



# COMSATS Newsletter

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

www.comsats.org



July - August 2009, Issue No. 4  
Islamabad, Pakistan.

## Patron

Dr. Imtihan Elahi Qureshi, T.I.  
Executive Director

## Inside This Issue

From the Executive Director's Desk	01
News/Activities/Highlights from COMSATS Secretariat	02
Activities/News of COMSATS' Centres of Excellence	04
Science, Technology and Development	06
Profile of COMSATS' International S&T Centre of Excellence	07

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.

## Editors

Mr. Irfan Hayee  
Ms. Sadia N. Swati  
Ms. Farhana Saleem

## COMSATS Secretariat

Shahrah-e-Jamhuriat, Sector G-5/2  
Islamabad - Pakistan  
Tel: +(92-51) 9214515 to 17  
Fax: +(92-51) 9216539  
E-mail: [comsats@comsats.org.pk](mailto:comsats@comsats.org.pk)  
URL: [www.comsats.org](http://www.comsats.org)

## From the Executive Director's Desk

This summer has seen three academic activities co-sponsored by COMSATS in its member States. All three focused on the issue of delivering the benefits of scientific and technological developments to the society through a tri-partite nexus of government, industry and academia, dubbed as 'triple helix'. Side-stepping the debate on the relative merits of basic and applied sciences, these meetings have targeted the thorny issue of how to transform knowledge into products and services that improve the lives and livelihoods of common man in the developing countries.

The workshop in Nigeria (page 3) was concerned with the ways and means of establishing Science and Technology Parks for industrial development. These parks, which are common in developed countries, serve as the breeding grounds for technology-based new business ventures. The transition from innovative concepts to marketable products takes place under the facilities available in the parks. COMSATS' Centre of Excellence in Syria came up with an idea to organize an international seminar that addressed the aspects of creating interface between academia, policy-making and industry (page 4). Again the concern was how to make this trilateral relationship work under the circumstances prevailing in developing



*Participants of the national seminar on 'Policies and Strategies for Successful Implementation of Employment Generating Programmes in Renewable Energies, Biotechnology, Agriculture, Environment and ICTs' in Islamabad*

countries. Finally, the seminar in Pakistan (page 2) addressed the issue of employment generation through the opportunities offered by emerging technologies. All these are critical issues relevant to economic development. COMSATS is indebted to ISESCO and COMSTECH for providing major financial component of these events. The recommendations and proceedings of the meetings will be shared with COMSATS' member States.

To our Focal Points and Centres of Excellence, we reiterate our request to send us their activity reports regularly and, in particular, convey their approval of the Provisional Agenda of the Commission Meeting to be held in April 2010.

## NEWS/ACTIVITIES/HIGHLIGHTS FROM COMSATS SECRETARIAT

### COMSATS-COMSTech JOINT NATIONAL SEMINAR EXPLORES EMPLOYMENT GENERATING OPPORTUNITIES IN PAKISTAN

A two-day national seminar on 'Policies and Strategies for Successful Implementation of Employment Generating Programmes in Renewable Energies, Biotechnology, Agriculture, Environment and ICTs' was organized jointly by COMSATS and the OIC Standing Committee on Scientific and Technological Cooperation (COMSTech), with the sponsorship of the Higher Education Commission of Pakistan (HEC), in Islamabad, on 11<sup>th</sup> and 12<sup>th</sup> August 2009.

The two-day seminar focused on the core issue of creating job opportunities for skilled and semi-skilled workforce, in the areas having potential for fast economic growth and future large-scale job openings in the Pakistani context. The objective was to explore suitable policies and strategies for implementing employment generating programmes in the areas of renewable energies, biotechnology, agriculture, environment and Information and Communications Technologies.

The seminar was inaugurated on 11<sup>th</sup> August 2009 by Dr. Ishfaq Ahmad, Advisor on Science and Technology to the Planning Commission of Pakistan. A large number of distinguished members of the scientific community attended the inaugural function. The Chief Guest appreciated the efforts made by the collaborating organizations for addressing the crucial issue of unemployment in Pakistan for an overall socio-economic betterment of the country. In his introductory remarks, Dr. I. E. Qureshi noted that the employment rate was an important parameter to gauge a country's economy. He was of the belief that all segments of the society, i.e., public and private, should join hands to address the challenges faced by Pakistan, out of which unemployment has turned out to be one of the most alarming since the unemployment rate during the last couple of years has reached the level of over 7.5 per cent. Dr. Qureshi hoped



*A technical session in progress during the seminar*

that the collective wisdom and diverse experiences of the participants and subject experts in various fields of Science and Technology would enrich the deliberations of the seminar that could in turn affect the policy decisions on the subject issue. Also, speaking on the occasion, the guest of honour, Prof. Dr. Atta-ur-Rahman spelled out the key policy areas that need urgent attention. These include transformation of Pakistan from agrarian economy to a knowledge-based economy, improving education system, developing right skill-sets in youth, establishing and linking world-class centres of excellence, systems that promote innovation and entrepreneurship, as well as clustering of manpower and industry.

Twenty-seven scientists, industrialists, government representatives, policy-makers and scholars from renowned scientific institutions and/or organizations of Pakistan, participated in the seminar. The participating institutions included: AEDB, NIBGE, ENERCON, PARC, PTA, DoST-N.W.F.P, CIIT, NUST, Federation Pakistan Chamber of Commerce and Industry (Karachi), Dawood Power Ltd., Shan Foods Pvt. Ltd., Cirin Pharmaceuticals Pvt. Ltd., Medipak Group of Companies, Shakarganj Mills Ltd., University of Balochistan, Quaid-i-Azam University (Islamabad), and Government College University (Faisalabad).

The outcome of the seminar was a set of concrete proposals and recommendations, from the subject experts for the best practices and technologies having the potential to uplift the socio-economic status of the country by creating large-scale employment opportunities for people of all skill levels. During the panel discussion session, the panelists summarized the recommendations of the seminar, which called for integration of various technologies, capacity building of R&D institutions, as well as involvement of industry members and policy-makers in order to generate sustainable livelihoods for the masses. Other suggestions included the promotion and facilitation of innovative entrepreneurship, interdisciplinary mode of working, revitalized political will, freedom of movement of capital and



*Chief Guest, Dr. Ishfaq Ahmad, Advisor on Science & Technology to the Planning Commission of Pakistan, delivering his speech at the inaugural ceremony*

an enhancement in the intellectual capacities to formulate effective policies. Participants and speakers strongly advocated the need for a fresh vision and policy-framework that may involve people from all walks of life and at every stage of decision-making process. COMSATS would publish and distribute the proceedings of the seminar.

#### COMSATS' COLLABORATIVE ACTIVITY WITH UNESCO AND ISESCO IN NIGERIA

The National Office for Technology Acquisition and Promotion (NOTAP) of Nigeria, under the aegis of the Islamic Educational, Scientific and Cultural Organization (ISESCO) and the United Nations Educational, Scientific and Cultural Organization (UNESCO) organized the 1<sup>st</sup> national workshop on "The Establishment of Science and Technology Parks for Development", from 13<sup>th</sup> to 16<sup>th</sup> July 2009 in Abuja, Nigeria. In connection with its cooperation programme with ISESCO, COMSATS sponsored the expenses for some local participants and resource persons in this workshop.

The workshop inter alia endeavoured to explore ways and means to: consolidate the understanding of S&T parks and their role in linking R&D to industry for socio-economic development; highlight the role of S&T parks in the creation and growth of companies committed to innovation, incubation and development process, and exchange experiences among participants in order to create a synergy between different stakeholders in designing programmes on science parks in Nigeria.

The honourable Minister for Science and Technology, Government of Nigeria, H.E. Dr. Alhassan Bako Zaku inaugurated the event, which was attended by various government agencies, academia, National Commission for UNESCO and many others.

#### COMSATS SECRETARIAT MAKES EXTENSIVE EFFORTS FOR ORGANIZATION OF ITS SUMMIT MEETING

The 2<sup>nd</sup> Commission Meeting of COMSATS is due to be held in April 2010. In February 2009, the Prime Minister of Pakistan had formally directed the Ministry of Science and Technology to make necessary arrangements for this meeting under an inter-ministerial Steering Committee. In its first meeting held on 6<sup>th</sup> April 2009, the Committee under the chairmanship of the Federal Minister for Science and Technology, Dr. Muhammad Azam Khan Swati, constituted sub-committees and designated their conveners to look after various clusters of management activities.

These sub-committees have been entrusted to work-out the budget and time-line for carrying out various tasks related to a particular activity. The reports of their work will be submitted for further action at the 2<sup>nd</sup> meeting of the Steering Committee. Concurrently, COMSATS Secretariat has been

busy in mobilizing international support for the event. A draft provisional agenda was circulated to all focal points in member States to seek their feedback, during the Consultative Committee meeting in April 2009.

#### COMSATS STRIVES TO CONSOLIDATE ITS TELEHEALTH INITIATIVES IN NWFP

In connection with COMSATS' project proposal on Tele-health services to be submitted to the Government of North Western Frontier Province (NWFP) of Pakistan, a meeting was held at Health Secretariat of Government of NWFP in Peshawar on 8<sup>th</sup> August 2009. The officials from the Government of NWFP, which attended the meeting included: Dr. Shabina Raza, Chief of Health Services Research Unit (HSRU); Dr. Khalid Khan, Director of the Directorate of Science and Technology; Dr. Shaheen Afridi, Deputy Chief - HSRU; Dr. Waheed Barki, the Executive District Officer (Health), and Medical Officer Incharge of Rural Health Centres (RHCs) of Peshawar, besides Dr. Azeema Fareed, the Coordinator for the Tele-health project of COMSATS.

The main objective of the meeting was to involve one of the major stakeholders, i.e., the Department of Health (DoH) of Government of NWFP, at the development phase of the project proposal that is prepared on the prescribed format (PC-1) of the Government. The meeting intended to elucidate the concept and general idea of the proposed project to all the participants of the meeting and obtain their feedback regarding any issues that could impede the process of implementation. The meeting resulted in bringing DoH on board before the meeting of Departmental Development Working Party (DDWP) for the approval of the project, which is expected within 4 weeks after the project proposal is submitted. It is expected that this meeting will make recommendations that will facilitate the adoption of this modern and swift method of healthcare delivery.

#### IMPORTANT MEETINGS OF THE EXECUTIVE DIRECTOR COMSATS

9 <sup>th</sup> July 2009	<b>Ms. Shahnaz Wazir Ali</b> Special Assistant to Prime Minister of Pakistan on Social Sector
15 <sup>th</sup> July 2009	<b>Mr. Mohammad Asim</b> Chief Executive Officer, Focal Project Management Consulting Services (FPMCS), USA
17 <sup>th</sup> August 2009	<b>Ms. Tehmina Janjua</b> Director General, Office of the Foreign Secretary, Ministry of Foreign Affairs, Government of Pakistan
22 <sup>nd</sup> August 2009	<b>Dr. Ingrid Nyborg</b> Assistant Professor, Norwegian University of Life Sciences, Norway
26 <sup>th</sup> August 2009	<b>Mr. Munawar Saeed Bhatti</b> Director General (UN), Ministry of Foreign Affairs, Government of Pakistan

## ACTIVITIES/NEWS OF COMSATS' CENTRES OF EXCELLENCE

### HIAST ORGANIZES INTERNATIONAL SEMINAR WITH THE SUPPORT OF ISESCO AND COMSATS

The Higher Institute for Applied Science and Technology (HIAST) organized a three-day international seminar on "Bridging Gaps for Industrial Development: Interface between Academia, Policy Making, and Industry", from 27<sup>th</sup> to 29<sup>th</sup> July 2009, in Damascus, Syria, under the aegis of the Islamic Educational, Scientific and Cultural Organization (ISESCO) and the Commission on Science and Technology for Sustainable Development in the South (COMSATS).

The purpose of the seminar was to create awareness and highlight the usefulness of industrial development in the developing economies. Besides the host country, Syria, participants from Egypt, Iran, Jordan, Lebanon, Pakistan and Sudan, took part in this event and presented papers on the subject covering its various aspects.

A strong participation from the Syrian industrial sector, ministries and educational institutions, apart from foreign delegates, played a vital role in the success of the seminar. The recommendations that were made provided useful guidelines for scientific research, suggested improvements in educational system and curricula and, took under consideration the avenues for transforming scientific research into industrial applications.

### CIIT ISLAMABAD HOLDS INTERNATIONAL SYMPOSIUM ON QUANTUM OPTICS

The 4<sup>th</sup> International Symposium on Quantum Optics was held on 3<sup>rd</sup> & 4<sup>th</sup> August 2009 at the Centre for Quantum Physics of COMSATS Institute of Information Technology (CIIT) in Islamabad, Pakistan. It was jointly organized by the Centre of Quantum Physics and the National Centre for Physics under the joint patronage of CIIT, COMSTECH, Higher Education Commission (HEC) of Pakistan, and Pakistan Academy of Sciences. This symposium was the fourth of the series, the first three of which were organized in January 2007, August 2007 and August 2008.

The purpose of these symposia has been to create awareness about the recent developments in the field of quantum optics. This year seven international subject experts from USA, Hong Kong and China, in addition to 80 participants from different Pakistani universities and R&D institutions in quantum optics and related fields, participated in the symposium.

### RESEARCH ON MASS CULTIVATION OF TEA PLANTS THROUGH TISSUE CULTURE TECHNIQUE AT CIIT

The Department of Biosciences of COMSATS Institute of Information Technology (CIIT) is working on a project: "Development of Tissue Culture Protocols and Methodology of Tea Plant (*Camillea sinensis*) for Micropropagation in Pakistan" in active collaboration with one of its Industry partners. Prof. Dr. Asrar M. Khan, an eminent scientist working at CIIT has been involved with the private sector in the past for cultivation of tea in Pakistan. He has developed this project in collaboration with a private sector enterprise for mass supply of tea saplings. The project is supported and funded by the Higher Education Commission (HEC) of Pakistan under the University-Industry Technology Support Programme (UITSP).

Laboratory facilities have been established and tissue culturing of tea plants has already started. Once the technology is fully developed, it will be transferred to the industrial partners for mass propagation.

### CIIT TO HOLD CIMI AWARDS

CIIT has been taking proactive steps to bolster innovation. In this regard CIIT is holding the award-CIIT Medals for Innovation (CIMI). These medals are awarded to appreciate outstanding and original contributions of faculty members, staff and students of CIIT.

CIMI is an award instituted in 2006 to honour and acknowledge creativity in various academic fields. CIMI awards were first announced by the Rector CIIT during the visit of the Nobel Laureate Physicist, Dr. Ivar Giaever to the institute in 2006. These medals are awarded annually to honour the innovators. International Liaison Office (ILO) of CIIT acts as the Secretariat for these Awards.

This time, CIIT is giving a Golden Medallion, a certificate and a cash award upto Rs. 100,000 for original contributions to innovation in the fields of Mathematics, Physics, Management Sciences, Electrical Engineering and Information Technology.

### CONFORMITY ASSESSMENT ACTIVITIES AT RSS

The Conformity Assessment Centre of the Royal Scientific Society (RSS), Jordan, has recently acquired the international accreditation from the Greek accreditation body – ESYD, which places it as the first internationally accredited non-governmental local body that issues



*Participants of the seminar on "Bridging Gaps for Industrial Development: Interface between Academia, Policy Making, and Industry" attending a presentation*

Conformity Certificates for Products, Personnel and Systems, as well as for Third Party Inspection Services.

RSS established the Centre in 2005 in order to respond to the challenges faced by the Jordanian manufacturers and exporters in fulfilling the quality pre-requisites of international markets. The Centre serves several prioritized industrial sectors, based on their export potential, including construction, food and industrial sectors. The Centre also serves to issue internationally accredited licenses for personnel working in the field of non-destructive testing (NDT), and system conformity certificates against the international requirements of ISO 22000, ISO 9001, ISO 14001, HACCP and OHSAS through the British Certification Body – BM TRADA.

#### PRINCESS SUMAYA AWARDED LAZIO PRIZE

Her Royal Highness Princess Sumaya Bint El Hassan, President of the Royal Scientific Society and Al Hassan Science City of Jordan, has been awarded the "Lazio between Europe and the Mediterranean" Prize on 16<sup>th</sup> July 2009, in appreciation of her work in supporting culture and science in Jordan. Princess Sumaya is the first Jordanian to win this award.

The prize is usually awarded to eminent personalities of international repute from the countries along the Mediterranean rim, in acknowledgment of their excellent contributions to culture, dialogue, the visual arts, cinema, music, economy and scientific research, as well as promotion of universal values for the development of a society based on a free exchange of views, respect for cultural identity and equality among people.

In her acceptance speech at the award ceremony in Rome, Princess Sumaya said that the prize comes in recognition of the outstanding role Jordan has been playing in developing global cultural and scientific mobility. She also highlighted the importance of interaction and dialogue between cultures as a foundation for building a better future for humanity.

#### FIRST CLONED ANATOLIAN CALF BORN IN TURKEY UNDER AN MRC RESEARCH PROJECT

Researchers from TÜBİTAK Marmara Research Centre (MRC), Istanbul University and Uludag University have successfully produced the first Turkish cloned calf after 4 years of research. The study was carried out under their joint

project titled "Cloning of Anatolian Native Cattle Breeds", which aims to serve conservation studies of Anatolian native cattle breeds.

Weighing almost 25 kgs, the male Turkish grey calf 'Efe' was born on 19<sup>th</sup> August 2009 by cesarean section. Efe is the first cloned Anatolian calf both in Turkey and in the world. In addition, the calf is a living example that one cell from the National Animal Gene Bank established in TÜBİTAK can produce a live animal. Detailed information is available at [www.turkhyaygen.gov.tr](http://www.turkhyaygen.gov.tr).

#### ICCBS ESTABLISHES THE SYSTEMIC APPROACH TO TEACHING AND LEARNING CHEMISTRY CLUB

The International Centre for Chemical and Biological Sciences (ICCBS) of the University of Karachi (Pakistan) under the patronship of Prof. Dr. M. Iqbal Choudhary, the Convenor National Core Group in Chemistry and Director ICCBS Complex, has established the Systemic Approach to Teaching and Learning Chemistry Club (SATLCC).



HRH Princess Sumaya, President of Royal Scientific Society, and Al Hassan Science City, Jordan, receiving the Lazio Prize

The Systemic Approach to Teaching and Learning is a world-wide movement for promoting education. The method emphasizes concept-based learning and has exhibited a proven ability to induct creativity among students. Dr. Choudhary has introduced SATLC in Pakistan and is also the founder of SATLCC in Pakistan.

#### IROST INVITES NOMINATIONS FOR 23RD KHWARIZMI INTERNATIONAL AWARD

The Iranian Research Organization for Science and Technology (IROST) will be organizing the 23<sup>rd</sup> Khwarizmi International Award (KIA) in February 2010. The Award is organized annually in the memory of Muhammad ibn Musa al Khwarizmi, an eminent Iranian mathematician and astronomer, in order to recognize and honour the outstanding scientific achievements and excellent research contributions by scientists, researchers, innovators and inventors from all over the Islamic World in various fields of science and technology. The research work evaluated for the Award is expected to fall in the following categories: Invention, Innovation, Applied Research, Fundamental Research and Development Research.

More details and information about the award are available at the website of KIA: <http://en.khwarizmi.ir> and COMSATS' official website: [www.comsats.org](http://www.comsats.org).

## SCIENCE, TECHNOLOGY AND DEVELOPMENT

### BREAKTHROUGH IN CANCER TREATMENT WITH A WONDER DRUG

Scientists have reported a wonder drug – Salinomycin – having a potential to selectively kill cancer “mother” cells, thus paving the way for an effective cancer treatment (*Belfasttelegraph.co.uk*, 14<sup>th</sup> August 2009). For the first time, scientists have identified a drug that selectively kills cancer stem cells. Many solid tumor cancers, including breast, prostate, bowel and lung, are considered to be driven and renewed by the stem cell “parents”. These parent cells are highly aggressive and difficult to combat against and researchers believe that tackling them could eradicate a cancer source. Cancer stem cells have always been highly resistant to therapy agents that is why tumors often grow back after initial treatment. The drug, Salinomycin, delivers a targeted knockout blow to breast-cancer stem cells. This compound is 100 times more effective than the powerful chemotherapy-agent called ‘Taxol’.

Salinomycin has proven to be the most effective compound for cancer treatment during the laboratory experiments, which used around 16,000 natural and commercial chemicals. The mechanism of selectively attacking and destroying cancer stem cells by Salinomycin has not yet been determined. The testing could continue for quite a few years before the drug can be used for human beings. It may be noted that the number of people with cancer in the developing countries is expected to double from 5 million in 2000 to 10 million by 2020 (*Nature Medicine* 15, 713 (2009)).

### NEW, CHEAPER METHOD FOR EXTRACTING CLEAN WATER

A team of researchers at the University of California (UCLA), USA, have come up with a solution to address the socio-economic stress on communities faced with water scarcity. *SciDev.Net* of 28<sup>th</sup> July 2009 reports the UCLA scientists’ discovery, where a mobile pilot system known as ‘M3’ could make preliminary feasibility tests for desalination easier and cheaper for developing countries. The M3 system utilizing principles of reverse osmosis, can test whether fresh water can be extracted from almost any water source. Desalination is often costly however M3 system helps reduce the cost. M3 system’s flexible and portable characteristics imply that a country interested in desalination could buy one system and use it to test all potential water sources, saving time and money. The M3 system can be fitted into a standard cargo van. It can be used for a wide range of brackish (mixture of sea water and fresh water) as well as sea water desalination. It produces about 5,000 gallons of water from sea water or about 8,000 gallons from brackish water. This implies that the system can be readily used in emergency situations. The researches are hopeful that after commercialization the M3 system will become technically and financially feasible for the developing countries, even for those having little scientific expertise.

### THREE-IN-ONE OVEN

Developing countries need simple and affordable technologies as part of their realistic socio-economic developmental strategies. One such technology of common use is coming up fast in the form of a three-in-one oven. The new oven that provides electricity, serves as a cooker and refrigerator and, is undergoing field trials in Nepal and the United Kingdom (*SciencePhysicworld.com*, 14<sup>th</sup> August 2009). Developed by scientists of the University of Nottingham, UK, the stove harnesses thermoacoustic energy. A fire at one end of a gas-filled pipe generates temperature gradient which triggers sound waves as gas moves from hot to cold regions. The mechanical energy of the sound waves is then converted into electrical energy. A separate thermoacoustic engine works in reverse to create a cooling effect for the refrigerator, and food can be cooked on the heat from the fire. All three processes can occur simultaneously.

As shown by recent tests in Nepal, the oven can be built using local materials and propane as the energy source. The researchers are also hoping to develop a generator that runs on biomass (wood or dung) and weighs between 10 to 20 kg at a cost of around US\$33. The scientists believe that communities in the Indian Sub-continent, Sub-Saharan Africa and South America could benefit from such a stove. It is interesting to note that many COMSATS Member countries are located in these regions.

### NEW AVENUES OF NORTH-SOUTH SCIENTIFIC COLLABORATION

Dr. Kerry-Ann Jones, an American scientist with extensive experience in diplomacy and development has been confirmed by the US Senate on August 2009 (Senatus) for managing the “Global Science Corps”. The establishment of the Corps was announced earlier this year.

The Corps, according to a news report of *SciDev.Net* (6<sup>th</sup> April 2009) and *Times Online* (27<sup>th</sup> March 2009), aims to boost US’ relations with the developing countries by appointing various scientists to work in marginalized countries becoming a part of a network of science attachés for every US embassy. Furthermore, the plan also called for creating a US institute of medicine that would almost double the annual US support for the global health to US\$ 15 billion by 2012. The people with scientific expertise in US embassies would provide advice on science and technology to the developing countries for resolving their socio-economic problems.

It is expected that the US investment would target the infrastructures of science and health in developing countries, so that fewer of their scientist are tempted to leave their home countries to seek jobs in the West.

## PROFILE OF COMSATS' INTERNATIONAL S&T CENTRE OF EXCELLENCE

### COMSATS INSTITUTE OF INFORMATION TECHNOLOGY (CIIT), PAKISTAN

#### Introduction

The COMSATS Institute of Information Technology (CIIT) was created in 1998 with the establishment of its first campus in Islamabad, Pakistan. In August 2000, in recognition of CIIT's achievements, the Federal Government of Pakistan granted it the status of a degree awarding institute through the promulgation of its charter. CIIT is now slated for upgradation as a university by the name of 'COMSATS University' through an Act of the Parliament of Pakistan. Besides its principal campus in Islamabad, CIIT has five other fully functional campuses in Abbottabad, Attock, Lahore, Sahiwal and Wah.

#### Mission

The mission of CIIT encompasses the following:

1. *Teaching and Learning:* To share knowledge, understanding and creativity by providing a broad range of educational programmes;
2. *Research and Discovery:* To conduct high quality research in selected disciplines for creating knowledge and promoting the habit of enquiry, and
3. *Outreach and Public Service:* To apply the available knowledge and skills in programmes that benefit the society.

#### Areas of Specialization

CIIT offers 42 under-graduate and graduate degree programmes in the following main areas: Computer Sciences; Business Administration; Telecommunication and Networking; Electrical Engineering; Health Informatics; Computer Engineering; Chemical Engineering; Environmental Sciences; Mathematics; Electronics; Bioinformatics; Biosciences; Physics; Economics, and Architecture.

#### Faculty and Students

CIIT has a teaching faculty of more than 1500, including 390 faculty members who are undergoing advanced studies/training leading to MS and Ph.D degrees and post-doctoral research in various universities of the developed countries. Currently, 210 faculty members and academic managers holding Ph.D degrees are serving at CIIT, while the remaining have MS/M.Phil degrees. CIIT has proudly produced 7,111 graduates since its inception and at present more than 15,300 students are enrolled with it in various programmes. During the fall 2008, a total of 3,664 new students joined CIIT in various disciplines.

#### Achievements

The Higher Education Commission (HEC) of Pakistan, in an

exercise to rank institutions of higher education in Pakistan, has graded CIIT at number 8 among the engineering institutions of higher education during 2006. In terms of research output, CIIT has been ranked at number 7 out of 124 universities for the year 2008. As for research citations, the research produced at CIIT has been placed at number 2 in Pakistan, as verified by the 'Web of Science'.

#### Research and Development

The Institute has so far completed nineteen projects for capacity building, at a total cost of Rs. 660 million, while there are sixteen on-going developmental projects worth more than Rs. 7.3 billion. Total development budget of CIIT for 2008 is around Rs. 1.3 billion. Faculty members are dedicated researchers in their respective fields and 495 research articles have been published till December 2008. It is running about 30 projects worth Rs. 150 million with the support of the Higher Education Commission of Pakistan. Similarly, 35 research projects are being carried out by the young scientists of CIIT utilizing the funds earmarked by the Institute from its own resources. Additionally, an amount of GB£ 170,000 has been provided by the British Council to the researchers of CIIT for working on projects in the fields of Biosciences.

#### International Linkages

Since its establishment in 1998, CIIT has been focusing its efforts in establishing professional linkages with reputed international universities and R&D institutions. These linkages are targeted at: advanced training of its faculty and students in cutting edge technologies, joint research projects, faculty exchanges, as well as organization of professional meetings, seminars and workshops. As a result of such efforts, CIIT has already signed 38 Memoranda of Understanding (MoUs) with well established institutions throughout the globe. The hallmark of these linkages have been the signing of Memoranda of Agreement (MoAs) with University of Illinois at Urbana-Champaign (UIUC), USA, University of North Texas (USA), Australian National University, apart from several other prestigious universities of Europe. In order to directly benefit COMSATS' member countries, CIIT has announced the grant of 100 scholarships to students from these countries.

#### For further details contact:

Dr. S. M. Junaid Zaidi  
Rector  
COMSATS Institute of Information Technology (CIIT)  
30, Sector H-8, Islamabad  
Pakistan.  
Tel: +92-51-9258481-3, Fax: +92-51-4442805  
URL: [www.ciit.edu.pk](http://www.ciit.edu.pk), Email: [info@ciit.edu.pk](mailto:info@ciit.edu.pk)

### SELECTED FORTHCOMING SCIENTIFIC EVENTS IN COMSATS' COUNTRIES

- 28 Sept. to 9 Oct. 2009** Training Course on "Cyber Security in Tunisia", Tunis, Tunisia.  
([www.unctad.org](http://www.unctad.org))
- 26-29 October 2009** "CeMAT ASIA 2009: International Fair for Materials Handling and Logistics", Shanghai, China.  
([www.cemat-asia.com](http://www.cemat-asia.com))
- 15-17 November 2009** "13<sup>th</sup> UNESCO-APEID International Conference on Education" and World Bank KERIS High Level Seminar on "ICT in Education ICT Transforming Education", Hangzhou, People's Republic of China.  
([www.unescobkk.org/education/ict](http://www.unescobkk.org/education/ict))
- November 2009** Conference on "Agribusiness & Agro-Industries in Africa", Abuja, Nigeria.  
([www.unido.org](http://www.unido.org))

### CALL FOR PAPERS FOR THE JOURNAL – SCIENCE VISION

COMSATS is resuming the publication of its scientific journal – Science Vision. The journal now has 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 its journal, 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 would be compensated for their time and efforts with a modest amount of honorarium.

Please visit COMSATS' official website: [www.comsats.org](http://www.comsats.org) for more details. Contributions may be sent at [comsats@comsats.org.pk](mailto:comsats@comsats.org.pk).

### COMSATS-COMSTech NATIONAL MEETING ON CHALLENGES FOR SOCIO-ECONOMIC DEVELOPMENT IN PAKISTAN: ROLE OF SCIENCE AND TECHNOLOGY

**26<sup>th</sup> – 28<sup>th</sup> October 2009, Islamabad - Pakistan**

A national meeting, titled "Challenges for Socio-economic Development in Pakistan: Role of Science and Technology", is being jointly organized by COMSATS and the OIC Standing Committee on Scientific and Technological Cooperation (COMSTech), in Islamabad, from 26<sup>th</sup> to 28<sup>th</sup> October 2009.

The objective of the meeting is to bring together young researchers, scholars and students to identify and discuss major challenges that Pakistan is facing at the socio-economic front, and to seek and assess practicable solutions through the use of country's existing potential in science and technology. A panel comprising renowned subject experts and a group of 25 to 30 post-graduate students, from various fields including agriculture and environment; education; health; economy and S&T issues; energy, and ICTs & media, are expected to participate in the meeting.

**Announcement**

Dr. Hasibullah  
Advisor (International Affairs)  
[nationalmeeting@comsats.org](mailto:nationalmeeting@comsats.org)

### 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](http://www.comsats.org).

### OBJECTIVES AND FUNCTIONS OF THE COMMISSION

- To sensitize the countries in the South to the centrality of science and technology in the development process, to the adequate allocation of resources for research and development, and to the integration of science and technology in the national and regional development plans;
- To support the establishment of the Network of International Science and Technology Centres for Sustainable Development in the South;
- To support other major initiatives, designed to promote indigenous capacity in science and technology for science-led sustainable development, and to help mobilize long-term financial support from international donor agencies and governments/institutions in the North and the South, to supplement the financing of international scientific projects in the South;
- To provide leadership and support for major North-South and South-South cooperative schemes in education, training and research, and
- To support the relevant programmes and initiatives of major scientific organizations working for the development and promotion of science and technology in the South.