UNESCO launches open access curriculum for young and early career researchers

UNESCO, in collaboration with the Commonwealth Educational Media Centre for Asia (CEMCA) of the Commonwealth of Learning (COL), has launched a set of open access (OA) Curricula and self-directional learning (SDL) modules for researchers[1] in March 2015. Young and early-career researchers affiliated to different academic and research institutions are the main target audience of this distinct OA curriculum. The curriculum is also aimed at capacity building, awareness raising and sensitization of the new global citizens, i.e. budding academic researchers who will be absorbed into higher educational institutions and research laboratories in near future. The curriculum titled 'Open access for researchers' is an elaborate exploration of the scholarly communications processes, concepts of openness and open access, intellectual property rights and research evaluation metrics. This curriculum also provides insights on how senior researchers and information intermediaries would deal with advocating OA scholarly communications and managing OA resources in their institutions. OA curriculum was prepared as an outcome of the project titled 'Development of curriculum and self-directed learning tools for open access', led by CEMCA[2], New Delhi during 2013–14. The curriculum consists of five modules. All five learning modules have been written by experienced Indian educators and information practitioners affiliated to Indian universities, although these modules are expected to be used by universities and research universities worldwide. They are freely available on-line with Creative Commons (CC-BY-SA) license and downloadable from http://unesdoc.unesco.org. A Creative Commons license ensures the freedom of sharing, reusing and modifying scholarly or artistic content for knowledge re-creation and optimal utilization. One of the modules describes how an academic author or a researcher can safeguard his rights while publishing a journal article or book chapter or any other scholarly item. Module 3 highlights some of the rights an author should retain while publishing with for-profit publishers. The SPARC (Scholarly Publishing and Academic Resources Coalition) has developed a model 'Addendum to Publication Agreement' for retaining the author's rights, while an author is signing the Copyright Transfer Agreement (CTA) or Licence to Publish (LTP) with a publisher. This 'SPARC Addendum to Publication Agreement' is elaborated in detail in Module 3. In addition to the 'open access for researchers' curriculum set, UNESCO has released another set of OA curricula, 'Open access for library schools' which contains four modules (Figure 1).

Details of the modules are listed below:

- Scholarly communications [open access for researchers, 1]. Paris: UNESCO, 2015, ISBN: 9789231000782.

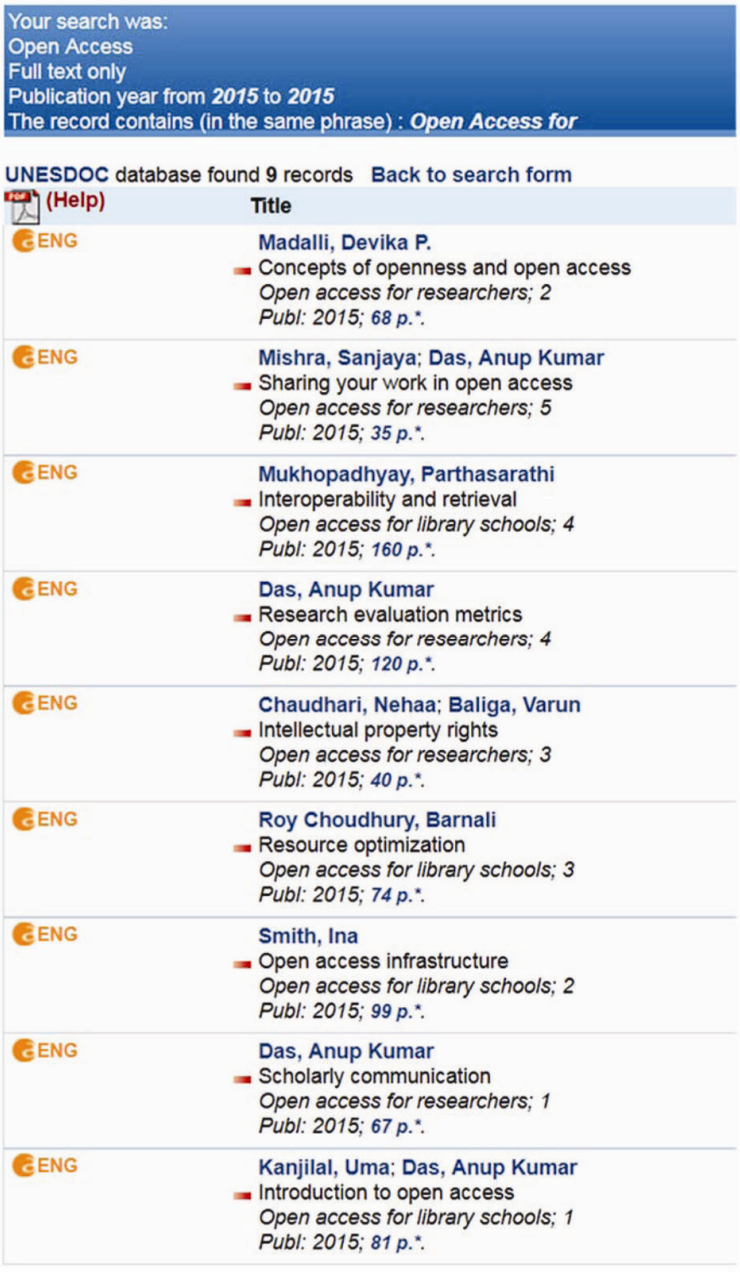

Figure 1. List of modules in UNESCO open access curricula.

- Concepts of openness and open access [open access for researchers, 2]. Paris: UNESCO, 2015, ISBN: 9789231000799.
- Intellectual property rights [open access for researchers, 3]. Paris: UNESCO, 2015, ISBN: 9789231000812.
- Research evaluation metrics [open access for researchers, 4]. Paris: UNESCO, 2015, ISBN: 9789231000829.
- Sharing your work in open access [open access for researchers, 5]. Paris: UNESCO, 2015, ISBN: 9789231000836.

These Curricula and Modules are expected to be included as optional courses in pre-Ph D (M Phil, M Tech, M S Res, etc.) and Ph D programmes in Indian universities (and other universities across the world) in the near future. If included, the academic researchers will have informed choices in publishing in gold OA journals or self-archiving in a university's institutional knowledge repository (i.e. green OA channel). In this way researchers will be motivated to disseminate knowledge in public domain, produced from public funded research or utilizing taxpayers' money.

1. UNESCO, UNESCO's open access (OA) curriculum is now online, UNESCO, Paris, 2015.
2. CEMCA, International Multi-stakeholder Meeting on Development of Curriculum, and Self-Directed Learning Tools for Open Access, Commonwealth Educational Media Centre for Asia, New Delhi, 2013.

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MEETING REPORT

Women in science: A career in science*

A seminar on women in science (WiS) was organized on International Women's Day with the following goals: (i) to expose the postgraduate and doctorate women students to new and exciting ideas and directions in different subjects like physics, chemistry, mathematics, botany, zoology, biotechnology and astronomy; (ii) to equip them with basic concepts and technological tools to ask and answer relevant research questions; (iii) to inspire and motivate young women to take up careers in science and (iv) to create awareness on various career options available to young women scientists. It had the patronage of Meena R. Chandawarkar, Vice Chancellor, Karnataka State Women's University Vijaypura (KSWUB) and advice of Rohini M. Godbole, Indian Institute of Science and Chair Person of WiS, Indian Academy of Sciences, and Riddhi Shah, Department of Mathematics, School of Physical Sciences, Jawaharlal Nehru University, New Delhi.

About 240 students, research scholars and young faculty mainly from KSWUB, Vijayapur, attended the seminar which was supported by 11 staff members, 6 resource persons and a coordinator. A few students from other universities also participated.

S. A. Kazi (KSWUB) welcomed all the participants. M. S. Jogad (KSWUB), briefed the participants about the event and seminar lectures. Meena R. Chandawarkar (KSWUB) inaugurated the seminar. In the inaugural address, she said it was the most appropriate way of celebrating Women's Day by organizing a seminar on WiS. She mentioned that many women are discouraged from pursuing a career in science at the highest level. Much more needs to be done to address the reasons behind this potential waste of human talent. She also said that the presence of eminent women scientists and their interesting presentations would trigger enthusiasm in young women students. She offered unconditional assistance to promote science in the region. She opined that seminar lectures and interaction of participants with eminent scientists and speakers would help in shaping the career of students in science. She also released the abstract volume. This was followed by a keynote address by Riddhi Shah (JNU) in which she encouraged the young women science students and briefed them about the activities of WiS programmes and their importance.

Five special lectures were delivered by invited speakers.

In the special lecture 'Making the most from a protein sequence', Lalitha Guruprasad (University of Hyderabad) focused on some aspects of biological chemistry and structural chemistry. She said that the correlation from protein sequence to structural and functional information is more valuable in the current genomic era. Collections of complete nucleotide sequences from a variety of genomes are available. Using computational methods, one can identify novel domains, repeat and predict their protein structure and function. The binding of inhibitors/substrates to proteins and the molecular basis for their binding have been studied. In particular, proteins that are disease targets from *Mycobacterium tuberculosis*, *Helicobacter pylori* and *Plasmodium falciparum*, and human kinases are being pursued. She showed how as a complement to her computational studies, some of the hypotheses are validated experimentally. She also discussed her research results.

In the special lecture 'Fun with knots', P. Ramadevi (Department of Physics, IIT Bombay, Mumbai) explained the knot theory and connections to topological string theories, matrix models and supersymmetric gauge theories in physics. She also explained the properties of knots, the computation of Jones' polynomials with some examples. She showed an elegant method of obtaining polynomials and more generalized polynomials for these knots.

In the special lecture 'Chemistry, biology and physics of stars and galaxies', Annapurni (Indian Institute of

*A report on the seminar on 'Women in Science: A Career in Science' organized on 8 March 2015 at the Karnataka State Women's University, Vijayapur (Bijapur) and sponsored by the Panel on Women in Sciences, Indian Academy of Sciences, Bengaluru.