

## **Million Book Project: Participation of Indian Institute of Astrophysics Library**

**Christina Birdle**      **Vagiswari. A.**      **Pallavi, T.G.**  
**[chris@ilap.ernet.in](mailto:chris@ilap.ernet.in)**    **[vagilap@ilap.ernet.in](mailto:vagilap@ilap.ernet.in)**    **[pallavi\\_reddy4@rediffmail.com](mailto:pallavi_reddy4@rediffmail.com)**

**Indian Institute of Astrophysics,  
Koramangala,  
Bangalore – 560 034.**

### **Abstract**

Million Book Project (MBP) (2001-2007) aims to digitize at least one million books and offer them to everyone around the world, free-to-read on the Internet. This is a collaborative effort by fifteen partners from China, India and United States. There are many Digital Library Projects initiated all over the world in the libraries. Most of these projects are carried out within particular libraries or archiving & preservation departments in the universities. In these digitization projects focus of the contents to be digitized, rests on the availability of the documents within the concerned libraries and also they are need-based efforts for future reference. Whereas MBP is envisaged as a global effort, where the contents required for digitization are contributed by all the participants from China, India and United States. This is in support of the goals of member participants to democratize and share knowledge locally and internationally. The funding for equipment and training has been received from the U.S. government to establish the digitization centers in China and India, thus taking care of the technical labor support for this project.

As one of the participating centers from India, our library at Indian Institute of Astrophysics has agreed to contribute towards the collection development and also the process of digitization. In this proposal we intend to raise the issues concerning our Institute's contribution towards the collection development and also the importance of the contents selection from a special library towards this international project.

### **Background of the Project**

The million Book Project stems from the vision of Dr. Raj Reddy, former dean of the school of Computer Science at Carnegie Mellon. His vision of building a Universal Library available to all, includes the access to knowledge which is a bridge to improved economic development and social conditions. The application of computing research, technology and tools has made the process of availability easier universally. Based on this vision, a proposal was sent to the National Science Foundation (U.S.) to seek support for creating this digital library. This project calls for scanning workshops to be set up in China and India. Partners in this project include universities, institutes and government agencies. The content for the scanning project comes from partner libraries in the United States, China and India. Scanning standards were established and a procedure manual to use at scanning centers was produced.

The Million Book Project focuses on content on a scale that would allow computer scientists and technologists to continue developing tools to explore and test how new technology could improve access to digital libraries on large scale. These tools include machine translation, automatic summarization and information retrieval. The test bed is created to accommodate a target of one million books scanned, for which the skills of the library professionals are tapped in assisting for the content selection.

**Paper submitted to the proceedings of the conference to felicitate  
Prof.B. Vijayalakshmi, Andhra University, Visakapatnam, 2003.**

### **Collection Logic**

It is important to focus on the intellectual property and copyright laws while creating a collection of digital content. In India those materials published before 1923 are out of copyright, and can be included in the digital content for scanning. Even the materials within the copyright are considered for the content, with the consent of the creators for scanning purpose. The information professionals are expected to have the basic knowledge of the intellectual property right and the current copyright issues pertaining to the documents qualifying for this digital project. There is a good collection of books and observatory publications available in the Indian Institute of Astrophysics Library, which is out of copyright and can be part of the Million Book content.

### **Collection activities in India**

India is the second largest country in population in the world with one billion people. There are 18 constitutional languages with 10 scripts and over 1650 dialects. Development of the nation with such diversity depends on the effective communication of information across the country. Information Technology has emerged as an enabling technology in reducing the communication gap across different linguistic group. Million Book project has the vision to encompass different languages as part of its content to cater to the population, which is not English literate.

As partner institutions and organizations in India, the following collections are broadly identified as contents for digital collection.

- Indian Institute of Science: 40,000 books no longer in copy right
- Indian Institute of Information Technology (Hyderabad) and the Government of Andhra Pradesh: Telugu Textbooks
- Indian Institute of Information Technology: Sanskrit literature and Science & Technology books in English and Indian Languages from Bose Library, Allahabad
- Pune University: Maharastrian literature and books
- Goa University: Portuguese literature and books
- Tirupathi and Tirumala Devasthanam : Sanskrit and Telugu literature and Vedic Documents, including palm leaf books
- Anna University: Tamil literature and palm leaves containing ancient Ayurveda Medical practices
- National Centre for Software Development and the Government of Maharashtra: Text books in Marathi
- SASTRA (Shanmuga Arts, Science, Technology and Research Academy): Sanskrit and Tamil literature from Tanjore Library dating to the 4<sup>th</sup> century B.C.
- Avinashalingam College: Books and Manuscripts from old libraries in the Tamilnadu region in Tamil, Telugu, English and Sanskrit
- Indian Institute of Astrophysics, Bangalore, Karnataka: Astronomy collection of the 18<sup>th</sup> century.

### **Collection from Indian Institute of Astrophysics Library**

The library of Indian Institute of Astrophysics is more than 200 years old. Since then the library has been continuously acquiring astronomical literature in the form of books, journals and catalogues and today it can boast of housing the largest collection in astronomy in the country.

Kodaikanal Observatory is the oldest observatory in India, now it is a branch of IIA. Since this observatory has been through historical transformation from East India Company's undertaking to full-fledged astronomical observatory in Madras first & then at Kodaikanal, the library has a rich heritage of photographs & correspondences of the earlier British Directors. The Astronomical publication by Joanne Kepler titled "Astronomia Nova" was published in 1609 is the oldest publication available in the library. There are approximately 450 books and manuscripts, which need special care, and preservation and we are committed to preserve these through digitization process. The main goal is to enable the users to have easy access to these archival materials without physically handling the documents and thus avoiding further damage.

The library collection has several unique features like the date of publication of a document as old as 1609, the nature of publications varying from hand written manuscripts and hand written annual reports, slides and photographs.

The first catalogue for the years 1794-1812 written by calligraphers, available in the library, lists 102 books and journal volumes and 52 manuscripts. The library has twenty books published in the 18<sup>th</sup> century, including three volumes of Flamsteed's *Historiae* (1725), an account of astronomical observations made by W. Wales during the course of his attempted voyage to the South Pole (1725) and a *History of the Royal Society* by Sprat (1734). The oldest journal volume is the *Philosophical Transactions* of 1794, and the oldest almanac available is for the year 1767. The library also has Greenwich Astronomical Observations made since 1765. Another valuable collection is the *Annual Report of the Madras Observatory* for the year 1792.

The second library catalogue prepared in 1893 is an improvement on the earlier catalogue. In this, entries were made according to a dictionary format giving each book an entry both by its author and subject, and sometimes also under the name of the observatory from where it was published. Much care was taken in the preparation of this catalogues giving appropriate cross-references wherever necessary. 470 Books and astronomical catalogues are listed in the catalogue. A receipt of 105 observatory publications and 31 journals through exchange and subscription is also recorded. This substantially represented the core of all the observatory publications and journals published at that time.

There are around 600 books, which are published between 1900-1940 and are out of copyright restriction. These books cover a wide range of subjects like Astronomy, Physics, Mathematics and Meteorology. We are also planning to digitize thesis volumes written by IIA scientists. Some indigenously produced reports, Kodaikanal Observatory Bulletins and Annual Reports from the year 1792 will form a unique collection of this database. Scanning of this material will very shortly commence.

There are many old Observatory publications containing astronomical catalogues, which are still in use and form an important part of the collection. Old volumes of journals like the *Philosophical Magazine* and *Nature* dating back to the year 1794 are also stored in this library. Some of the publications qualify for archival collection.

Continuous runs of many astronomical journals like the *Monthly Notices of the Royal Astronomical Society*, the *Astrophysical Journal*, *Publications of the Astronomical Society of the Pacific*, and the *Observatory* are available from volume 1. Some important publications of the 19<sup>th</sup> century include Goldingham's *Astronomical Observations* made at the Madras Observatory volumes III and IV, Taylor's *General Catalogues of Stars*, Pogson's catalogues of variable stars, Laplace's *Mecanique Celeste* in 6 volumes, Lockyer's works including his *Recent and Coming Eclipses* and *History of Astronomy* by Narrien.

The following table includes the collection identified from Indian Institute of Astrophysics Library as part of the Million Book Project.

**Table 1: Archival Collection available at Indian Institute of Astrophysics Library**

Sl. No	Sources to be digitised	Periodicity	Number of Volumes
1	Books	Before 1900 After 1900-1940	470 600
2	Observatory Publications	162 (Titles)	2400
3	Thesis		180
4	IIA Annual Reports	1792-2002	210
5	Kodaikanal Observatory Bulletins	1903-1997	230
6	Internal Reports generated by IIA Staff		

Ultimately we intend to make a repository of old astronomical publications available in the country to cater to a larger group of scientists and researchers for reference purposes.

In view of the importance of digitizing the archival material the library prepared a proposal to digitize the old publications, annual reports, and hand written manuscripts available in the library. As an initial step, C-DAC, Bangalore has digitized a few volumes of the archival material. The scanned image files of these volumes are saved in CD-ROMs, which can be accessed in the library. In continuation to this digitization project, IIA library also decided to be a part of the 'Million book project'

#### Reference

1. [www.iiap.ernet.in](http://www.iiap.ernet.in)
2. <http://www.library.cmu.edu/Libraries/FIDArchive.html>
3. <http://zeeb.library.cmu.edu/Libraries/LIT/Projects/IMBooks.html>