

some unique transport-related properties in time and frequency domains in relation to those in the ohmic regimes. The next session consisted of three talks, which were based on the soft condensed matter. N. V. Madhusudana (RRI, Bangalore) presented the results on liquid crystals made of banana-shaped molecules. He gave an overview of this subject with an emphasis on investigations of his group describing that by judiciously choosing compounds with rod-like and BC molecules, their binary mixtures exhibited several liquid crystalline phases, including a biaxial smectic A phase. D. C. Tiwari (Jiwaji Univ., Gwalior) talked about the development of organic polymer films for electronic applications. He presented the work done by his group on preparation of thin films of various polymers (by chemical and plasma polymerization), their characterization and investigations of electrical and optical characteristics such as conductivity, dielectric, UV, IR and visible properties.

The fourth day started with thesis presentations and a special oral session on manganites, followed by a talk by Arun Bansil (Northeastern Univ., USA). He

covered recent theoretical studies of electron correlation effects in novel materials related to cuprate superconductors, manganites and 3D quantum dots. In addition, he also explained an exactly solvable model Hamiltonian for describing the interacting electron gas in a quantum dot and presented results for a spherical square-well potential.

On the fifth day, there was a seminar session on neutron scattering containing three talks. V. C. Rakecha (BARC, Mumbai) gave an overview on various activities using neutron beams at BARC, Trombay. He described various facilities based on neutron scattering that were developed at BARC using which experiments in condensed matter physics are being successfully performed by scientists for over four decades. His presentation was followed by a talk on the Super Ultra-Small Angle Neutron Scattering (SUSANS) with polarized neutrons by A. G. Wagh (BARC, Mumbai). He reviewed investigations involving characterization of micrometre-size magnetic and nonmagnetic agglomerates in samples by SUSANS technique and presented illustrative results to demonstrate the capabilities of this technique. In the last talk, S. Yasho-

nath (IISc, Bangalore) presented results of studies on translational and rotational motions of small organic molecules in zeolites by Quasi-elastic Neutron Scattering (QENS) and molecular dynamics simulations. Based on QENS studies, the motion of propane molecules in cavities of zeolite Y was described using jump diffusion model. He also discussed the preliminary results on motion of acetylene within the zeolite Y.

In the concluding session, thesis presentations by Ranjan Mittal (BARC, Mumbai) and S. V. S. Nageswara Rao (University of Hyderabad) were jointly selected for the annual Indian Physics Association 'best thesis' award. B. K. Godwal summarized the scientific deliberations of the symposium and Satya Prakash made the concluding remarks.

P. U. Sastry^{1*} and S. M. Sharma²,
¹Solid State Physics Division, ²Synchrotron Radiation Section, Bhabha Atomic Research Centre, Trombay, Mumbai 400 085, India.

*For correspondence.

e-mail: psastra@apsara.barc.ernet.in

Workshops on open access in India*

Two workshops on open access and institutional archives were organized with a view to developing a cadre of open access experts in Indian higher educational and research institutions. The primary purpose of the workshops was to provide Indian scientists and librarians with (i) a thorough understanding of the global scientific and scholarly communication issues that open access addresses; (ii) the technical knowledge of how to set up and

maintain an open access institutional archive, and (iii) an awareness of the local institutional policy and organizational requirements for a successful, sustainable open access institutional archive.

In all, 48 participants representing general and agricultural universities and government laboratories under the various councils and departments, were trained in the two workshops. Some of them were scientists and others librarians, drawn from different parts of India and from different disciplines. There were four faculty members: Leslie Chan, University of Toronto, Leslie Carr, University of Southampton, D. K. Sahu, MedKow Publications, Mumbai, and T. B. Rajashekar, Indian Institute of Science (IISc), Bangalore. Incidentally, Chan was a resource person and Sahu a participant at the workshops on open access electronic journals that S. Arunachalam had organized two

years ago at IISc. In the intervening two years, Sahu had brought 20 Indian medical journals into the open access domain.

The workshops were held in a multi-purpose classroom, where each participant was provided with an Internet-connected PC preloaded with Linux (RedHat 7.3). Apart from discussing the philosophy of open access and the current international developments, the faculty members helped the participants learn to set up interoperable institutional open access archives using the Eprints software developed at the University of Southampton and the Open Archives Initiative's Interoperability protocol. Participants were asked to load papers from their own institutions and prepare the metadata.

Among the issues discussed at the workshop were: Who is responsible for setting up IR? How can we promote participation at the institutional level? What

*A report on two workshops on open access and institutional archives organized by S. Arunachalam at the M. S. Swaminathan Research Foundation, Chennai during 2-4 and 6-8 May 2004.

The workshops were supported by the Open Society Institute, the International Development Research Centre, the British Council and the Council of Scientific and Industrial Research, Government of India.

should be the institutional and national policies? Should they be concerned about copyright? Which journals allow authors to archive their papers? What are the long-term sustainability issues? Why open archives?

All scientists, including social scientists, need to publish their findings. Indeed, research is incomplete as long as it remains unpublished. As John Ziman called it, science is public knowledge. The last few years have witnessed an unprecedented rise in the subscription costs of journals and even well-endowed institutions in rich countries find it difficult to retain journal subscriptions. It is for this reason that the open access movement is gaining ground around the world. While access to (and impact of) the peer-reviewed literature is a global issue, the impact of Indian research is of particular concern to Indian scientists and policy makers who feel that it receives less representation than it deserves in international journals. Besides, others in the rest of the world do not really notice much of the work that is carried out in India. If Indian scientists publish their papers in expensive journals, even then other Indian scientists do not notice them, as not many Indian institutions may subscribe to those journals. Open access will improve access to Indian research and hence help to maximize its use, recognition (and citation) by researchers across the world. Indeed, open access will be of much greater advantage to developing countries than to the developed countries.

Institutional archiving is not widely seen as an immediate and low-barrier route for providing open access to the research output of an institution. The time is also ripe as there are now international standards for achieving interoperability between archives, and free software for

setting up archives are readily available. We preferred Eprints.org as it is designed to gather and display metadata that are better suited for formal scholarly publications.

Today, there is great interest in open access around the world. The Budapest Open Access Initiatives, the Berlin Declaration, the Wellcome Trust's statement on open access and the Declaration of Principles by the World Summit on the Information Society are prominent examples of the growing recognition of the importance of open access. In USA, a bill has been introduced, suggesting that findings of all publicly funded research must be made freely available to all. In the UK, a committee appointed by the House of Commons to enquire into current and potentially useful practices in science publishing, is hearing evidence from a number of experts and institutions. Several discussion lists are actively promoting exchange of views on open access. The Open Society Institute is providing funds to promote open access initiatives.

In India, the Indian National Science Academy (INSA) devoted a whole day for a seminar on open access at its annual meeting held at the National Chemical Laboratory, Pune, in December 2003. Further, INSA held a symposium on open access and institutional repositories on 13 May 2004, as a direct result of the Chennai workshops. Indian Academy of Sciences, Bangalore, supported two workshops on open access journals held in March 2002.

M. S. Swaminathan (MSSRF) and P. Balaram (IISc) gave guest lectures. Both of them emphasized the need for promoting good research.

The outcome of the workshops has been that most participants are keen to set up

archives at their institutions within the next few months. A discussion group has been set up and all participants and resource persons are members of this group.

According to Carr, 'the Indian context imbues scientists with a keen appreciation of the need to disseminate their work more widely. This is much more evident than in the UK, US and Europe. Consequently, one would expect widespread adoption of open access archiving technology – as this is the strategy that allows researchers and institutions to take responsibility for improving the access to their own work'. The workshops represent an initial kick-start for open access archiving in India, and that the momentum that these 'early adopters' generate will result in more institutions getting into open access archiving in India. This could make India (and by extension the rest of the developing world) a driving force in the open access movement.

Participants were requested to keep the organizers informed of the progress they make. Arunachalam is planning to visit different institutions to monitor the progress. Before the end of the year, at least a dozen institutions are expected to have their own institutional archives up and running.

It is clear that technical infrastructure is no longer an issue both in India and elsewhere. It is a matter of leadership and institutional commitment. In this regard, it is encouraging that Indian science policy makers are keen to encourage setting up of open access institutional repositories.

Subbiah Arunachalam, M. S. Swaminathan Research Foundation, 3rd Cross Street, Taramani Institutional Area, Chennai 600 113, India.
e-mail: arun@mssrf.res.in