



**COMSATS' Network
of International S&T
Centres of Excellence**



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

COMSATS' Network of International S&T Centres of Excellence

October 2017



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

Introduction

COMSATS, being an Intergovernmental Organization (IGO), is proactive advocate and proponent of South-South Cooperation. Its most significant manifestation can be seen from high level interaction among its members of Network of International S&T Centres of Excellence. Comprising of science-led R&D and higher education institutions in the developing countries, the Network shows the present and growing technical and human capital contributing to critical mass required for socio-economic progress of developing countries.

The heads of these Centres – eminent scientists in their respective field – regularly meet annually at the platform of COMSATS Coordinating Council, a statutory body of COMSATS that governs the Network activities. There are 23 council members, which include heads of the 21 member centres; the Executive Director COMSATS, who is the Secretary of the Council, and the founder of the Council as Honorary Life time member. All Council members are distinguished academics having scientific as well as administrative experience. Combined their experience, and knowledge, the Council meeting is an excellent platform for South-South Cooperation by sharing of strengths and facilitating each other in building scientific capacity and joint research.

Every three years, the council's Chairpersonship is rotated, which currently rest with the Egyptian Centre of Excellence, National Research Center. As of 2017, 20 meetings of the council have been held since the inception of COMSATS in 1994.

This document provides brief profiles of Network member institutions with a view to seek useful collaborations and to enhance network activities among themselves. These centers are also striving their way up and seeking support from the North. Therefore, COMSATS is making efforts to establish and extend its South-South and North-South Cooperation.

Tajammul Hussain
Advisor (Programmes)

Table of Contents

● Bangladesh Council of Scientific and Industrial Research (BCSIR), Bangladesh	01
● Embrapa Agrobiologia, Brazil	02
● International Center for Climate and Environment Sciences (ICCES), China	03
● International Centre for Physics (CIF), Colombia	04
● National Research Centre (NRC), Egypt	05
● Council for Scientific and Industrial Research (CSIR), Ghana	06
● Iranian Research Organization for Science and Technology (IROST), Iran	07
● International Centre for Environmental and Nuclear Sciences (ICENS), Jamaica	08
● Royal Scientific Society (RSS), Jordan	09
● Al-Farabi Kazakh National University (KazNU), Kazakhstan	10
● National Mathematical Centre (NMC), Nigeria	11
● International Center for Chemical and Biological Sciences (ICCBS), Pakistan	12
● COMSATS Institute of Information Technology (CIIT), Pakistan	13
● Al-Quds University (AQU), Palestine	14
● Industrial Technology Institute (ITI), Sri Lanka	15
● Industrial Research and Consultancy Centre (IRCC), Sudan	16
● Université Cheikh Anta Diop (UCAD), Senegal	17
● Higher Institute of Applied Sciences and Technology (HIAST), Syria	18
● Tanzania Industrial Research and Development Organization (TIRDO), Tanzania	19
● Water Research and Technologies Centre (CERTe), Tunisia	20
● TÜBİTAK Marmara Research Center (MAM), Turkey	21



COMSATS



Bangladesh Council of Scientific and Industrial Research (BCSIR), Bangladesh

Introduction:

BCSIR is an autonomous organization under the Ministry of Science and Technology, Government of Bangladesh. It has academic and scientific staff of 473, including 100 Ph.D. scholars.



Focus Areas:

The research activities of BCSIR pertain to: Arsenic Mitigation; Analytical Research; Animal Food Technology; Aromatic Plants; Biogas Technology; Biological Science; Biotechnology; Ceramic; Chemistry; Chemical Metrology; Conservation of Energy & Exploration of New Energy Sources; Electronics; Environmental Pollution; Fats and Waxes; Fiber and polymer; Food Microbiology; Food Science, Nutrition & Quality Control; Industrial Physics; Leather Research & Development; Medicinal Plants; Oil, Oilseeds & Legumes Technology; Pharmacology; Pilot Plant and Techno-economic Study; Plant Food Technology; Plant Science; Processing of Fruits; Production of building materials; Production Laboratory Instruments; Production of chemicals from organic sources; Pulp and Paper; Renewable Energy, and Tissue Culture.

Laboratories:

BCSIR comprises of three multidisciplinary regional laboratories in Dhaka, Chittagong and Rajshahi, as well as seven mono-disciplinary institutes. These include: Institute of Fuel Research & Development (IFRD); Institute of Food Science & Technology (IFST); Institute of Glass and Ceramic Research & Testing (IGCRT); Leather Research Institute (LRI); Institute of Mining, Mineralogy and Metallurgy (IMMM); Pilot Plant and Process Development Centre (PP&PDC); and Reference Institute for Chemical Measurements.

Expertise:

BCSIR has expertise in Mineral and Mineralogical Services; Renewable Energy; Bioequivalence Study; Biomaterials, Biochemicals and Biofuel (Biorefinery); and Materials and Metallurgical Science and Engineering. It also offers the following technologies/expertise: Arsenic Test Kit; Development of Mineral Water; Aluminium Recycling; Ammonia Free Deliming Agent for Leather Processing; Leather Dyeing Techniques; Diabetic Foot Wear for Diabetic Patients; and Footwear Insole Material from Leather Shaving Dust. BCSIR offers one post-doctoral fellowship for COMSATS Member States.

Looking for:

BCSIR is looking for research collaborations in Nanotechnology; Renewable Energy; Food Science and Technology; Herbal Medicine and Medicinal Plant; Biorefinery; and Biotechnology.

Embrapa Agrobiologia, Brazil

Introduction:

The Embrapa Agrobiologia is striving to provide solutions for research, development and innovation for sustainability of agriculture benefitting the Brazilian population. It, currently, has 154 employees that include 43 researchers, 44 analysts, 28 technicians, and 39 assistants.



Focus Areas:

The focused research areas of the Centre include: Agroecology and Organic Production; Use of Organic Waste; Diversification of Production Systems; Biological Inputs; Grain Production Systems; Energy Crops; Pastures; Recovery of Degraded Areas; and Sustainability Indicators. Embrapa Agrobiologia comprises 47 research units in its network. The Centre is currently leading 27 projects financed by Embrapa and other development agencies.

Laboratories:

Embrapa Agrobiologia has 19 laboratories for conducting research on Nitrogen and Isotopes; Gas Chromatography for GHGs; Organic Agriculture; Soil Organic Matter; Enzymes; Biological Control; Soil Fauna; BNF Leguminous Trees; Collection of Cultures; Microbial Ecology; Soil and Plant Analyses; Electronic and Optical Microscopy; Micorrizas; BNF Grasses; Genetics/Biochemistry; Genome; Molecular Techniques – Multi-user; Inoculant Development; and Inoculant Production.

Expertise:

Embrapa Agrobiologia has expertise in the following fields: Functional Genomic Analysis; Inoculant for Sugarcane; Land Reclamation; Measuring Nitrous Oxide Emission Rate from Agriculture; Measuring the Impact of Cattle in the Nitrous Oxide Emissions; Technology of Biomass Elephant Grass as a Renewable Energy Source; Cutting and Drying in field; and Organic Farming.

Looking for:

Embrapa Agrobiologia is looking for research collaborations in Agroecology and Organic Production; Use of Organic Waste; Energy Crops; Recovery of Degraded Areas, etc.



International Center for Climate and Environment Sciences (ICCES), China

Introduction:

ICCES was established in 1991 with a mandate to meet the urgent need of solving climate and environment related problems. ICCES is being supported by the Chinese Academy of Sciences (CAS), Ministry of Science and Technology (MoST), National Natural Science Foundation, and Ministry of Finance, China. Currently, ICCES comprises of 48 staff members, including 14 professors; 11 associate professors; 17 assistant professors; and 2 senior engineers.



Focus Areas:

The focused areas of research are: development of Dynamical Earth System Model and Numerical Simulation; Meteorological and Environmental Forecast and related Disaster Assessment Theory and Technique; Data Assimilation Theory and Methodology; and Earth System Theory and Natural Cybernetics. ICCES is currently executing 60 research projects.

Laboratories:

There are various computational simulation and modeling laboratories at ICCES.

Expertise:

ICCES has expertise in Studies on the Climate Dynamics and Monsoon System; Development of Climate System Models and the Associated Climate Simulation; Short-term Climate Prediction; Disastrous Weather Dynamics and Prediction; Ecosystem and Environmental Dynamics and Natural Cybernetics; and Atmospheric Informatics and Data Assimilation. ICCES also offers 5 post-doctoral fellowships for COMSATS Member States.

Looking for:

ICCES is looking for research collaborations in various fields of climate sciences, including studying the characteristics and mechanisms of extreme weather events.

International Centre for Physics (CIF), Colombia

Introduction:

CIF was established in 1985 with the support of Abdus Salam, International Centre for Theoretical Physics (ICTP). CIF is a pioneer in fields related to Science and Technology legislation, creation of research entities, promotion of science, relationship-building between academia and industry, and the creation of high-tech industries.



Focus Areas:

CIF offers basic and applied research and advisory services to the production sector in areas such as: Electrophysiology; Molecular and Biochemical Biology; Plant Biotechnology; Industrial Biotechnology; Optical Measurement and Control Methods; Environmental Control; Industrial Instrumentation; Industrial Automation; Data Transmission and Processing; Optimization of Industrial Processes; and Security Systems.

Laboratories:

CIF has laboratories and research groups in the following areas: Biophysics and Membranes Biology; Biophysics and Signal Transduction; Cell Neurophysiology; Environmental Biotechnology; Applied Physics and Technological Development; Nuclear Physics; Optics; Materials Science; and Classical Foundations of Physics.

Expertise:

CIF has a patent in Improved Leshmaniasis Treatment. Moreover, the Centre has developed the equipment for On-line Monitoring of Temperature and Current of High Voltage Transmission Lines; and Smart Grid for On- line Monitoring of Domestic Power Consumption. CIF also provides the following services: Precision Laser and Water Cutting Services for Industry; Production of Equipment for Electrical Industry; and Installation and Maintenance of Measuring Equipment.

Looking for:

CIF is looking for research collaborations in the fields of chip designing and 3D printing, as well as applications of nanotechnology in agriculture, particularly encapsulation of fertilizers and insecticides.

National Research Centre (NRC), Egypt

Introduction:

NRC was established in 1956 to foster basic and applied scientific research, particularly in industry, agriculture, public health and other sectors of national economy. NRC has a research staff of 4,847 scientists and is headed by a president with two vice presidents designated for research and technical affairs.



Focus Areas:

The focus areas of NRC are: Renewable Energy; Water; Nanotechnology and New Materials; Biotechnology; Agriculture; Waste Management; Stem Cells; HCV; Obesity; Cancer; Diabetes; Human Genetics; Functional Foods; and Polymers.

Laboratories:

There are various laboratories under the following 14 Research Divisions of NRC: Agriculture and Biology Research Division; Chemical Industries Research Division; Engineering Research Division; Environmental Sciences Research Division; Food Industry and Nutrition Division; Genetic Engineering and Biotechnology Division; Inorganic Chemical Industries and Mineral Resources Division; Medical Sciences Division; Pharmaceutical Industries Division; Physics Division; Textile Industries Division; Veterinary Research Division; Human Genetics & Genome Researches; and Oral & Dental Research Division.

NRC also has five Centres of Excellence in Advanced Sciences; Medical Sciences; Advances in the Diagnosis Management and Research of Genetics Diseases; Influenza-A Virus Control: Surveillance, Vaccine Preparation and Drug Discovery; and Innovative Textile Technology.

Expertise:

NRC has expertise in the following areas: Health (Stem Cells Diabetes, and Breast and Liver Cancer); Solar Cells (Design, Manufacturing and Applications); Nanotechnology Applications (Biosensor based on Metal and Semiconductor Nanoparticles for Virus, Bacteria and DNA Detection; Bioactivity of Ceramic/Polymers Nanocomposite for Biomedical Applications; Application of Carbon Nanotubes in Medicine and Environment, etc.); Renewable Energy (Wind, Solar, Biofuels); Industrial Research (Purification of Industrials Water from Heavy Metals and other Contaminants, Functional Food from Traditional Experience to Modern Production, Functional Polymers for various applications); and Agriculture (Abiotoc Stress, Biocontrol, Oil-producing Crops, etc.). NRC has acquired the ISO 9001 certificate in April 2016. NRC has offered 5 post-doctoral fellowships for COMSATS Member States.

Looking for:

NRC is looking for research collaborations in the fields of Inorganic Chemistry, Organic Chemistry, and Textile Industry.

Council for Scientific and Industrial Research (CSIR), Ghana

Introduction:

CSIR was established in the present form on November 26, 1996. The genesis of the Council, however, dates back to the erstwhile National Research Council (NRC), which was established by the government of Ghana in August 1958 to organize and coordinate scientific research in the country. CSIR has scientific staff strength of 3,506, including 285 PhDs.



Focus Areas:

The focus areas of CSIR are Food Security & Poverty Reduction; Biotechnology & Biomedical Science; Materials, Built Environment & Manufacturing; Electronics & ICT; Science & People/Technology for Society; Energy & Petroleum; and Climate Change & Environmental Conservation.

Apart from the research activities, CSIR offers M.Phil programmes in Climate Change and Integrated Natural Resources Management; Soil Health and Environmental Resources Management; Fisheries and Aquaculture; Agro-Processing Technology & Bio-Sciences; Plant Breeding & Biotechnology; and Industrial Animal Nutrition and Feed Production.

Laboratories:

CSIR has various laboratories under its 13 research institutes, including Biotechnology Laboratory; Accredited Food Science Laboratory; Quality Water Control Laboratory; Soil Nutrient Analysis Laboratory, etc.

Expertise:

CSIR has expertise in Animal Research; Building and Road Research; Crops Research; Forestry Research; Food Research; Industrial Research; Science and Technological Information; Oil Palm Research; Plant Genetic Resources Research; Agricultural Research; Science and Technology Policy Research; Soil Research; and Water Research.

Looking for:

CSIR is looking for research collaborations in the fields of Materials Science and Bitumen/Asphalt.



Iranian Research Organization for Science and Technology (IROST), Iran

Introduction:

IROST was founded in 1980, with the aim of providing support to Iranian researchers, inventors and industrialists across the country. This organization provides valuable services in fulfilling the country's scientific, technical and engineering requirements by supporting applied and developmental research, as well as developing new technologies by making use of qualified experts and modern equipment and facilities. IROST has academic staff of 135 and technical support staff of 158.



Focus Areas:

The focus research areas of IROST are: Advanced Material & Renewable Energies; Advanced Technologies; Agriculture; Biotechnology; Chemical Technologies; Electronics & Computer; and Mechanical Engineering.

Laboratories:

IROST has various laboratories, including Internal Combustion Engine Laboratory; Fuel and Combustion Laboratory; Ultrasonic Wind Tunnel Laboratory; Hydraulic and Pneumatic Laboratory; Vibration Laboratory; Pump and Turbine Laboratory; Fan Testing Laboratory; Laboratory of Mechanics of Materials; Prototyping Laboratory, etc.

Expertise:

IROST has expertise in Advanced and Nano Materials; Corrosion and Surface Engineering; Renewable Energy; Animal, Poultry & Aquatic Sciences; Biosystems Engineering; Medicinal Plants; Plant Production and Sustainable Agriculture; Semi-commercial Production of Lactic Acid, Probiotics and Starter Cultures; Application of Biotechnological Methods in Oil Industries, including Biosurfactants (Emulsifiers) and Biological Solutions; Green Biofuel Production; Enzyme Production for Application in Clinical Diagnosis Kits; Recombinant Protein Production; Bioethanol Production from Lignocellulotic Materials; Aerospace Engineering; Energy Productivity and Utilization; Machine Design and Mechatronics; Communication & Space Technologies; Medical Engineering; Energy and Industrial Automation; and Information Technology and Intelligent Systems. The IROST has offered 7 PhD scholarships (4 fully paid and 3 partially paid (50%)) and five-post-doctoral fellowships for COMSATS Member States.

Looking for:

IROST is looking for research collaboration in the fields of Water Desalination; Halal Food Standardization; Health Research; Aerodynamic Research; Herbal Medicine Research; Policy and Diplomacy; and Medical Technology.

International Centre for Environmental and Nuclear Sciences (ICENS), Jamaica

Introduction:

ICENS was established in 1984 by the Government of Jamaica and the University of the West Indies (UWI). The Centre is affiliated to the Ministry of Science, Technology, Energy and Mining (MSTEM), and the University of the West Indies (Mona). It is a multi-disciplinary research centre working on the applications of the 'Peaceful Uses of the Atom'.



Focus Areas:

The focus areas of ICENS are Environmental Geochemistry; Agriculture; Heavy Metal Pollution in Jamaica; Mineral Composition of Food; Trace Elements in Animal/Human Tissue; Biogeochemical Cycles; Health; and Forensics.

Laboratories:

ICENS has a range of modern laboratories working on several aspects of the Geochemical and Nuclear Sciences. The Centre is equipped with the following analytical and support facilities: Nuclear Laboratory; Solutions Analysis Laboratory; Sample Preparation; Information Systems; and Thermoluminescence Dosimetry (TLD).

Expertise:

ICENS has expertise in: Elemental Analysis specializing in Trace Metals; Blood Lead Analyses; Radiation Monitoring; Personal Dosimetry; Mineral Exploration; and Consultations related to Trace Metals and their effects. ICENS has the SLOWPOKE-2 Reactor, which is the only nuclear reactor in the English-speaking Caribbean. The reactor is being used for Instrumental Neutron Activation Analysis.

Looking for:

ICENS is looking for research collaborations in the fields of Geochemical Baselines; Relationship between the Geochemistry of the Natural Environment and Health; Agriculture and Food Security; Global Environmental Change; Spatial Geoscience; Water-resource Management; and Peaceful Applications of the Atom.

Royal Scientific Society (RSS), Jordan

Introduction:

RSS is the largest applied research institution, consultancy, and technical support service provider in Jordan, and is a regional leader in the fields of science & technology. RSS was established in 1970, aiming to be the local and regional reference point of knowledge for science and technology, using modern engineering research as a base to empower economic development and social progress. The strength of scientific human resources at RSS is 205, out of which 11 hold Ph.D.



Focus Areas:

The focus research areas of RSS are: Water; Environment; Energy; Construction and Sustainable Buildings; Information and Communication Technology; and Applied Scientific Research.

Laboratories:

RSS' Testing Centre is a leader in providing analytical testing services for the private and public sector. For over 45 years the Centre has been providing a wide scope of chemical and physical testing for food, environment, industrial, mechanical, electrical, construction materials, and industrial products. RSS laboratories are accredited by national and international agencies such as United Kingdom Accreditation Services (UKAS), and Jordan Accreditation Services (JAS) according to ISO-17025 in order to produce reliable scientific results for both the private and public sectors. RSS provides its testing services through the following main divisions: Chemical Laboratories, Construction & Material Laboratories, Mechanical Laboratories, Industrial Laboratories, Environmental & Food Laboratories, and Electrical Consumer Products services.

Expertise:

RSS has expertise in the following areas: turning Industrial Wastewater to Wealth-biodegradable Plastics; Investigation of Ready Mix Concrete Performance Utilizing Recycled Waste Water; Investigation of Novel Materials to Purify and Store Green Hydrogen Utilized in Powering Proton Exchange Membrane (PEM) Fuel Cell Stacks; Dry Sanitation: Towards Empowering Jordanian Local Communities in Water Demand Management; Arab Fuel Cell and Multi-Purpose Electrolyzer Powered by Solar Energy; and Low Temperature Retorting of Jordanian Oil Shale.

Looking for:

RSS is looking for research collaborations in: the use of leap software for climate change mitigation; IPCC 2006 guidelines – to prepare greenhouse gases inventory; geothermal application for heating and cooling; secure web application; ground water modeling; occupational health and safety; and accreditation for ambient air quality measurements (USEPA guidelines).

Al-Farabi Kazakh National University (KazNU), Kazakhstan

Introduction:

KazNU is the oldest classical university of Kazakhstan and the leading institution in the system of higher education of the country. The University has 15 faculties with 25 Research Institutes; and 30 scientific centres. More than 20,000 undergraduate and graduate students study at the University. KazNU offers 86 Bachelor Specialties, 118 Master Specialties and 70 PhD programmes.



Focus Areas:

The focused areas of KazNU are Mathematics & Mechanics; Experimental and Theoretical Physics; New Chemical Technologies and Materials; Physio-Chemical Methods of Research and Analysis; Biology and Biotechnology Problems; Ecological Problems, etc.

Laboratories:

KazNU constitutes different laboratories, including National Nanotechnology Open Laboratory; and the Laboratory of Engineering Profile. It also consists of a Scientific and Technology Park.

Expertise:

KazNU has expertise in Innovation technologies for food industry; technology of pharmaceutical production; clean energy and sustainable development standards; petrochemical engineering; innovation technology of new materials for industry; and technology of building materials.

Looking for:

KazNU is looking for research collaborations in Oil and Gas Industry, Nanotechnology, Economic & Social Forecasting, & Biotechnology.



National Mathematical Centre (NMC), Nigeria

Introduction:

NMC was established in 1989 for developing appropriate initiatives and resources of international standing for re-awakening and sustaining interest in the Mathematical Sciences and their applications at all levels of the Nigerian education system. NMC has a vision to become a world-class Centre of Excellence, for research and training in mathematical sciences, capable of promoting the development and socio-economic impact of mathematical sciences in Nigeria, as well as using these to solve important scientific and technological problems. The current workforce of NMC is 200, out of which 20 hold Ph.D, 58 hold M.Sc., and 36 hold B.Sc. degrees that receive technical support from a staff of 20 individuals.



Focus Areas:

NMC conducts training programmes in the fields of Mathematics; Theoretical Physics; Computer Science; and Statistics.

Laboratory:

NMC has a Computer Laboratory, which provides computational support for research scientists and visiting scholars.

Expertise:

NMC has expertise in mathematical modeling and simulation of air and water pollution. NMC has also designed innovative Mathematics Kits to inculcate numeracy culture in Nigerian students. Moreover, Mathematics Improvement Programme (MIP) has been developed to enhance the performance of students in Mathematics of students in public examinations and is based upon a “Student-Teacher-Friendly” teaching methodology for better teaching and learning of Mathematics in schools.

Looking for:

NMC is looking for collaborations to develop a Simulation Laboratory with Supercomputer facilities.

International Center for Chemical and Biological Sciences (ICCBS), Pakistan

Introduction:

The Centre was established in 1966 as Post-graduate Institute of Chemistry (PGIC) and was gradually upgraded to become ICCBS (2004). It is a designated Centre of Excellence of OIC, TWAS, UNCSTD, WAITRO, and COMSATS.



Focus Areas:

The center's focus areas are: organic chemistry, molecular medicine, herbal medicines, plant biotechnology, pharmacology, computational medicinal chemistry, bio-organic synthesis and natural product chemistry, electrochemical studies, petroleum and polymers, clinical biochemistry, neuropharmacology, and analytical chemistry.

Laboratories:

A number of institutions and laboratories are working under the umbrella of ICCBS, which include HEJ Research Institute of Chemistry (HEJRIC); Dr. Panjwani Center for Molecular Medicine and Drug Research (PCMD); Professor Dr. Atta-ur-Rahman Laboratories (Formerly called Third World Center); Latif Ebrahim Jamal (LEJ) National Science Information Center; Biotechnology Wing; LEJ Nanotechnology Center; Industrial Analytical Center (IAC); Center for Bioequivalence Studies and Clinical Research; the Diagnostic Laboratory; the Biotechnology Laboratory; the Animal Houses Facility; and Jamil-ur-Rahman Center for Genome Research.

Expertise:

ICCBS has expertise in following fields: Technology Transfer; Medical Sciences; Diagnostic, Analytical and Clinical Testing; Proficiency Testing, Instrumental Calibration; and Chemical and Microbiological Analysis. The Centre has filed over 200 national and international patents. ICCBS has offered 10 post-doctoral fellowships for COMSATS Member States.

Looking for:

ICCBS is looking for collaborations in the fields of natural products, spectroscopy, nanotechnology, stem cell research, biomarkers identification, animal house management, genomics, climate and health, structural biology, virology, etc.

COMSATS Institute of Information Technology (CIIT), Pakistan

Introduction:

CIIT was founded in 1998 with the establishment of its first campus in Islamabad, Pakistan. The Institute has now become a major public-sector university with fully functional campuses in 7 cities of Pakistan, as well as a virtual campus. Currently, it has an enrolment of more than 36,000 students with more than 3,200 qualified faculty members. CIIT was ranked at Number one in Pakistan in TIMES Higher Education (THE) World Universities Rankings 2016-17.



Focus Areas:

CIIT offers 97 under-graduate and graduate degree programmes in the following areas: Accounting and Finance; Architecture; Bioinformatics; Biosciences; Biotechnology; Business Administration; Chemical Engineering; Civil Engineering; Computer Engineering; Computer Science; Development Studies; Earth Sciences; Economics; Education; Electronics; Electrical Engineering; Electronics Engineering; Environmental Sciences; Fine Arts; Information Security; Power Engineering; Project Management; Renewable Energy Engineering; Telecommunication Engineering; Mathematics; Mechanical Engineering; Physics; Psychology; Pharmacy; Public Administration; Telecommunication and Networking.

Laboratories:

CIIT has over 270 Laboratories covering the areas of electrical engineering, computer science, health informatics, biosciences, meteorology, physics, civil engineering, environmental sciences, chemistry, pharmacy, earth sciences, mechanical engineering, chemical engineering, etc. Moreover, CIIT has following 10 Research Centers for: Advanced Studies in Telecommunication; Interdisciplinary Research in Biomedical Materials; Professional Development; China Study; Policy Studies; Business Incubation; Climate Research and Development; Executive Development; Advance Drug Research; and Energy Research.

Expertise:

CIIT has expertise in various fields of science and technology, including Telecommunications; Biomedical Materials; Climate Research and Development; Advance Drug Research; Energy Research, etc. CIIT offers 100 graduate studies scholarships and 10 post-doctoral fellowships, annually, to COMSATS Member States.

Looking for:

CIIT is looking for research collaborations in the fields of electrical engineering, computer science, health informatics, biosciences, meteorology, physics, civil engineering, environmental sciences, chemistry, pharmacy, earth sciences, mechanical engineering, chemical engineering, etc.

Al-Quds University (AQU), Palestine

Introduction:

The Al-Quds University is a Palestinian university founded in 1984, having over 13,000 students and fifteen academic faculties. The main campus of the University is located in Abu Dis, with four more campuses in Jerusalem, Sheikh Jarrah, Beit Hanina and Ramallah (al Bireh). The university has 83 Research Groups in which more than 130 PhDs are currently working. 192 Research Assistants and 58 project-based employees are also serving at different Research Centres in Al-Quds University.



Focus Areas:

The focus areas of the Al-Quds University are: Arts; Business and Economics; Dentistry; Educational Sciences; Engineering; Health; Law; Medicine; Pharmacy; Public Health; Islamic Studies; and Science and Technology.

Laboratories:

The Research Laboratories at Al-Quds University are: Soil Hydrology and Research Laboratory; Research Laboratory of Water and Environment; Nanotechnology Research Laboratory; Microbiology Research Laboratory; Molecular Genetics Laboratory; Laser and IR Spectroscopy Laboratory; Drug and Discovery Research Laboratory; Computational Chemistry and Drug Design Laboratory; Biophysics Research Laboratory; Biodiversity Research Laboratory; and Cognitive Neuroscience Laboratory.

Expertise:

Al-Quds University has expertise in Soil Hydrology; Water and Environment; Medical Sciences; Radiation Science and Technology; Nanotechnology; Microbiology; Medical Research; Molecular Genetics; Laser and IR Spectroscopy; Drug Discovery; Computational Chemistry and Drug Design; Colloids and Surfaces Research; Primary Health Care; Chemical and Biological Analysis; Biophysics; Biodiversity; Aquatic Environmental Research; Nutrition and Health; and Cognitive Neuroscience.

Looking for:

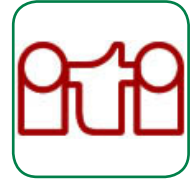
Al Quds University is looking for collaboration with other universities and private and public sector for curriculum design and human resources.



Industrial Technology Institute (ITI), Sri Lanka

Introduction:

The Industrial Technology Institute (ITI) is a successor to the Ceylon Institute of Scientific and Industrial Research (CISIR), which was established in 1955. ITI has been rendering services to firms involved in businesses for local and foreign markets, national infrastructure development projects and overseas laboratories. ITI has a workforce of 340 with 65 scientists, 14 engineers and 102 technical staff. These include 20 PhD and 22 MS degree holders.



Focus Areas:

ITI conducts client-sponsored research and development in the following areas: Food Technology; Herbal Technology; Materials Technology; Environmental Technology; Engineering Services; and Biotechnology.

Laboratories:

ITI has the following five primary laboratories: Chemical and Microbiological Laboratory; Residue Analysis Laboratory (RAL); Electro Technology Laboratory; Industrial Metrology Laboratory; and Materials Laboratory.

Expertise:

ITI has developed the following major food products: cereal-based products; fruit and vegetable products; rambutan, lime, tamarind, banana, jak, mushroom, soya, confectionery, coconut, cashew, fish, fish waste, meat, and dairy products. The herbal products refined by ITI include essential oils; herbal teas, medicines, cosmetics, toiletries; aroma chemicals; bio-fertilizers; aloe creams and gels; and betel products.

ITI conducts numerous skill-building training programs within the communities to enhance the technical competence of prospective micro entrepreneurs. The Institute has filed 8 patent applications, pertaining to clay based technology to purify water; banana fibre paper; flavoured isotonic beverages; and Natural Methyl Eugenol based fruit fly trap.

Looking for:

ITI is looking forward to establishing research and development collaborations with other organizations in the fields of Herbal Technology, Food Technology, and Materials technologies. ITI also offers training facilities in Metrology, ISO 17025, and Herbal cosmetics, as well as transfer of a range of Herbal, Food & Material based technologies.

Industrial Research and Consultancy Centre (IRCC), Sudan

Introduction:

IRCC is an R&D and consultancy centre that was established with the assistance of United Nations Industrial Development Organization (UNIDO) and is affiliated with the Ministry of Industry, Government of Sudan. The research staff of the Centre includes, 29 associate professors, 17 assistant professors, 25 researchers, 77 assistant researchers, and 44 technicians.



Focus Areas:

The Centre is conducting research on the following lines: Innovation in Agro-industries; Competitiveness of Sudanese Industries; Renewable and Sustainable Resources; Indigenous Knowledge and Rural Industries; Entrepreneurial Development; Improving efficiency of Industrial Process; and Modern Science Application. The scope of services provided by IRCC includes: Research & Development; Consultancy; Quality Assurance; and Training.

Laboratories:

The laboratory facilities at IRCC include a tannery, chemical pilot plant, quality control and testing laboratory, advanced industrial information centre, physical and mechanical laboratory, and engineering design laboratory. IRCC has six specialized R&D departments: Food Industries Research Department; Leather Research & Technology Centre; Chemical Industries Research Department; Industry Economics Research Department (IERD); Industrial Information Research, Documentation and Publication Department; and Engineering Industries Research Department.

Expertise:

IRCC has expertise in Food industry and Quality Assurance; Chemical Industry; Engineering Industry; Leather Goods Design and Manufacturing; and Feasibility Studies and Project Evaluation. Moreover, the Centre provides consultation services in industrial planning; production management; and product design and development.

Looking for:

IRCC is willing to initiate research collaborations in the following areas: processing and storage of fruits and vegetables; production of magnesium chloride; using antifungal lactic acid bacteria for food preservation; using starch for biodegradable polymers; natural oils and antioxidants; extraction of bioactive substance from hibiscus sabdariff, etc. IRCC is also looking to set-up an Information Technology Centre in Sudan.



Université Cheikh Anta Diop (UCAD), Senegal

Introduction:

UCAD was established in 1957, and offers learning and research opportunities in a broad spectrum of disciplines. UCAD has 6 faculties, 10 university institutes, and an Inter-State School of Veterinary Sciences and Medicine.



Focus Areas:

The focused areas of UCAD are: Water Quality and Water Uses; Life Sciences, Health and Environment; Physics, Chemistry, Earth Sciences and Engineering; Human and Society; Mathematics and Computing. The university has three major units for: Renewable Energy; Plant and Microbial Biotechnologies; and Public Health (Bacteriology/Virology).

Laboratories:

UCAD has the following laboratories: Laboratory of Semiconductors and Solar Energy (LASES); Laboratory of Materials Science (LSM); Laboratory of Applied Energetics (LEA); Laboratory of Renewable Energy (LER); Laboratory of Physics of Atmosphere and Ocean; Laboratory of Photovoltaic Energy; Laboratory of Thermal Energy and Thermodynamics; Laboratory of Biomass and Domestic Fuels; Laboratory of Wind Energy; Laboratory of Plant Biotechnologies; Laboratory of Fungal Biotechnologies; Laboratory of Microbiology; and Virology Laboratory.

Expertise:

UCAD has expertise in Conversion and Energy Storage (Thermal, Wind, and Solar); Thermal Comfort in Housing and Energy Efficiency; Modeling Systems Renewables and Design of Static Converters; Monitoring and Control of Power Systems; Study of Cells produced by Electrochemical Doping; Electrical Properties of SnTe; Tabled CdTeSe and Electrochemical Characterization; and Models for the Spectral Response of Photo-electrochemical Cells.

Looking for:

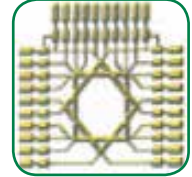
UCAD is looking for research collaborations in the fields of Agriculture, Food Security, Biotechnology, Renewable Energy, and Public Health.

Higher Institute of Applied Sciences and Technology (HIAST), Syria

Introduction:

HIAST was established in 1983 to produce highly-qualified engineers and researchers in applied sciences and technology, so they can actively participate in the scientific and economic development process in Syria. HIAST has 104 Ph.Ds, 132 engineers, 90 technicians, 90 administrative staff and 100 service workers.

HIAST offers courses leading to Bachelors, Masters and Doctoral degrees in the specialized fields of science and technology. It has 356 undergraduate, 75 postgraduate students, and 37 Ph.D students.



Focus Areas:

HIAST focuses on education and research in the following areas: Communication and Control Systems; Robotics; Mechatronics; Information Systems and Decision Support; Big Data Systems; Optical Science and Engineering; Aeronautics; and Materials Science and Engineering.

Laboratories:

Among the laboratories of HIAST, is the environmental studies that is conducting research on measuring the concentration of air and water pollutants for the treatment of water and waste disposal; measuring pollutants in the work-place and industrial emissions; and estimating the environmental impact and the danger imposed by the industrial projects.

Expertise:

HIAST has expertise in computer processing; renewable energy; sensors and measurement devices; various substances, compounds and materials with special properties; software for managing administrative and financial matters, as well as for decision-support systems; setting up information networks; and improving educational laboratory equipment in various fields.

Looking for:

HIAST is looking for collaboration with public and private-sector organizations for the execution of joint projects at regional and international levels, to enable technology transfer and experience sharing.



Tanzania Industrial Research and Development Organization (TIRDO), Tanzania

Introduction:

TIRDO was established in April 1979 for the purpose of conducting industrial research and offer consultancy/technical services to industries. It is a multi-disciplinary research and development organization, a semi-autonomous organization under the Ministry of Industry, Trade and Investment, Government of Sudan. TIRDO has 85 workers, including 35 researchers (scientists and engineers), 17 technicians and other administrative personnel.



Focus Areas:

TIRDO has the following focus areas: Industrial Research (Food and Biotechnology, Agro Processing Industrial Chemistry, Environmental Technologies and Occupational Safety); Engineering Development (Materials Science and Technology, Textile and Leather, and Energy); and ICT and Technology Transfer (ICT, Electronics & Instrumentation Technologies, and Technology Transfer).

Laboratories:

TIRDO comprises of the following six well-equipped research laboratories: Chemical Analytical laboratory; Energy laboratory; Materials laboratory; Environment laboratory; Food laboratory; and ICT laboratory.

Expertise:

TIRDO has expertise in material science; information technology; cyber security and forensics; food processing and bio-technology; fiber technology and leather; renewable energy; and agro-processing and industrial chemistry. Moreover, the Organization offers Non-Destructive Testing (NDT) for ultrasonic; radiographic; eddy current; magnetic particle; dye penetrant; and visual.

Looking for:

TIRDO is looking for collaboration in the fields of Agro Processing, Food and Micro-biology; Renewable Energies; Gas and Petrochemical Technologies; Coal Technologies; Iron and Steel Technologies; Textile and Leather Technologies; Natural and Medicinal Products; Biotechnologies; Pollution Prevention and Control; and ICTs.

Water Research and Technologies Centre (CERTE), Tunisia

Introduction:

CERTE was established in 2005, and operates under the Ministry of Higher Education and Scientific Research of the Republic of Tunisia. Its mission is to carry out research innovation activities and technological development in water sector and to transfer the scientific results to the socio-economic sectors. The Center is a part of the Borj-Cedria Technopark, specialized in Water and Environment.



Focus Areas:

CERTE focuses on research in the following areas: water treatment; reuse and recycling of urban water; reuse of industrial wastewaters; adapting and up-grading the wastewater treatment technologies; water pollution prevention and its environmental impact and human risk assessment; local water management at the urban, rural and industrial levels; climate change impact; reservoir geology; geophysics of deep aquifers; geostatic and geomatics engineering; identification, characterization and resolving problems of scaling; mineralization of carbonates, iron, phosphate and nitrates in water; distribution network of drinking water; and water desalination.

Laboratories:

CERTE has the following three laboratories: Geo-Resources Laboratory; Wastewater Treatment Laboratory; and Natural Water Treatment Laboratory.

Expertise:

CERTE has expertise in: analysis and treatment by membrane technologies for industrial water and desalination; capacity-building for water resource investigations (geophysics and geochemistry); physical-chemical and microbiological characterization (analysis of water, waste, and sediment); analysis and services for academic, economic and industrial institutions (SEM, RX, AFM, GCMS, HPLC, GIS and LCA); wastewater treatment expertise, plant designs and diagnostics; and pilot plants for innovative investigation and optimization studies.

Looking for:

CERTE is looking for partnership with industry and academia in order to contribute to the water sciences and technology development.

TÜBİTAK Marmara Research Center (MAM), Turkey

Introduction:

TÜBİTAK MAM has been at the forefront of science and technology development in Turkey. Established in 1972, TÜBİTAK MAM is now an internationally reputed S&T organization. The Center has a staff of 942, out of which 3% are directors and 73% are engaged in research and development, besides other 24% supporting staff.



Focus Areas:

TUBITAK MAM focuses on research in the following areas: Chemical Technology; Earth & Marine Sciences; Energy; Environment & Cleaner Production; Food; Genetic Engineering & Biotechnology; and Materials. TÜBİTAK MAM's activities can be classified as Industrial Projects (e.g. developing products and processes, reducing costs, increasing productivity, etc.) or as Industrial Services (e.g. testing, analysis, measurement/monitoring, training and consultancy).

Laboratories:

TUBITAK MAM has 213 laboratories under the following institutes: Institute of Chemical Technology; Earth & Marine Sciences Institute; Energy Institute; Environment & Cleaner Production Institute; Food Institute; Genetic Engineering & Biotechnology Institute; and Materials Institute. TUBITAK MAM has acquired: National Secret Facility Security Clearance Certificate; NATO Secret Facility Security Clearance Certificate; Production Permit from the Ministry of National Defense; ISO 9001-2008 Quality Management System Certificate; ISO 14001-2004 Environmental Management System Certificate; ISO 17025 Accreditation of Laboratory Services; and EFQM Excellence Award.

Expertise:

TÜBİTAK MAM has expertise in development of new knowledge for situations that cannot be resolved with readily available methods/technologies; development of solutions for technological problems; training projects for increasing the efficiency, productivity and international competitiveness of customers, as well as training projects for improved management; and consultancy projects involving the identification of feasible alternatives or the provision of infrastructure for solving technological problems and developing technological systems or methods. It conducts 1,256 types of analysis, which total to 55,000 such analyses per year. The Center is currently working on 208 different projects.

Looking for:

TUBITAK MAM is looking to have collaborations in the following fields: Chemical Technology; Earth & Marine Sciences; Energy; Environment & Cleaner Production; Food; Genetic Engineering & Biotechnology; and Materials.

LIST OF HEADS OF CENTRES OF EXCELLENCE

Mr. Md. Faruque Ahmed

Chairman
Bangladesh Council of Scientific and Industrial
Research (BCSIR)
Dhaka, Bangladesh.
Tel: (+880-2) 58610634/9635468
URL: www.bcsir.gov.bd
Email: chairman@bcsir.gov.bd

Dr. Gustavo Ribeiro Xavier

Director General
Embrapa Agrobiologia
Rio de Janeiro, Brazil.
Tel: (+55-21) 26821166
URL: www.embrapa.br/agrobiologia
Email: gustavo.xavier@embrapa.br

Prof. Lin Zhaohui

Director
International Center for Climate and Environment
Sciences (ICCES)
Beijing, China.
Tel: (+86-10) 82995125
URL: english.icces.ac.cn
Email: lzh@mail.iap.ac.cn

Dr. Eduardo Posada F.

Director
International Centre of Physics (CIF)
Bogotá, Colombia.
Tel: (+57-1) 4808991
URL: www.cif.org.co
Email: cif.eposada@gmail.com

Prof. Dr. Ashraf Shaalan

President
National Research Centre (NRC)
Cairo, Egypt.
Tel: (+20-2) 33371010/33354971
URL: www.nrc.sci.eg
Email: president@nrc.sci.eg

Prof. Dr. Victor Agyeman

Director General
Council for Scientific and Industrial Research
(CSIR)
Accra, Ghana.
Tel: (+233 21) 774772
URL: www.csir.org.gh
Email: agyemanvictor@yahoo.com

Dr. Fathollah Moztarzadeh

President
Iranian Research Organization for Science &
Technology (IROST)
Tehran, Iran.
Tel: (+98-21) 88826830
URL: www.irost.org
Email: moztarzadeh@irost.ir

Mr. Charles N. Grant

Director General
International Centre for Environmental and
Nuclear Sciences (ICENS)
Kingston, Jamaica.
Tel: (+1-876) 9271777
URL: www.icens.org
Email: charles.grant@uwimona.edu.jm

HRH Princess Sumaya bint El Hassan

President
Royal Scientific Society (RSS)
Amman, Jordan.
Tel: (+962-6) 5344701
URL: www.rss.jo

Prof. Dr. G. M. Mutanov

Rector
Al-Farabi Kazakh National University (KazNU)
Almaty, Kazakhstan.
Tel: (+7-727) 3773311
URL: www.kaznu.kz/en/
Email: rector@kaznu.kz



Prof. Stephen E. Onah

Director/Chief Executive
National Mathematical Centre (NMC)
Abuja, Nigeria.
Tel: (+234-80) 55744348
URL: www.nmcabuja.org
Email: director@nmcabuja.org

Prof. Dr. M. Iqbal Choudhary

Director
International Center for Chemical and Biological
Sciences (ICCBS)
Karachi, Pakistan.
Tel: (+92-21) 4824924
URL: www.iccs.edu
Email: iqbalhej@yahoo.com

Prof. Dr. Raheel Qamar

Rector
COMSATS Institute of Information Technology
(CIIT)
Islamabad, Pakistan.
Tel: (+92-51) 8318485, 8318471
URL: www.ciit.edu.pk
Email: rector@comsats.edu.pk

Prof. Dr. Imad F. S. Abukishek

President
Al-Quds University
Abu Dis, Palestine
Tel: (+972-2) 5838652/2794846
URL: www.alquds.edu/en
E-mail: president@alquds.edu

Dr. G.A.S. Premakumara

Director/CEO
Industrial Technology Institute (ITI)
Colombo, Sri Lanka.
Tel: (+94-11) 2379800
URL: www.iti.lk
Email: gasp@iti.lk

Dr. Widad Hassan Abdel Halim Hassan

Director General
Industrial Research and Consultancy
Centre (IRCC)
Khartoum, Sudan.
Tel: (+249-185) 322244
URL: www.ircc.gov.sd
Email: director_general@ircc.gov.sd

Prof. Ibrahima Thioub

Rector/President of the Assembly
of the Université Cheikh Anta Diop
of Dakar (UCAD)
Dakar, Senegal.
Tel: (+221-33) 8692782
URL: www.ucad.sn
E-mail: rectorat@ucad.sn

Dr. Maher Suleiman

Director
Higher Institute for Applied Science and
Technology (HIAST)
Damascus, Syria.
Tel: (+963-11) 5123819
URL: www.hiast.edu.sy
Email: maher.suleiman@hiast.edu.sy

Prof. Mkumbukwa Madundo Angelo Mtambo

Director General
Tanzania Industrial Research and
Development Organization (TIRDO)
Dar-es-Salaam, Tanzania.
Tel: +(255-22) 2666034
URL: www.tirdo.org
E-mail: madundo@yahoo.com

Prof. Ahmed Ghrabi

Director General

Water Research and Technologies Centre of Borj-
Cedria (CERTÉ)

Soliman, Tunisia.

Tel: (+216-79) 325122/199

URL: www.certe.rnrt.tn

Email: ahmed.ghrabi@certe.rnrt.tn

Dr. Orkun Hasekioglu

President

TÜBİTAK Marmara Research Center (MAM)

Gebze Kocaeli, Turkey.

Tel: (+90-262) 6772011

URL: www.mam.gov.tr

Email: orkun.hasekioglu@tubitak.gov.tr





BCSIR-Bangladesh



Embrapa Agrobiologia-Brazil



ICCES-China



CIF-Colombia



NRC-Egypt



CSIR-Ghana



IROST-Iran



ICENS-Jamaica



RSS-Jordan



KazNU-Kazakhstan



NMC-Nigeria



ICCBS-Pakistan



CIIT-Pakistan



AQU-Palestine



UCAD-Senegal



ITI-Sri Lanka



IRCC-Sudan



HIAST-Syria



TIRDO-Tanzania



CERTE-Tunisia



TÜBITAK MAM-Turkey

COMSATS Secretariat

Shahrah-e-Jamhuriat, G-5/2, Islamabad - 44000, Pakistan

Tel: (+92-51) 9214515-17, Fax: (+92-51) 9216539

E-mail: comsats@comsats.org, URL: www.comsats.org