



COMSATS Newsletter

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



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Patron

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

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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

One of the innovative ways in which COMSATS uses its limited financial resources to undertake activities having significant social impact, is the joint programmes conducted in partnership with other organizations that share COMSATS' vision of development through science and technology. During October 26-28, 2009, the national meeting on "Challenges for Socio-economic Development in Pakistan: Role of Science and Technology" was held in partnership with the OIC Standing Committee on Science and Technology (COMSTECH) using funds provided by the Higher Education Commission of Pakistan (page - 2).

For this meeting, the COMSATS' team conceived and implemented a format involving intensive dialogue between a selected group of young Pakistani scholars and a panel of resource persons having extensive experience in the fields of Education, Agriculture, Environment, Energy, ICTs, Health and Economy. While being Pakistan-specific, the issues and their solutions were found to have several common elements relevant to other member countries of COMSATS. The young generation, constituting a major fraction of populations in most developing countries, is trapped between aspirations that they derive from societies in the North and the ground realities that they face in their daily lives in home countries. Their perceptions of the challenges and assessment of viable solutions should be of interest to policy-makers. The views expressed and the recommendations made by different panels of the 3-day meeting will be disseminated to all concerned quarters. This successful exercise has encouraged us to continue the process of consultations with the youth through appropriate forums including a web-portal.



Participants of the national meeting organized by COMSATS and COMSTECH on October 26-28, 2009, in Islamabad, Pakistan

On a different note, as decided in the Consultative Committee meeting held in Abuja, Nigeria, earlier this year, the Focal Points in Member States are requested to kindly nominate their liaison officers for more efficient communication with COMSATS Headquarters. The Centres of Excellence are requested to keep us informed about their major technical activities, especially the upcoming international events planned for the next year.

NEWS/ACTIVITIES/HIGHLIGHTS FROM COMSATS SECRETARIAT

A NATIONAL MEETING EXPLORES S&T-BASED SOLUTIONS TO MEET SOCIO-ECONOMIC CHALLENGES OF PAKISTAN

A three-day national meeting on “Challenges for Socio-economic Development in Pakistan: Role of Science and Technology” was organized by the Commission on Science and Technology for Sustainable Development in the South (COMSATS) in partnership with the OIC Standing Committee on Scientific and Technological Cooperation (COMSTECH) and the Higher Education Commission (HEC) of Pakistan, on October 26-28, 2009. The event was unique in its format as the central role in its proceedings was assigned to a group of Pakistani youth.

This meeting served as a forum to couple the aspirations of Pakistani youth with the pragmatic viewpoint of seasoned experts. For this meeting, twenty-five outstanding young scholars had been chosen through an elaborate selection process from the academic institutions and S&T organizations across the country. These young students, lecturers, researchers and doctors constituted one panel that intensively interacted with a senior panel of 12 resource persons comprising eminent scientists, educationists and policy-makers of Pakistan. Six themes based on the key areas of concern for Pakistan’s development that had been identified were: Agriculture and Environment; Energy; ICTs and Media; Education; Health; and Economy and S&T Issues. Six technical sessions co-chaired by two resource persons each covered these themes.

Chairing the inaugural session of this national meeting on October 26, 2009, the Executive Director COMSATS, Dr. Imtihan Elahi Qureshi, deemed self-reliance in science and technology necessary for stable socio-economic development of Pakistan. He urged the young participants to remain committed to the country’s development. Advisor Science COMSTECH, Dr. Anwar Nasim and Advisor (International Affairs) COMSATS, Dr. Hasibullah,



Coordinator General COMSTECH, Prof. Dr. Atta-ur-Rahman addressing the young participants during his presentation

highlighted the importance of the meeting in their Welcome Remarks and Introductory Speech, respectively.

The highlights of the meeting included inspirational talks by three accomplished Pakistani scientists, Prof. Dr. Atta-ur-Rahman, Dr. Samar Mubarakmand and Dr. N. M. Butt. These guest speakers were hopeful of meeting the challenges currently being faced by Pakistan through a proper utilization of its S&T capacities and advised the youth to let inspiration, integrity and hardwork be the guiding principles in their lives and careers. The need for indigenization of research and development, to effectively and strategically exploit the abundant natural resources of the country, was also elucidated.

The meeting resulted in identification of major hurdles impeding Pakistan’s development that included: ineffective educational system; poor S&T infrastructure, lack of health amenities, inadequate farm machinery and usage of redundant technologies and processes in the fields of agriculture and environmental management; as well as the ongoing energy crisis and uncertain security situation. During their presentations, the participants also came up with viable S&T-based solutions regarding educational reforms, improved policy-planning and good governance to overcome these challenges. One of the outcomes of this national meeting is the formation of a think-tank comprising participants and the subject experts to carry forward the ideas and solutions put forth during the meeting. A web-portal, designed and developed by COMSATS, shall facilitate the continued interaction of this think-tank. COMSATS, via this national meeting, has been able to successfully provide a voice to the thoughts of talented young people of Pakistan for its development. The proceedings of the meeting will be disseminated to COMSATS’ member countries also, since many of the issues discussed in the context of Pakistan are also relevant for other developing countries.



Technical session on 'Education' in progress during the national meeting



*Federal Minister for Science and Technology,
Dr. M. Azam Khan Swati chairing 2nd meeting of the
Steering Committee*

THE STEERING COMMITTEE APPRAISES THE PREPARATIONS OF THE 2ND COMMISSION MEETING

Under the chairmanship of Minister for Science and Technology of Pakistan, Dr. Muhammad Azam Khan Swati, the Steering Committee met for the second time, on October 19, 2009, in Islamabad in order to organize the 2nd Commission Meeting of COMSATS. Besides the Federal Secretary Ministry of Science and Technology and the Executive Director COMSATS, the meeting was attended by senior officials from the ministries of Foreign Affairs, Interior, Finance, Culture, Health and other relevant government departments.

The Executive Director COMSATS showed his appreciation for the level of cooperation and support extended by the Federal Minister and the Federal Secretary for the Commission Meeting and other programmes and projects of COMSATS. He briefed the Committee on the efforts made by COMSATS Secretariat on national and international fronts since its first meeting held on April 6, 2009. The matter was included in the agendas of COMSATS' Consultative Committee and Coordinating Council meetings held in Abuja, Nigeria, this year. The draft provisional agenda of the Commission meeting was circulated to all Member States.

As per the decisions taken in the 1st meeting of the Steering Committee, sub-committees were constituted on various clusters of management activities for the organization of the Commission Meeting. The progress reports submitted by the conveners of the sub-committees were reviewed during the course of the meeting. Approving various propositions and suggestions that were made therein, the Chairman lauded the efforts of all the conveners. He reiterated his full support for COMSATS to hold its summit meeting at a suitable time in 2010 ensuring maximum participation of Member States.

COMSATS-ISESCO COOPERATION EXTENDED FOR ENHANCEMENT OF IWSN

The agreement, "Strengthening of the Islamic World Science Net (IWSN)", between COMSATS and the Islamic Educational, Scientific and Cultural Organization (ISESCO) has recently been extended for the year 2009. The web-portal, IWSN, was established in 2007 with the concerted efforts of the two organizations. Earlier this year, COMSATS and ISESCO jointly organized a 3-day international meeting of the "Coordinators of the Scientific Thematic Groups for Enhancing Cooperation among Islamic Countries", whereby virtual scientific thematic groups were launched to facilitate networking of scientists across the Islamic World for its socio-economic progress. Under the renewed agreement, the two organizations would work together to update and monitor the web-portal and thematic forums would be formulated in light of the recommendations made in the first meeting of the Coordinators of these thematic groups. COMSATS would provide the technical expertise for updating and maintaining the portal, while ISESCO would ensure the necessary financial contribution, besides providing the required content.

28TH MEETING OF COMSATS MANAGEMENT COMMITTEE

The Management Committee of COMSATS held its 28th meeting on September 28, 2009, in Islamabad. The meeting was chaired by Executive Director COMSATS, Dr. Imtihan Elahi Qureshi. Besides other senior officials from COMSATS Secretariat, the meeting was attended by Chairman Pakistan Council for Science and Technology (PCST), Dr. Tariq-ur-Rahman, Director General COMSATS Internet Services (CIS), Mr. Parvez Ahmad Butt and Rector COMSATS Institute of Information Technology (CIIT), Dr. S. M. Junaid Zaidi. The meeting featured presentations that elaborated on financial and administrative matters of the Secretariat and its two flagship projects, CIIT and CIS.

DISTINGUISHED RESOURCE PERSONS OF COMSATS-COMSTech NATIONAL MEETING

- Dr. Inam ur Rahman, Founder Director PIEAS, Islamabad
- Dr. S. M. Junaid Zaidi, Rector CIIT, Islamabad
- Dr. Sania Nishtar, Founder President and Executive Director Heartfile, Islamabad
- Dr. Birjees Mazher Kazi, Executive Director NIH, Islamabad
- Dr. Arshad Ali, Director General SEECs, NUST, Islamabad
- Dr. Khalid Rashid, Advisor - CIIT, Islamabad
- Dr. Tariq-ur-Rahman, Chairman PCST, Islamabad
- Dr. Asad Ali Shah, Former Member Planning Commission on Infrastructure, Islamabad
- Dr. Qamar-uz-Zaman Chaudhry, Director General Pakistan Meteorology Department, Islamabad
- Dr. M. E. Tusneem, Member Food and Agriculture, Planning Commission of Pakistan, Islamabad
- Mr. Ashfaq Mahmood, Visiting Faculty Member CIIT, Islamabad.
- Dr. Shaukat Hameed Khan, Former Member Planning Commission, Islamabad

ACTIVITIES/NEWS OF COMSATS' CENTRES OF EXCELLENCE

BRAZILIAN BIOETHANOL SIGNIFICANTLY REDUCES GREENHOUSE GAS EMISSIONS – AN EMBRAPA AGROBIOLOGIA RESEARCH

The Nutrient Cycling Studies Group at the leading R&D centre of Brazil, the Embrapa Agrobiologia in Rio de Janeiro, has recently completed a study on the emissions of fossil carbon dioxide (CO₂) and other greenhouse gases (GHGs) involved in the whole 'life-cycle' of bioethanol, from its production from sugarcane to its consumption as a fuel, under the Brazilian conditions. The Group studied the total amounts of: fossil fuel (principally diesel) utilized in the ploughing, harvesting and other field operations; energy used to produce fertilisers & pesticides and operate the machinery; as well as, the fuel used to transport sugarcane to the mills. The research shows that fossil energy is required only to manufacture chemicals used in processing and constructing the factory. Moreover, it identified methane (CH₄) and nitrous oxide (N₂O) to be the other significant GHGs, besides CO₂. Methane was estimated for its amount when cane is burned before harvest and when distillery waste is applied, while amount of N₂O emissions was calculated from soil after the applications of nitrogen fertiliser and distillery waste.



*Sugarcane - Raw material for bioethanol
A picture by Nivaldo Schultz*

The study also concluded that if a car is run for 100 km on Brazilian bioethanol, the resulting total amount of GHGs (CO₂, CH₄ and N₂O) emitted is 80% less than that of the same car when purely driven on gasoline for the same distance. In Brazil, all gasoline contains approximately 24% of bioethanol, which already reduces GHG emissions by 18%.

IRCC'S PARTICIPATION IN THE INTERNATIONAL CONFERENCE ON APPLIED BIOTECHNOLOGY

Four researchers from Industrial Research and Consultancy Centre (IRCC) of Sudan participated in the "International Conference on Applied Biotechnology", held in Khartoum, Sudan, on September 28-30, 2009. The conference was organized by the African City for Technology (ACT) in collaboration with National Centre of Research (NCR) and University of Sinnar.

During the conference a number of scientific papers on biotech applications, trait improvements, bioinformatics, genomics and proteomics, tissue culture, dairy biotechnology, probiotics, biodiversity in national bio-

resources, bio-security, ethics and property rights in biotechnology and drug-biotechnology were presented. Researchers, scientists, academicians and students, in the sphere of biotechnology from India, Saudi Arabia, Syria, Uganda and other S&T institutions of Sudan, participated in the conference.

CIIT WELCOMES STUDENTS FROM ISLAMIC UNIVERSITY IN UGANDA FOR POST-GRADUATE STUDIES

A total of hundred scholarships for students of COMSATS Member States were offered by the Rector COMSATS Institute of Information Technology (CIIT), Dr. S.M. Junaid Zaidi during the 11th and 12th meetings of COMSATS Coordinating Council. In this regard, the Islamic University in Uganda (IUIU) has applied for fourteen scholarships for its young faculty members, who are being granted full fee waiver for their post-graduate studies in various disciplines. The Rector IUIU, Professor Ahmed Kawaase Sengendo, would be paying a visit to CIIT in near future to have first hand information and orientation on its academic programmes, available facilities

and curricula.

DUAL-DEGREE PROGRAMME OF THE LANCASTER UNIVERSITY-UK AND CIIT -PAKISTAN

The Lancaster University of the United Kingdom and the COMSATS Institute of Information Technology (CIIT) of Pakistan will award a dual degree to students who have successfully completed a four-year study programme in the latter's Lahore Campus in the disciplines of Business Administration, Computer Science and Electrical Engineering (Telecommunication). The decision was made during a special meeting of the Board of Governors of CIIT held on October 29, 2009. During the detailed discussion, Rector CIIT noted that the two universities have been undertaking consultations for the last couple of years to arrive at an agreement in this respect. The Board authorized the CIIT administration to proceed with the validation process and establishment of necessary infrastructure, before formally launching the dual-degree programme. Earlier, the Lancaster University approved this scheme on October 7, 2009.

It is hoped that apart from Pakistani students, the programme may be of interest to other member countries of



Board of Governors of CIIT deliberating over the dual-degree programme during its 16th meeting



HRH Princess Sumaya receiving the Albert Einstein Medal

COMSATS, considering that the cost of this valuable degree will be considerably less as compared to the education in UK.

CIIT PARTICIPATES IN THE INTERNATIONAL CONFERENCE IN TRIESTE, ITALY

Two faculty members of CIIT, Dean Faculty of Science, Prof. Raheel Qamar, and Chairman Department of Physics, Prof. Arshad Saleem Bhatti, were invited to participate in the international conference on "Advanced Diagnostics and Drug-Delivery at the Nanoscale: State-of-the-art and Possible Applications", organized by the International Centre for Science and High Technology (ICS), an organization of the United Nations Industrial Development Organization (UNIDO), from October 13-15, 2009, in Trieste, Italy. They presented their research on cancer treatment and bio-sensing, using nano-science and technology. The delegates from CIIT also visited the Abdus Salam International Centre for Theoretical Physics (AS-ICTP) and met various prominent scientists.

PATENTS GRANTED TO RSS

In September 2009, the Royal Scientific Society (RSS) was granted two Jordanian patents in the field of industrial chemistry. The two patents are titled "A Process for Producing a Dark Violet Iron Oxide Pigment" and "Red Rouge Iron Oxide pigment". These have been developed due to the efforts of the researchers at RSS to enrich its share in applied research and to support its rapidly growing patent portfolio.

HRH PRINCESS SUMAYA RECEIVES THE ALBERT EINSTEIN MEDAL

President of El Hassan Science City and Royal Scientific Society of Jordan, HRH Princess Sumaya bint El Hassan was recently awarded the Albert Einstein Medal in

recognition of her achievements in the areas of education, science and technology, and innovation and entrepreneurship.

The Medal is the highest award granted by the University of Ulm, Germany, and was presented to the princess during the opening ceremony of the international conference on "Excellence in Education 2009", organized by the International Centre for Innovation in Education and the University of Ulm. The ceremony was attended by President of the University of Ulm, Professor Karl Joachim Ebeling and Lord Mayor of Ulm, Ivo Gonner, in addition to a large number of scholars, researchers and guests representing several high-level international institutions.

ACADEMIC AND R&D ACTIVITIES AT ICCBS

The biotechnology wing of International Centre for Chemical and Biological Sciences at the University of Karachi has successfully grown cherry tomatoes for the first time in Pakistan. Cherry tomatoes are a popular salad ingredient all over the world. The Centre's researchers have established the growing conditions in Pakistan and can now monitor good quality of the fruit. Besides the conventional method, tissue culture technology has also been exploited fruitfully.

Having biological and chemical sciences as its thrust areas, ICCBS, during the month of October, organized a series of lectures on the subject of Proteomics. These lectures were delivered by Prof. Dr. Aftab Ahmed, a senior professor of the University of Rhode Island, USA. Also, a lecture titled "An experience with Chromatography and Capillary Electrophoresis as Powerful Analytical Technique" was delivered by Prof. Dr. M. Y. Khawar, Director of the Institute of Advanced Research Studies in Chemical Sciences at the University of Sindh, Jamshoro, Pakistan. This lecture was organized in collaboration with the Pakistan Academy of Sciences on October 3, 2009.

SCIENCE, TECHNOLOGY AND DEVELOPMENT

GENE THERAPY CURES CONGENITAL BLINDNESS

Congenital blindness, which until recently was considered incurable, seems to be going out of sight very soon. Gene Therapy is here to restore vision in those children, and also some adults, who were born with Leber's congenital amaurosis (LCA) - a group of inherited blinding diseases that damage light receptors in the retina. The disease usually begins with diminished eyesight in the early childhood and causes total blindness during a patient's twenties or thirties.



A spectacular report on this discovery has been published in *Eureka! Science News* of October 25, 2009 under the title "one shot of gene therapy and children with congenital blindness can now see". The study conducted by the researchers from the University of Pennsylvania

School of Medicine and the Centre of Cellular and Molecular Therapeutics at the Children's Hospital of Philadelphia, used gene therapy to safely improve vision in a group of children and adults having LCA. Cloned genes for the therapy were used through surgical procedures (retinal injection). For children and adults in the study, functional improvements in vision followed single injection of genes that produced proteins to make light receptors work in their retinas. The greatest improvement occurred in the children. These findings may expedite development of gene therapy for more common retinal diseases, such as age-related, macular degeneration.

BIOFUEL FROM WASTE-PAPER

Converting waste paper and cardboard into biofuel seems to be an attractive proposition for the fuel starved countries. *SciDev.Net* in its October 2009 News reports that such conversion could provide clean energy, cut the amount of municipal waste and reduce greenhouse gas emissions. Around 83 billion litres of ethanol could be produced from waste-paper, replacing about 5 per cent of the world's global petrol demand. Moreover, ethanol produced this way would emit fewer GHG's than the same amount of petrol, anywhere from 29 to 86 per cent. These figures are based on a model created by researchers of the National University of Singapore which assessed the data from 170 countries, using information on their socio-economic development. Ethanol production from waste-paper and cardboard could be more viable in the developed countries due to their organized waste management schemes. However, the developing countries could also benefit from this proposition by planning a fuel-mix scenario depending upon their technical and economic strengths, especially giving due consideration to cost-effectiveness of cellulose recycling programmes existing in those countries.

SAUDI ARABIA'S SCIENCE POWER HOUSE

Saudi Arabia's most modern university, King Abdullah University of Science and Technology (KAUST), which houses one of the world's fastest supercomputers, has started functioning, reports *SciDev.Net* (September 25, 2009). In addition to providing high quality research in science and technology to the researchers from all over the world, KAUST will lead many aspects of economic development in the Kingdom. Nine highly advanced research centres specializing in areas such as water desalination, alternative energy, nanotechnology and stem cell research will be operating in KAUST. To draw top researchers from around the world, KAUST has been arranging partnership programmes with international research centres and universities, including Imperial College London and the global Dow Chemical Company. KAUST recognizes that research in the 21st century cannot be an isolated endeavour as big scientific challenges are inter-disciplinary in nature and require broader partnership. To address these challenges, KAUST has opened itself to around 350 students from around the world and more than 60 scientists and researchers. It is expected that the university will accommodate 2000 students by 2020, thus spreading the benefits of cutting edge science and technology for the socio-economic progress to several participating countries.

NANOTECHNOLOGY HELPS T.B. DRUG'S UPGRADATION

Prevalence of tuberculosis is one of the most significant factors which inhibits the socio-economic progress of a large number of poor and developing countries. But now a hope in T.B. drug therapy has been reported in *SciDev.Net* (September 2009). According to this report, scientists from South Africa have used nanotechnology to enhance the absorption of T.B. drugs in the body. The drug researched for this purpose is called Rifanano which is a combination of the 4 main first-line T.B. drugs. Rifanano is to be taken just once a week for 2 months and there are no adverse side effects. The new drug is coated with nano-sized particles which are in turn coated with chemicals that make them stick to the intestine wall, enabling the drug to be far more easily absorbed. When the white blood cells see these particles they take them up because they look like foreign objects. By doing so they actually transport them throughout the body while releasing their active cargo. As T.B. is a poor man's disease, therefore it is not a popular choice for development by commercially driven pharmaceutical companies. The present endeavour is to use local science and technology skills to make an existing treatment more effective and affordable to common people. Clinical trials are scheduled for the year 2012. Beside T.B., diseases like malaria and cancer will be researched utilizing the wonders of nanotechnology.

PROFILE OF COMSATS' INTERNATIONAL S&T CENTRE OF EXCELLENCE

IRANIAN RESEARCH ORGANIZATION FOR SCIENCE AND TECHNOLOGY (IROST), IRAN

Introduction

Iranian Research Organization for Science and Technology (IROST) was approved and ratified by the Council of Islamic Revolution of the Islamic Republic of Iran in 1980. IROST is a comprehensive science policy research centre attached with the Ministry of Science, Research and Technology of Iran. It is the biggest research centre of Iran and is mainly engaged in the development of strategies, policies, and R&D systems and carries out foresight studies and evaluation of science and technology (S&T) related development initiatives. Through these studies, IROST assists decision-making for national development by offering policy recommendations.

IROST undertakes research primarily commissioned by the Ministry of Science, Research and Technology of Iran that may involve technical cooperation with international organizations, such as UNESCO, IPO, UNDP, COMSATS, IFIA and APCTT. One of its significant activities to promote science and technology globally is Khwarizmi International Award (KIA), a scientific award that is held annually.

Goals and Objectives

The goals of the research and development programmes of IROST include: creating awareness about the potential opportunities in various fields of science and technology, such as biotechnology, green chemistry technology, nanotechnology, new and renewable energy and environment friendly technology; training and supporting entrepreneurial community for the development of technology; outlining a set of incentives and guidelines for the industries at national level to attract investment in the field of new technologies; facilitating and supporting technology commercialization and transfer; implementing pilot-plants projects in various important technologies; and establishing scientific networks to facilitate universities and research institutes to connect them with scientific databank and unique Internet system.

Technical Services

The study and consultancy services of IROST focus on the development of Iranian S&T and its input on economic growth and social progress that mainly cover the following areas: S&T system and policies; national technological innovation system; evaluation of S&T progress and policies; foresight studies of technology development; S&T development strategies; S&T indicators and statistical analysis; decision making and management; industrial and regional technology advancements, development of high-tech industry; evaluation of major engineering projects; as well as environment and sustainable development.

Technical Capacity

IROST consists of 101 faculty members and 148 BS/MS experts. It has a scientific board comprising nearly 30 senior scientists and engineers. Orienting itself towards the needs of the society, the nation and the world, IROST adopts an organizational mode that encourages networking and ingenuity in an effort to build itself into a first rated organization that provides technical consultation for research and development.

Technology Development Labs

The set of nine Technology Development Labs of IROST provide specialized services in various fields of science to researchers, students, industrial centres and research institutions. These labs are equipped with the most advanced devices and instruments that are the first collection in Iran. These are:

1. Electrical and Electronic Lab;
2. Food Sciences Lab;
3. Medical Equipment Test Lab;
4. Biotechnology Lab;
5. Cellular and Molecular Lab;
6. Agriculture Lab;
7. Electron Microscope Lab;
8. Metallographic and Material Analysis Lab;
9. Chromatography and Spectroscopy Lab.

Research Institute For Technological Development Studies (RITDS)

The Research Institute for Technological Development Studies (RITDS) was established at IROST in 1992 for research on various areas of technology management. The main activity of the Institute is to conduct research projects on S&T policies with programmes leading to promotion of technological capabilities and S&T development related to sustainable economic progress and social development of the country. The Institute strategizes and plans to support the country for making a smooth transition from an oil-driven economy to a knowledge-based economy.

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SELECTED FORTHCOMING SCIENTIFIC EVENTS IN COMSATS' COUNTRIES

23-24 November 2009	2 nd Meeting of SAARC Ministers for Science and Technology, Colombo, Sri Lanka (www.most.gov.lk/edit_news_events.php?id=4)
23-24 November 2009	Turkish-Japanese Earthquake Workshop, TUBITAK, Gebze, Turkey (www.mam.gov.tr)
1-2 December 2009	Workshop on Geometry and Algebra Applied to Development (NMC-ANGAAD 2009), Abuja, Nigeria (www.nmcabuja.org/Angaad.html)
8-12 December 2009	International Conference of Mathematical Sciences (ICMS-NMC-2009), Abuja, Nigeria (www.nmcabuja.org/Amu.html)
16-18 December 2009	Workshop on Frontiers of Information Technology (FIT-2009), Abbottabad, Pakistan (www.fit.edu.pk)
19-22 December 2009	2 nd Maghreb Conference on Desalination and Water Treatment, Hammamet, Tunisia (www.universites.tn/anglais/index.htm)
4-7 January 2010 & 7-10 January 2010	US - Pakistan Workshop on Applications of Nanotechnology, Karachi and Islamabad, Pakistan (respectively) (www.people.vcu.edu/~mfbertino/index.html)
11-16 January 2010	International Conference on Optics and Lasers in Science and Technology for Sustainable Development, University Cheikh Anta Diop, Dakar, Senegal (www.lamnetwork.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 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 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.

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.