COMSATS Newsletter

Commission on Science and Technology for Sustainable Development in the South (COMSATS)

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Patron
Dr. Imtinan Elahi Qureshi, *T.I.*
Executive Director

Inside This Issue

Contributions from readers are welcome on any matter relevant to the mission of COMSATS, namely the promotion of South-South cooperation in science and technology for sustainable progress of the developing countries. The responsibility for the accuracy of any information rests with the original source. Views expressed in this publication do not necessarily reflect those of its editors, publisher or COMSATS.

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From the Executive Director's Desk

The present issue of COMSATS Newsletter marks the completion of its first year of successful publication. We are confident that, through this medium, the primary purpose of creating greater awareness of activities and programmes of COMSATS and its affiliated Centres of Excellence has been well-served. It is planned to enhance its coverage and circulation to more scientific institutions in Member States. In the same year COMSATS has consolidated its role through a number of other means, including: the doubling of annual grant by Government of Pakistan; holding of 1st Consultative Committee meeting apart from the regular annual meeting of its Coordinating Council; sponsoring scientific moots in Pakistan, Syria and Nigeria; setting up of web-based scientific thematic groups in association with ISESCO; strengthening linkages with ICGEB and establishing partnerships with NAM S&T Centre headquartered in India, Technology Upgradation and Skill Development Company (TUSDEC), Pakistan, and more recently (Page 2) with Sustainable Development Policy Institute (SDPI), Pakistan. Among the major upsets during 2009 were the unsatisfactory financial input from Member States and the postponement of COMSATS Commission Meeting, initially planned for April 2010.

Signing Ceremony of the Memorandum of Understanding between COMSATS and SDPI at COMSATS Secretariat

While welcoming the New Year with cautious optimism, it is difficult to ignore the grim realities of 2009, which affected millions of lives in the developing world due to adverse conditions of peace, economic activity, healthcare and food supplies. The Copenhagen summit proved beyond doubt that the countries of the South will have to fend for themselves to survive in a world where self-interests reign supreme. Science and technology is a powerful instrument for positive change. It is time that the huge potential of S&T is directed mainly to solve human and environmental problems. All nations bear responsibility to play their due role in this grand 'existential' struggle. At this critical juncture, it is important for Member States of COMSATS, to foster greater scientific cooperation to achieve peace and prosperity at national, regional and international levels. COMSATS Secretariat will be prepared, as ever, to extend a helping hand wherever there is a possibility of socio-economic development through international cooperation for achieving our common goals.

We wish a happy and prosperous New Year to all readers of the Newsletter.

NEWS/ACTIVITIES/HIGHLIGHTS FROM COMSATS SECRETARIAT

EXECUTIVE DIRECTOR OF COMSATS VISITS ITS PARTNERS IN KARACHI

Executive Director and Director General of (I.A) visited COMSATS' Centre of Excellence in Karachi, the International Center for Chemical and Biological Sciences (ICCBS), to see the latest research facilities in the Center and to discuss the available opportunities for training that can be utilized by scientists in Member States. On this occasion an MoU was signed to specify the modalities of training programmes and services offered to analyse samples using advanced analytical facilities. Other issues discussed with the Director ICCBS, Dr. M. Iqbal Choudhary included: sponsorship for the trilateral project involving NRC-Egypt, NCR-Sudan and ICCBS-Pakistan; organization of first meeting of the thematic group on 'Natural Products'; equipment maintenance training for technicians, and lectures programme by ICCBS' scientists in interested Member States. On the same day, the COMSATS' delegates visited the Malir campus of COMSATS-COMSTECH-MTM IT (CCMIT) Centre and met the Vice Chancellor of Preston University, Dr. Nazir A. Mughal, who is managing CCMIT Centre.

Executive Director COMSATS on a visit to a lab at ICCBS

On the second day, COMSATS' officials visited Council for Works and Housing Research (CWHR) and held a meeting with its Chairman, Engr. Najmul Hassan Taqvi, in connection with the decisions of the 12th meeting of COMSATS Coordinating Council held in Nigeria earlier this year. CWHR was invited to be a part of COMSATS' thematic group on 'Building and Construction Materials' that is being led by Ghanian Centre of Excellence of COMSATS, International Centre for Material Science & Technology (ICMST).

AZERBAIJAN EXPECTED TO BECOME MEMBER OF COMSATS

The Government of Azerbaijan has shown interest to formally become a member of COMSATS. In this connection, consultations were made with the Ambassador of the Republic of Azerbaijan to Pakistan, H.E. Mr. Eynullah Madatli. In a meeting held at the Embassy of Azerbaijan, on December 8, 2009, Executive Director and Director General (I.A) of COMSATS informed the Ambassador about the progress made since 2007 when the invitation to become a member of the Commission was given to his country. The benefits and obligations of the membership were conveyed to the Ambassador, who was highly appreciative of the efforts being made by COMSATS for South-South cooperation through its Network of Centres of Excellence, especially in the field of education. A number of scholarships are available for students of member countries to study in undergraduate and graduate programmes at CIIT.

Mr. Madatli assured the COMSATS' delegation that he will do everything in his capacity to avail COMSATS forum for the benefit of S&T sector in his country.

EXECUTIVE DIRECTOR COMSATS FOLLOWS UP ON THE RECOMMENDATIONS OF STEERING COMMITTEE AND THE COORDINATING COUNCIL

Executive Director COMSATS took several initiatives to implement the decisions taken in the recent meetings of Steering Committee and Coordinating Council. The Pakistani Federal Minister for Science and Technology, H.E. Mr. Muhammad Azam Khan Swati and Executive Director COMSATS alongwith Registrar CIIT paid a courtesy call on H.E. Mr. Luo Zhaohui, Ambassador of Peoples Republic of China to Pakistan on December 3, 2009. The purpose of the visit was to apprise the Ambassador about the decisions taken in the 2nd Steering Committee meeting in connection with holding of the Commission's Meeting in 2010 with a view to ensure China's active participation in the Meeting. The Ambassador was also informed that a Chinese scientist has accepted to become a member of the COMSATS' Technical Advisory Committee. Moreover, the Chinese Ministry of Science and Technology has agreed to nominate a member for the COMSATS Management Committee. The Ambassador reiterated his desire to strengthen relations between China and COMSATS.

In connection with the recommendations of the meetings of COMSATS held in Nigeria in April 2009, the Executive Director alongwith Director General (I.A) COMSATS paid a visit to the Embassy of Arab Republic of Egypt on December 23, 2009. The Ambassador of Egypt H.E. Magdy Mahmoud Helmy Amer was apprised about the upcoming visit of the Executive Director to Egypt and the agenda of the meetings to be held with Prof. Dr. Ashraf Shaalan, President National Research Centre and Dr. Hanny Mahfouz Helal, Minister of Higher Education and Scientific Research, Arab Republic of Egypt.

COMSATS AND SDPI REACH AN UNDERSTANDING FOR COLLABORATION

The Sustainable Development Policy Institute (SDPI), Pakistan, and COMSATS signed a Memorandum of

Understanding (MoU) to specify the parameters of their cooperation in selective activities. Based on the common interests and focus on sustainable development, the agreement aims at strengthening institutional networking, enhancing organizational capacities and extending out-reach.

Dr. Imtinan Elahi Qureshi, Executive Director COMSATS, and Dr. Abid Qaiyum Suleri, Executive Director SDPI, signed the MoU on behalf of their respective organizations in a ceremony that took place at COMSATS Secretariat on December 15, 2009. The MoU has resulted from the consultations held between the officials of COMSATS and SDPI over the last few months, the most important of these consultations having taken place on November 26, 2009.

The two organizations agreed to collaborate within their respective mandates and modes of operations in the areas of education, healthcare and population, food and agriculture, renewable energy, institutional capacity building, information and communication technologies, employment generation, environment, and South-South cooperation. The modalities of collaboration include: exchange of information, knowledge and expertise; assistance for education and training opportunities; holding of national and international events; and support in media and public relations.

COMSATS CONTRIBUTES TO THE 12TH SUSTAINABLE DEVELOPMENT CONFERENCE OF SDPI

In view of the agreement made between SDPI and COMSATS through a recently signed MoU, COMSATS participated in the organization of a special session on the theme 'Renewable Energy for Sustainable Development in South Asia' in SDPI's annual sustainable development conference titled "Fostering Sustainable Development in South Asia: Responding to Challenges", held on December 21-23, 2009.

COMSATS' panel of experts deliberating on renewable energy technologies during the 12th Sustainable Conference of SDPI

In this session, a panel of experts focused on the energy needs and requirements of the developing countries with special reference to the countries of South Asia and accordingly suggested solutions based on environment friendly renewable energies technologies. The panel comprised four speakers: Mr. Arif Alaudin, CEO Alternative Energy Development Board; Dr. Pervez Akhter, former D.G. Pakistan Council for Renewable Energy Technologies; Mr. Zafar Iqbal Zaidi, D.G. Pakistan Council for Renewable Energy Technologies; and Mr. Irfan Mehmood from Pakistan Atomic Energy Commission, in addition to three discussants: Mr. Irfan Yousaf, Deputy Director Alternative Energy Development Board; Mr. Mohammad Khurshid, Deputy Director Economic Affair Division of Ministry of Economic Affairs & Statistics; and Mr. Tajammul Hussain, Director General (International Affairs) COMSATS.

Highlighting the role of renewable energy technologies the speakers gave presentations to address issues such as: energy conservation; energy sustainability; environment; and Pakistan's Energy Policy. About 61 people attended and participated in the proceedings of the session. The presentations were followed by Q&A session that rendered a conclusive set of recommendations. The panelists and audience also highlighted the need of further efforts for implementation of efficiency improvement activities in energy production sector and recommended that renewable energy should be given consideration while making energy policies. The audience reached a general consensus that optimal and judicious use of renewable energy technologies provides the key to sustainable development in developing countries.

A separate session on 'National Sustainable Development Strategy' was chaired by Executive Director COMSATS. In that session, the officials of Ministry of Environment discussed the salient features of the strategy document released by the Government of Pakistan on World Environment Day in June 2009.

ADIEUS AND WELCOMES

MEMBERS OF CONSULTATIVE COMMITTEE

- Mr. Chen Linhao succeeded Dr. Jianing Cai as Director, Department of International Cooperation, China.
- H.E. Mr. Khaled Al Irani succeeded H.E. Mr. Khaldoun Quteishat as Minister, Ministry of Energy and Mineral Resources, Jordan.
- Mr. K.B. Rind succeeded Mr. M. Kashif Murtaza as Secretary, Ministry of Science and Technology, Pakistan.

MEMBERS OF COORDINATING COUNCIL

- Prof. Zhaohui Lin succeeded Prof. Sixiong Zhao as Director, ICCES, China.
- Prof. Dr. Ashraf Shaalan succeeded Prof. Dr. Hany El-Nazer as President, NRC, Egypt.
- Dr. Wael Khansa succeeded Dr. G. Hassan Assi as Director, HIAST, Syria.

ACTIVITIES/NEWS OF COMSATS' CENTRES OF EXCELLENCE

RSS ORGANIZES 'INTERNATIONAL NETWORKING EVENT ON MED-EU ICT COOPERATION'

The Royal Scientific Society (RSS), Jordan organized 'International Networking Event on Med-EU Information and Communications Technology Cooperation' held at El-Hassan Science City in Amman, Jordan, on December 5-7, 2009. This networking activity aimed at establishing sustainable research network of the scientists working in the field of ICT in the countries of the European Union and the Mediterranean.

Experts and researchers from Europe, the Middle East and North Africa gathered to discuss joint priorities in the field of ICT to support a coordinated policy for addressing the key challenges to attain sustainable development. They also discussed ideas and defined core consortia to respond to future EU Framework Programme for funding.

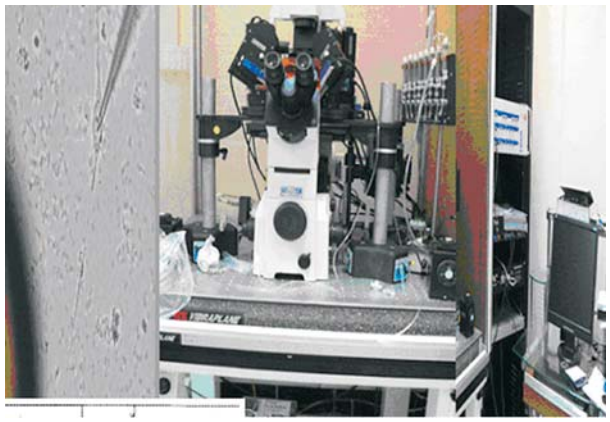
The event focused on the following priorities, which are of high importance to Jordan for its scientific networking in terms of digital libraries and content; sustainable and personalized healthcare; ICT for mobility, environmental sustainability and energy efficiency.

Participants of 'International Networking Event on Med-EU ICT Cooperation' organized by RSS at El-Hassan Science City

In addition to the local participants, over 90 researchers and national decision-makers in the field of ICT from: France, Great Britain, Greece, Cyprus, Germany, Austria, Italy, Denmark, Canada, Egypt, Lebanon, Syria, Palestine, Algeria, Tunisia and Morocco attended the event.

PCMD INTRODUCES PATCH CLAMP TECHNOLOGY

Dr. Panjwani Center for Molecular Medicine and Drug Research (PCMD) of International Center for Chemical and Biological Sciences (ICCBS), Karachi, organized a workshop to introduce Nobel Prize winning Patch Clamp Technology. The event that was held on December 21-23, 2009 had been sponsored by COMSTECH. Patch Clamp



Patch Clamp Unit at PCMD, ICCBS

Technology is being used all over the world by the giant pharmaceutical companies, such as GSK, Merck, Pfizer and Eli Lilly & Co.

In order to educate people and provide latest information about this technology, Prof. Dr. Frances Edwards from the Department of Neurophysiology, University College of London (UK) and Prof. Dr. Andrew Moorhouse from University of New South Wales, Sydney (Australia), actively contributed to this workshop. The purpose of organizing this workshop at PCMD, where the Patch Clamp Unit is fully functional, was well-served as a large number of scholars of various Institutes, Colleges and Universities from all over Pakistan got training.

ASSESSMENT FOR ISO-17025 CERTIFICATION OF IAC SUCCESSFULLY CARRIED OUT

Full assessment of ISO-17025 of Industrial Analytical Center (IAC) of International Center for Chemical and Biological Sciences (ICCBS), was conducted on December 16-17, 2009. IAC will be granted the certificate within two months of the assessment.

IRCC-SUDAN TRAINS THE LOCAL FOOD INDUSTRY IN PHYSICO-CHEMICAL QUALITY CONTROL

A five-day training course on 'Physico-Chemical Quality Control of Food Products' was recently organized at the Industrial Research and Consultancy Centre (IRCC) of Sudan. The event, held at the Food Research Department of IRCC, aimed to: provide training in the field of physico-chemical QC of processed food; study the general trends in the changes that occurs during the packaging and storage; create links between IRCC and governmental & private sectors of the food industry; and get the maximum benefits from the industrial links in food processing factories. Twenty four participants from different food processing factories and related industries attended the course that was coordinated by Dr. Mazahib Adam Mohamed of IRCC.

A technical session in progress during a training course on Physico-Chemical Quality Control in Food Products at IRCC, Sudan

CIIT HOLDS INTERNATIONAL THEMATIC WORKSHOP ON 'PRODUCTION, FORMULATION AND APPLICATION OF BIOINOCULANT/ BIOPESTICIDE'

The second international thematic workshop titled 'Production, Formulation and Application of Bioinoculant/Biopesticide' was recently organized at COMSTECH Secretariat, Islamabad. Dr. Junaid Zaidi, Rector COMSATS Institute of Information Technology (CIIT), chaired the inaugural ceremony. Prof. Dr. Fauzia Yusuf Hafeez, Chairperson, Department of Biosciences of CIIT, Islamabad, and Dr. Anwar Nasim, Advisor (Science) COMSTECH, were the key coordinators of this workshop sponsored by the Higher Education Commission of Pakistan.

The primary objective of this workshop was to promote bioinoculant/biopesticide technology in the OIC member countries and to foster its development, commercialization and use. This workshop was significantly important, keeping in mind that the chemical pesticides are being used inappropriately, particularly in the developing countries, thus endangering and jeopardizing the environment and human-health. Pioneer scientists shared their expertise in developing the bioinoculant/biopesticide and suggested useful measures to commercialize this valuable technology.

Besides individuals belonging to various distinct food and chemical industries, 25 participants including five from the UK, UAE, Korea, Turkey and Bangladesh attended the workshop.

CIIT ESTABLISHES CENTRE FOR EXCELLENCE IN RESEARCH (CER)

COMSATS Institute of Information Technology has established the Centre for Excellence in Research (CER), which is based within the premises of the Management Sciences Department at its Islamabad campus. CER has been established with a view to promote R&D activities that lead to high-quality research output. Another important function of CER is to promote meaningful exchange of ideas and collaboration between industry and academia at regional level.

The Centre has the following objectives: a) to support high-quality research within the Department of Management Sciences, through promoting a research culture among staff and students, and establishing and maintaining quality research databases; and b) to encourage and promote linkages with the industry and offer quality information and training programmes to commercial clients.

CER already has a number of active researchers from various disciplines of finance and accounting, economics, management, marketing, and information technology, within the department.

NMC INTRODUCES MENTAL ARITHMETIC IN ITS EDUCATIONAL SYSTEM

The National Mathematical Centre (NMC) of Nigeria has recently introduced 'mental arithmetic' in its educational system. In this regard, NMC organized a one-month pilot training programme in partnership with Adroit Resources Development Ltd., from 19th October to16th November 2009.

Sixty six pupils of different age groups and classes were drawn from different parts of the country as participants in this training programme. They benefitted from the following features of the programme: (i) Enhancement of mathematical skills and intelligence; (ii) Sharpening the power of focus, concentration and memory; (iii) Enhancing self-confidence, thinking-skills and creativity; (iv) Stimulating audio, visual and other kinaesthetic senses; (v) Boosting imaginative powers and responses/reflexes; (vi) Ensuring pupils balanced development with high IQ/EQ.

EMBRAPA RANKED AMONGST THE TOP 30 BRAZILIAN ORGANIZATIONS OF 2009

Embrapa has been chosen as one of the 30 most admired companies in major sectors of the economy of Brazil in 2009. The inference was made after a careful evaluation of the interviews of business owners, executives and economists carried out by the Daily Journal Commerce, Industry & Services (DCI). A survey was made whereby 4,448 people were interviewed from January to November 2009 and Embrapa was found to be most commonly cited by consultants, accountants and auditors.

Highlighting its competence and national and international programmes, Embrapa was referred to as a 'national pride' during the award ceremony held on November 30, 2009.

SCIENCE, TECHNOLOGY AND DEVELOPMENT

BOOSTING THE REPROGRAMMING OF ADULT CELLS INTO STEM CELLS: NEW ROLE OF VITAMIN C

Vitamin C is recognized all over the world for its antioxidant properties and its role in tissue repair. It is also well known for its beneficial effects on the treatment of illnesses ranging from common cold to cancer and perhaps even slowing down the aging process. Now a study reported by *Eureka! Science News* (December 24, 2009) uncovers an unexpected new role of this natural compound in facilitating the generation of embryonic-like stem cells from adult cells.

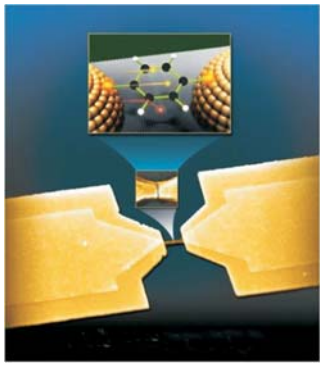
Over the past many years, it has been known that adult cells can be reprogrammed into cells with characteristics similar to embryonic stem cells by turning on a select set of genes. The reprogrammed cells, called induced pluripotent stem cells (iPSCs), have tremendous potential for regenerative medicine, but the conversion is extremely inefficient. This low-efficiency of the reprogramming process has hampered the progress of this technology. This is especially very challenging in human cells and is fraught with low quality of the iPSCs produced. The low-programming efficiency is attributed to the production of active-oxygen species during the process. Adding vitamin C, an antioxidant and an essential nutrient, abundantly present in citrus fruits, enhances iPSC generation by accelerating gene-expression changes and promoting more efficient transition to the fully reprogrammed state.

It was surprising that other antioxidants do not have the same effect and that vitamin C was also aiding in slowing cell senescence. It is interesting that a vitamin with long-held belief of its antioxidant properties has such a potent influence on reprogramming that can be considered as a reversal of the aging process at the cellular level. This discovery has again brightened the prospects of generating the stem cells which are crucially important in human-health and well being. A recent account of using stem-cell treatment to restore the lost eye-sight due to ammonia spillage (Dawn, Islamabad, December 24, 2009) exemplifies the importance and need of abundant availability of stem cells for future medical requirements of the masses.

FIRST MOLECULAR TRANSISTOR CREATED

A group of scientists from Yale University (USA) and Gwangju Institute of Science and Technology (South Korea) have created world's first molecular transistor, reports *Eureka! Science News* (December 23, 2009). This is yet another spectacular accomplishment of researchers to miniaturize computers for the future demands of world's fast moving technologies employing cutting-edge techniques. The team has demonstrated that a benzene molecule attached to gold-contacts could behave just like a silicon transistor. This happens by manipulating the different energy-states of benzene molecule by applying different voltages through the gold-contacts and controlling the value of the current passing through the molecule.

Such fine work at molecular level was not possible without auxiliary discoveries linked to the fabrication of electrical contacts and identifying a range of ideal molecules, making right connections with the proper placement of the organic molecule, etc. This is also an outstanding example where several spin-off techniques and new scientific understanding have emerged which are engines of further development in science, technology and industry. There is a lot of interest in using molecules in computer circuits because traditional transistors are not feasible at such small scales.



FIRST PROGRAMMABLE QUANTUM COMPUTER

Researchers have been trying for quite sometime to build programmable quantum computers for boosting advances in science, technology, commerce and industry. Now the creation of first of this kind of computers has been reported by *Science News* (December 19, 2009). Earlier versions of quantum computers have largely been restricted to a narrow range of specific tasks, not having versatile programming capacities by a single piece of machinery, as the classical computers possess. The quantum computers are incredibly faster than the classical ones.

The reported programmable quantum computer is based on two beryllium ions chilled to just above absolute zero. These ions, trapped by an electromagnetic field on a gold-plated alumina chip formed the quantum bits or qubits, analogous to the bits in regular computers represented by zeros and ones. Short laser bursts manipulate the beryllium ions to perform the processing operations, while closely placed magnesium ions keep the beryllium ions cool and still. Different combinations of one-and-two-qubit operations make up various operations.

In order to determine the programmability, a crucial characteristic of the new computer, the researchers chose 160 programmes on random basis and ran them on the system 900 times each. On the average, the computer operated accurately 79 per cent of the time, which they intend to increase to 99.99 per cent for higher fidelity by using stronger lasers and other technological refinements. The most impressive and important aspect of this research is that the same techniques applied for two qubits can also be applied to create much larger systems.

PROFILE OF COMSATS' INTERNATIONAL S&T CENTRE OF EXCELLENCE

INTERNATIONAL CENTER FOR CHEMICAL AND BIOLOGICAL SCIENCES (ICCBS), PAKISTAN

Introduction

The International Center for Chemical and Biological Sciences (ICCBS) based in Karachi, Pakistan is regarded as one of the finest academic research establishments of chemical and biological sciences in the developing world. The various institutions of the ICCBS system include: H. E. J. Research Institute of Chemistry (HEJRIC), Dr. Panjwani Center for Molecular Medicine and Drug Research (PCMD), Industrial Analytical Center (IAC), Latif Ebrahim Jamal National Science Information Center (LEJNSIC), Third World Center (TWC), and the Center for Bioequivalence Studies and Bioassay Research (CBSBR), as well as a Biotechnology Wing that has developed several new varieties of bananas, orchids and other important crops. Collectively, with the first five of these institutions mentioned above, ICCBS is recipient of ISO 9001:2000 certificate. ICCBS has also won the Islamic Development Bank Prize for Best Science Institution. The Center is serving over 350 Industries of Pakistan by providing them world-class analytical and consultancy services that has led to saving millions of dollars in foreign exchange, besides strengthening the indigenous S&T institutions and their research capacity.

Services

Through these institutions, departments and well-equipped laboratories, ICCBS is providing M.S. / M. Phil, Ph.D and Post doctoral programmes. The Center has produced over 400 Ph.D and 150 M.Phil scholars with world-class training in the relevant fields of chemical, pharmaceutical, Industrial and biochemical sciences. The scope of its services also covers the provision of scientific research, development and training-programmes in the fields of chemical, biological and biomedical sciences, and providing diagnostic, analytical and clinical testing facilities to its customers. Moreover, ICCBS is now offering special skill development courses for students, professionals and those seeking employment. These short courses include training on molecular technology, plant-tissue culture, setting up and management of green-houses, testing and analysis of food, environment and pharmaceuticals, ISO Integrated Management System 14001:2004, etc.

H. E. J. Research Institute of Chemistry

The foundation of this institution was laid by the world-renowned chemist of Pakistan, late Prof. Dr. Salimuzzaman Siddiqui in 1969 with the establishment of a Postgraduate Institute of Chemistry at the University of Karachi. Prof. Dr. Atta-ur-Rahman joined the Institute in 1971 and transformed it into one of the most prestigious research establishment, which received a generous donation from the Hussein Ebrahim Jamal Foundation. HEJRIC has the single largest doctoral programme in the country with over 250 Ph.D students and 3,000 internationally recognized research papers to its credit. The main areas of R&D and training of students include: natural product chemistry; protein chemistry; synthetic organic chemistry; pharmacology; computational medicinal chemistry; and plant biotechnology. The analytical, spectroscopic, computational, and other facilities present in the institute are at par with any good Institution in the world. A number of goal-oriented projects relating to the chemistry of natural products, protein chemistry, plant biotechnology and pharmacology of herbal medicines are being vigorously pursued.

Panjwani Center for Molecular Medicine and Drug Research

The main objective of PCMD is to train highly qualified manpower in the emerging new fields of molecular medicine and drug development. Academicians, clinicians and pharmaceutical researchers are brought together to translate basic scientific discoveries into new therapies, vaccines and diagnostic tests. The center mainly focuses on developing greater and more comprehensive understanding of the pattern and causes of most common diseases in Pakistan in order to develop effective diagnostic tools and affordable treatments by using molecular medicinal, chemical and computational methods.

Latif Ebrahim Jamal National Science Information Center

This institution is planned to become a hub of information dissemination and propagation of knowledge in frontier sciences. It is equipped with cutting edge information and communication technologies for video-conferencing, besides, video-lecture facility. These lectures have been collected from different academic centers, including MIT, University of California, Brunel University, NIH, and Research Channel.

Industrial Analytical Center

This ISO 9001 certified center of ICCBS offers a wide range of services from chemical analysis, microbiological testing, food science, biotechnology, pharmacology, and material testing. This center has qualified for the ISO/IEC-17025: 2005 certificate from Pakistan National Accreditation Council (PNAC) which would be issued in the month of February 2010.

Technical Facilities

Conference and training facilities: ICCBS has a large auditorium (over 400 seating capacity), several large seminar and meeting rooms. These spacious rooms are equipped with modern audio-visual equipments with a high-speed Internet access and a Local Area Network (LAN).
Instruments and machineries: HEJRIC is equipped with NMR Spectrometers, Mass Spectrometers, Single Crystal X-ray Diffractometers, and UV & IR Spectrophotometers. PCMD has diagnostic lab and clinical research facility, as well as imaging facility and compound bank facility.
Digital Library facilities: State-of-the-art digital library facilities of ICCBS include: high-speed internet connectivity (12Mb), educational intranet connectivity with all major universities of Pakistan through PERN (Pakistan Educational Research Network), online literature survey through SciFinder Scholar and over 11,500 full-text journals, computer terminals for 188 simultaneous users, access to 40,000 on-line books through HEC digital library resources and off-line databases, etc.

For further details contact:

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SELECTED FORTHCOMING SCIENTIFIC EVENTS IN COMSATS' COUNTRIES

21-24 March 2010	INREC'10 - 1st International Nuclear and Renewable Energy Conference, Amman, Jordan ***(inrec10.inrec-conf.org)***
23-25 March 2010	PICALO - Pacific International Conference on Applications of Lasers and Optics, Wuhan, China ***(www.laserinstitute.org/conferences/picalo)***
3 -7 April 2010	5th International APOCP Conference, Istanbul, Turkey ***(www.apocp2010.net)***
5-8 April 2010	ICRE 2010 -The International Conference on Renewable Energies, Damascus, Syria ***(icre.hiast.edu.sy)***
27-29 April 2010	IIZC'10 - Iran International Zeolite Conference, Tehran, Iran ***(www.iizc.ir)***
28 June-10 Jul 2010	35th International Nathiagali Summer College on Physics & Contemporary Needs, Nathiagali, Pakistan ***(www.ncp.edu.pk/insc)***

13TH COORDINATING COUNCIL MEETING May 12-13, 2010, Trieste, Italy

The Commission on Science and Technology for Sustainable Development in the South (COMSATS) is pleased to announce the convening of its 13th Coordinating Council meeting in Trieste, Italy, on May 12-13, 2010. The meeting will be hosted by the Academy of Sciences for the Developing World (TWAS). In this connection, invitation letters alongwith registration forms have been sent to the members of the Council.

The Coordinating Council meets every year to review the activities of COMSATS Network to follow up on the decisions and recommendations made in the last meeting and to outline the future course of action. The members are requested to duly fill their registration forms and submit the same to TWAS latest by February 28, 2010. The forms are to be sent at mhassan@twas.org or acoppola@twas.org

CALL FOR PAPERS FOR THE JOURNAL – SCIENCE VISION

COMSATS is in the process of resuming the publication of its scientific journal – Science Vision. The journal will now have a thematic character comprising high-quality review and research articles, highlighting the impact of latest developments in S&T on economy and the society as a whole.

COMSATS invites contributions for the Volumes 15(1) and 15(2) of Science Vision, particularly dedicated to the themes of "Environmental Challenges for the Developing Countries" and "Renewable Energies – Cleaner and Cheaper Source for World Energy Needs for Development", respectively. Scientists, researchers, policy-makers and young scholars from S&T organizations and R&D institutions are encouraged to contribute. The contributors whose articles are selected for publication, would be compensated for their time and efforts with honorarium.

Please visit COMSATS' official website: www.comsats.org for more details. Contributions may be sent at comsats@comsats.org.pk.

A BRIEF ON COMSATS

The Commission on Science and Technology for Sustainable Development in the South (COMSATS) is an inter-governmental organization, with its Secretariat located in Islamabad.

COMSATS, currently, has 21 countries as its members, spread across three continents, i.e., Latin America, Africa and Asia. A network, of 16 International Science and Technology Centres of Excellence, is also affiliated with COMSATS to contribute to scientific development of its Member States. For detailed information, please visit COMSATS' website: www.comsats.org.

LIST OF COMSATS NETWORK OF INTERNATIONAL S&T CENTRES OF EXCELLENCE

- The Biosphere Reserve – Beni Biology Station (BBS), Bolivia
- Embrapa Agrobiologia, Brazil
- International Centre for Climate & Environmental Sciences (ICCES), China
- Centro Internacional de Fisica (CIF), Colombia
- National Research Centre (NRC), Egypt
- International Centre for Material Science and Technology (ICMST), Ghana
- Iranian Research Organization for Science and Technology (IROST), Iran
- International Centre for Environmental and Nuclear Sciences (ICENS), Jamaica
- Royal Scientific Society (RSS), Jordan
- National Mathematical Centre (NMC), Nigeria
- International Centre for Chemical and Biological Sciences (ICCBS), Pakistan
- COMSATS Institute of Information Technology (CIIT), Pakistan
- Industrial Research and Consultancy Centre (IRCC), Sudan
- Higher Institute for Applied Science and Technology (HIAST), Syria
- Tanzania Industrial Research and Development Organization (TIRDO), Tanzania
- Marmara Research Centre (MRC), Turkey