई गुरदास लाइब्रेरी की ओर से सोमवार को एटी-प्लेडजरिजम (साहित्य चोरी का आदि के विरोध में) विषय पर वर्कशॉप का आयोजन गुरु नानक भवन ऑडिओथियेटर में किया गया।  
 यह वर्कशॉप यूजीसी की स्थापित संस्था इन्फानेशन एंड लाइब्रेरी नेटवर्क अहमदाबाद के सहयोग से करवाई गई। इसमें 350 शोधार्थियों और अध्यापकों ने भाग लिया। इस मौके पर वीसी प्रो. अजायब सिंह बराड़ मुख्य-मेहमान थे। इन्फानेशन एंड लाइब्रेरी नेटवर्क अहमदाबाद के सीनियर विज्ञानी मनोज कुमार और

**आर्य समाज स्कूल लोहाड़ में हवन**  
 अमृतसर। डीएवी इंटरनेशनल स्कूल की ओर से आर्य समाज स्कूल लोहाड़ में पंचन हवन यज्ञ करवाया गया। इस मौके पर स्कूल के चैयरमैन डॉ. वीपी लखनपाल, प्रबंधक एवं आर्य समाज लोहाड़ के प्रधान डॉ. केपल कौल मुख्य यजमान थे। वैदिक रीति से मंत्रोच्चारण के साथ पवित्र हवन अर्पित में धी और सामग्री की आहुतियां अर्पित की गईं। प्रिंसिपल अंजना गुप्ता ने उपस्थित का स्वागत किया और अपने भाषण में हवन की

**कैप में 800 लोगों ने किया रक्तदान**  
 अमृतसर। डेवा बाबा बगगा सिंह में बाबा बगगा सिंह जी के जन्मदिन पर समागम करवाया गया। इस दौरान लगाए गए रक्तदान कैप में 800

**निशांन पर होटल-रेस्टोरेंट मुलाजिम**  
 घर वापसी के वक्त होती है लूट, मजीठा रोड में वारदात के चक्कर में दो पकड़े  
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**Arrests four persons**  
 from their possession 10 capsules and 880 capsules. The police official said the accused had been booked under Narcotics Drugs and Psychotropic Substances Act and further investigations had been started after taking their police remand.

**Plagiarism a major problem faced by varsities: Professor**  
 More than 350 delegates from different departments of university and regional campuses participated in the workshop. Manoj Kumar said new softwares such as 'iThenticate' and 'Turnitin' were available to check the authenticity of Ph D theses. Vice-Chancellor Prof AS Brar was the chief guest on this occasion. Manoj Kumar and Pushpinder, the representatives from INFLIBNET delivered special lec-

**श्रीसेज लिखते समय ध्यान से करें काम : प्रो. बराड़**  
 अमृतसर, अमृतसर। श्रीसेज लिखते समय ध्यान से करें काम : प्रो. बराड़। अमृतसर, अमृतसर। श्रीसेज लिखते समय ध्यान से करें काम : प्रो. बराड़।

**श्रीसेज लिखते समय ध्यान से करें काम : प्रो. बराड़**  
 अमृतसर, अमृतसर। श्रीसेज लिखते समय ध्यान से करें काम : प्रो. बराड़। अमृतसर, अमृतसर। श्रीसेज लिखते समय ध्यान से करें काम : प्रो. बराड़।

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**shortstories**  
**WORKSHOP ON ANTI-PLAGIARISM HELD AT GNDU**

**AMRITSAR:** Bhai Gurdas Library of the Guru Nanak Dev University (GNDU) in collaboration with the INFLIBNET (Information and Library Network, Ahmedabad, Gujarat), which is an autonomous body of University Grants Commission (UGC), organised a one-day workshop on anti-plagiarism. More than 350 delegates from different departments of the universities and regional campuses participated in the workshop. Vice-chancellor AS Brar was the chief guest on this occasion. Manoj Kumar and Pushpinder, representatives from INFLIBNET delivered lectures on the software. Practical presentations were also organized by the university.

**3 accused leader**  
**LACK OF EVIDENCE in his cell; he suc**

**HT Correspondent**  
 letterschd@hindustantimes.com  
**AMRITSAR:** The district and sessions court on Monday acquitted all the three accused in the murder of former Nihang leader Ajit Singh Poohla. The trio - Navtej Singh and Harpreet Singh, both of Batala, and Harchand Singh of Mari Kamboke in Tarn Taran district - were acquitted by district and sessions judge Gurbir Singh for "lack of evidence" of

**Merito student award**  
 LUDHIANA, MAY. The 14th annual Merito student award function organized at the Par Education cum-good luck also organised disseminating the culminating session of the 14th annual Merito student award function. The award was presented to the student who had secured the highest marks in the Ph.D. thesis.

**आँभुसतार जागरण**  
 राहुल शर्मा बडे सुसाइडि डे के नी नजरल सक्तर

**ऐंटी-पलेडिजनिजम विसे 'उे विसेस वरकसप**  
 अमृतसर। गुरु नानक देव यूनिवर्सिटी की भाई गुरदास लाइब्रेरी की ओर से सोमवार को ऐंटी-पलेडिजनिजम (साहित्य चोरी का आदि के विरोध में) विषय पर वर्कशॉप का आयोजन गुरु नानक भवन ऑडिओथियेटर में किया गया।

**कैपटन दी जिंउ ठा डेरकर 'ध धुडी सिंघ**  
 लखिउर : नवडेन सिंघ

**Workshop on 'Anti-Plagiarism' organised**  
 DP CORRESPONDENT Amritsar  
 Bhai Gurdas Library of the Guru Nanak Dev University, on Monday, organised a one-day workshop on 'Anti-Plagiarism' in collaboration with Information and Library Network, Ahmedabad, which is an autonomous body of University Grants Commission (UGC). More than 350 delegates from different departments of the universities and regional campuses participated in the workshop. Vice-Chancellor Prof A S Brar was the chief guest on the occasion. Information and Library Network representatives Manoj Kumar and Pushpinder delivered special lectures on software. Addressing the gathering, Prof Brar said that most of the research scholars use the information available on the internet but they need to be more careful while collecting this type of information from net. He said that plagiarism is a major problem being faced by the Indian universities because of glut of free information on the net. He said that the researchers are

**Call on Kejrival**  
 Sadhu Singh trounced Parmjit Kaur Gulshan, a Shiromani Akali Dal candidate, by a margin of 1,72,316 votes. Harinder Singh Khalsa was the successful AAP candidate from Fatehgarh Sahib who defeated Congress's Sadhu Singh Dharamot by over 54,144 votes. "It was a courtesy visit as the MPs wanted to meet Kejrival," said AAP Political Affairs Committee member and

**40 personalities to be honoured on I-Day**  
 DP CORRESPONDENT Chandigarh  
 The Punjab government will honour 40 personalities from various fields during the state-level Independence Day function to be held on August 15. For selecting these distinguished personalities, the recommendations from all the district commissioners

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