

10 Years of COMSATS

1994 - 2004

A Decade of Contributions to Sustainable Development Through Science and Technology

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

"Science and technology are cyclical. They are a shared heritage of all mankind. East and West, North and South have all equally participated in their creation in the past, as we hope that they will in the future, the joint endeavor in sciences becoming one of the unifying forces among diverse peoples of this globe."

Prof. Dr. Muhammad Abdus Salam
Nobel Laureate

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PREFACE

It gives me immense pleasure and satisfaction to inform you that the Commission on Science and Technology for Sustainable Development in the South [COMSATS] has completed a decade of successful existence in the field of science and technology. More heartening is the fact that its continued pursuit of accomplishing its mission of socio-economic development in the countries of the South has instilled confidence in a large number of development organizations, in various parts of the world, that developing countries can stand on their own feet. This is possible if they collaborate and share their resources in terms of skills, expertise, technology and manpower. At COMSATS, this approach does not suggest isolation from the developed world. COMSATS has also benefited from sharing of knowledge with various organizations from the developed world and its numerous projects have received funding, from time to time, from these organizations.

The publication in your hand 'Ten Years of COMSATS [1994-2004]: A Decade of Contributions to Sustainable Development through Science and Technology' provides an insight into how COMSATS effectively implemented its programmes/projects through successful South-South and North-South collaboration. It touches upon COMSATS achievements in the past ten years, aimed at improving the lives of people through the use of science and technology. Though the list of milestones that the Commission has achieved is long, I would like to especially mention

COMSATS' two highly successful projects: COMSATS Internet Services [CIS], and COMSATS Institute of Information Technology [CIIT]. These two projects have revolutionized the Information Technology sector in Pakistan with the provision of technical and educational facilities, not only to major cities of the country, but to remote areas of Pakistan as well. These facilities are also catering to the educational/informational requirements of various member countries.

Today the word COMSATS portrays an image of an organization that has accomplished so much in such little time. Be it in the field of Information and Communication-Technologies [ICTs], Renewable Energy, Water Resources or Bio-Technology, COMSATS has remained in the vanguard, leading by example for others to follow. What better recognition of its services can it get than accreditation from the United Nations that designated it as a UN Inter-Governmental Organization [IGO] in the year 2002.

I will not be doing justice if I do not make a mention of the dedication of the people involved at various stages during the last ten years, who were behind the success that COMSATS today can boast of. Mr. Pervez Ahmed Butt, Dr. S.M. Junaid Zaidi, and Mr. Shahzad Hassan Pervez rendered meritorious services as Executive Directors of this organization during their respective tenures. Mr. Pervez Butt and Dr. S.M. Junaid Zaidi now head COMSATS Internet Services, and COMSATS Institute of

Information Technology, respectively. Engr. Tajammul Hussain, Mr. Ahmed Munir Kabir and Dr. Hanif Zauq, also made commendable contributions as Directors of COMSATS. The list of our dedicated employees is very long and it is indeed not possible to mention all of them but, at the same time, I do sincerely acknowledge their outstanding contributions to this organization and their part in the success of COMSATS. May I here make a mention of Dr. M.M. Qurashi, Mr. Barkaat Ali, Mr. Irfan Hayee, and Mr. Imran Chaudhry for their efforts in bringing out this publication at the completion of COMSATS ten years of existence.

I am of the firm opinion that COMSATS shall continue to flourish in the years to come and be able to further contribute towards improving the socio-economic conditions of its member countries. I welcome comments and remarks from you which, I believe, shall help us further improve our efforts to bring a healthy change in the lives of the people of the developing countries.

Dr. Hameed Ahmed Khan, H.I., S.I.
Executive Director,
COMSATS
Mar 2000 - May 2003 &
Sept 2003 - To date

MESSAGE

H.E. General Pervez Musharraf
President of the Islamic Republic of Pakistan



I compliment the Commission on Science and Technology for Sustainable Development in the South (COMSATS) on completing a decade of outstanding performance and all those who have contributed to its success on this memorable occasion.

I feel that economic globalization and the technological revolution define the context in which all countries will have to perform and view Science & Technology with even more importance than in the past. Technology is also advancing at a very rapid pace, thus providing an immense potential for development. However, the fact that such an immense potential is not being adequately harnessed threatens to further marginalize the economies of the majority of developing countries. To put this potential of Science & Technology for development at the service for all, it necessitates the transfer of science & technology. This fact gives a lead as well as challenge to COMSATS.

The Commission has addressed various issues of global concern in these ten years and considerably contributed to the overall scientific and technological development of its member countries. Being the host country to its headquarters, I take great pleasure to mention here that COMSATS has been playing a major role in elevating the socioeconomic status of our country by employing science and technology through its programmes.

I firmly believe that with such consistent efforts and spirit, COMSATS will undertake more challenging and productive programmes in the future for the sustainable development of all its member countries. I assure COMSATS of the Government of Pakistan's full support in achieving its objectives and wish it continued success in the future.

MESSAGE

H.E. Mr. Shaukat Aziz
Prime Minister of the Islamic Republic of Pakistan



It gives me great pleasure to extend my warm felicitations to the Commission on Science and Technology for Sustainable Development in the South (COMSATS) on completing a decade of its existence. COMSATS has innumerable endeavors and success stories to its credit for the development of its member countries in general and Pakistan in particular. I am glad to acknowledge that the Government of Pakistan has benefited from COMSATS programmes and projects over the years and that the Commission has been an important ally to the government in achieving its national scientific programmes.

It is generally believed that developing human resources in the South is possible through the utilization of the capacity present within the Third World, while taking advantage of assistance provided simultaneously by the North. Therefore, it is essential for the third world community to embark upon a programme that envisions science and technology to resolve some of their most pressing and burning issues in the coming years. COMSATS has been playing an active role in this regard, but there is still a great need to enhance scientific cooperation amongst these countries.

I also feel that in the age of globalization, our country has to move ahead in terms of science and technology and COMSATS has been fulfilling its objectives of bringing about a sustainable technological revolution in the social and economic fields in Pakistan.

I am optimistic that this milestone will serve as another source of inspiration and dedication for the programmes of COMSATS. It is my ardent hope that COMSATS will continue to intensify its efforts to promote science & technology for the sustainable development of Pakistan and the rest of the Third World nations.

MESSAGE

Mr. Naurez Shakoor
Federal Minister for Science & Technology



I would like to congratulate the Commission on Science and Technology for Sustainable Development in the South (COMSATS) on its 10th Anniversary. Its role as an Inter-governmental Organization of 21 Member States in the field of Science and Technology is indeed commendable. Establishment of the Network of S&T Centres of Excellence and undertaking of a number of projects in the member countries in such fields as Information Technology and Renewable Energy etc are some of its significant achievements. In particular, exponential expansion in the services rendered by COMSATS Institute of Information Technology (CIIT) and COMSATS Internet Services (CIS) have set high standards of excellence for others to follow in Pakistan.A self evident gross turn-over of Rs. 832 million testifies its market credentials.

I am confident that the COMSATS will not only continue to contribute towards development in the fields of Science and Technology in the South, but also assist in restoring South's dignity among the comity of nations. I wish COMSATS all the success in achieving its mission towards sustainable socio-economic development by building indigenous capacities involving judicious use of Science and Technology applications for pro-poor developments through South-South and North-South dialogue and exchange.

MESSAGE

Dr. Ishfaq Ahmad
Special Advisor to the Prime Minister of Pakistan



It is a matter of great satisfaction to note that Commission on Science and Technology for Sustainable Development in the South (COMSATS) has completed a decade of its existence. On its tenth anniversary, the Commission, which was formed with the objective to promote science and technology based on socio-economic development, can feel proud of the journey it has made to fulfill that mission.

I strongly believe that the progress of the developing countries lies in their working in close cooperation and relying on their own strength i.e. in building a collective self reliance. COMSATS is a unique organization which can develop a roadmap of identifying key areas where science and technology can make impacts on socio-economic development in the South. This would result in a future of the developing countries which will be different from and far better than their past.

The Commission's list of its own achievements over the years has remained impressive. It has performed significantly in sensitizing its member countries to the centrality of science and technology in the development process and the integration of science and technology in the national and regional developmental plan. The development projects and programmes initiated by COMSATS over the years have been well-defined and focused in terms of their objectives and results. With such meaningful and result-oriented projects at hand, the Commission has deservedly consolidated its position in the development sector as one of the leading organizations.

I hope that the organization's dedication to the cause of science and technology will continue to further the socio-economic interests of Pakistan. Once again, I extend my heartiest congratulations and best wishes to COMSATS and its Executive Director for its continued success in the coming years.

MESSAGE

Prof. Dr. M.H.A. Hassan
Executive Director - TWAS, Italy



On behalf of the Third World Academy of Sciences, it gives me great pleasure to extend my heartfelt congratulations to the Commission on Science & Technology for Sustainable Development in South (COMSATS) on the occasion of its 10th Anniversary. The Third World Academy of Sciences (TWAS) is proud to associate itself with COMSATS, an organization that has shown unflagging commitment to the social, economic and technological development of its member countries. Indeed COMSATS has achieved commendable milestones in advancing scientific & technological development in the Third World.

Developing countries must galvanize their strength and forge greater solidarity in support of South-South cooperation in science & technology. The nations of the Third World must exchange resources, knowledge and experiences to help them build their scientific capacities. COMSATS has played a major role in this regard, especially by strengthening the resolve of the South to harness advances in science and technology to meet the needs of development.

The Academy cherishes its strong working relationship with COMSATS and believes that the Commission will continue to advance the goal of scientific development in the South. TWAS shares with COMSATS the common goal to help developing countries utilize science & technology. Its programmes for human resource and technological development have inspired the South to recognize the importance of science & technology for development. I wish COMSATS the best of luck in future endeavours. TWAS looks forward to continuing its close relationship with the Commission in the coming years.

MESSAGE

Mr. Kh. Zaheer Ahmad
Secretary, Science & Technology



It is a matter of utmost satisfaction and pleasure for me to learn that the Commission on Science and Technology for Sustainable Development in the South (COMSATS) has successfully completed 10 years since its establishment in October 1994. During its productive existence, the COMSATS has undertaken a number of initiatives in Pakistan, and internationally. At home, its role for creation of COMSATS Institute of Information Technology (CIIT) supported development of highly skilled manpower. Almost 7,000 students have been enrolled in last two years at CIIT Campuses. Also, COMSATS Internet Services (CIS) have provided quality services at competitive prices to 65,000 satisfied customers throughout the country. These measures tend to generate a considerable goodwill for beneficial work being done by the COMSATS in aid of socio-economic development and eventually for reducing poverty.

Likewise, establishment of Syrian COMSATS-COMSTECH Information Technology Centre, the CERN-COMSATS Project on Data Grid Applications and Industrial Information Network for SME's have contributed to strengthening of S&T capabilities in our friendly countries. I am sure that realignment of its strategic focus to promising fields like Biotechnology, Water Resource Management, Rural Development etc. the COMSATS would lead the way for reinforcing its relevance for the peoples of its general membership in 21st Century and beyond. I wish COMSATS all the success in its fruitful endeavors.

MESSAGE

Dr. Gerald C. Lalor
Director General, International Centre for Environmental & Nuclear Sciences, Jamaica



Over the years we have heard much about South-South collaboration but, unfortunately, under pressure of other matters this appears to have had no great success in science and technology. I believe that COMSATS is one of the most important avenues for such collaboration and warmly congratulate the Government of Pakistan and the COMSATS Secretariat for their steadfast support over the past 10 years. The task of building is seldom easy anywhere, but COMSATS has been contributing to the great task of constructing a basis for socio-economic development through science and technology, and has gained valuable experience that can be applied in the near term.

The importance of what must be done increases with each year and, as the present global situation compounds our difficulties, so institutions like COMSATS grow in importance, leading perhaps to greater responsibilities on members of the network and their supporting governments, to ensure success. On behalf of ICENS, I wish the organization a great future and hope that we will all help bring closer to reality the vision of Abdus Salam, on which COMSATS was based, for a world in which science improves the lot of all.

MESSAGE

Dr. Hameed Ahmed Khan
Executive Director, COMSATS



It gives me immense pleasure and satisfaction to express my feelings on the 10th anniversary of the Commission on Science and Technology for Sustainable Development in the South (COMSATS). The last ten years have seen tremendous development of COMSATS, not only in terms of its international linkages but also in the scope of its diverse projects in member countries. Some of these noteworthy programmes include the ongoing 'ICTs for Rural Development in Mountainous and Remote Areas of Northern Pakistan', the 'Data-Grid Applications & Physics Data-Analysis Programme' and the 'French Online Distance Learning Programme', which have been initiated in collaboration with IDRC-Canada, CERN-Geneva and Alliance Française respectively.

Apart from this, COMSATS is also in the process of developing the 'Biotechnology Web-portal' for providing quick access to information regarding institutions involved in the subject, on-going research projects and available expertise. The affiliate institutions of COMSATS namely the COMSATS Institute of Information Technology (CIIT) and the COMSATS Internet Services (CIS) have been acting as the backbone of several important development projects of the Commission. They are definitely symbols of focused efforts to ensure quality education and improved IT services in Pakistan.

I firmly believe that the success of COMSATS in the last ten years shall be a source of encouragement and inspiration for us and our member countries to take even bigger and more effective strides towards socially developed and economically stable South through the applications of Science & Technology.

FROM IDEA TO REALITY

The Commission on Science and Technology for Sustainable Development in the South [COMSATS] was established in 1994 for the purpose of socio-economic development in the countries of the South, through the application of science and technology. The idea behind the creation of the Commission, which now has 21 countries as its members, came from Prof. Dr. Abdus Salam, the only Nobel Laureate from Pakistan, who realized that the fast-increasing gap between the North and the South in terms of knowledge and technology could not be bridged without building and sustaining indigenous capacities.

He believed that such an undertaking would require strengthening of cooperation between the North and the South, as well as among the countries of the South. This prescription by Dr. Salam to alleviate the plight of the developing countries helped rally support for his idea and a large number of world leaders and heads of states endorsed it. This support culminated in the foundation-conference of the Commission in October 1994, when COMSATS was formally established. COMSATS is headquartered in Islamabad, Pakistan.

The achievements of COMSATS, over the years since its inception, were duly acknowledged by the United Nations when it was accredited, in 2002, as an Inter-governmental Organization [IGO] with the United Nations Protocol and Liaison Service. The Commission undertakes its developmental programmes through financing from a Technical Advisory Fund [TAF], which uses membership-

contributions, revenue from services and international grants/project funds. COMSATS activities are run and coordinated through its designated focal points, which are mainly ministries of science and technology or other relevant state-bodies and R & D institutions. COMSATS Network of International Science and Technology Centres of Excellence and the diplomatic community of the member states are also making vital contributions towards the achievement of the Commission's objectives.

The Mission

"To bring about sustainable socio-economic development in the South, through building indigenous capacities in, and making judicious use of, science and technology-applications, by instituting South-South and North-South collaboration and exchange".

The Objectives

- To sensitize the countries of 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 a 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 from 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, such as the proposal to set up programmes of scholarships for research at centres of excellence in the South;

- To support the relevant programmes and initiatives of major scientific organizations working for the development and promotion of science and technology in the South.

Priority Areas

COMSATS programmes and projects are spread over a wide spectrum of technology, thus giving it much leeway in terms of working both on the high- and the low-end technologies. The Commission realizes the importance of funding-issues in the Third World and thus has focused its area of operation on key selected areas. This has been done in order to minimize the risk of spreading the scarce resources too thin to extract any tangible benefits from the projects. The areas include Information and Communication Technologies

[ICTs], and Bio-technology in particular and Water Resources, Renewable Energy Technologies, in general. Besides development programmes and projects, COMSATS also brings out quality scientific/technical publications from time to time. The afore-mentioned areas have been carefully selected, in consultation with the member countries and the Centres of Excellence, keeping in view the economic and environmental aspects of sustainable development.

INFORMATION & COMMUNICATION TECHNOLOGIES

AN OVERVIEW OF SALIENT PROGRAMMES & PROJECTS

COMSATS Internet Services [CIS]

COMSATS Internet Services (CIS) is one of the leading Internet Service- providers and a very successful project of COMSATS in Pakistan. CIS provides a variety of Internet access-services, ranging from dial-up, leased lines and Broadband connectivity through radio-links to value-added services for corporate and residential users. CIS is in the process of developing high-speed Internet-access through wireless and DSL media.

CIS started its operations in 1996 and is a pioneer in launching Internet Backbone on multi-city basis in the country and is now successfully operating in 12 major cities of Pakistan and providing Internet products and services to the people of Pakistan. It employs approximately 200 persons in its countryside network, including trained and



qualified System-Administrators, Networking and Communication engineers, Software designers

and engineers, Web developers, marketing, sales and customer- support executives.

COMSATS Internet Services clients include reputed national and international organizations, technology and business companies, Foreign Missions, NGOs, social development and research organizations, coupled with a good percentage of residential users. To date, CIS has on its list 75,000 customers including corporate clients. The specialty of CIS in LAN & WAN connectivity gives it an edge over our competitors. The Sun, Microsoft, Intel, Compaq and Cisco System's certified engineers are constantly engaged in enhancing our network- capabilities. The international connectivity to US multiple Tier-1 IP backbones, by submarine cable, makes CIS the largest Internet Service Provider of Pakistan. Furthermore, CIS's network-operations centers are equipped with the systems and machines from sorld-class vendors, like SUN, CISCO Systems and Compaq. CIS has the fiber backbone terminated at NOC Islamabad and all connectivity is "Copper-less".

COMSATS Internet Services (CIS) also remained the exclusive CISCO Learning Partner in Pakistan and provided CISCO-certified Training-courses in Islamabad, Lahore, Karachi, Peshawar and Multan.

Internet Access Services

- Prepaid Internet Cards
- Dial-up services up to 56 Kbps
- Leased-Lines connectivity up to 128 Kbps

- Broadband and wireless access, through ISDN, from 64K to 128Kbps, and Digital Cross-Connect from 64 to 512 Kbps and Radio links up to 2 Mbps
- Provision of bandwidth from 64K to 20 Mbps
- COMSATS Wireless Internet Service (CWIS) up to 20 Mbps.

Web-Based Solutions

- Web design and development
- Domain name registration and web-hosting Intranet, Extranet and Portals
- Multimedia presentations and Interactive CDs
- E-Learning and Training
- Customized web-applications development
- E-Commerce Applications

Networking and Communication Services

- Network Consultancy, support and training
- Server Set-up and configuration services
- Virtual Private Networks
- VOIP Enterprise Solutions
- Corporate Network solutions

Training

- Diploma in Telecommunication
- ISP Set Up and Networking Essentials

COMSATS Institute of Information Technology (CIIT)

The COMSATS Institute of Information Technology (CIIT) was established with the objectives of providing quality education and training in the field of Information Technology (IT). CIIT became functional in April 1998. Initially, CIIT started short certificate courses in selected areas of IT. Soon it established a reputation of a quality



education institution. The management of the CIIT was encouraged to initiate degree classes. Recognizing the education standards, available facilities and the highest level of competence and dedication of the faculty, the Government of Pakistan accorded CIIT the Charter to award degrees in August 2000.

The COMSATS Institute of Information Technology, founded with the belief that understanding enriches all people, is dedicated to the search for truth through advancement of learning and extending the frontiers of knowledge; to the sharing of this knowledge through education

in an academically diverse range of disciplines and subjects; and to the application of this knowledge to benefit the people of Pakistan, in particular and the World, at large.



In all of its activities, the Institute strives to sustain an open exchange of ideas in an environment that embodies values of academic freedom, responsibility, integrity and cooperation; that provides an atmosphere of mutual respect, free from discrimination and prejudice on any ground whatsoever; that assists individuals, institutions and communities in responding to a continuously changing world; that is conscious of and responsive to the needs of many communities it is committed to serving; that creates and supports partnerships within the Institute, with other educational systems and institutions, and with communities to achieve common goals; and that inspires, sets high expectations for, and empowers individuals within its community.

The CIIT meets a significant portion of its recurring expenses from its own sources (mainly student fees) and a small part of it from the non-

developmental grant provided by the Government of Pakistan through the Higher Education Commission. The development funding is also provided by the Government of Pakistan through the Higher Education Commission.

The CIIT is experienced in a variety of disciplines and strives to make a real difference for its students. Flexibility, dedication and responsiveness differentiate it from other institutions. CIIT is running degree program in the following subjects: Computer Science, Electrical Engineering, Management Sciences, Mathematics, Physics, Biosciences &Environmental Sciences.

With its four (4) faculties, the CIIT is a medium-sized institution where contacts between faculty members and their students, as well as interdisciplinary relationships flourish. As IT continues to become a greater part of our lives, there is a rapidly growing need to provide industry with individuals capable of meeting the technical and business challenges of the new millennium.

The CIIT is providing high quality education that includes 4 year Bachelor and 2-3 year Master programs in Computer Science, Electrical Engineering, Electronics Engineering, Computer Engineering, Telecommunication Engineering, Software Engineering, Business Administration, Mathematics, Bioinformatics, Electronics, Environmental Sciences, etc. Graduate studies and research programs leading to MS and Ph.D. degrees have also been started in the disciplines of Mathematics, Physics and Computer Science. The

enrollment at CIIT is nearly 6000 (until Spring 2004).

The CIIT is committed to respond to the dynamics of fast paced manufacturing and service industry and therefore adapts a proactive yet flexible approach to anticipate and meet the challenges of future technologies.

The CIIT has plans to introduce newer programs on the basis of felt needs of the industry. Plans are also there for initiating more graduate and postgraduate programs in Information Sciences, Engineering, Telecommunications, Business Administration and Basic Sciences in the forth coming years.

The CIIT has had an enviable record of growth and expansion. In just three years, it has expanded from one campus in Islamabad, to five campuses one each at Islamabad, Abbotabad, Wah, Lahore and Attock.



Human Resource Development Programs

For the successful implementation of the Government's IT Action Plan (2000), the CIIT has successfully executed several programs/projects, the gist of which is given below (the number in parenthesis corresponds to the number of personnel trained, unless specified otherwise):

Training of Data Entry Operators (12,000): This project has helped develop a new market in Pakistan with enormous demand both locally as well as from abroad. The compilation of registration (equivalent to social security in US), passport, land & revenue record, utility billing, human development indexes, etc. generate a lot of demand for the data entry operators thus providing plenty of job opportunities to the educated youth irrespective of the gender bias.

Medical Transcription Training (2,500) & Legal Transcription Training (2,000): The two programs helped establish new and now thriving market of medical and legal transcription in the country primarily serving the overseas clients.

IT Training for Federal Government Employees (5,000): The project provided training to the Federal Government employees and has a significant impact on their abilities to use computers in the day-to-day work.

Training of School Teachers in the Use of IT in Teaching (18,000): The CIIT and M/s Intel (Pakistan) Limited conceived and implemented the

program. It provided training to 18,000 teachers (both male and female) from primary, secondary, and high schools spread all over Pakistan, in the use of IT in teaching their respective subjects. The program is extremely successful and the CIIT and M/s Intel are receiving requests for emulating the experience in other developing countries.

Pilot Project for Training Developers in Java Technology (1,000): Keeping in view the dictates of dot.com transformation and demand for professionals who could take up the challenges of the e-commerce, a pilot project was implemented. The immediate absorption of the trainees/professionals in the job market had a multiplier effect in the sense that more and more private sector institutions are now offering similar and even more advance courses.

Post Graduate Diploma for Students from Province of Balochistan (100): Keeping in view the relatively more acute scarcity of IT professionals in the Province of Balochistan, the CIIT trained 100 engineering and science graduates for One Year Post Graduate Diploma in IT. The project is extremely successful and the return of these graduates back to Balochistan has spurred an IT sensitized change in the Province.

IT Expatriate Faculty Hiring Program (250 man months): The CIIT collected data from the public and private sector universities for human resource needs in IT and simultaneously established linkages with expatriate faculty through public solicitation and informal contacts. The services of

highly qualified IT faculty hired on a short term were placed in the universities. It helped provide access to quality instructions, newer insights into the discipline and research trends in IT, and strengthened relationships among the local and expatriate faculty. The program has been so successful that the Government of Pakistan has up-scaled the experience by approving a still larger foreign faculty hiring program.

Establishment of CISCO Local Networking Academies: Keeping in view the demand for networking professionals in the country, the CIIT taking benefit of being a Regional CISCO Networking Academy, developed and implemented a project for the establishment of ten (10) CISCO Local Networking Academies in the public and private sector universities. The program is very successful as the newly established networking academies spread through far and wide in the country are now successfully running networking training and various academic programs.

Technology Resource Mobilization Unit (TReMU): Taking benefit of an institution of higher learning with a large intellectual resource base, the CIIT conceived and instituted arrangements for establishing and hosting think-tanks in various selected areas of IT. The areas were selected keeping in view of their relevance to the national economy and mobilized the technical expertise of the private and public sector. The program helped the Government and civil society alike in deploying IT for gainful purposes. The think-tanks were instituted in the following areas:

Accreditation System for Education in IT, Computers in Schools, Call Centres, IT Law Forum, Geographical Information Systems, Urdu and Regional Languages Software Development Forum, Venture Capital, Women in Technology, Simulation Software, Industrial Automation CAD/CAM/CAE, Model IT Districts, etc.

Successive initiatives like E-Government and the Virtual University benefited in the form of availability of critical human resources and institutions geared to take up IT applications, content development, availability of a critical mass of programmers, developers, networking professionals, data base administrators, etc.

National & International Assignments

In addition, the CIIT undertook and successfully completed several assignments of national and international importance. Such assignments resulted in establishing new organizations/ institutions, such as:

- Virtual University (2001-02)
- National Institute of Telecommunications and Electronics (2001-02)
- Inter-Islamic Network on Information Technology - INIT (2001-02)
- National Testing Service (2002-03)
- ISESCO Centre for Promotion of Scientific Research - ICPSR (2003-04)
- Edward De Bono Foundation Pakistan (2003-04)

The above-stated entities have taken shape and are flourishing. Furthermore, the CIIT has the distinctive honour of being awarded the advisory role for the Higher Education Commission sponsored 'Computerization and Networking Enhancement Programme (CNEP)'. The technical services have been provided to the following institutions of higher learning:

- Fatima Jinnah Medical College and Sir Ganga Ram Hospital, Lahore
- Government College University, Faisalabad
- Kohat University of Science & Technology, Kohat
- NWFP Agricultural University, Peshawar
- University of Malakand, Malakand
- University of Sargodha, Sargodha

International Collaboration

The CIIT is a Regional Academy (RA) of CISCO Networking Academy Program (CNAP). Being the RA, CIIT is authorized to establish Local Academies (LA) under its umbrella and providing training to the instructors of LA through two levels of certification i.e. CISCO Certified Networking Associates (CCNA) and CISCO Certified Networking Professionals (CCNP). Both these certifications are designed to meet employment standards for the networking industry.

Similarly, the CIIT has joined hands with a number of reputed IT companies in initiating various programs of general and specialized training in IT. Such collaborations have been initiated with Intel,

Microsoft, NCR, IBM, etc. Today, the CIIT is a modern degree awarding institution constituting a vast ensemble of high-level education, leading-edge research establishment and software house with a growing reputation.

The CIIT aims at imparting knowledge, creating quality scholarship and advance technologies that will shape the country's future in the 21st century. The total faculty strength at five campuses of CIIT (Islamabad, Abbottabad, Wah, Lahore and Attock) is approx. 360 (until Spring 2004).

All Professors, Associate Professors and a good number of Asst. Professors have PhDs in their respective disciplines. The faculty at CIIT has contributed over sixty research papers/publications in international refereed journals and international conferences of repute. The total student strength at five campuses of CIIT is approx. 6000 (until Spring 2004).

Syrian-COMSATS-COMSTECH Information Technology Centre, Syria

COMSATS established an IT centre at Damascus, in collaboration with COMSTECH and the



Ministry of Higher Education, Arab Republic of Syria. The President of Syrian Arab Republic, H.E. Mr. Hafiz Bashar Al-Asad, and Chief Executive of the Islamic Republic of Pakistan, H.E. Gen. Pervez Musharraf, jointly inaugurated the Centre on 8th January, 2001.

The scope of this centre includes training in software, hardware and networking; software-development, Internet-applications and electronic-commerce.

CERN-COMSATS-NCP Project on Data-Grid Application & Physics-Data Analysis

This project is intended to facilitate application of the basic concept of GRID, which enables distribution of workload and basic data-sharing through networks and clusters. The objective is to link Industries, such as the pharmaceutical, bioscience, aerospace, and academic research-institutes, for facilitating complex calculations and permutations needing heavy processing and computing powers. The project is being collectively undertaken by COMSATS and National Centre for Physics (NCP).

The project is focused on establishing a cluster of



PCs, using Linux Operating System, for enabling Data-Grid applications and analysis of Physics-data. As a result of this project, a number of computing machines are being connected with each other through a Local Area Network (LAN), which, in turn, are connected to CERN through a dedicated line of 128 kbps.

All machines have the complete CERN environment installed on them. This implies that all CERN-specific libraries, detector-simulation packages, and other CERN software-standards are strictly implemented on these machines.

Industrial Information Network (IIN) Project for Small & Medium Enterprises

The Industrial Information Network (IIN), a project for the development of small and medium-level enterprises in Pakistan, has been initiated jointly by the United Nations Industrial Development Organization (UNIDO), COMSATS and some other partner-organizations in the year 2001. The project, designed to become a one-stop-shop for growing number of SMEs in Pakistan, is a web-based portal (www.iin.org.pk) that will enable SMEs to carry out online trade and commerce activities and meet their informational needs.



BIOTECHNOLOGY, EDUCATION & HEALTH SECTORS

Installation of Biogas Plants for Sustainable Rural Development

COMSATS, under the project support from UNESCO, has installed around 13 Bio-gas plants in rural areas of Pakistan. Initially, the gas produced is being used for heating and cooking purposes with an advantageous output of fertilizers. The project was implemented with technical input from Pakistan Council of Appropriate Technology (PCAT).Currently, these installations by COMSATS exist at Dhok Uthal, Simly Dam Road, Islamabad [Pakistan].

Tissue Culture Research Project

One of the techniques of bio-technology is plant tissue-culture technology for producing high-yielding and disease-resistant crops. COMSATS, in collaboration with National Agricultural Research Centre, Pakistan (NARC), successfully completed a project to test tissue-culture technology applications for producing disease-resistant and high-yielding potato seeds.

COMSATS Tele-Health Project

COMSATS has engaged itself in several projects that specifically focus on the educational and health-related needs of distant dwellers in remote areas. The objective is to provide specialized health and education services, through the use of Information Technology and specifically Information Communication Technologies for sustainable development.

The pilot-project for rendering healthcare and tele-consultation services was launched in January 2002. The concept of Tele-Health, for the first time in Pakistan, was practically demonstrated by COMSATS, in collaboration with Byte2000. The project aimed at connecting remote clinics in rural areas of Pakistan with urban hospitals and advanced medical units in the big cities, using the most modern Information Communication Technologies.

The pilot project in Gujar Khan characterized: establishment and networking of the Resource Centre at Islamabad and a Tele-Health Clinic at Gujar Khan; provision of instant and inexpensive health-services to people of remote and far-flung areas; provision of 2nd specialist opinion, and development of indigenous technologies. The best practices and lessons learned out of this pilot-project shall be put to use when replicating the project for COMSATS member-countries.

COMSATS Biotechnology Cell/Portal

The Biotechnology Resource Centre, made functional in the year 2002, operates with the sole goal to expedite the process of promoting the cause of sustainable development through the application of Biotechnology in sectors such as health and agriculture. The cell, in accordance with COMSATS biotechnology programme, has taken the following initiatives:

- Networking and Linkages with R&D institutions

- Development of Biotechnology Web portal
- Development of Data bank
- Information Dissemination
- Organization of Conference on Biotechnology
- Collaborative Programs

ICTs for Rural Development in Mountainous & Remote Areas of Northern Pakistan

The project aims at facilitating initiatives of poverty alleviation, improving access to specialized health-services and education in the Northern areas of Pakistan, namely, Hunza, Baltistan and Gilgit. This two-year project, being sponsored by International Development Research Centre (IDRC) Canada, is a collaborative effort between COMSATS' Baltistan Health and Education Foundation (BHEF) and Karakoram Area Development Organization (KADO).

This action-research project will examine and demonstrate the role that modern Information Communication Technologies (ICTs) can play in improving the standards of life of the mountain people. A Resource Centre at Islamabad, Distance-Learning Centre at Hunza and Tele-Health Center at Skardu, are being set up to achieve the objectives of the research project.

In addition, the establishment of two ISPs, one each in Hunza and Skardu and extension to Gilgit node will take place, as a result of the successful

implementation of the project. The research findings would further the cause of ICT application for development.

COMSATS, Alliance Française and Allama Iqbal Open University 'French Online Distance Learning Programme'

Alliance Française and the Commission on Science and Technology for Sustainable Development in the South (COMSATS) together initiated the 'French-Online Programme' to promote cultural exchange by teaching French language over the Internet, some three years ago. At a later stage, Allama Iqbal Open University (AIOU) became a partner as well. After several years of hard work



and efforts through the preparatory phase by the partner organizations, the programme has now reached its final stage and was formally launched at COMSATS Headquarters on the 20th of March, 2003, in a colourful and lively ceremony, which was chaired by the French Ambassador to Pakistan and was addressed by the Executive Director, COMSATS, and the Vice Chancellor of Allama Iqbal Open University. For more information please refer to the project's website www.frenchonline-af.org.pk .

Opening of COMSATS Liaison Office in Sudan (January 2004)

COMSATS established, on the 24th January 2004, its liaison office in Sudan, in collaboration with the Ministry of Science and Technology (Sudan).The purpose of this cooperative effort is to jointly work for science-led sustainable development for socio-economic uplift in the region, particularly through optimal use of Science and Technology. The key-areas of cooperation are Information Technology, Renewable Energy and other related fields.

COMSATS Chinese Technology Transfer Centre

COMSATS, in collaboration with its focal point in China [Ministry of Science and Technology China (MOST-China)], has successfully identified the key areas for cooperation. In order to coordinate the efforts, it has been planned to establish COMSATS Chinese Technology-Transfer Centre (CCTTC) in China. A number of international events and projects have also been planned in the areas of Information and Communication Technologies (ICTs), Biotechnology, Renewable Energy and Water-Resources Management. The proposed Centre would facilitate smooth diplomatic



relations and implementation of the programs and projects in China.

Regional Office of Third-World Academy of Sciences (TWAS) at COMSATS Headquarters

A Regional Coordinating Office of the Third-World Academy of Sciences (TWAS) and Third-World Network of Scientific Organizations (TWNSO) was established at COMSATS Headquarters, Islamabad, on July 24, 2000. The Coordinating Office ensures quick disposal of the cases pertaining to the region and coordinates speedy exchange of information on research and other scientific projects designed by TWAS / TWNSO. A part of the Coordinating Office has been dedicated to Prof. Dr. Abdus Salam (Nobel Laureate), the founder of both TWAS and COMSATS, in recognition of his valuable services for the development of science and technology.



COMSATS Postgraduate Scholarship Programme and other sponsorships/ donations

COMSATS Postgraduate Scholarship Programme provides funding for postgraduate studies, training

in different disciplines at Centres of Excellence and other institutions linked with COMSATS. Initially, scholarships are being offered in the fields of chemistry, metrological sciences and information-technology at the following establishments, with a plan to extend the activity to other disciplines also:

- HEJ Research Institute of Chemistry, Karachi University, Karachi Pakistan
- International Centre of Climate and Environmental Sciences (ICCES), Beijing, China.
- COMSATS Institute of Information Technology (CIIT), Islamabad, Pakistan

More institutions are being contacted for the extension of the programme to other disciplines. Apart from the post-graduate scholarships, COMSATS also provides research and travel grants in order to promote scientific activities in its member countries. The Commission has made sizeable donations in books and computers.

COMSATS Donates Computers to Public Schools

COMSATS is involved in promoting literacy and building capacity at the school level as well. It donated computers and provided Local Area Networking facilities to a number of schools and educational institutes in Pakistan. Some of the beneficiaries include PAEC Model College, Sir Syed Memorial School, F.G. Margalla Girls College, O.P.F Girls College, PMDC High School, Warchah, District Khushab, Skina Vocational

SCIENTIFIC PUBLICATIONS

Training Institute for Women, Skardu, Govt. Viqar-un-Nisa High School, & Govt. Islamia School, Okara.

COMSATS over the years has brought out a number of quality publications and periodicals. The publications have made important contributions towards enriching the scientific literature available in Pakistan and abroad. The salient publications are as follows:

Periodicals

Science Vision (Quarterly)

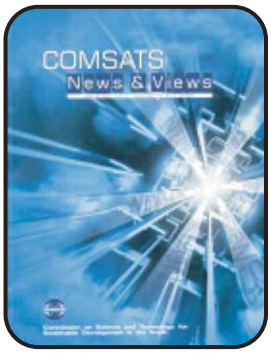
COMSATS publishes an international quarterly journal, Science Vision, which contains scientific research papers & review-articles on latest advancements. Started in 1995, its circulation is currently spread over 27 countries. The journal is also available online at www.sciencevision.org.pk . Several important conference proceedings have also been published.



COMSATS News & Views (Quarterly)

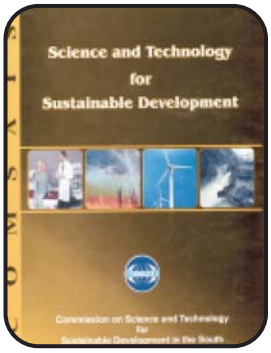
A newsletter 'COMSATS News & Views' was launched in the year 2001. It covers important research breakthroughs, science and technology

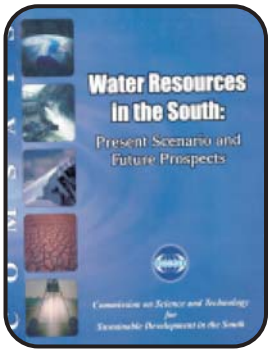
news, and views of the experts on subjects relevant to the developmental needs of the third-world. The newsletter also carries news reports on COMSATS' activities and achievements in its specific thrust areas.



Other Publications

- Book on Capacity Building for Science & Technology
- Book on Science and Technology for Sustainable Development
- Book on Water Resources in the South: Present Scenario and Future Prospects
- Directory of International Donor and Development Organizations
- COMSATS Activity Report
- Scientific and Technological Research for Development [by Dr. Hameed Ahmed khan, Executive Director, COMSATS]





MAJOR CONFERENCES / WORKSHOPS / SEMINARS

COMSATS has organized a large number of conferences/seminars/workshops on a variety of scientific and technological issues since its inception in 1994. Such events provided a useful platform to members of the scientific community, development experts, donor organizations, and people in general to share their views on subjects of vital concerns in the current age. The following lists some important conferences/seminars/workshops that the Commission held over the years:

Pre-Donor Conference - Islamabad [1997]

The purpose of the conference was to promote greater cooperation among COMSATS International Centres of excellence by bringing together their representatives and preparing a joint strategy for seeking financial assistance from



international development agencies and other multi-lateral donors.

Workshop on Mathematical Models: Application and Uses - Islamabad [1998 onwards]

The rationale behind organizing this conference was to create awareness that advancement in

mathematical techniques and computational soft-wares provide easy solutions to many complex real world problems. The approach, Mathematical Modeling, can be an effective tool to investigate and analyze issues in such areas as demography, food, agriculture, energy, water, health, climate change and the like.

Numerical Weather-Prediction Workshop - Islamabad [1998 onwards]

The purpose of the workshop was to spread the skills, among COMSATS member-states, involved in using Numerical Weather Prediction Model. The model can be used to make more accurate and timely weather prediction.



Round-Table Meeting on South-South Cooperation on Convergence - Information Technology, Telecommunication and Media - Islamabad [2000]

The objective of this discussion-forum was to identify the implications of technology-convergence for developing countries, in particular, and the ways of securing its benefits for

social and economic development. The group discussions were aimed at making recommendations for South-South cooperation strategy, in the light of the opportunities that exist in this new and emerging technology area.

COMSATS - HEJ Workshop on the Use of Spectroscopic Techniques in Structural Organic Chemistry - Karachi [2000]

The main objective of the workshop was to provide an opportunity to young and upcoming chemists to learn the effective use and operation of modern spectroscopic instruments. The uses of spectroscopy in biology, medical diagnosis, industrial analysis, environmental probing and other fields are already widespread. The workshop attracted participants from 14 countries.

COMSATS Workshop on Implementation of ISO-14000 in Industry - Islamabad [2000]

The objective of the workshop was to introduce ISO 14000 series, with related cost- benefits, to the industry and to further its implementation as environment-management system in the



production units.

COMSATS-HEJ Workshop on Sustainable Use of Medicinal and Food Plants - Karachi [2000]

COMSATS organized a Workshop on Sustainable Use of Medicinal and Food Plants, in collaboration with HEJ Research Institute, Karachi, and Third-World Academy of Sciences (TWAS). A select group of scientists from 16 countries participated in the event and discussed the case- studies received by TWAS from different institutions.

The rich biodiversity in the developing world and its potential use, for sustainable economic growth, made the event very important for all organizations involved in scientific and economic development in the South. The workshop included presentations on best practices, extensive discussions on lessons learned with reference to administrative, policy, laboratory and networking experiences of each project, and an open forum to formulate future strategies for sustainable use of medicinal and food plants.

COMSATS 1st Meeting on Science & Technology for Sustainable Development - Islamabad [October 2001]

The meeting addressed the current situation as well



as the future prospects for sustainable development. Special emphasis was given to the great need of appropriate technologies for the sustainability of development projects.

COMSATS 1st Meeting on Water-Resources in The South: Present Scenario and Future Prospects - Islamabad [2001]

COMSATS organized a two-day workshop on "Water Resources in the South: Present Scenario and Future Prospects" on November 1-2, 2001. The meeting was attended by scientists, engineers,



Meteorologists, Environmentalists, Reservoir Engineers, Climate Scientists, Power Experts, and Government Representatives. The purpose of the meeting was to take stock of existing ground-realities and problems, and of inviting proposals as to how to best to manage, utilize and sustain our water- resources in the South. Management of Water-Resources has special significance since it involves every person on the planet - from the simple act of how water is used by individuals to the more direct involvement of everybody in how water is used in the industry.

Workshop on Economic Growth: The Involvement of Biotechnology and Modern Bio-industries - Beirut [November 2001]

A workshop on 'Economic Growth: The Involvement of Biotechnology and the Modern Bio-industries', was held in Lebanon, from November 10 to 11, 2001. The event was well attended and drew a lot of appreciation from the experts for its relevance and practical application. The two-day meeting involved interactive discussions with a select group of decision-makers and technical experts from USA, Europe and the developing countries.

The meeting was designed to review the state-of-the-art concepts and advances in the field of biotechnology and their catalytic impact in stimulating economic growth. A key-activity during the conference was to formulate an appropriate technology-foresight and policy-approach for the region.

The meeting was designed to review the impact of biotechnology on commerce and industry and on quality-of-life issues. It was co-sponsored by United Nations Educational, Scientific and Cultural Organization (UNESCO), OIC Standing Committee on Scientific & Technological Cooperation (COMSTECH), Commission on Science and Technology for Sustainable Development in the South (COMSATS) and Third-World Academy of Sciences (TWAS).

International Workshop on Networking Essentials and Interconnecting Cisco Networking Devices - Islamabad [2002]

COMSATS organized this international workshop primarily to develop human resources of its member countries and equip them with an important tool of IT, to meet the challenges of the modern era. It is pertinent to mention that COMSATS remained an authorized Cisco Learning-Partner (CLP) for Pakistan.

Meeting on Science and Technology Capacity-Building for Sustainable Development - Islamabad [February 2003]

The objectives of the meeting were to address the current challenges for S&T Capacity Building in developing countries, prospective benefits in terms of sustainable development for developing nations through S&T Capacity Building, means and methods for developing indigenous capacities relevant to the developing world, and practical solutions for specific challenges confronted by developing countries in pursuit of S&T Capacity Building.

Meeting on Renewable-Energy Technologies and Sustainable Development- Islamabad [February 2004]

COMSATS co-organized the Meeting in collaboration with the Pakistan Council of

Renewable Energy Technologies (PCRET) and the Global Change Impact Studies Centre (GCISC). The objective of the meeting was to review the role of renewable energy in the overall context of sustainable development.

Meeting on South-South and North-South Collaboration in Science and Technology: Present Scenario & Future Prospects - Islamabad [March 2004]

COMSATS organized this meeting in collaboration with the Third-World Academy of Sciences (TWAS), Trieste, and the Islamic Educational, Scientific and Cultural Organization (ISESCO), Rabat. The objective of the Meeting was to review the synergies that exist in international and regional cooperation in S & T and to address the current issues in further strengthening that relationship.

Meeting on Basic Research and Industrial Applications - Islamabad [July 2004]

A Meeting on Basic Research and Industrial Applications was held under the auspices of COMSATS and was attended by notable scientists and leading figures from the government and industrial sector. The objective of the Meeting on Basic Research and Industrial Applications, was to highlight the integral link between basic research and related industrial uses. It further aimed at ascertaining the importance of basic research as one of the pre-requisites for innovation, which is essential for companies and nations to remain competitive in the global village of today.

OTHER SPONSORED SCIENTIFIC & INTERNATIONAL EVENTS

The activities & events that have enjoyed COMSATS support and patronage include:

* Seminar of lectures on "Nobel Prizes in Physics" Islamabad, 23 October 2003, & 30 January 2004.
* International Workshop on Climate Variability in Asian Monsoon Region, Bangkok, Thailand 2-4 December 2003.
* 27th International Nathiagali Summer-College on Physics and Contemporary Needs - Nathiagali, June 24 - July 6, 2002
* Inauguration Ceremony of International Centre for Theoretical Physics (ICTP) - Pakistan Chapter Islamabad, May 10, 2002
* National Exhibition of Tele-Communication Equipment Islamabad, April 4, 2002
* 7th Eurasia Conference on Chemical Sciences - Karachi, March 9-12, 2002
* 3rd Alexander von Humboldt Seminar of German Alumni Forum Islamabad, February 21, 2002
* 15th Khwarzimi International Awards, Feb 2002, Tehran
* First Workshop on Plasma Physics & Laser-Induced Plasma-Spectroscopy (LIPS) & Applications - Tunis, January 11-13, 2002
* First National Conference on Non-Destructive Testing (NDT) - Islamabad, October 24-26, 2001
* 26th International Nathiagali Summer-College on Physics and Contemporary Needs - Nathiagali, June 25 - July 14, 2001
* Regional College on Plasma Physics - Islamabad, January 29 - February 3, 2001

- 8th National Symposium on Frontiers of Physics - Lahore, November 20-22, 2000
- International Microelectronics Conference - Tehran, October 30 - November 1, 2000
- Institute of Environmental Science and Engineering (IESE) NUST workshop on "Environmental problems of the Petroleum Industry" Islamabad, 9-14 October, 2000
- Third South-Asia Geological Congress - Lahore, September 23-26, 2000
- International Conference on Nuclear Tracks In Solids Portoroz, Slovenia, August 28 - September 1, 2000
- 25th International Nathiagali Summer-College on Physics and Contemporary Needs- Nathiagali, June 26 - July 15, 2000
- NUST Workshop on Fuel Cell and Hydrogen-Fuel Technologies, Islamabad, May 8-11, 2000
- 13th Khwarzimi International Awards, Feb 2000, Tehran
- International Workshop on Laser Applications Islamabad, 1997

COMSATS FOUNDATION CONFERENCE



H.E. Benazir Bhutto, the (then) Prime Minister of Pakistan, at the COMSATS Foundation Conference (Islamabad, October 4, 1994).



A representative of a member country signing the Foundation Document (Islamabad, October 1994)



Another representative of a member country signing the Foundation Document (Islamabad, October 1994)

COMSATS FOUNDATION CONFERENCE



H.E. Benazir Bhutto, the (then) Prime Minister of Pakistan and other dignitaries standing in respect of the national anthem (Islamabad, October 4, 1994).



Prof. Dr. M.H.A. Hassan, Executive Director, TWAS, presenting his views to the audience



A view of the gathering at the Foundation Conference

FOUNDATION-STONE LAYING CEREMONY OF COMSATS HEADQUARTERS BUILDING



H.E. Mr. Rafiq Tarar, the (then) President of Pakistan, unveiling the plaque at the Foundation-Stone Laying Ceremony of COMSATS Building (Islamabad, April 2000)



Dr. Hameed Ahmed Khan, Executive Director, COMSATS, presenting COMSATS' shield to H.E. Mr. Rafiq Tarar, the (then) President of Pakistan



A view of the ground-breaking ceremony of the COMSATS Headquarters building (Islamabad, 2000)

COMSATS COORDINATING COUNCIL MEETINGS



The Participants of the 3rd COMSATS Coordinating Council Meeting (Bhurban, Pakistan, 1998)



A group-photo taken at the 4th Coordinating Council Meeting (Beijing, China, 1999)



The Participants of the 5th COMSATS Coordinating Council Meeting (Islamabad, Pakistan, 2001)

COMSATS COORDINATING COUNCIL MEETINGS



The Participants of the 6th COMSATS Coordinating Council Meeting (Islamabad, Pakistan, 2002)



The Participants of the 7th COMSATS Coordinating Council Meeting (Islamabad, Pakistan, 2004)



Participants of the 7th Coordinating Council Meeting along COMSATS Team

COMSATS PROJECTS
- CIS -



A view of Customer Support Centre at COMSATS Internet Services (CIS), a project of COMSATS



Another view of Customer Support Centre at COMSATS Internet Services (CIS)



A glimpse of (CIS) Server Room at Islamabad

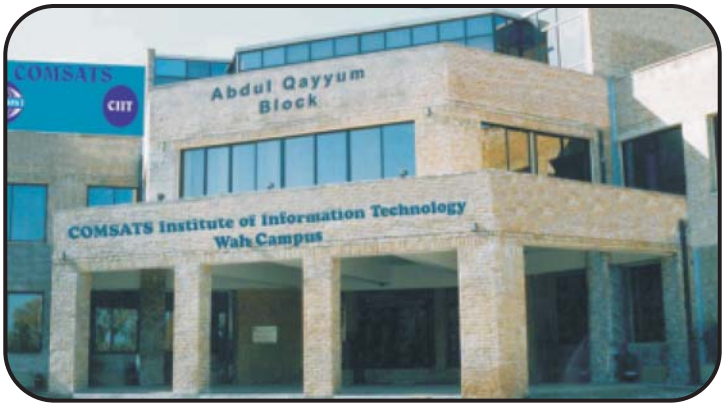
COMSATS PROJECTS
- CIIT -



H.E General Pervez Musharraf at the Inauguration of COMSATS Institute of Information Technology (CIIT) (Islamabad, October 2000)



A view of CIIT Campus in Islamabad



A view of CIIT Campus in Wah

COMSATS PROJECTS
- CIIT -



A view of CIIT Campus
in Abbottabad



A view of CIIT Campus
in Attock



A view of CIIT Campus
in Lahore

INAUGURATIONS OF VARIOUS PROJECTS & PROGRAMMES



H.E Hafiz Bashar Al-Asad, the President of Syria shaking hands with the Executive Director - COMSATS at the Inauguration of IT Centre in Syria (Damascus, January 2001)



A view of the Inauguration of the Regional Office of TWAS in Pakistan (Islamabad, 2001)



A view of the Inauguration of the ICTP - Pakistan Chapter (Islamabad, 2002)

SIGNING OF VARIOUS AGREEMENTS & MoUs



An MoU being signed between COMSATS and Ministry of Science & Technology , Sudan (Islamabad, 2003)



An MoU being signed between COMSATS and IROST & Sistan University (Islamabad 2003)



COMSATS Signing an MoU with UNIDO in Austria (Vienna, 2001)

INAUGURATION OF VARIOUS DEVELOPMENT PROJECTS



The Launching Ceremony of "French Online"- A Distance learning programme of COMSATS, AIOU & Alliance Francaise (Islamabad, 2003)



An Introductory Workshop on Mathematical Modeling at COMSATS Headquarters (Islamabad, 2002)



Mr. Carlo Magarinos, Director General UNIDO, addressing the launching ceremony of IIN Portal (Islamabad, 2002)

S&T DEVELOPMENT PROJECTS



A vies of a Bio-Gas plant installed by COMSATS near Islamabad, Pakistan



A view of COMSATS Tele-Health Centre (Gujar Khan, 2002)



COMSATS and IDRC signing an Agreement for implementing ICT based project in Northern Areas of Pakistan (Islamabad - January, 2004)

S&T DEVELOPMENT PROJECTS



Engr. Pervaiz Butt chairing the Meeting on CERN Data-Grid and its Applications (Islamabad, 2002)



Dr. John Ellis of CERN addressing the audience through Video Conferencing at the above stated meeting



Late Dr. Azra Qureshi inspecting the potato yield produced through Tissue Culture technology in the Northen Areas of Pakistan

COMSATS EXPO - LAHORE, 1999



COMSATS Expo: An exhibition of Chinese Technologies for SME development (Lahore, 1999)



Closing Session of COMSATS Expo



A stall of Chinese textile accessories at COMSATS Expo

COMSATS MEETINGS/CONFERENCES



Participants of the Workshop on Numerical Weather Prediction (Topi - Pakistan)



Prof. Dr. Atta-ur-Rahman chairing the inaugural session of COMSATS 1st Meeting on Science and Technology for Sustainable Development (Islamabad, 2001)



Dr. Ishfaq Ahmad presiding over COMSATS 1st Meeting on Water Resources (Islamabad, 2001)

COMSATS MEETINGS/CONFERENCES



The Inaugural session of the Introductory Workshop on Mathematical Modeling (Islamabad, October 2002)



Group Photo of the resource persons & participants of the same workshop



The Participants of the workshop having a hands-on experience session

COMSATS MEETINGS/CONFERENCES



Engr. Pervaiz Butt chairing COMSATS Meeting on S&T Capacity Building for Sustainable Development (Islamabad, 2003)



The inaugural session of the Meeting on Basic Research and Industrial Applications in progress (Islamabad, 2004)



The Meeting on Renewable Energy Technologies and Sustainable Development (Islamabad, 2004)

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Deputy Minister of
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President of the Iranian Research
Organization for Science &
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NETWORK OF CENTRES OF EXCELLENCE

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