



COMSATS Newsletter

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Patron

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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

COMSATS is a unique organization in the sense of being an IGO that is fully managed by the countries of the South and has presence in three continents. The present issue of the Newsletter carries a special section on the meetings of COMSATS' two major organs: (i) the Consultative Committee that comprises the focal points of its 21 member countries, and (ii) the Coordinating Council with membership of 16 Centres of Excellence affiliated with COMSATS. It is my pleasant duty to record my deep appreciation of all those who made it possible to hold these two meetings in Abuja,



The Chief Guest, H.E. Dr. Sam O. Egwu, Minister for Education of Nigeria, standing (3rd from left) while the National Anthem of Nigeria is played during Inauguration Ceremony

Nigeria, on the 27th and 28th to 29th April 2009, respectively. The judicious decision by the Federal Secretary, Ministry of Science and Technology, Government of Pakistan, Mr. Muhammad Kashif Murtaza (Chairperson of the Consultative Committee) to co-locate the two meetings resulted in logistical convenience and created an opportunity for interactions between focal points and heads of Centres of Excellence.

The presence of delegations from 12 member states, who shed light on their national S&T policies and renewed their commitment to engage with multilateral fora, was a matter of great encouragement for COMSATS. The financial matters of COMSATS were also looked into and a proposal to create an Endowment Fund for self-sustaining revenue generation was considered as a viable option, apart from buttressing voluntary Annual Membership Contribution. The members of the Coordinating Council engaged themselves in an intensive dialogue during two days of deliberations, with a view to strengthen scientific cooperation among all members of the Network. The contributions made by the delegates of both Consultative Committee and Coordinating Council are gratefully acknowledged.

Last, but not the least, on behalf of COMSATS Secretariat and the Government of Pakistan, I wish to extend heartfelt gratitude to the National Mathematical Centre (NMC), Abuja, Nigeria, and its dynamic Director General, Prof. Sam O. Ale, along with all his organizing team members for making excellent arrangements for the meetings.

NEWS/ACTIVITIES/HIGHLIGHTS FROM COMSATS SECRETARIAT

STEERING COMMITTEE TAKES INTO ACCOUNT MATTERS RELATING TO COMSATS' SECOND COMMISSION MEETING

The 1st meeting of the Steering Committee for the organization of 2nd Commission Meeting was held at Pakistan Council of Scientific and Industrial Research (PCSIR) on 6th April 2009, under the chairmanship of the Minister for Science and Technology, Mr. Muhammad Azam Khan Swati. The meeting took into account matters relating to undertaking the arrangements for the much awaited 2nd Commission Meeting to be held in 2010, in Islamabad. The meeting was attended by the Special Assistant to the Prime Minister on Social Sector, the Executive Director COMSATS and the Federal Secretary MoST, besides officials and representatives from the ministries of Foreign Affairs, Interior, Finance and other relevant departments.

Earlier in February 2009, COMSATS submitted a Summary to the Prime Minister of Pakistan for the organization of the Commission Meeting. The Prime Minister, approving the suggestions given in the Summary, directed to constitute a Steering Committee to make necessary arrangements for the convening of the subject meeting.

While underscoring the importance of holding the Commission Meeting, a candid discussion on the challenges in this respect was undertaken. It was decided to constitute sub-committees on various agenda items such as: Administrative matters; Financial matters; Documentation and Printing; Protocol; Security; Logistics; Venue; Media Coverage and Health Care/Emergencies. The Chairman regarded organization of the Commission Meeting a challenging task for Pakistan and hoped that substantial inputs will be provided by all the participants. The meeting concluded on a hopeful note for timely and appropriate preparations ensuring the maximum participation of COMSATS' international community.



Federal Minister for Science and Technology of Pakistan chairing the 1st Steering Committee Meeting (6th April 2009)

FIRST MEETING OF THE COORDINATORS OF THE 'SCIENTIFIC THEMATIC GROUPS' OF IWSN HELD IN ISLAMABAD

COMSATS and ISESCO co-organized the '1st International Meeting of the Coordinators of the Scientific Thematic Groups for Enhancing Cooperation among Islamic Countries', in Islamabad-Pakistan, from 10th to 12th March 2009. The meeting, inaugurated by Federal Minister for Science and Technology, Mr. Muhammad Azam Khan Swati, formally launched the virtual 'Scientific Thematic Groups' of the web-portal: 'Islamic World Science Net (IWSN)', which is a joint initiative of COMSATS and ISESCO (www.iwsn.info). Earlier in July 2006, both the organizations teamed up to develop a platform for networking and information sharing on S&T.



A technical session in progress during the 1st International Meeting of the Coordinators of the Scientific Thematic Groups

Thematic groups have initially been established in nine areas, namely: New and Renewable Energy; Bio-sciences/Biotechnology and Genetic Engineering; Bioethics; Environment; Mathematics; Water Management; Nanotechnology; Science Academies, and ICTs in Science and Technology. The organizers of the three-day event arranged hands-on training sessions for the coordinators to familiarize them with the basic operations relating to the thematic groups. The technical sessions comprised presentations made by the coordinators in their specific thematic groups and/or scientific fields.

Scientists from Egypt, Jordan, Malaysia and Pakistan participated as coordinators in the meeting. Each coordinator is expected to establish, within their own disciplines, a virtual network of scientists, engineers and R&D institutions to enhance cooperation among Islamic countries. Executive Director COMSATS, Dr. I.E. Qureshi and Director (Sciences) ISESCO, Dr. Faiq Billal appreciated the coordinators of the thematic groups for voluntarily taking up this responsibility.

AMBASSADORS FROM COMSATS' MEMBER COUNTRIES DELIBERATE ON IMPORTANCE OF SOUTH-SOUTH COOPERATION DURING A FORMAL DINNER

Ambassadors from COMSATS' member countries deliberated on the importance of South-South cooperation, during a dinner hosted by Minister for Science and Technology, Government of Pakistan, Mr. Muhammad Azam Khan Swati. The dinner cum meeting that was held on 31st March 2009, in Islamabad, was attended by Ambassadors and senior diplomats from COMSATS' member states, including Bangladesh, China, DPR Korea, Egypt, Iran, Jordan, Kazakhstan, Nigeria, Philippines, Sudan, Sri Lanka, Syria and Tunisia, as well as Brazil and Turkey.



Executive Director COMSATS addressing the ambassadors of COMSATS' member countries over an official dinner (31st March 2009)

The ambassadors reviewed the importance of South-South cooperation for research, industry, academia-industry linkages and human resource development. COMSATS' role as a facilitator of South-South cooperation by means of institution building, expert exchange, training, joint international projects and international symposia, was called to attention. It was urged that COMSATS' member states, besides making regular Annual Membership Contribution to support COMSATS' initiatives, should fully participate in the upcoming 1st Consultative Committee Meeting, 12th Coordinating Council Meeting and 2nd Commission Meeting, as well as COMSATS' annual projects/programmes in different member states. Speaking on behalf of their countries, the distinguished guests pledged their commitment to support COMSATS' programmes.

COMSATS TO CONTRIBUTE IN NATIONAL S&T POLICY MAKING FOR PAKISTAN

The Ministry of Science and Technology, Government of Pakistan, has recently constituted a Review Committee for

the Draft National Science and Technology Policy - 2008. Pakistan Council for Science and Technology (PCST) will function as the secretariat of the Committee. The Committee is one of the three committees constituted as per the Prime Minister's directives given in his meeting with the Executive Director COMSATS, on 23rd February 2009.

The Committee chaired by the Minister for Science and Technology has the Federal Secretary MoST, Special Assistant to the Prime Minister on Social Sector and Executive Director COMSATS and Director General COMSATS Internet Services as its members, besides some other senior officials. Initially, the Committee will deliberate on: Draft National Science and Technology Policy - 2008; National S&T Policy (1984); National Technology Policy and Action Plan (1993), as well as review recommendations of the 2nd Meeting of the National Commission for Science and Technology (2nd May 2000).

The inclusion of the representatives of COMSATS in the Review Committee is a welcome recognition of COMSATS as an organization capable of contributing towards S&T policy decisions.

COMSATS' COLLABORATIVE RESEARCH PROJECT TO SAVE BOTANICAL RESOURCES

COMSATS has recently reviewed a Collaborative Research Project titled: "Investigation for Sustainable Utilization and In-vitro Preservation of Medicinal Plants of Nile and Indus Valley". The project is a joint venture involving two of COMSATS' Centres of Excellence, the National Research Centre (NRC) of Egypt and the International Centre for Chemical and Biological Sciences (ICCBS) of Pakistan with the National Centre for Research (NCR) of Sudan. This research will focus on the bioassay guided isolation and structure elucidation of the bioactive constituents of the medicinally important plants from Egypt, Sudan and Pakistan, followed by in-vitro preservation of active and effective plants, utilizing the biotechnological methods.

IMPORTANT MEETINGS OF THE EXECUTIVE DIRECTOR COMSATS

2 nd Mar. 2009	Mr. Abdul Malik Abdullah Additional Secretary (FSA), Prime Minister Secretariat of Pakistan
3 rd Mar. 2009	H.E. Mr. Mashaallah Shakeri Ambassador of Iran to Pakistan
9 th Mar. 2009	Dr. Faiq Billal Director Science, ISESCO
17 th Mar. 2009	H.E. Mr. Luo Zhao Hui Ambassador of China to Pakistan
18 th Mar. 2009	Air Chief Marshal Jayalath Weerakkody High Commissioner of Sri Lanka to Pakistan
22 nd Apr. 2009	H.E. Mr. Muhammad Kashif Murtaza Federal Secretary MoST, Government of Pakistan

ACTIVITIES/NEWS OF COMSATS' CENTRES OF EXCELLENCE

IRCC PARTICIPATES IN THE FIRST CONFERENCE ON THE PROMOTION OF INVENTIONS AND INDUSTRIAL INNOVATIONS

Industrial Research and Consultancy Centre (IRCC), Sudan, participated in the 1st Conference on: 'The Promotion of Inventions and Industrial Innovations' from 22nd to 25th March 2009. The Director General IRCC, Dr. Ahmed Obeid Hassan was the keynote speaker at the conference, who also presented a paper on: 'The Role of Research Organizations in the Promotion of Creativity & Industrial Innovation Culture'. The conference that was co-organized by the Ministry of Industry and the Union of the Sudanese Inventors, was followed by an exhibition. IRCC participated in the exhibition and presented one of its projects that was later adopted for implementation by the Africa Technology City (ATC).

Also, IRCC recently, held a meeting to promote a website on Sudanese knowledge (URL: www.sudanknowledge.org), which has CVs of scientists of Sudanese origin. During the meeting researchers were briefed on the subject by Dr. Allam Ahmed – a Sudanese working at Sussex University. Besides, the researchers were also briefed about the new international journal of 'Sudan Research Policy and Sustainable Development' (www.inderscience.com/ijrspsd/). The Director General IRCC has been included as a member of the editorial board of this journal.

TIRDO TO SENSITIZE PRIVATE SECTOR ON ESTABLISHMENT OF GS-1 IN TANZANIA

Tanzania Industrial Research and Development Organization (TIRDO), is currently sensitizing various stakeholder on the issues of establishment of Global Standard-1 (GS-1) and implementation of a traceability system in Tanzania. These stakeholders belong to various agricultural sectors for the production of flowers, cashewnuts, tea, milk and coffee, from Mwanza, Arusha, Kilimanjaro, Iringa, Ruvuma, Mbeya, Tanga, Lindi and Mtwara regions. The private sector will be able to get the benefits of GS-1, including e-commerce services and electronic products that use Radio Frequency Identification (RFID) technology.

In this regard, TIRDO conducted a workshop for stakeholders from the Tanzania Private Sector Foundation (TPSF), Tanzania Chamber of Commerce, Industry and Agriculture (TCCIA) and Confederation for Tanzania

Industries (CTI) on the establishment of GS-1 in Tanzania. The workshop was held on 30th April 2009 in Dar-es-Salaam. Earlier on 27th March 2009, a computerized traceability system in the coffee sector was inaugurated in Moshi, Tanzania, involving the coffee stakeholders in the country.

JOINT NAM S&T CENTRE – ICCBS FELLOWSHIP PROGRAMME AIMS TO CREATE A NETWORK BETWEEN SCIENTISTS AND RESEARCHERS FROM PAKISTAN AND OTHER DEVELOPING COUNTRIES

Under the joint NAM S&T Centre – ICCBS Fellowship Programme for the year 2009, the Centre for Science and Technology of the Non-aligned and other developing countries (NAM S&T Centre) has invited applications from deserving scientists and researchers from its member countries and other developing countries, in the areas of natural products chemistry, herbal medicines, drugs, pharmaceuticals and nutraceuticals, molecular medicine, drug research, clinical research, etc.

Under this scheme, the Centre will sponsor upto five scientists during the year, for short-term affiliation, at ICCBS for a period of about 3 months. Only one scientist each from a particular developing country can be selected strictly on a competitive basis and based on the applicant's academic and professional background, plan of

work and mutual research interests of the applicants and ICCBS. Applicants from Pakistan are not eligible to apply for this Fellowship. ICCBS will provide free accommodation and a monthly subsistence allowance to the selected Fellows for the duration of the Fellowship.

The Fellowship Programme will provide opportunities to the scientists and researchers from the developing countries to work with senior researchers and faculty members at ICCBS for upgrading their research skills in the selected fields. It will also facilitate the scientists and researchers from the developing countries to undertake short-term joint research projects at ICCBS and provide them with a mechanism to use the equipment and facility of ICCBS for their own research activity on mutually agreed terms and conditions. It is expected that such activities will facilitate exchange of information and contacts, and create a network between the scientists and researchers from Pakistan and other developing countries.



State Minister for Industry (1st from left) and Assistant to the President (2nd from left) awarding the Certificates of Adoption of Projects

NMC RALLYING THE SUPPORT OF AFRICAN COUNTRIES TO ORGANIZE THE FIRST AFRICAN INFORMATICS OLYMPIAD

The first ever African Informatics Olympiad (AIO) will be held from 22nd to 29th May 2009 in Abuja, Nigeria, presenting Africa's best young brains in computer programming, competing and relating with each other for a greater Africa, all happening at the capital city of the most populated African nation in the world (www.aio2009.org). The Olympiad is a version of the International Olympiad in Informatics (IOI), which promotes competition in computer sciences among secondary school students worldwide. The objective is to stimulate interest in informatics and information technology.

The Director General of the National Mathematical Centre (NMC), Prof. Sam O. Ale, who is also the chief organizer and chairman of the National Planning Committee for the AIO, called a meeting of African delegates at the 2008 International Olympiad in Informatics (IOI), held in Cairo, Egypt. It was agreed that Africa should have a Continental Edition of the world's most glamorous Secondary School Computer Programming Contest like other continents of the world. Nigeria, Ghana and South Africa were to mobilize other African Countries for awareness and participation in such an event.

The decisive meeting resulted in what is now known as African Informatics Olympiad (AIO), with Nigeria being nominated as the headquarters and the organizer of the annual event. About 30 African countries are expected to participate in the First African Informatics Olympiad, while several organizations and agencies have been invited to collaborate in order to stage the event successfully.

RESEARCH TEAM AT NRC DEVELOPS VACCINE TO INACTIVATE AVIAN INFLUENZA H5N1

The influenza research team at the Centre of Excellence for Advanced Sciences of National Research Centre (NRC), Egypt, has developed an Egyptian veterinary vaccine against Avian Influenza H5N1, which is spreading in Egypt. The vaccine was prepared by Plasmid-Based Reverse Genetics Technology as a result of Egypt – USA cooperation. The newly developed vaccine was tested at NRC labs and was compared with the foreign imported vaccines, which proved to be comparable. On 30th April

2009, NRC signed a contract to produce this vaccine with the holding company for biological product and vaccines – VACERA.

CIIT HOLDS ITS 18TH CONVOCATION

The 18th Convocation of COMSATS Institute of Information Technology (CIIT) was held on 8th April 2009, at the Convention Centre, Islamabad, where 664 students were awarded degrees in various disciplines. Federal Minister for Science and Technology Government of Pakistan, Mr. Muhammad Azam Khan Swati, who is also the Chancellor of CIIT, graced the occasion as the Chief Guest, marking the graduation of students of Islamabad Campus in the fields of Business Administration, Computer Sciences, Telecom Engineering, Computer Engineering, Mathematics and Electronics.



Guests of Honour at the 18th Convocation of CIIT, Islamabad, Pakistan

Bronze, Silver & Gold, as well as the Institute & Campus medallions were presented to 86 graduating students for outstanding performance in their respective fields and departments.

The Rector CIIT, Dr. S.M. Junaid Zaidi, in his report, highlighted the various achievements made by CIIT, its faculty and staff members in the last 8 years in research and public service. As a result of these achievements, CIIT has now

been ranked among the top seven universities of Pakistan.

WATSAN INSTITUTIONS OF PAKISTAN AND AFGHANISTAN BROUGHT TOGETHER AT CIIT WORKSHOP

Collaborative Workshop on 'Participatory Research and Capacity Building of Institutions in Afghanistan and Pakistan in Sustainable Sanitation', was held from 2nd to 4th March 2009, at CIIT Abbottabad campus. It was organized by the Department of Development Studies of CIIT-Abbottabad and the Department of International Environment and Development Studies, Noragric, Norway.

The purpose of the workshop was to bring together key researchers, implementers and policymakers working in Water and Sanitation (WATSAN) institutions in Pakistan and Afghanistan. The workshop brings to light the compatibility of these two countries for moving forward in developing sustainable approaches and innovative technologies, to address sanitation related challenges, currently being faced in this sector.

SPECIAL FEATURE: COMSATS' INTERNATIONAL MEETINGS IN NIGERIA

NMC HOSTS COMSATS' 1ST CONSULTATIVE COMMITTEE & 12TH COORDINATING COUNCIL MEETINGS IN ABUJA

COMSATS held its two international meetings in Abuja Nigeria, from 27th to 29th April 2009. COMSATS' Centre of Excellence in the field of Mathematics, the National Mathematical Centre (NMC), based in Abuja, had the honour to host COMSATS' meetings this year. Every year one of the members of the Network of COMSATS' Centres of Excellence takes the privilege to host the annual meeting of the Coordinating Council. However, with the consent of the Prime Minister of Pakistan, Syed Yousaf Raza Gilani, who is also the Chairman of the Commission, the 1st meeting of Consultative Committee was held in conjunction with the 12th meeting of the Coordinating Council.

JOINT INAUGURATION CEREMONY

On 27th April 2009, the Federal Minister for Education of Nigeria, Dr. Sam O. Egwu, chaired the joint inauguration ceremony of the two meetings at Sheraton-Abuja. Over a hundred participants attended the joint inauguration ceremony, which included COMSATS' focal points in its member countries, distinguished members of the Coordinating Council and the scientific community in Nigeria, besides diplomats and government officials.

".... The Forum will strive to create an environment that is conducive to science and technology development and thereby contributes to national well-being of member countries, which are congruent with the seven point agenda and vision 20:20:20 of the administration of President Umaru Musa Yar'Adua of Nigeria...."

**Inaugural Speech by the Minister of Education
Government of Federal Republic of Nigeria**

On behalf of the National Mathematical Centre, its Director General, Prof. Sam O. Ale, welcomed the foreign dignitaries



Executive Director COMSATS giving his Introductory Remarks during the Joint Inauguration Ceremony

and members of the two meetings and expressed his hope that the outcome of the meetings would not only articulate the position of S&T as a prime mover of all sectors of the economy, but the recommendations of the meetings would strengthen COMSATS' mandate and enhance the cooperation among its member countries.

"...This (congregation of eminent scientists and government representatives) is clearly a practical demonstration of the developing countries' determination of bringing about a sustainable socio-economic change by facilitating South-South and North-South cooperation in Science and Technology...."

**Welcome Address of the Director General National
Mathematical Centre (NMC)**

In his introductory remarks, the Executive Director COMSATS, Dr. I.E. Qureshi presented the two events as a unique opportunity for interactive dialogues among the senior officials of COMSATS' member countries, whereby a fruitful and productive course of action for S&T policy making and collaborative efforts can be devised.

"...I must say that the use of S&T, as an equalizer of the North and the South, has been slow to come about. Within the South, new disparities are emerging, making it ever more necessary to offer helping hand to each other. The use of multilateral fora such as COMSATS is the best way to realize this task..."

Introductory Remarks by the E.D. COMSATS

Dr. Qureshi considered it a privilege for COMSATS' member countries to have, under their joint control, an organization that has all the ingredients of a powerful instrument for change. COMSATS, he further added, is a forum that aims at empowering the countries of the South and enables them to chalk-out joint strategies based on the use of S&T for the socio-economic development of their people.



Participants attending the Joint Inauguration Ceremony of COMSATS' Meetings in Abuja

Also, on the occasion a message from the Minister for Science and Technology of Nigeria, Dr. Alhassan Bako Zaku, was read out.

"...Investment in science is vital for developing nations. Therefore, in order to achieve our quest for sustainable economic growth and development in the South, it is necessary that we aggressively and effectively promote excellence in science and technology among member countries of COMSATS..."

Message from the Minister for Science and Technology of Nigeria

The Minister hoped that collaborative meetings like these will continue to be organized so that scientists from third world countries in the diaspora will see the need to return home to render their services for the socio-economic development of their countries. He further apprised the participants of the firm commitment that Federal Government of Nigeria has made to upgrade the Centres of Excellence in Nigeria to a world class status as a way of producing highly skilled scientific professionals of the future.

Indicating the importance of the two meetings, the chief guest on the occasion, Dr. Sam O. Egwu was of the opinion that such meetings would encourage the stakeholders to fulfill their quota in the international scientific community, as well as sustain the interests required to meet the challenge of Millennium Development Goals (MDGs) in a globalised world through the use of S&T.

HIGHLIGHTS OF THE 1ST CONSULTATIVE COMMITTEE MEETING

The 1st Consultative Committee Meeting of COMSATS was held on 27th April 2009 in Abuja-Nigeria, under the chairmanship of Mr. Muhammad Kashif Murtaza, Federal Secretary, Ministry of Science and Technology, Government



Federal Secretary, MoST of Pakistan, Mr. M. Kashif Murtaza, chairing the 1st Consultative Committee Meeting

EGYPT – Prof. Maged M. Al-Sherbiny

"...Egypt values the role of COMSATS in promoting South-South S&T relationships through networking Our future efforts should not only develop the existing relationships, but also focus on joint programmes targeting poverty alleviation in our societies, where S&T plays a major role and our indigenous knowledge is being implemented for the benefit of our people..."

IRAN – Dr. Alireza Ghorbanali Allahyari

"...The objectives of IROST are related to orienting the country towards the needs of the society and the world by focusing on the development of science and technology and its input on economic growth and social progress..."

JAMAICA – Mr. Arnoldo K. Ventura

"...Jamaica stands ready to share its successes and experiences with other countries in the South, and COMSATS could become a platform for such activitiesCOMSATS is ideally positioned to form a convenient bridge between the East and the West, as the centre of gravity of the world shifts towards the East..."

NIGERIA – Prof. Sam O. Ale

"....Federal Government of Nigeria is making efforts to place Nigeria in her rightful position in the world of advanced technology as a vehicle for the achievement of our vision 20:20:20..."

of Pakistan. The Committee comprises high-level officials acting as focal points of member states, whereas the focal point of the COMSATS' host country, Pakistan, serves as the chair. Representatives from Egypt, Ghana, Iran, Jamaica, Nigeria, Pakistan, Senegal, Sri Lanka, Sudan, Tanzania, Uganda and Zimbabwe attended the meeting.



Dr. Ndiaga Mbaye reading out Senegal's country statement at the 1st Consultative Committee Meeting

The members of COMSATS' Consultative Committee presented the country statements that conveyed their respective governments' stance on S&T led sustainable development. These statements particularly shed light on improving the general policy of the Network, gave useful recommendations to improve the scientific capacities and reflected upon developing means to strengthen synergies among COMSATS' focal points and its Centres of Excellence.

The outcome of the Consultative Committee Meeting was fruitful, whereby the representatives of member states agreed to support COMSATS' programmes. They pledged to sensitize their respective governments to voluntarily support COMSATS by contributing their annual membership funds, as an expression of ownership. Moreover, the member states were encouraged to create an Endowment Fund for the Commission.

The meeting emphasized the importance of appointing a liaison officer in each member state to strengthen connectivity among the Centres of Excellence and focal points of COMSATS, which would facilitate the latter in performing their functions more efficiently. This was

PAKISTAN – Mr. Muhammad Kashif Murtaza

"...Our vision is to: acquire world class capabilities in scientific & technological research; use S&T as an engine for economic development; improve quality and productivity in industrial processes; and absorb proven technologies to meet national needs..."

SENEGAL – Dr. Ndiaga Mbaye

"...In Senegal, sustainable development means giving importance to quality: quality of life, quality of atmosphere, quality of food, quality of water..."

SRI LANKA – Mrs. M.B.A. Ekanayake

"... We intend to formulate and implement policies pertaining to the advancement of science and technology, including scientific research and development and transfer of technologies, to ensure the economic and social development of Sri Lankans..."

SUDAN – Dr. Ahmed Obeid Hassan

"...In view of the situational diagnosis MoST-Sudan aims at: encouraging the establishment of technology incubators and science parks; ensuring adequate infrastructure for S&T development in particular scientific equipments & laboratories, and promoting S&T education linked with development issues..."

TANZANIA – Dr. Matheo L. Raphael

"...The member countries need to play a greater role to facilitate COMSATS' programmes in collaboration with the Centres of Excellence and to identify special requirements of the country on S&T..."

UGANDA – Mr. Bashir R. Kagere

"....The Government of Uganda recognizes the critical role science and technology plays in fostering sustainable socio-economic growth and transformation of Uganda ...Uganda alone cannot advance in S&T without collaborating with its scientific peers, especially in the era of globalization that requires international and strategic partnerships...."

ZIMBABWE – Prof. L.R. Ndlovu

".....The biggest need is for re-building the skills base of the country. We note with appreciation, the availability of scholarships from COMSATS and we would welcome other opportunities to speedily increase our skills base. Short- and long-term loans to experienced S&T personnel at professorial or equivalent status would assist our universities to quickly rebuild post-graduate training and re-establish research cultures that have dwindled. We would also welcome collaborative research activities, especially those that address issues of poverty alleviation and sustainable economic growth...."

considered necessary for expeditious functioning of the programmes, projects and other activities of the member states. It was also proposed that a technical advisory group may be formulated from among the member states, in order to advise on matters relating to specific needs of the member states, designing of COMSATS' international programmes, as well as devising technical and economic work plans focusing on solving problems related to socio-economic development of marginalized communities.



A technical session of the 12th Coordinating Council Meeting in progress in Abuja, Nigeria

HIGHLIGHTS OF THE 12TH COORDINATING COUNCIL MEETING

The annual meeting of COMSATS' Coordinating Council was held on 28th & 29th April 2009 in Abuja, Nigeria, subsequent to the one-day meeting of the Consultative Committee of COMSATS, a day earlier.

The two-day meeting comprised four technical sessions. The Executive Director TWAS, Prof. M. H. A. Hassan, who is the sitting chairperson to the Council, was unable to travel to Nigeria. In his capacity as the Secretary to the Council, the Executive Director COMSATS, Dr. I.E. Qureshi requested the Director General National Mathematical Centre of Nigeria, Prof. Sam O. Ale, to chair the technical sessions. Prof. Osama El Shabrawy, the representative from National Research Centre - Egypt, also chaired one of the sessions.

In addition to the Executive Director COMSATS, who is an ex-officio member, heads or representatives of eight Centres of Excellence, out of a total of sixteen, participated in the meeting. The participating Centres included, NRC-Egypt, ICMST-Ghana, IROST-Iran, ICENS-Jamaica, NMC-Nigeria, ICCBS-Pakistan, CIIT-Pakistan, IRCC-Sudan and TIRDO-Tanzania.



Prof. Osama El Shabrawy (Egypt) chairing a technical session during the 12th Coordinating Council Meeting

The Council meets every year to deliberate upon the programmes and projects of COMSATS' Network of Centres of Excellence and takes key decisions on important administrative and financial matters, in order to steer the fulfillment of COMSATS' commitment to science-led sustainable development. This year, besides other issues, the Council reviewed the composition and terms of reference of COMSATS' Management Committee, discussed the re-constitution of its Technical Advisory Committee (TAC) and, most importantly, appraised and reflected upon the provisional agenda of the Commission Meeting that has been scheduled by its Chairperson, the Prime Minister of Pakistan, Mr. Yousaf Raza Gilani, for April 2010.

Excerpts from the Resolutions of COMSATS' 12th Coordinating Council Meeting

"....The Council members are proud to acknowledge Dr. Hameed Ahmed Khan's contributions as the Secretary to the Council over the last 8 years and wish him a long, happy and productive life...."

".. The Council expresses satisfaction over the credentials of the new Executive Director and appreciates his devotion in pursuit of his assignment as the Executive Director COMSATS and Secretary to the Coordinating Council. We wish him well in the execution of his job and offer him our full support...."

The meeting remained fruitful as it progressed towards finalizing the Strategy Plan for a period of next five years. It resulted in revitalized pledges of the Centres of Excellence for a meaningful collaboration and call for expediting the scientific cooperation among the centres of COMSATS' Network.

International Centre for Material Science and Technology (ICMST) - Ghana, was nominated as a Lead Centre in the field of 'Construction Materials'. IRCC-Sudan, NRC-Egypt and ICCBS-Pakistan showed their keen interest in collaborating in this field under the lead of ICMST. COMSATS Institute of Information Technology (CIIT) - Pakistan, formally announced scholarships for students from COMSATS' member states in the disciplines of management sciences, computer sciences and electrical engineering.

The meeting concluded on 29th April 2009 with a vote of thanks. On behalf of COMSATS Secretariat and all the esteemed participants, Dr. Qureshi acknowledged NMC for extending hospitality to all the foreign participants and, particularly, thanked Prof. Sam O. Ale, for chairing the meeting. The 13th meeting of the Council will be held, in order of priority, at TWAS-Italy, IRCC-Sudan or CIIT-Pakistan.



A group photograph of the participants of the 12th Coordinating Council Meeting

SCIENCE, TECHNOLOGY AND DEVELOPMENT

PROGRESS IN VIRUS ENGINEERING AND CELL REPROGRAMMING TO IMPROVE HUMAN HEALTH

Extended use of antibiotics against bacterial diseases causes the bacteria to evolve and develop immunity against the drug, thus making the treatment ineffective. It is generally believed that the drug advancement research for antibacterial treatment is unable to keep its pace with the rapid bacteria evolution. In order to counter this problem, new scientific approaches need to be adopted that would weaken and, in turn, kill the bacteria. A major advancement in this context has been reported by *Nature News* (March 2, 2009), wherein biologists have engineered viruses to weaken the pathogenic bacteria they infect, leaving them more vulnerable to antibiotics. This viral approach to catalyzing the antibacterial effect of the drug could extend its useful life. A wide variety of engineered viruses against a whole range of bacteria have been used to optimize the procedure.

In another research, as reported by *Nature News* (March 1, 2009), the viruses have been excluded in processes possibly leading biologists to engineer cells that have attributes of the human stem cell. For the first time, specialized human cells have been transformed into a state similar to that seen in embryonic stem cells, without using viruses. This advancement brings researchers closer to clearing a barrier to using reprogrammed cells for therapies and drug screening, as well as enabling tailored treatments.

NEW AVENUES OF NORTH-SOUTH COLLABORATION

The growing scarcity of North-South scientific collaboration has long been a matter of concern for the scientists and policy-makers of the South. But there are some new flashes of hope emanating from USA and Canada, which may allay the above concerns and provide stimulus for the revival of scientific thrust into seeking solutions to the myriad of problems of socio-economic development in the South. According to a news report on *SciDev.Net* (April 6, 2009) and *Times online* (March 27, 2009), USA plans to boost its relations with the developing countries by establishing a "Global Science Corps" of scientists willing to spend at least a year working in a poor country and a network of science attachés for every US embassy. Furthermore, the plan calls for creating a US Institute of Medicine that will almost double the annual US support for global health to US\$15 billion by 2012. The people with scientific expertise in US embassies could provide advisory assistance on science and technology to the developing countries for resolving their socio-economic problems.

According to a news on *SciDev.Net* (March 19, 2009) Canada is providing opportunities to researchers from the developing countries to link up with Canadian peers for collaboration in research programmes, aimed at solving problems being faced by these developing countries.

CHEMOTHERAPY ADVANCES: A SIGH OF RELIEF

eScience News! (April 14, 2009) has reported that the oncologists at the University of California - Los Angeles (UCLA) have used non-invasive PET/CT imaging technique, to test the effectiveness of the chemotherapy. Using a combination of Positron Emission Tomography (PET) and Computed Tomography (CT) scanner, researchers found that the patient's response could be determined about a week after the first dose of chemotherapy drugs had been administered. Typically, patients are scanned about three months into chemotherapy to determine whether the treatment is working. The discovery will have an even greater impact on patients with inoperable tumors on metastatic diseases, as a much faster evaluation of the effectiveness of the treatment can be made, resulting in quicker decisions. This two-year research represents a timely multi-disciplinary effort involving the fields of surgery, medical oncology, molecular and medical pharmacology, radiology, pathology, orthopedics, nuclear medicine and biostatistics.

CARBON NANOTUBES SURPASS METALS FOR USE IN THE ELECTRONIC INDUSTRY

Packing ever-smaller electronic devices more densely with integrated circuits has been extremely problematic for the engineers of electronic industry. Higher current density induces electro- and thermo-migration in metal conductors and generates heat causing premature failure of devices. A recent story in *Science News* (March 20, 2009) indicates that the researchers of Buffalo University - USA have announced the use of single-walled carbon nanotubes in place of metals, as a breakthrough in electronic research. These extremely thin hollow cylinders, measuring no thicker than a single atom but thousands of times stronger than metals, are believed to be used in millions of electronic applications.

The scientists, employing quantum mechanics calculations, have shown that higher current density does not lead to electro- and thermo-migration in carbon nanotubes, producing only one percent of the heat produced by metals such as copper. This essential difference between metals and carbon nanotubes is mainly due to the different ways in which they conduct electricity. The nanotubes are conductive with an added benefit that they do not have metallic bonds. The electrons pass through the material without colliding and causing friction. On the other hand, in metals the collisions take place in the lattices, which results in the generation of heat. This minimal amount of friction, thus gives carbon nanotubes a big advantage over conventional metals. Their unique properties will allow engineers to realize a host of smaller, faster and more powerful new devices. The major beneficiaries of this research will be the defense and communication industries.

PROFILE OF COMSATS' INTERNATIONAL S&T CENTRE OF EXCELLENCE

ROYAL SCIENTIFIC SOCIETY (RSS), JORDAN

Introduction

The Royal Scientific Society (RSS) was established by a Royal Decree in 1970, as a national, non-profit, non-governmental, applied research institution of Jordan designed to support the continuous socio-economic development. RSS is Jordan's premier applied scientific research institution with around 40 nationally and internationally accredited laboratories, employing around 650 professionals and staff, and strongly connected to well-reputed scientific and academic institutions and international organizations. Her Royal Highness Princess Sumaya bint El Hassan is the President of RSS and His Royal Highness Prince El Hassan bin Talal chairs the Board of Trustees, giving the RSS its guiding vision and nurturing its success as a national institution devoted to improving and protecting public health and safety.

RSS is the main pillar of the Research and Development (R&D) hub of El Hassan Science City. RSS strives to build



national capability and acquire competence as the largest consultation and technical service provider in Jordan. It prioritizes its R&D activities to support society, industry and government, avert

Mission

- To contribute to the development of proper technical standards and certification schemes, with on-going monitoring of essential environmental elements, and the implementation of quality assurance procedures and provision of expert consultations to help protect public health and safety.
- To build national scientific and technological capacity and capability through research, education, training, value-added services, and technology transfer.
- To offer timely solutions, professional advice, diversified expertise, manpower enhancement programmes, integrated technical services, and support to the various sectors in Jordan.

Functions

The four main functions /activities of RSS are:

Research & Development: RSS conducts applied research to facilitate and expedite the process of national

development, specifically in industry. The research work addresses the needs and responds to the demands of industry, business, and government. RSS also carries out joint research with scientific, production-oriented and service institutions at the national, regional and international levels.

Consultations & Technical Services: RSS offers technological consultations, and value-added services in testing, calibration, third-party inspection, conformity assessment and certification, as well as expertise in setting technical standards and specifications. It also conducts analytical, and technical feasibility studies within the organization's scope of competence.

Technology-based Training: RSS upgrades human capabilities and technical skills through the provision of distinctive training opportunities. Its efforts cultivate industrial workforce and prepare it for emerging technologies.

Technology Transfer: RSS contributes to the transfer and adaptation of appropriate technologies and research results to accelerate industrial and socio-economic development in Jordan. It also cooperates with local, regional, and international organizations in S&T for the purpose of networking and joint ventures. In addition, RSS offers its research facilities to entrepreneurs to enable them to initiate technological research, joint development, and new knowledge-based businesses.



Areas of Specialization

The Society offers specialization in the following areas: IT, Industrial Sector Materials, Environment, Chemical Sector, Food Construction Sector, Electronics, Metrology Standards & Measurement, Cultural Heritage, Quality Assurance and Enterprise Support, Conformity Assessment, and Technology Transfer.

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SELECTED FORTHCOMING SCIENTIFIC EVENTS FROM COMSATS' MEMBER COUNTRIES

20-27 June 2009	Theoretical and Practical Course on "Metagenomics and Bioinformatics" ICGEB Course, Bogota, Colombia. (www.icgeb.org/meetings-2009.html)
21-26 June 2009	Tenth International Conference on the "Science and Application of Nanotubes", Beijing, China. (www.nanotube.msu.edu/nt09)
6 - 18 July 2009	Theoretical and Practical Course "Basic Molecular Biology Techniques for DNA Technology", Abekouta, Nigeria. (www.icgeb.org/meetings-2009.html)
12 - 17 July 2009	Theoretical and Practical Course "Genetic Transformation Systems in Insects", Suez, Egypt. (www.icgeb.org/meetings-2009.html)

SEMINAR ON BRIDGING GAPS FOR INDUSTRIAL DEVELOPMENT: INTERFACE BETWEEN ACADEMIA, POLICY AND INDUSTRY Damascus - Syria (27-29 July 2009)

COMSATS, ISESCO and the Higher Institute for Applied Sciences and Technology (HIAST) are jointly organizing a three-day seminar on 'Bridging Gaps for Industrial Development: Interface between Academia, Policy and Industry,' from 27th to 29th July 2009, in Damascus, Syria.

Scientists, industrialists, government representatives, policy makers and scholars are encouraged to participate in this event. The seminar will provide them an opportunity to interact, share ideas for fostering collaborative leadership skills and develop partners to meet the challenges of the new global economic landscape. It will also create an awareness and highlight the usefulness of industrial development in developing economies. (www.comsats.org)

Announcement

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OBITUARY

On 13th April 2009, COMSATS Secretariat bade farewell to one of its treasured staff members, Capt. (Retd.) Aseel Badshah, who passed away at Combined Military Hospital (CMH), Rawalpindi (Pakistan).

Capt. (Retd.) Aseel Badshah served COMSATS Secretariat for nine years. He was working at COMSATS Secretariat as Senior Security Officer and contributed to the organization in a number of ways. Although his assignment was to look after the security matters, but his voluntary help in matters relating to the upkeep of COMSATS' building, including repair and maintenance of essential services, was always appreciated by his colleagues. COMSATS acknowledges his invaluable contributions to the organization with gratitude.

Capt. (Retd.) Aseel Badshah was a great asset to COMSATS Secretariat and his sudden demise is a major loss. His services to COMSATS will always be remembered. May the departed soul rest in peace and eternal bliss. Amen!



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