COMSTECH
Contribution to STI Capacity Building, Networking & Policy Initiatives for OIC Member States

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March 2020

OIC Ministerial Standing Committee on Scientific and Technological Cooperation (COMSTECH)

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Detailed information on the activities of COMSTECH can be obtained by visiting www.comstech.org

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Executive Summary

The OIC Ministerial Standing Committee on Scientific and Technological Cooperation (COMSTECH) was established by the Third Islamic Summit held at Makkah, Saudi Arabia, in January 1981. Behind its set-up were the objectives to undertake follow up actions and implementation of the OIC resolutions, and to contribute towards strengthening the science and technology (S&T) capacity of the OIC member states through mutual cooperation, collaboration and networking of resources.

Since its inception, COMSTECH has taken many initiatives for the promotion of S&T in the OIC member states. Some of these programmes include research grants, training courses, travel support, institution building, establishment of Inter-Islamic Networks, Literature Search Service, etc. It also initiated a number of other activities summarized in Section 4 of this document. One of these is the establishment of COMSTECH Science, Technology & Innovation (STI) Policy Research Training Centre in 2006.

A major focus of COMSTECH has been on human resource development. Through joint research grants programmes with International Foundation for Science (IFS), Islamic Scientific, Educational and Cultural Organization (ISESCO), The World Academy of Sciences (TWAS), The Eastern Mediterranean Regional Office of the World Health Organization (WHO/EMRO), and Inter-Islamic Network on Water Resources Development and Management (INWRDAM), COMSTECH has awarded US$ 7.1925 million to 719 projects during 1998-2019. Figure 1 gives details of the grants to various OIC member states, and Figure 2 depicts year-wise distribution of these grants.

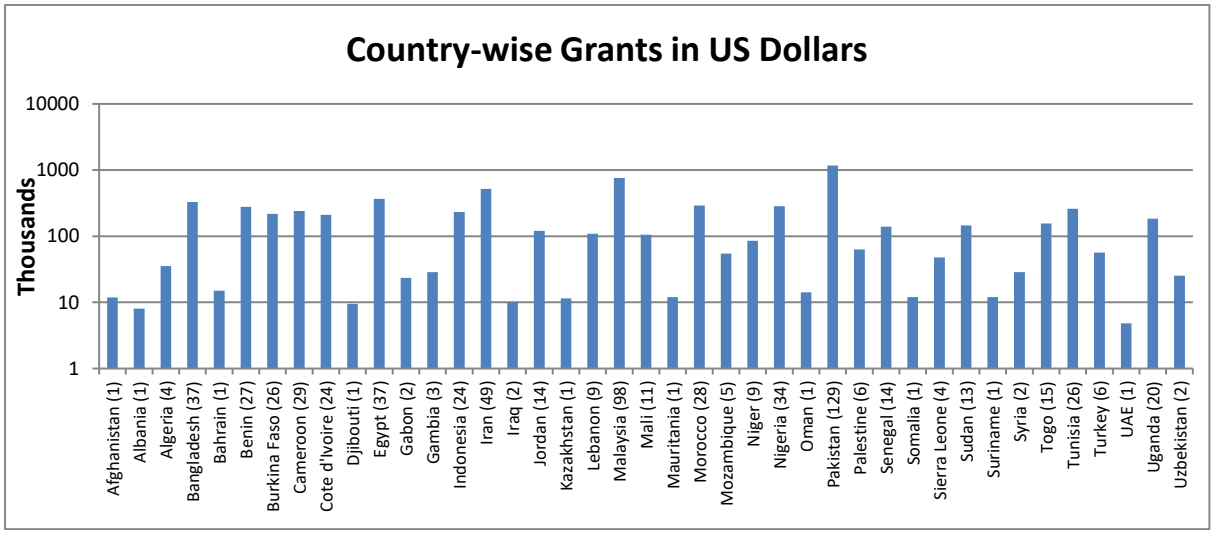


Fig.1. Joint reaserach grants of COMSTECH with EMRO-WHO, IFS, ISESCO, TWAS and INWRDAM awarded during 1998-2019 to various OIC member states. In parentheses are numbers of the projects supported.

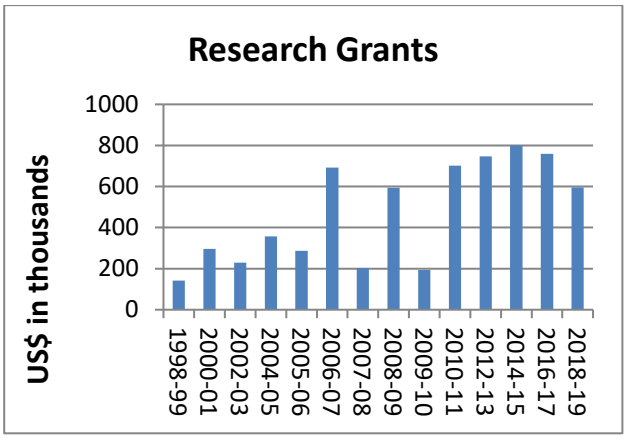


Fig. 2. COMSTECH-EMRO, -IFS, -ISESCO, -TWAS, -INWRDAM joint research grants awarded during 1998-2019.

COMSTECH initiated a program of offering training courses/ thematic workshops in 2006. Under this, 78 courses were organized in cutting edge fields of S&T and trained 2,635 participants from 32 OIC member states. Some 716 experts, including 247 from abroad, volunteered to act as resource persons. In parallel with this series of thematic workshops, the STI Centre of COMSTECH also organized regular training courses and workshops spanning 3 days to 4 weeks. Since 2006, 23 of these trained 680 participants including 278 from OIC member states. The 145 resource persons who conducted these training courses included 67 experts from abroad.

Along with these workshops and training courses, COMSTECH also organized three international conferences. These were addressed by 22 foreign and 80 Pakistani speakers.

Under visiting scientists and travel grants programs, COMSTECH has disbursed US$ 50,330/- to scientists and researchers from different OIC member states. Details of this activity are shown in Figure 3.

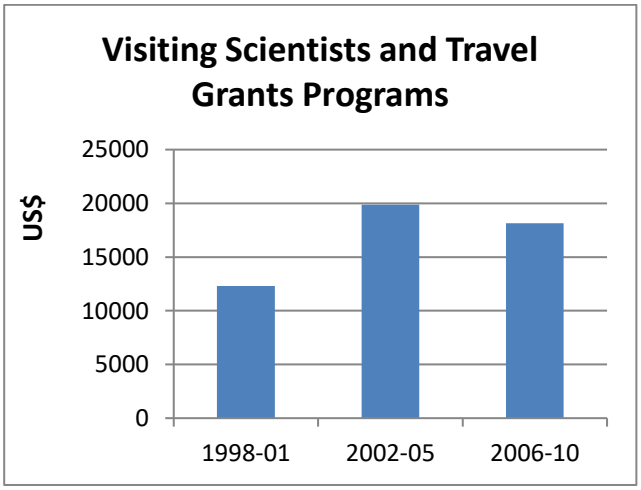


Fig. 3. Grants given to visiting scientists/travels during 1998-2010.

COMSTECH has published Mineral, Health & Medical, Food & Agriculture, and Industrial profiles of OIC member states. It has produced monographs on Climate Change, Energy Strategies for OIC, World Trade Organization & OIC, Bioinformatics, and compiled Model Biosafety Guidelines and Islamic Biomedical Ethics. Books on Status of Scientific Research in OIC, Strategy for the Development of S&T in Islamic countries, Science and Technology Policy for Industrialization, Leading Scientists and Engineers of OIC, and World Islamic Calendar have been published. COMSTECH has also compiled a 16 volume Directory of Active Scientists of the OIC member states.

Introduction

The Organization of Islamic Cooperation (OIC) Ministerial Standing Committee on Scientific and Technological Cooperation (COMSTECH) was established in 1981 under the chairmanship of the President of Pakistan. The Committee was mandated to undertake follow-up-actions and implementation of the resolutions of OIC, to study all possible means of strengthening cooperation among member states, and to draw up programs and submit proposals designed to increase the capability of the Muslim countries in science and technology (S&T). Also, it was entrusted to enable the OIC member states to use S&T and innovation as a major contributor to socio-economic development and rapid industrialization.

The mission of COMSTECH is to contribute towards strengthening the individual and collective capacity of OIC member states in S&T through mutual cooperation, collaboration and networking of resources. Also, it aims to enable the OIC member states to use S&T as a major contributor to socio-economic development and rapid industrialization.

The objectives of COMSTECH include (i) Assessment of human and material resources of the member states and determination of scientific and technological needs and requirements of the Ummah, (ii) Building of indigenous capabilities of member states in the fields of science and technology through cooperation and mutual assistance, (iii) Promotion of continuing cooperation and coordination in scientific and technological areas amongst the OIC member states with a view to achieving collective strength in science and technology for solution of the problems of the OIC member states, and (iv) Creation of an effective institutional structure for planning, research, development and monitoring of scientific and technological activities at national, regional, and international levels.

COMSTECH functions in collaboration with member states of the OIC and maintains working relations with all their major Scientific and Technological Institutions, as well as some other international organizations. The latter include The World Academy of Sciences (TWAS), Islamic Scientific, Educational and Cultural Organization (ISESCO), Islamic World Academy of Sciences (IAS), Islamic Development Bank (IDB), Global Environment Facility (GEF), United Nations Education Program (UNEP), United Nations Development Program (UNDP), International Foundation for Science, Stockholm (IFS), etc.

COMSTECH endeavors to take new initiatives to achieve its aims and objective. This report gives a comprehensive account of COMSTECH Programs and activities for capacity building in S&T, ultimately aimed at socio-economic development of the OIC member states. It gives detailed information on the progress of research grants, workshops, training courses and travel grants. Summary of other initiatives has also been given so that the reader can have an in-depth insight of COMSTECH programmes and achievements.

1. COMSTECH-EMRO/WHO Research Grants Program

The Eastern Mediterranean Regional Office of the World Health Organization (WHO/EMRO) and the Organization of Islamic Cooperation (OIC) Standing Committee for Science and Technological Cooperation (COMSTECH) established a joint grant in 2004 to support research in EMR countries (all of which are members of

OIC) in applied Biotechnology and Genomics. The overall purpose behind the initiation of the grant was to promote research, encourage networking, generate new knowledge and stimulate the application of biotechnology and genomic driven interventions in health care.

The first call for EMRO-COMSTECH Grant was made in late 2004 and 16 proposals from the member states were funded through the Grant. For the 2nd round of RAB&GH there was a strict condition of collaborative proposals. Therefore, only such proposals were considered eligible for EMRO-COMSTECH Grant in which investigators from two or more institutions from EMRO countries collaborated on a unified research topic pertaining to one of the priority areas specified for the Grant. As a result, 19 proposals were funded in the region involving 8 collaborative groups each comprising 2 or 3 institutes from the same or different countries. As for the 3rd call, 14 collaborative proposals were funded, and in the 4th call 11 proposals for health research were selected.

The main aim of the EMRO-COMSTECH Grant is to focus on application of biotechnological and genomic techniques to strengthen health systems and improve health care. It is expected that the priority research areas identified for the Grant will stimulate and sustain multidisciplinary applied research to exploit the full potential of genome information to underpin applications to human health. Emphasis was put on research aimed at bringing basic knowledge to the application stage in order, to enable real, consistent and coordinated progress for improving the quality of health care in the Region.

The present day genomic and biotechnological research, being interdisciplinary in nature, necessitates team work of diverse capabilities and institutional facilities. Thus, one of the main purposes of EMRO-COMSTECH Grant is to support South-South cooperation for the conduct of applied research. Normally, collaborative research requires a broad range of expertise and participants, with collaboration between researchers in other disciplines, sectors, institutions and geographic locations. However, even a modest collaboration among the researchers of two different organizations/ institutions of the EMR countries is expected to:

- Synergize the process to overcome obstacles and manage inescapable interdependencies needed for research in genomics and biotechnology;
- Make services more accessible and effective;
- Increase the integration of research results into other sectors (e.g., industry, government agencies or departments, community groups, universities) and offer opportunities to aid the dissemination of results;
- Diversify capability to accomplish tasks (e.g., provide opportunities for trainees to spend time in different laboratories, exchange of data and experience between institutions and sectors);
- Foster ties between researchers in the academic, community, private and public sectors.

Under COMSTECH-EMRO/WHO joint program sixty research projects in eleven Member States of OIC (Bahrain, Egypt, Iran, Jordan, Lebanon, Morocco, Oman, Pakistan, Palestine, Syria and Tunisia) have received US$ 784,900 as given in Tables 1 and 2. Currently this program is suspended.

Table 1. COMSTECH-EMRO/WHO Grants

S. No.	Country Name	No. of Grantees	Grant in US$
	2005-2006		
1.	Egypt	2	22000
2.	Islamic Republic of Iran	5	59500
3.	Jordan	1	18000
4.	Lebanon	2	26500
5.	Morocco	2	15000
6.	Pakistan	1	13000
7.	Syrian Arab Republic	1	10500
8.	Tunisia	2	33300
	Total	**16**	**197800**
	2006-2007		
1.	Egypt	3	44,000
2.	Iran	6	78,800
3.	Morocco	3	38,000
4.	Oman	1	17,700
5.	Pakistan	5	58,900
6.	Syria	1	18,000
	Total	**19**	**255,400**
	2007-2008		
1.	Egypt	2	27,000
2.	Iran	3	45,000
3.	Lebanon	2	30,000
4.	Morocco	3	43,000
5.	Pakistan	3	45,000
6.	Tunisia	1	13,000
	Total	**14**	**203,000**
	2010-11		
1.	Bahrain	1	15000
2.	Egypt	3	39,200
3.	Morocco	3	45,000
4.	Pakistan	3	45,000
5.	Palestinian Authority	1	15,000
	Total	**11**	**159,200**

Table 2. COMSTECH-EMRO/WHO Grantees – 2005-2011

S. No.	Country Name	No. of Grantees	Grant in US$
	2005-2011		
1.	Bahrain	1	15,000
2.	Egypt	10	119,200
3.	Iran	14	184,300
4.	Jordan	1	18,000
5.	Lebanon	4	56,500
6.	Morocco	11	141,000
7.	Oman	1	14,200
8.	Pakistan	12	146,900
9.	Palestinian Authority	1	15,000
10.	Syria	2	28,500
11.	Tunisia	3	46,300
	Total	**60**	**784,900**

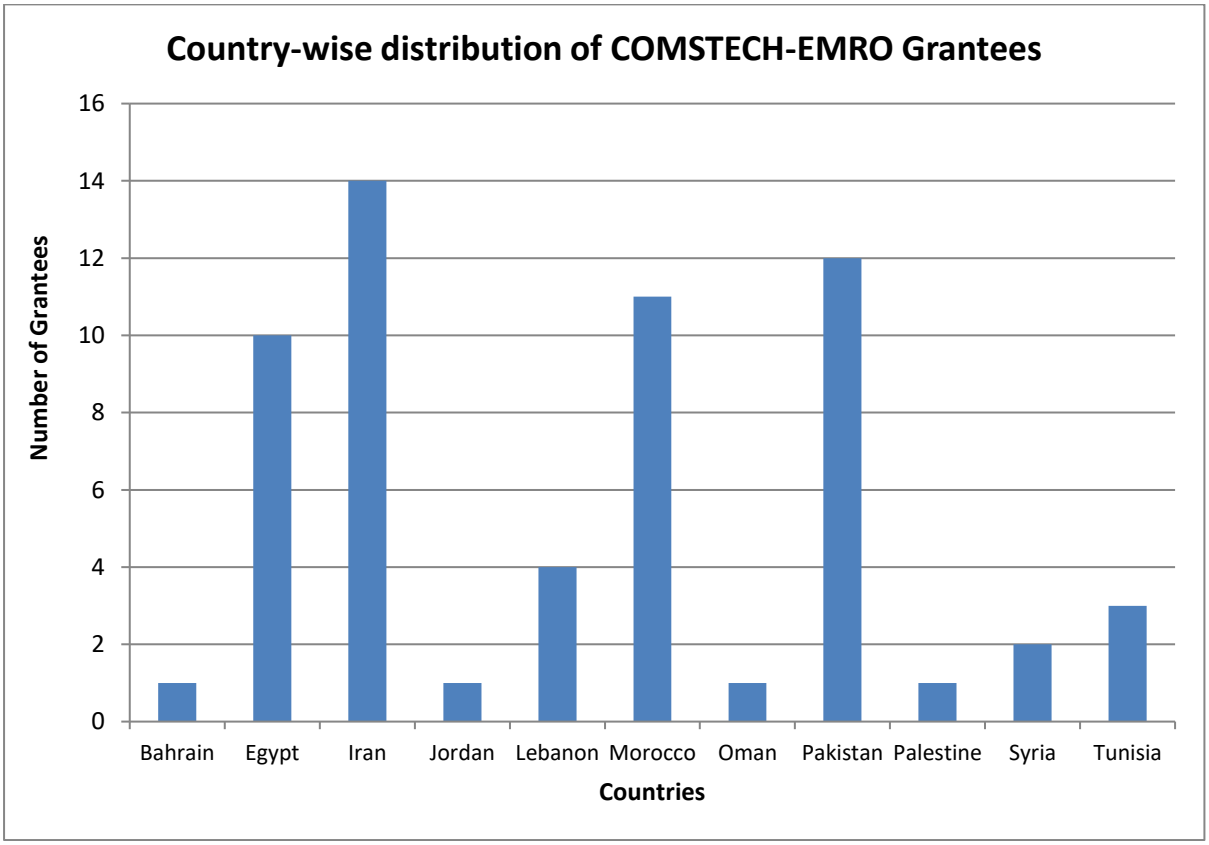


Fig. 4. Distribution of COMSTECH-EMRO Grants to various countries.

Details of Grantees

1. **Bahrain** US$15,000

Hayder Ahmed Giha
Arabian Gulf University (AGU) / Princes Al-Jawhara for
Genetic Diagnosis & Research

Collaborative study on variations of Ghrelin and GHS-R gene polymorphism in insulin resistance / type 2 diabetes, in the GCC region (2010-2011)

2. **Egypt** US$18,000

Dr. El Rashdy M. Redwan
Genetic Engineering and Biotechnology Research Institute (GEBRI)
Alexandria Protein Research Department, GEBRI, Mubarak City, NEW Borg EL Arab. Alexandria, Egypt

Production of human recombinant anti-tetanus Fab suing high throughout of phage display and Pichia pastoris (2004-2005)

3. **Egypt** US$4,000

Dr. Mona K. Marei
Tissue Engineering Laboratories, Osteoporosis Clinic, Faculty of Dentistry, Champolion St., Azarita, Alexandria, Egypt

Bioinformatics in tissue Engineering Science and Technology (2004-2005)

4. **Egypt** US$15000

Dr. Mohamed Abdel Hamid
10 Kasr El-Eini Street, Cairo – Egypt

Use of cDNA microarray for discovery of prognostic Markers for Squamous Cell Carcinoma of the Bladder.(2004-2005)

5. **Egypt** US$12,000

Dr. Hussain Khaled
National Cancer Institute, Kasr El-Eini St. Fom-Elkhalig, Cairo – Egypt

Use of immunohistochemistry to validate cDNA microarray results for prognostic markers of squamous cell carcinoma of the bladder.(2006-2007)

6. **Egypt** US$18000

Mohamed Abdel Hamid
10 Kasr El Aini St., National Hepatology and Tropical Medicine Research Institute Cairo, Egypt
(PI name has changed as recommended by committee) Dr. Hala Hamza
hamzah@internetegypt.com

The role of selected gene mutations in the pathogenesis of congenital heart disease in Egypt.(2004-2005)

7. **Egypt** US$15000

Dr. Mohamed Abdel Hamid
Viral Hepatitis Research Lab, 10 Kasr El-Eini Street, Cairo Egypt

Microarray and Q-PCR analysis of the Expression of Xenobiotic-Metabolizing Enzymes in Hepatocellular Carcinoma.(2008-2009)

8. **Egypt** US$13000

Dr Hussain Khaled
Kasr El-Eini St, Fom El-Khalig, Cairo Egypt

Use of Immunohistochemistry to detect the Expression of Xenobiotic-Metabolizing Enzymes in Hepatocellular Carcinoma (2006-2007)

9. **Egypt** US$15000

Prof. Iman Mohamed Marzouk
Faculty of Medicine, Alexandria University

Collaborative Research on Gaucher's Disease: Genotype/ Phenotype correlation of Gaucher's Disease in Egypt (2010-2011)

10. **Egypt** US$9200

Dr. Marilys CORBEX
Centre National de l'Energie des Sciences et des
Techniques nucléaires Brest Cancer Fondation of Egypt

Collaborative study on the specific features of Breast cancer in the Eastern Mediterranean Region: exploration of the role of genetic and viral etiology(2010-2011)

11. **Egypt** US$15,000

Prof. Dr. Nevene Ramsis Wissa
Head of Clinical Pathology Department, Faculty of Medicine, Suez Canal University, Round Road, Ismailia 41111

Association of Interleukin-18 Gene Polymorphism (-607 C/A) in HCV related hepatocellular carcinoma(2010-2011)

12. **Iran** US$12000

Dr. Hamideh Ofoghi
Iranian Research Organization for Science and Technology
No. 71, Forsat St., Engelab Ave., P.O Box 15815/3538,Tehran, Iran

Improving human recombinant calcitonin Expression level in Transgenic Potato Tuber by using Patatin class Promoter(2004-2005)

13. **Iran** US$13000

Dr. Haleh Hashemi Sohi
National Research Centre for Genetic Engineering and Biotechnology
No. 19, Shahid Shafiee Alley, Qods St., Enghelab Ave.
P.O. Box 14155-6343, Tehran, Iran

Production of pharmaceutical proteins in semi-desert plants(2004-2005)

14. **Iran** US$13000

Dr. Sedigheh Zakeri
Malaria Research Group, Biotechnology Department
Pasteur Institute of Iran, Tehran

Collaborative Research: Genome Analysis of *Plasmodium Falciparum* for Antimalarial Drug Monitoring in Baluchistan Iran(2006-2007)

15. **Iran** US$11000

Dr. Masoud Salehi
Zahidan University of Medical Sciences, Behdasht Avenue, Zahidan

Collaborative Research: Genome Analysis of *Plasmodium Falciparum* for Antimalarial Drug Monitoring in Baluchistan Iran(2006-2007)

16. Iran US$10500

Dr. M. Hussain Sanati
Genetic Disease Department, National Institute for Genetic Engineering and Biotechnology
No. 15, Abbas Shafiee Alloy, Quds Street, Inqilab Avenue, Tehran

Genetic Basis of Vision Impairment (Glaucoma) in Iran(2006-2007)

US$12000

17. Iran

Dr. Navid Dinparast Djadid
Malaria Research Group, Biotechnology Dept., Pasteur Institute of Iran

Collaborating Research: Developing a molecular kit for monitoring insecticide resistance in four major malaria vectors of Eastern Mediterranean region (EMR).(2006-2007)

18. Iran US$6000

Zahra Zamani
Biochemistry Dept. Pasteur Institute of Iran, Tehran – Iran

Collaborative project on research on structural and mechanistic studies of merozoite surface protein – 1 (MSP-1) for preparation of recombinant MSP-1 malaria vaccine – The study on C19 – terminal of MSP-1.(2006-2007)

19. Iran US$12000

Dr. Sima Rafati
Pasteur Institute of Iran

Preparation of diagnostic kit using L. infantum C-terminal extension of type I cysteine proteinase for early detection of human visceral leishmaniasis(2004-2005)

20. Iran US$18000

Mohammad Reza Pourshafie
Pasteur Institute of Iran, Dept. of Microbiology, Tehran, Iran

Molecular diagnosis of vancomycin resistant genes in enterococci and Staphylococcus aureus strains isolated in municipal and hospital wastewater in Iran(2004-2005)

21. Iran US$17800

Mahmood Chamankhan
Shahid Beheshti Medical Sciences University, Tehran, Iran

Proteomics analysis of immunologic infertility: detection of immunodominant sperm surface antigens in Iranian infertile patients.(2004-2005)

22. Iran US$13000

Marjan Mohammadi
Biotechnology Department, Pasteur Institute of Iran

Determination of toxicity of Iranian Helicobacter pylori strains: From Gene to Protein to Function: Application to diagnostics and patient screening.(2004-2005)

23. Iran US$15000

Dr. Soroush Sardari
No. 69, Pasteur Ave., Pasteur Institute of Iran

Collaborative Research of Investigation of non-communicable diseases in post-genomics era (2008-2009)

24. Iran US$6000

Dr. Zahra Zamani
Biochemistry Dept., Pasteur Institute of Iran, Tehran, Iran

Collaborative Research on Genetic variants of different stage specific antigen proteins can provide diverse glycosylation substrates acting as antigenicity determinant for vaccine against malaria-Glycosylation studies (2008-2009)

25. Iran US$15000

Mina Ebrahimi-Rad
Pasteur Institute (N:69), Pasteur Avenue, Tehran, Iran,

Collaborative "Mutator *M.tuberculosis* in Tehran and Rawalpindi; A Comparative Study on Fingerprinting, Mutator Genes, and Antibiotic Resistance Genes of the Isolates"(2008-2009)

26. Jordan US$18000

Dr. Wail A. Hayajneh
Department of Biotechnology and Genetic Engineering,
Jordan University of Science and Technology, P.O. Box 3030,
Irbid, Jordan 22110

Invasive Streptococcus pneumonia serotypes: genotypic and phenotypic characteristics in North Jordan (2004-2005)

27. Lebanon US$13000

Dr. Hala Ghali Muhtasib
American University of Beirut

Collaborative Research on the Anti-Inflammatory Anti-cancer Effects of Gallotannin in Human Colon Cancer Cells: Anti-cancer Effects of Gallotannin(2006-2007)

28. Lebanon US$13500

Dr. Raghida Abou Merhi
Science Faculty, Section-1, Lebanese American University, Hadath.

Collaborative Research on the Anti-inflammatory and Anti-Cancer Effects of Gallotannin in Human Colon Cancer Cells: Anti-Cancer Effects of Gallotannin (2006-2007)

29. Lebanon US$15000

Dr Raghida Abour Mrhi, Lebanese University

Collaborative Research on the molecular mechanisms of the Anti-Cancer and Anti-inflammatory effects of Gallotannin: Anti-inflammatory effects of Gallotannin(2008-2009)

30. Lebanon US$15000

Dr Hala Muhtasib

Collaborative Research on the molecular mechanisms of the Anti-Cancer and Anti-inflammatory effects of Gallotannin: Anti-inflammatory effects of Gallotannin(2008-2009)

31. Morocco US$12000

Prof. Rajae El Aouad
National Institute of Hygiene, 27 Avenue Ibn Batouta, BP 789
Rabbat-11400

Collaborative Research on Tuberculosis in Morocco: Evaluation of the Performance of Antigenic Epitomic Peptides for the Development of a new test allowing the different Diagnosis between the Active Tuberculosis and the Latent Tuberculosis Infections (2006-2007)

32. Morocco US$3000

Prof. Ghali Iraqi
Department of Tuberculosis and Lung Diseases
Faculty of Medicine of Rabat, Hospital Monlay Youssef of Rabat
University Hospital, Ave Mohammed Ben Abdelllah Akkari
B.P. 1017 RP, Rabat-10,000

Tuberculosis in Morocco: Diagnosis of the active Tuberculosis when fast Mycobacterium tuberculosis identification is negative (2006-2007)

33. Morocco US$13000

Mohammed ATTALEB
B.P. 1382 R.P. 10001- Rabat

The assessment of epidermal growth factor receptor (EGFR) abnormalities as a prognostic marker in cervical cancer.(2006-2007)

34. Morocco US$15000

Meriem KHYATTI
1, Rue Abou Kacem Ez-Zahraoui, 20 100, Casablanca

The assessment of epidermal growth factor receptor (EGFR) abnormalities as a prognostic marker in cervical cancer.(2006-2007)

35. Morocco US$12000

Dr. Meryem lemrani
Pasteur Institute of Morocco

Preparation of diagnostic kit using L. infantum C-terminal extension of type I cysteine proteinase for early detection of human visceral leishmaniasis (2010-2011)

36. Morocco US$15000

Mohammed Attaleb
B.P. 1382 R.P. 10001- Rabat

The Assessment Of Human Papillomavirus Intratypic Variants Distribution In Normal Cytology, Intraepithelial Lesions, And Cervical Cancer In A Moroccan Population (2008-2009)

37. Morocco US$15000

Meriem KHYATTI
1, Rue Abou Kacem Ez-Zahraoui, 20 100, Casablanca

The Assessment of Human Papillomavirus Intratypic Variants Distribution In Normal Cytology, Intraepithelial Lesions, And Cervical Cancer In A Moroccan Population (2010-2011)

38. Morocco US$13000

Abdelhamid Barakat
1 Place Louis Pasteur 20100, Casablanca, Morocco

"Collaborative Research on Investigation of non-communicable diseases in post-genomics era " (2008-2009)

39. Morocco US$15000

Meryem Lemrani
Institut Pasteur du Maroc

Collaborative Research on: Detection, identification and molecular typing of *Leishmania tropica* in *Phlebotomus sergenti* and skin lesions from patients in different foci of cutaneous leishmaniasis in Morocco and Palestine (2010-2011)

40. Morocco US$15000

Meriem Khyatti
Institut Pasteur du Maroc

Collaborative study on the specific features of Breast cancer in the Eastern Mediterranean Region: exploration of the role of genetic and viral etiology (2010-2011)

41. Morocco US$15000

Mohammad Attaleb
Centre National de l'Energie des Sciences et des Techniques nucléaires (CNESTEN)

Collaborative study on the specific features of Breast cancer in the Eastern Mediterranean Region: exploration of the role of genetic and viral etiology (2010-2011)

42. Oman US$14200

Zakiya M.N. Al Lamki
Sultan Qaboos University, Dept. of Child Health
College of Medicine & Health Sciences, Sultanate of Oman

Social, Cultural, Legal and Ethical Issues related to Gene in a developing country. (2004-2005)

43. Pakistan US$13000

Dr. Shaheen N. Khan
Senior Research Officer
Centre for Applied Molecular Biology, University of the Punjab
87-West Canal Bank Road, Thokar Niaz Baig, Lahore-53700

Studies on the Genetic & Molecular Basis of Hearing and Vision Impairment (2006-2007)

44. Pakistan US$11400

Dr. Syeda Azra Qamar
A-271, Sector 11/B, North Karachi, Karachi – Pakistan

Collaborating Research: Developing a molecular kit for monitoring insecticide resistance in four major malaria vectors of Eastern Mediterranean region (EMR).(2006-2007)

45. Pakistan US$10000

Prof. Dr. Abdul Rauf Shakoori
School of Biological Sciences, University of the Punjab, Lahore – Pakistan

Collaborative research on structural and mechanistic studies of merozoite surface protein-1 (MSP-1) for preparation of recombinant MSP-I malaria vaccine – experimental aspects.(2006-2007)

46. Pakistan US$10000

Dr. Nasiruddin
Institute of Molecular Sciences & Bioinformatics, NISBET Road, Lahore – Pakistan

Collaborative research on structural and mechanistic studies of merozoite surface protein-1 (MSP-1) for preparation of recombinant MSP-I malaria vaccine – computational studies(2006-2007)

47. Pakistan US$14500

Saifullah Khan
HEJ Research Institute of Chemistry, University of Karachi, Karachi-Pakistan.

Application of the biotransformation techniques to produce value added compounds using plant cell cultures. (2004-2005)

48. Pakistan US$13000

Dr. Sheikh Riazuddin
National Centre of Excellence in Molecular Biology, Lahore, Pakistan.

Studies on the IL-8 levels and mutations in E2 and NS5A genes of Hepatitis C virus in resistance to antiviral therapy. (2004-2005)

49. Pakistan US$15000

Prof. Dr. Abdul Rauf Shakoori
School Of Biological Sciences, University of The Punjab
New Campus, Lahore 54590, Pakistan

Genetic variants of different specific antigen proteins can provide diverse glycosylation substrates acting as antigenicity determinant for vaccine against malaria- Cloning and expression studies(2008-2009)

50. Pakistan US$15000

Prof. Dr. Nasiruddin
Institute Of Molecular Sciences & Bioinformatics, Nisbet Road
Lahore, Pakistan

Genetic variants of different stage specific antigen proteins can provide diverse glycosylation substrates acting as antigenicity determinant for vaccine against malaria-Computational Studies(2008-2009)

51. Pakistan US$15000

Prof. Dr. Azra Khanum
Pir Mehr Ali Shah Arid Agriculture University Rawalpindi (PMAS-AAUR),
Murree Road, Rawalpindi, Pakistan 46300

Collaborative "Mutator *M.tuberculosis* in Tehran and Rawalpindi; A Comparative Study on Fingerprinting, Mutator Genes, and Antibiotic Resistance Genes of the Isolates (2008-2009)

52. Pakistan US$15000

Dr. Shaheen N. Khan
Centre of Excellence in Molecular Biology (CEMB), Lahore

Collaborative Research on Gaucher's Disease:Molecular Genetics of Gaucher's Disease in Pakistan(2010-2011)

53. Pakistan US$15000

Dr. Osman Yousaf
National HIV/STI Referral Laboratory National AIDS Control Programme (NACP)

Collaborative proposal on TB/HIV Drug resistance: characterization of mutations associated with first and second line anti-TB drugs in patients co-infected with HIVand TB (2010-2011)

54. Pakistan US$15000

Prof. Dr. Nasiruddin
Institute of Molecular Sciences & Bioinformatics
Anti-TB House, Oppt. Diyal Sing Library, 28-Nibet Road, Lahore

Collaborative Research Proposal on Novel anti-malarial drugs Design and evaluation by reducing the resistance pressure induced by mutations-computational studies (2010-2011)

55. Palestine US$15000

Ahmad Amro
Faculty of Pharmacy, AlQuds University

Detection, identification and molecular typing of *Leishmania tropica* in *Phlebotomus sergenti* and skin lesions from patients in different foci of cutaneous leishmaniasis in Morocco and Palestine (2010-2011)

56. Syria US$10500

Dr. Walid Al Ashkar
Atomic Energy Commission of Syria (AECS), Damascus

Genetic Basis of Hearing Impairment in Syrian Population (2006-2007)

57. Syria US$18000

Mouna Alkhatib
Molecular biology Lab. St. Alghassani – PHLs, Aleppo, Damascus, Syria.

Diagnosis and genotyping HCVB RNA in Syria by applying molecular biology techniques.

58. Tunisia US$15300

Dr. Mohamed Mousli
Pasteur Institute of Tunisia, 13, Place Pasteur-BP 74, 1002,
Tunis- Belvedere Tunis

Green Fluorescent Recombination Antibody: novel in vitro tools for detecting the rabies virus antigen (2004-2005)

59. Tunisia US$18000

Dr. Souha Ben Abderrazak
Institut Pasteur de Tunis, Laboratoire d'Epidémiologie et d'Ecologie Parasitaire
13 Place Pasteur, BP74, 1002 Tunis Belvédère

Integrated biochemical, bioinformatic, genomic and molecular biology approaches for the development of novel tools for the diagnosis of leishmaniases in Humans(2004-2005)

60. Tunisia US$13000

Sonia ABDELHAK
13 Place Pasteur 1002 Tunis Tunisia

"Collaborative Research on Investigation of non-communicable diseases in post-genomics era" (2008-2009)

2. COMSTECH-IFS Joint Research Grants Program

COMSTECH signed a MoU with IFS in 1998, for strengthening of S&T in the OIC member states. The joint Program is valuable because of the similarity of the mandates and strong common interests in capacity building of the two organizations in the field of science. The essential purpose of the collaboration is to enhance research capability within the OIC region, and to reap a rich harvest by obtaining matching grants from IFS (US$ 0.1 million/year) for OIC scientists and institutions.

This important program has financed 341 projects in various disciplines in 32 member states of the OIC. The countries supported under this Program include Afghanistan, Algeria, Bangladesh, Benin, Burkina Faso, Cameroon, Cote d'Ivoire, Djibouti, Egypt, Gabon, Gambia, Indonesia, Iran, Jordan, Lebanon, Malaysia, Mali, Mauritania, Morocco, Mozambique, Niger, Nigeria, Pakistan, Palestine, Senegal, Sierra Leone, Somali, Sudan, Suriname, Togo, Tunisia and Uganda. The funds jointly provided so far amount to US$ 3.6878 million. Country-wise distribution of the the grants is given in the following table:

Table 3. COMSTECH-IFS grantees from 1998 to 2019

S. No.	Country	No. of Grantees	Grant in US$
1.	Afghanistan	1	11,900
2.	Algeria	1	12,000
3.	Bangladesh	19	206,400
4.	Benin	26	277,599
5.	Burkina Faso	20	200,329
6.	Cameroon	19	209,843
7.	Cote d'Ivoire	20	210,838
8.	Djibouti	1	9,500
9.	Egypt	13	146,230
10.	Gabon	2	23,500
11.	Gambia	2	19,534
12.	Indonesia	14	167,220
13.	Iran	15	160,610
14.	Jordan	5	55,500
15.	Lebanon	2	23,500
16.	Malaysia	13	125,850
17.	Mali	10	102,624
18.	Mauritania	1	12,000

19.	Morocco	12	119,970
20.	Mozambique	5	54,850
21.	Niger	8	85,740
22.	Nigeria	22	230,775
23.	Pakistan	38	417,892
24.	Palestine	2	22,000
25.	Senegal	12	128,631
26.	Somalia	1	12,000
27.	Sierra Leone	4	47,920
28.	Sudan	10	115,965
29.	Suriname	1	12,000
30.	Togo	13	145,979
31.	Tunisia	12	134,530
32.	Uganda	17	184,654
	Total	**341**	**3,687,883**

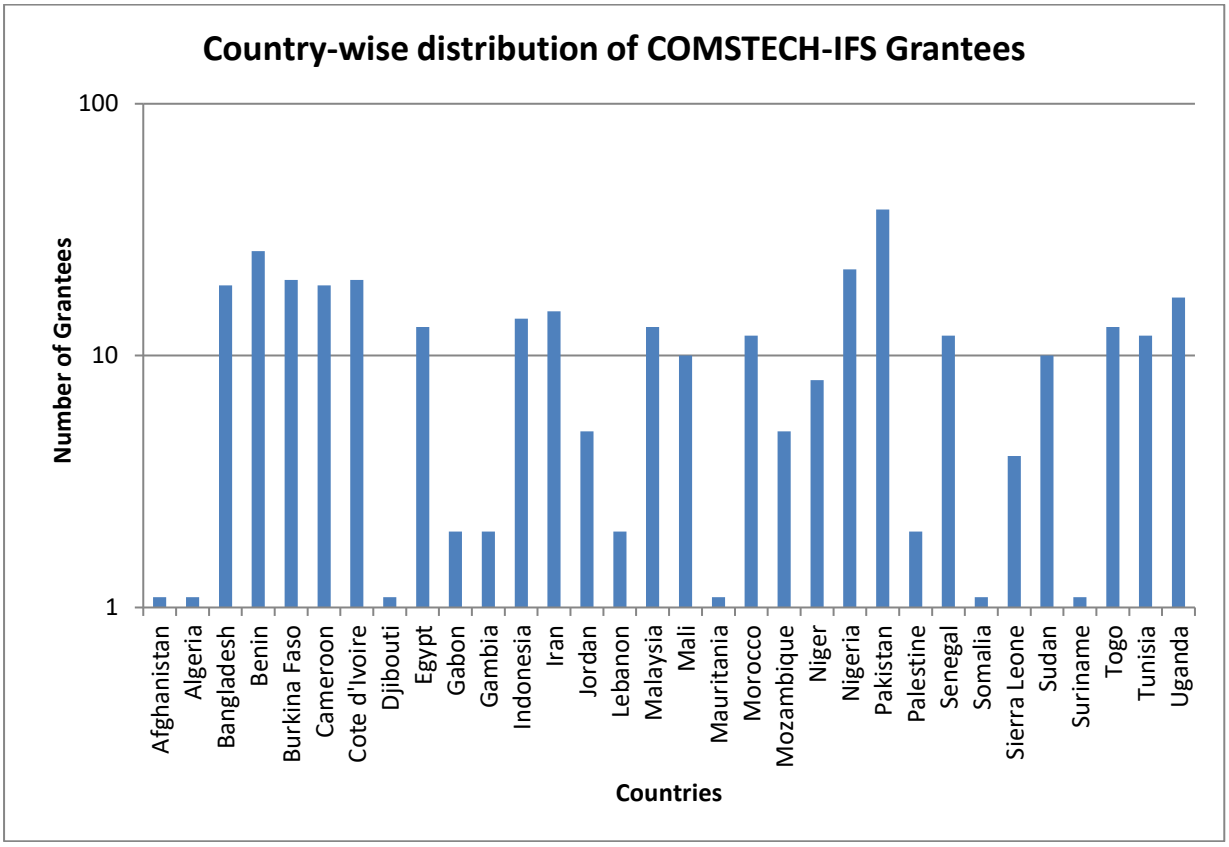


Fig. 5. Number of grantees from various OIC member states supported through COMSTECH-IFS collaboration.

Details of Grantees

1. **Afghanistan** US$ 11,900
JAWAD, Abdul Saboor
Afghanistan Center for Environment and Security
Pob Box 1728, Central Post Office, KABUL, Afghanistan

Climate change impact assessment on water availability and sediment yield in the Kabul River Basin

2. **Algeria** US$12,000

Abouseoud, MAHMOUD
Dépt Génie des Procédés pharmaceutiques, Institue des Sciences de l'Ingénieur, Université des Sciences et de la Technologies Houari Boumediene (USTHB), Ain Dahabm Médéa 26000, Algeria

Séparation, purification et caractérisation de biosurfactant produit par cellules libres et immobiliesées de Pseudomonas spp.(2003-S)

3. **Bangladesh** US$9,950

NOWSAD Alam A.K.M
Department of Fisheries Technology, Faculty of Fisheries
Bangladesh Agricultural University, MYMENSINGH-2201

Improvement of the gel quality of minces from by-catch and underutilized fish species Landing of marine by-catch species has recently been increased in Bangladesh due to introduction (2001-S)

4. **Bangladesh** US$9,300

ALAM, Samsul
Department of Fisheries Biology and Genetics
Bangladesh Agricultural University, Mymensingh 2202

Study of intraspecific genetic variability of the riverine population of rohu (Labeo rohita) by randomly amplified polymorphic DNA technique (2000-W)

5. **Bangladesh** US$11,000

Seddique, Ashraf Ali
Department of Geology, Faculty of Science, University of Dhaka
Dhaka

Geochemical and mineralogical characterization of arsenic contaminsted aquifers (2003-S)

6. **Bangladesh** US$11,000

KUNDA, Mrityunjoy
Bangladesh Agricultural University (BAU)
Faculty of Fisheries, Department of Fisheries Management, Mymensingh

Promotion of mola (*Amblypharyngodon mola*) and freshwater prawn (Macrobrachium rosenbergii) culture integrated with rice in farmers field and its livelihood impacts (2006-S)

7. **Bangladesh** US$10,000

ASADUZZAMAN, Md.
Bangladesh Agricultural University (BAU)
Faculty of Fisheries, Department of Fisheries Management

Mymensingh-2202

Low cost approaches to raise the freshwater Prawn (*Macrobrachium rosenbergii*) productivity of stagnant sustainable ponds in Bangladesh(2006-W)

8. **Bangladesh** US$8,000
BHUIYAN, A.B.M. Faruquzzaman
Bangladesh University of Engineering and Technology
Faculty of Civil Engineering
Department of Water Resources Engineering, DHAKA- 1000
Hydro-morphological variability and environmental flow requirements for selected alluvial rivers in Bangladesh.(2007-W)

9. **Bangladesh** US$8,000
FERDOUSI, Farhana Khannam
Rnagpur Dinajpur Rural Service (RDRS), DHAKA- 1000

"No Park is an island": Evaluating management practices in the buffer zones of selected protected areas in Bangladesh. (2008-S)

10. **Bangladesh** US$12,800
DEWAN, Ashraf Mahmood
The Department of Geography & Environment, University of Dhaka
Dhaka-1000, Bangladesh

Integrating GIS and remote sensing techniques to evaluate risk of flood and water borne diseases in Dhaka metropolitan area of Bangladesh.(2008-W)

11. **Bangladesh** US$8,750
M. Mahbubul ALAM
Centre for Innovation & Development Strategy (CIDS)
Simon Palace, House # 20, Road # 07, Block-, Banasree Project
Rampura, Dhaka-1219

Homestead agroforestry system in Bangladesh: Socioeconomic role and in situe conservation of biological diversity(2009-S)

12. **Bangladesh** US$11,000
HAQUE, Mohammad Mahfujul
Department of Aquaculture, Faculty of Fisheries
Bangladesh Agriculture University (BAU), Mymensingh

Local and global implications for use of catfish (<Pangasianodon <hypophthalmus) pond sediments in fodder grass production in peri-urban area of Mymensingh, Bangladesh(2009-W)

13. **Bangladesh** US$12,000
ISLAM, Md. Rashidul
Associate Professor
Department of Plant Pathology
Faculty of Agriculture
Bangladesh Agricultural University Research System (BAURES),
Bangladesh Agricultural University, Mymensingh, Banagaldesh

Assessment of pathotypic and genetic diversity of a rice pathogen, <xanthomonas<oryzae<pv. <oryzae occurs in Bangladesh (2011-S)

14. **Bangladesh** US$11,900
SHAHIDUZZAMAN, Md.
Assistant Professor, Department of Parasitology,
Facult of Veterinary Sciecne, Bangladesh Agricultural University,

Mymensingh-2202, Banladesh

Investigation of Cryptosiporidium oocysts in animal and human faeces and thedifferent water sources in Bangladesh

15. **Bangladesh** US$11,500
HOSSAIN, Mohammad Zabed
Department of Botany, University of Dhaka, Dhaka 100

Microbial ecology of bacteria associated with the rhizosphere and root nodules of groundnut (Arachis hypogaea L.) in arsenic affected soils in Bangladesh(2012)

16. **Bangladesh** US$12,000
SHOEB, Mohammad
Faculty of Science, Department of Chemistry, University of Dhaka, Dhaka, Bangladesh

Isolation and Structure Elucidation of Biologically Active Secondary Metabolites from Endophytic Fungi (2013)

17. **Bangladesh** US$12,000
RAHMAN, Mohammed Mizanur
Faculty Engineering & Technology
Applied Chemistry and Chemical Engineering Deptt.,
University of Dhaka, Dhaka, Bangladesh

Preparation of biomimetic composites from waste prawn and egg shell for bone regeneration (2013)

18. **Bangladesh** US$12,000
ISLAM, Md Monirul
Department of Fisheries, Faculty of Biological Sciences
University of Dhaka, Dhaka 1000, Bangladesh

Adaptation strategies and sustainable livelihoods: Addressing the impacts of climate variability and change on inland fishery-dependent people in Bangladesh

19. **Bangladesh** US$12,000
SAROWAR, Mohammad Nasif
Dept of Fisheries Biology and Genetics
Faculty of Fisheries, Bangladesh Agricultural University (BAU)
Mymensingh 2202, Bangladesh

Towards understanding mycotic diseases in aquaculture in Bangladesh: Molecular approach to characterisation of the causal agents

20. **Bangladesh** US$12,000
MONIRUZZAMAN, Mohammad
Department of Animal Science
Faculty of Animal Husbandry, Bangladesh Agricultural University (BAU),
2202 MYMENSINGH
Bangladesh
Production of buffalo embryo from in vitro grown oocytes

21. **Bangladesh** US$12,000
Dinesh Chandra SHAHA
Department of Fisheries Management, Faculty of Fisheries
Bangabandhu Sheikh Mujibur Rahman Agricultural University
Salna, 1706, Gazipur, Bangladesh
A study on export of saline water and nutrients from the Shibsa River estuary, Bangladesh

22. **Benin** US$10,300
ADITE, Alphonse
Wetland Institute, 08 BP 0234 Tri Postal, COTONOU, Benin

Diversity and management of the mangrove fishes in the Benin coastal zones

23. **Benin** US$6,900
GBEHOUNOU, Gualber
Laboratoire Defense des Cultures, Institut National des Recherché Agricoles du Benin, BP 128, Porto-Novo, Benin

Etude de lecologie de la germination des graines de Rhamphicarpa fistulosa (Hochst.) Benth. et identification de faux hotes(2000-S)

24. **Benin** US$11,830
DANSI, Alexandre
Institut de Recherché et de Development sur la bio-diversite des Plantes Cultivees, Agromatiques et Medicinales
IRDCAM 071 BP 28 Ste Rita, COTONOU

Les ignames cultivees du complexe Dioscorea (cayenensis-rotundata) du Benin: domestication, selection participative et conservation in situ(2002-S)

25. **Benin** US$8,400
FAGBEMISSI, Rose C
Laboratoire de Biologie Végétale, Département des Sciences de Production Végétale, Faculté des Sciences Agronomiques (FSA)
Université Abomey-Calavi (UAC), 01 BP 526, Cotonou, Benin
Empowering women for conservation and use of "Egusi" species for food security and poverty reduction in Benin(2004-S)

26. **Benin** US$11,500
Dr. Serge Eric Kokou Attignon
Laboratoire d'Ecologie Appliquee (LEA)
Faculte des Sciences Agronomiques (FSA) Unversite d'Abomey Calavi (UAC), 01 BP 526, Cotonou

Termite assemblages and functional diversity in agriculture and forest ecosystems in southern Benin (2005-W).

27. **Benin** US$8,615
ALAVO, Thiery B Charles
Université d'Abomey-Calavi (UAC)
Faculté des Sciences et Techniques, Département de Zoologie, Cotonou

Investigations on eco-friendly compounds for the control of Helicoverpa armigera on cotton (2006-S)

28. **Benin** US$9,200
AKOSSOU, Arcadius Yves Justin
Laboratoire d'Ecologie Appliquée (LEA), Faculté des Sciences Agronomiques (FSA), Université d'Abomey-Calavi (UAC), COTONOU

Impact de la structure des données sur la qualité des prédictions : Application aux données agrométéorologiques au Bénin (2007-S)

29. **Benin** US$9,980
AVOCEVOU, Carolle M.A.
Université d' Abomey-Calavi (UAC), Faculté des Sciences Agronomiques (FSA), Laboratoire d' Ecologie Appliquée (LEA), COTONOU

Assessing ecological diversity and productivity of Pentadesma butyracea (Sabine) in Benin.(2008-S)

30. **Benin** US$10,400
GLIN, Laurent Camille
Organisation Béninoise pour la Promotion de l'Agriculture Biologique (OBEPAB), 02 BP 8033 Cotonou, Benin

Policy and institutional reforms and the environment in the cotton industry in Benin: An ecological modernization perspective

31. **Benin** US$11,816
LAGNIKA, Latifou
Département de Biochimie et de Biologie cellulaire, Faculté des Sciecnes et Techniques, Laboratoire de Biochimie et de Biologe Moléculaire, Université d'Abomey-Calavi, 04 BP 0320 Cotonou

Etude toxicologique et histologique in vivo, et activité antipaludique de six plantes de la pharmacopée béninoise

32. **Benin** US$11,700
FOGNY FANOU, Nadia Lisette Medesse
Faculty of Agronomic Sciences, Nutrition and Food Sciences (DNSA), University of Abomey Calavi (UAC), Cotonou, Benin

Effect of MNP-enriched fonio porridge on the prevalence of iron deficiency anemia among young Beninese children (2013)

33. **Benin** US$10,200
LOKONON, E Bruno
Département d'Aménagement et Gestion des Ressources Naturelles
Faculté des Sciences Agronomiques (FSA), Université d'Abomey-Calavi (UAC)
01 BP 526, Cotonou, Benin

Assessing local conservation priorities of useful woody species within agroforestry systems along Ouémé catchment in Benin (West Africa)

34. **Benin** US$8,200
MENSAH, Sylvanus
Laboratoire d´Ecologie Appliquée (LEA)
Faculté des Sciences Agronomiques (FSA), Université d'Abomey-Calavi (UAC)
01 BP 526, COTONOU, Benin

Assessing effects of abiotic and biotic factors on the early recruitment of an endangered African tree species: Afzelia africana Sm. (Ceasalpiniaceae) in Benin (West Africa)

35. **Benin** US$10,500
GOUSSANOU, A Cedric

Laboratoire d´Ecologie Appliquée (LEA)
Faculté des Sciences Agronomiques (FSA)
Université d'Abomey-Calavi (UAC)
01 BP 526, COTONOU
Benin

Estimation and monitoring of litterfall carbon fluxes in Lama forest reserve

36. **Benin**
SOCLO, Wilfried Parfait US$11,800

Equipe de recherche en gestion des ressources en eau
(ICMPA-UNESCO), Faculté des Sciences et Techniques
Université d'Abomey-Calavi (UAC)
072 BP 50, Cotonou, Benin

Etude de la variabilité spatio-temporelle des paramètres hydrodynamiques dans la zone non saturée du plateau d'Allada : modélisation des flux pour une gestion rationnelle des ressources souterraines

37. **Benin**

SALIFOU, Chakirath Folakè Arikè — US$11,950
Dept de Génie de la Production et de la Santé Animales
Ecole Polytechnique d'Abomey-Calavi (EPAC)
Université d'Abomey-Calavi (UAC), BP 2009, Cotonou, Benin

Identification des sérogroupes de E.coli producteur de shigatoxine présents dans le lait, les viandes et fèces des bovins, ovins et porcs abattus au Benin

38. **Benin**

KAFOUTCHONI, Konoutan Médard Thibaut — US$10,410
LABEF
Faculté des Sciences Agronomiques (FSA)
Université d'Abomey-Calavi, 04 BP 1525, Cotonou, Benin

Assessing ethnobotanical knowledge and domestication potentialities for Xylopia parviflora (A. Rich.) Benth., the wild spice in Benin (West Africa)

39. **Benin**

Hospice Afouda **AKPO** — US$11,900
Laboratoire d'Etude et de Recherche en Statistique Appliquée et Biométrie (LERSAB)
Université d'Abomey-Calavi, BéninFSA
01 BP 526, Abomey-Calavi, Bénin

Analyse dendrochronologique des arbres de la zone soudano-sahélienne du Bénin: réponse climatique et impact de la sécheresse sur les espèces dominantes

40. **Benin**

Hermann S. **HONFO** — US$10,500
Laboratoire de Biomathématiques et d'Estimations Forestières (LABEF)Campus, Abomey-Calavi, 04 BP 1525 Cotonou, Benin

Potential contribution of seed germination traits? assessment for predicting wild edible tree species responses to climate change and population dynamics

41. **Benin**

SYMPHORIEN **AGBAHOUNGBA** — US$12,000
Department of Natural Resources Management
Faculty of Agronomic Sciences, University of Abomey-Calavi
01 BP 526 Cotonou; Abomey-Calavi, Benin

Genetic improvement of cowpea to overcome biotic stress and drought constraints to grain productivity in Benin

42. **Benin**

M'mouyohoun **KOUAGOU** — US$11,934
Natural Resource Management
Faculty of Agronomy, University of Abomey-Calavi
03 Po Box 125; Parakou, Benin

Anthropogenic disturbances and reproduction strategy effects on population dynamics of a tropical clonal tree Pentadesma butyracea (Clusiaceae): Conservation implications in Benin (West Africa)

43. **Benin** US$11,414

Ezéchiel Obada
Hydrologie et Gestion Intégrée des Ressources en Eau (HGIRE)
Institut National de l'Eau Laboratoire d'Hydrologie Appliquée, Université d'Abomey-Calavi, 229, Abomey-Calavi, Bénin

Assessment of contemporary and future water availability and droughts: case study of Niger and Ouémé basins in Benin (West Africa)

44. **Benin** US$11,795

Fiacre Zavinon
Department of Genetics and Biotechnologies
Faculty of Sciences and Techniques, University of Abomey-Calavi (UAC), Laboratory of Genetic Resources and Molecular Breeding (LAREGAME), University of Abomey-Calavi (UAC), BP 1947 Abomey-Calav, Abomey-Calavi, Benin

Association mapping of agronomic and morphologic traits in a population of pigeonpea [Cajanus cajan (L.) Millsp] cultivars from West Africa

45. **Benin** US$ 10,230

Florence Mahouton ANATO
Laboratory of Agricultural Entomology, 01 BP 526, Calavi, Benin
Primary Email: anatoflorence@yahoo.fr

Field evaluation of the efficacy and persistence of soil application with Cashew Nut Shell Liquid formulations in the control of Tephritid flies.

46. **Benin** US$ 10,325

Alassan ASSANI SEIDOU
Laboratoire d'Ecologie, de Santé et de Production Animales (LESPA)
Faculté d'Agronomie, Université de Parakou
Route de l'Okpara, 03 BP 365, Parakou, Bénin
www.univ-parakou.bj
Primary Email: alassanassani@yahoo.fr

Validation et simulation des résultats du projet IFS 5824-1 pour la gestion durable de la transhumance et des ressources pastorales dans la Forêt Classée de l'Alibori Supérieur au Nord du Bénin

47. **Benin** US$ 11,100

Hospice SOSSOU
Natural Resources Management
Faculty of Agronomic Sciences, Laboratory of Applied Ecology, 01 BP 526, Cotonou, Benin
www.leabenin-fsauac.net/fr/
Primary Email: hospiso@gmail.com

Assessment of Kersting's groundnut (Macrotyloma geocarpum) Seed Systems and Quality Seed Production Technologies in Benin

48. **Burkina Faso** US$10,800

SANON, K Bibata
Departement de productions Forestieres, Institut de l'Environnement et de Recherches, Agricoles, 03 BP 7407, OUAGADOUGOU, Burkina Faso

Comparing the efficacy of ectomycorrhiza fungi on phosphate nutrition and growth of five Caesalpinioïdeae, one Dipterocarpaceae, and one Euphorbiaceae in a nursery.(1998-W)

49. **Burkina Faso** US$11,900

BELEM, Adrien Marie G
Institut du Developpement Rural, Universite de Ouagadougou
01 BP 3770, OUAGADOUGOU 01

Seasonal variation of gastro-intestinal parasites in small ruminant (sheep and goats) in Burkina Faso

50. **Burkina Faso** US$11,000

NACRO, Hassan Bismarck
Institute du Development Rural, University Polytechnique de Bobo 01 BP 1091, BOBOU DIOULASSO

Effects de la culture de l'igname sur la dynamique de la matiere organique de sols sous culture d'igname; recherche d'indicateurs de fertilite(2000-S)

51. **Burkina Faso** US$2,500

Traore, Maminata
Délégation Régionale de l'Institut de Recherche,
En Sciences de la Santé (IRSS) au Centre Muraz, 01 BP 545 Bobo-Dioulasso 01, Burkina Faso

Etude Préclinique de "saye" utilize dans le traitement du paludisme au Burkina Faso (2003-S)

52. **Burkina Faso** US$5,000

Dr. M. Kiendrebeogo Martin
Laboratoire de Biochimie et de Chimie Appliquees (LABIOCA),
Department of Biochemistry/ Microbiology,
UFR SVT, University of Ouagadougou, 03 BP 7021 Ouagadougou

Cowpea preservation against Callosobruchus Maculatus: detoxification enzymes and acetlyocholinesterase inhibitors from calotropis procera and and annona species (2005-W)

53. **Burkina Faso** US$11,550

OUÉDRAOGO, Elisée
Albert Schweitzer Centre for Ecology, Agroecology Department
Ouagadougou

Improving crop, water and nitrogen use efficiencies using soil and water conservation techniques in the Semi-arid West Africa (2006-S)

54. **Burkina Faso** US$12,000

BAYALA, Balé
Unité de Formation et de Recherche
En Sciences de la Vie et de la Terre (UFR/SVT)

Université de Ouagadougou, OUAGADOUGOU

Effets antifertilisants des tiges feuillets de Leptadenia hastata chez la rate et la souris femelle (2007-S)

55. **Burkina Faso** US$9,912
OUEDRAOGO, Moussa Mamadou
Réseau MARP Burkina Faso, Ouagadougou

Impacts of controlled cutting and direct sowing on the regeneration of developed forests of Nazinon and Maro, Burkina Faso (2008-S)

56. **Burkina Faso** US$11,400
KOUTOU, Mamadou
Institut de l' Environnement et des Recherches Agricoles (INERA)
Centre de Recherche Environnementale Agricole et de Formation (CREAF) de Kamboinse, Laboratoire de Virologie et de Biotechnologie végétale, BP 476, Ouagadougou, Burkina Faso.

Molecular characterization of beta-satellite DNA molecules associated with begomovirus species in Burkina Faso.(2007-S)

57. **Burkina Faso** US$9,940
BADOLO, Athanase
Laboratoire d'entomologie fondamentale et appliquée
Unité de Formation et de Recherche en Sciences de la Vie et de la Terre,
Université d'Ouagadougou, 03 BP 7021 Ouagadougou 03

P Proprétés insecticides et répulsive de quelques extraits de plantes tropicales contre Anophèles gambiea et Aèdes aegypti, moustiques vecteurs de maladies humaines au Burkina Faso (2011-S)

58. **Burkina Faso** US$11,440
OUEDRAOGO, Noufou
Médecine-Pharmacopée traditionnelles/Pharmacie (MEPHATRA/PH)
Institut de Recherche en Science dela Santé (IRSS)
Ouagadougou,
Burkina Faso

Metabolites secondaires de plantes medicinales – Interet comme Inhibiteurs des enzymes et des cytokines pro-inflammatoires (2013)

59. **Burkina Faso** US$10,820
TINGUERI, Béatrice
Dépt de Biologie et Physiologie Végétales
UFR/SVT
Université de Ouagadougou, 01 BP 7021
Ouagadougou 01, Burkina Faso

Evaluation de la résilience des peuplements naturels et des capacités de reproduction de <Lannea <microcarpa en vue de son exploitation durable

60. **Burkina Faso** US$12,000
ZOUGRANA, Sylvain
Département Productions Végétales
CRREA de l'Ouest
Institut de l'Environnement et de Recherches Agricoles
Station de Farako-Bâ, 01 BP 910
Bobo-Dioulasso 01
Burkina Faso

Evaluation de la stabilité de nouvelles sources de résistance aux Xanthomonas oryzae, agents pathogènes de la bactériose vasculaire et à stries foliaire translucides du riz au Burkina Faso

61. **Burkina Faso**
KAGAMBÈGA, Assèta — US$9,350
Laboratoire de Biochimie et Biologie Moléculaire
CRESBAN
UFR en Sciences de la Vie et de la Terre
Université d'Ouagadougou, 03 BP 7021, Ouagadougou 03, Burkina Faso
Prévalence des pathogènes émergents d'origine alimentaire (Salmonella Typhimurium et STEC) et épidémio-surveillance de leur résistance aux antibiotiques chez la volaille et le porc

62. **Burkina Faso**
OUOBA, Jean Bienvenue — US$10,000
Departement de Biochimie et Microbiologie
Faculté des Sciences de la Vie et de la Terre
Université Ouaga I Professeur Joseph Ki—Zerbo, 03 BP 7021, Ouagadougou 03, Burkina Faso
Caractérisation du virus de l'hépatite E dans les eaux usées et aux de puits, en vue d'une gestion du risque environnemental

63. **Burkina Faso**
OUEDRAOGO, Sambo — US$11,853
Dépt de Biologie et Physiologie Végétales
UFR/SVT
Université de Ouagadougou, 03 BP 7021, Ouagadougou 03, Burkina Faso
Productivité, valeurs éco-socioéconomiques, dynamique et distribution de Balanites aegyptiaca (L.) Delile Au Burkina Faso

64. **Bukina Faso**
Halamoussa Joëlle **AYORO** — US$8,461
Unité de Formation et de Recherche en Sciences de la Vie et de la Terre (UFR/SVT), BP 7021 Ouagadougou, Ouagadougou, Burkina Faso
Influence du changement climatique sur la distribution des espèces d'amphibiens de la région soudano-sahélienne: exemple des espèces de Sclerophrys, Ptychadena et Hyperolius au Burkina Faso

65. **Bukina Faso**
Paligwendé Pierre Epiphane **KUIRE** — US$11,350
Institut de l'Environnement et de Recherches Agricoles (INERA) 01; Ouagadougou; Burkina Faso
Évaluation de l'effet de différents types de fertilisants sur le développement du RYMV pour une meilleure gestion de la maladie de la panachure jaune du riz au Burkina Faso

66. **Bukina Faso**
ZERBO Issouf — US$7,833
Department of Plant Biology and Plant Physiology
Training and Research Unit in Life and Earth Sciences University Ouaga I Pr Joseph Ki-Zerbo, Boulevard Charles De Gaulle, 03 BP 7021 Ouaga, Ouagadougou, Burkina Faso

Impact of climate, land use and overexploitation on the conservation of Pterocarpus lucens Lepr. ex Guill. & Per.: a threatened useful woody species from Burkina Faso (West Africa)

67. **Bukina Faso** US$ 11,220

Sountongnoma Arnaud Michel DOUAMBA
Cop Productions
Institut de l'Environnement et de Recherches Agricoles (INERA)
Ru Guisga, 01, Ouagadougou, Burkina Faso
Primary Email: arnaudmichel.douamba@yahoo.fr
Caractérisation et identification de sources de résistance au virus de la nécrose à rayure du riz pour une gestion durable au Burkina Faso

68. **Cameroon** US$11,900

EJOH, Aba Richard
Department of Food Sciences and Nutrition, ENSAI-IUT
Universite de Ngaoundere,
BP 455, NGAOUNDERE

Characterization, preservation, and processing of four species of bitterleaf (Vernonia sp.) in Cameroon (1998-W)

69. **Cameroon** US$9,000

TAN, Paul Vernyuy
Departement de Biol et Physiol Animales,
Faculte des Sciences
Universite de Yaounde I, BP 812, YAOUNDE

Anti-ulcer activity of three medicinal plants of Cameroon (1998-W)

70. **Cameroon** US$10,500

NJINTANG, Nicolas
Department des Sciences Biologiques,
Faculte des Sciences
Universite de Ngaoundere,
BP 454, Ngaoundere

Production et conservation des cossettes de taro (Colocasia esculenta) en vue de son utilization pour la preparation du “achu” au Cameroon(2000-S)

71. **Cameroon** US$12,000

Dr. Selestine Dongmo SOKENG
Department of Biological Science, Faculty of Science
University of Ngaoundere, P.O. Box 454, Ngaoundere, Cameroon

Studies on the Antidiabetic Activities of Two Cameroonian Medicinal Plants: Ipomea aquatica and Irvingia gabonensis (2002-W)

72. **Cameroon** US$10,000

NYASSE, Barthelemy
Department de Chimie Organique, Faculte des Scienes
Universite de Yaounde’ I, B.P.812, Uaounde

Search for new Trypanocidal Compounds (2003-W)

73. **Cameroon** US$10,000

Dr. Roland NDIP
Department of Life Sciences, Faculty of Sciences

University of Buea, P.O. Box 63, Buea

Antimicrobial and Phytochemical Studies of Medicinal Plants on Helicobacter Pylori (2004-W)

74. **Cameroon** US$12,000
Dr. Venasius W. Lendzemo
Institute of Agricultural Research for Development, P.O Box 33 Maroua

Sustainable onion production in north Cameroon: the role of arbuscular mycorrhizal fungi in improving seeding survival, biological yield, and storability of bulbs (2005-W)

75. **Cameroon** US$10,000
Dr. Azefack Leon Tapondjou
Department of Chemistry, Faculty of Sciences, University of Dschange
P.O. Box 67, Dschang

Isolation, Structure Elucidation and Pharmacological Studies of Potential Anti-inflammatory and Anti-tumoral triterpenoidal and steroidal Saponins from Six Cameroonian Medicinal Plants (2005-W)

76. **Cameroon** US$11,700
VARDAMIDES, Juliette Catherine
Département de Chimie, Faculté des Sciences
Université de Douala, DOUALA

Phytochemical and pharmacological studies of Turraeanthus africanus and Turraeanthus vignel: medicinal plants used in Cameroon(2007-W)

77. **Cameroon** US$8,000
ZOFOU, Denis
Biotechnology Unit, Department of Biochemsityr and Microbiology,
Faculty of Sciecne, University of Buea,
P.O. Box 63, Buea, South West Region, Cameroon

New antiplasmodial compounds from Dacryodes edulis (G. Don) Lam and Coula edulis Baill. selected medicinal plants used to treat malaria symptoms in Western Cameroon

78. **Cameroon** US$12,000
MOMENI, Jean
Faculté des Sciences
Département de Chimie
Université de Ngaoundéré, B.P. 454 Ngaoundéré, Cameroun

Etudes phytochimiques et evaluations des proprietes antimicrobiennes,insecticides et antioxydantes des extraits d'une plante camerounaiseutilisee dans la pharmacopee et pour la protection des denree(2013)

79. **Cameroon** US$12,000
FAYE, Adama
Laboratoire de Botanique Systématique & d'Ecologie
Ecole Normale Supérieure Yaoundé, Université de Yaoundé I, BP 47
Yaoundé, Cameroon

Impact des changements climatiques du passé sur les forêts tropicales humides d'Afrique centrale : phylogéographie de deux espèces de palmiers de sous-bois du genre Podococcus

80. **Cameroon** US$9,900
DOLINASSOU, Souina
Dépt des Sciences Biologiques

Faculté des Sciences, Université de Ngaoundéré, BP 454
Ngaoundéré, Cameroon

Evaluation de l'interaction génotype x environnement de quelques caractéristiques physicochimiques des graines d'arachide (Arachis hypogaea l.) en zone soudano-sahélienne du Cameroun

81. **Cameroon** US$12,000

HAKO TOUKO, Blaise Arnaud
Department of Animal Science
School of Agriculture & Natural Resources
Catholic University Institute of Buea
P.O. Box 563, Buea South West region
Cameroon

Upgrading natural disease resistance against Avian paramyxovirus 1 (Newcastle disease) and in situ in vivo conservation of selected local chickens

82. **Cameroon** US$12,000

NOUBISSI, Paul Aime
Department of Zoology and Animal Physiology
Faculté des Sciences
Université de Buéa, BP 63
BUEA, Southwest Province
Cameroon

Study of Anti diarrheal and anti microbial effects of Crinum jagus (Amaryllidaceae) extracts

83. **Cameroon**

OKIOBE, Simon Thierry US$11,560
Département de Microbiologie
Faculté des Sciences
Université de Yaoundé I, BP 812, Yaoundé, Cameroon
Mycorrhizal fungi contribute to reduce soil greenhouse gas emissions from agricultural soils

84. **Cameroon**

Chefor Fotang US$11,544
Environmental and Rural Development Institute of Biodiversity and Non Profit Studies (EIBiNS), Mile 18 Muea Road,, P.O. Box 189, SW, Buea,,
Cameroon

Ecology and Behaviour of Wild Nigeria - Cameroon Chimpanzee in Kom-Wum Forest Reserve and Mbi Crater Kefem Landscape in the North- West Region of Cameroon.

85. **Cameroon** US$ 11,739

MEGUEM MBOUJDA Marcelle Franca
Departement Foresterie
Facultés d'Agronomie et des Sciences Agricoles, Université de Dschang
B.P. 222, Dschang, Benin
Primary Email: francameguem@yahoo.fr
Syndrome de domestication chez Dacryodes edulis (Burseraceae) : analyse comparée des populations sauvages et domestiquées, perspectives pour la gestion durable des ressources de l'espèce au Cameroun

86. **Cote d'Ivoire** US$4,000

ATTA EPOUSE DIALLO, Takky Hortense
Laboratoire de Phytopathologie

Unité de Formation et de Recherche des Sciences de la Nature (UFRSN)
Université d'Abobo-Adjamé (UAA), 02 BP 801, Abidjan 02

Production d'igname en Cote d'Ivoire et Pression Parasitaire: Cas des Zones de Bouake et Toumodi (2005-S)

87. **Cote d'Ivoire** US$4,500
KOBENAN, Kouman
Ministére de la Recherche Scientifique
Centre National de Recherche Agronomique (CNRA)
19-20 Avenue Jean Mernoz, 08 BP 33, Abidjan 08

Amélioration durable de la filière banana plantain en Afrique de l'Ouest (2005-S)

88. **Cote d'Ivoire** US$11,000
Kouassi Sebastino Da Costa
Centre National De Recherche Agronomique (CNRA)
Direction Generale, 01 BP 1740, Abidjan 01

Reproduction en milieu contrôlê de Labeo coubie et Distichodus rostratus pour le repeuplement des petitis barrages du Nord de la Côte d'Ivoire (2005-W)

89. **Cote d'Ivoire** US$12,000
Mr. Yeo T. Martial
Centre Régional pour l'Eau Potable et l'Assainissement à faible coût-Réprésentation Nationale de Côte d'Ivoire, 18 BP 80 Abidjan 18

Influece des caractéristiques physico-chimique, biochimiques et microbiologique des sables et des boues de vidange sur les performances d'un lit de sechage fonctionant en regime non sature.(2006-S)

90. **Côte d'Ivoire** US$10,500
AKUAILOU, Eléonore-n.
Laboratoire de Biochimie et Sciences des Aliments
Unité de Formation et de Recherche Biosciences, Université de Cocody
BP582, Abidjan-22

Valorisation des amandes d'Irvingia gabonensis en Côte-d'ivoire: Caractérisation physico-chimique, nutritionnelle et potentialités d'utilisation(2006-W)

91. **Cote D'ivoire** US$12,000
KOUAME, Sylvie Mireille
Université d' Abobo-Adjamé (UAA)
UFR-Sciences at Technologies des Aliments, Abidjan

Production of antibacterial substances in Bifidobacterium kind isolated in Ivory Coast (2008-S)

92. **Cote d'ivoire** US$12,000
SORO NEE YAO, AENAN Anastasie
University of Abobo-Adjam'e, Science and Food technology Unit 02, BP 801 Abidjan 02, Côte d'ivoire

Selection and production of dried starter cultures of predominant lactic acid bacteria and yeasts isolated during the fermentation of tchapalo, a sorghum beer in Ivory Coast.(2010-S)

93. **Cote d'ivoire** US$9,550
Kouame, Assiri Elloh Patrice

Universite d Abobo-Adjame, Unite de Recherche et de Formation, Sciences de la Nature (UFR-SN) 2 BP 801 Abidjan 02 Cote d'Ivoire

Identification et utilisation de microorganismes antagonistes contre les champignons responsables de pourritures de l'igname (Dioscorea spp.) (2011-S)

94. **Cote d'ivoire** US$12,000
KIAN, Kapeu Alfred
Université d'Abobo-Adjamé
UFR des Sciences et Gestion de l'Environnement (UFR-SGE)
Laboratoire des Sciences de l'Environnement (LSE)
02 BP 801 Abidjan 02

Niveau de contamination du fleuve Bia (eau,sédiment et poisson) dans sa partie Ivoirienne par le plomb, le cadmium, le sélénium, le mercure et l'arsénic issus des activités minières et agricoles du Ghana et de la Côte d'ivoire.

95. **Cote d'Ivoire** US$12,000
SORO, Amenan Anastasie
Faculty of Sciences
Science and Food Technology Unit
University Nangul Abrogoua, Abidjan, Côte d'Ivorie

Selection and production of dried starter cultures of predominant lactic acid bacteria and yeasts isolated during the fermentation of tchapalo, a sorghum beer in Ivory Coast(2013)

96. **Cote d'Ivoire** US$12,000
AGBO, Adouko Edith Chiakoun
UFR Sciences et Technologies des Aliments
Université Nangui Abrogoua
02 BP 801, Abidjan 02, Cote d'Ivoire

Amélioration de l'état nutritionnel des populations par l'action anti-oxydante des épices sur les icronutriments au cours de la cuisson des légumes feuilles.

97. **Cote d'Ivoire**
KONÉ, Armand W US$12,000
Centre de Recherche en Ecologie
Station de recherche de Lamto
Université d'Abobo-Adjamé, 02 BP 801, Abidjan 02, Cote d'Ivoire

Intensification agroécologique de la production d'igname en Côte d'Ivoire : de «l'écosystème butte» à l'échelle parcellaire. Implication sur la manipulation de la couverture végétale des jachères

98. **Cote d'Ivoire**
OUEDRAOGO, Moussa US$10,000
Laboratoire de Géosciences et Environnement
UFR Sciences et Gestion de l'Environnement (UFR-SGE)
Université Nangui Abrogoua, 02 BP 801, Abidjan 02, Cote d'Ivoire

Caractérisation des aquifères souterrains en milieu de socle dans les zones semi-arides en vue de l'amélioration de la productivité des puits et forages lors des campagnes d'hydraulique villageoise (Nord Côte d'Ivoire)

99. **Cote d'Ivoire**
BOLOU BI, Bolou Antoine US$11,400
Laboratoire de Physiologie Végétale
UFR Biosciences

Université Félix Houphouët-Boigny, 01 BP V 34, Abidjan 01, Cote d'Ivoire

Caractérisation et contrôle des principaux potyvirus du piment en Côte d'Ivoire pour leur meilleure gestion

100. **Cote d'Ivoire**
Fako KANÉ — US$12,000
Université Nangui Abrogoua Expressway abobo adjamé, 02 BP 801, Abidjan, Côte d'Ivoire

Effet de la dose de fertilisants sur le rendement et les caractéristiques physicochimiques des feuilles et des huiles essentielles de Lippia multiflora cultivé en Côte d'Ivoire**.**

101. **Cote d'Ivoire**
Kaly OUATTARA — US$11,995
Biodiversity and Sustainable Management of Ecosystems, Department of Ecology and Biodiversity, BP 28 N'DOUCI, Côte d'Ivoire

The role of ants in nutrient dynamics in a savanna ecosystem in Côte d'Ivoire

102. **Cote d'Ivoire**
Kouadio Kan Sylvestre KOFFI — US$11,893
Sciences de la Nature
Biodiversité et Gestion Durable des Ecosystèmes
Université Nangui Abrogoua, (+225), Abidjan, Côte d'Ivoire

Etude du rôle écologique des coléoptères bousiers dans le devenir des graines disséminées par le chimpanzé d'Afrique de l'ouest (Pan troglodytes verus) dans le Parc national de Taï (Sud-ouest de la Côte d'Ivoire)

103. **Cote d'Ivoire** — US$ 12,000
Marina ABRE
Microbiologie et Biologie Moléculaire
Sciences et Technologie de Aliments, Université Nangui Abrogoua
02 BP 801 Abidjan 02, Abidjan, Côte d'Ivoire
www.univ-na.ci
Primary Email: marinaghislaine04@gmail.com
Selection et caracterisation des souches de bacteries lactiques pour la biopreservation du poisson fermente traditionnel ''adjuevan''

104. **Cote d'Ivoire** — US$ 6,000
Yédé Jean ALIKO
Biosciences
Changements Climatiques, Biodiversité et Agriculture Durable
Ecole Doctorale CEA-CCBAD de l'Université Félix Houphouët Boigny, Bingerville, Côte d'Ivoire
www.wascal-ci.org
Primary Email: yedaliko@gmail.com
Vers une gestion agro-écologique d'Apate terebrans Pallas, 1772 (Coléoptère, Bostrichidae), un insecte ravageur majeur de l'anacardier en Côte d'Ivoire

105. **Djibouti** — US$9,500
OMAR, Assowe Dabar
Earth Science Institute
Centre de Recherche et des Etudes de Djibouti (CERD)
Route de l'aéroport, 486 Djibouti
Djibouti

Geochemical modeling of the groundwater evolution in Bara plain (Djibouti)

106. **Egypt** US$11,000

SHEHATA, Shehata Taha
Department of Plant Pathology, Faculty of Agriculture, Ain Sham University, P.O. Box 68, Hadayek Shobra, 11241, Cairo, Egypt

Control of post-harvest diseases of apple and citrus fruits with biocontrol agents. (1999)

107. **Egypt** US$11,500

MOSTAFA, Osama Mohammed Sayed
Zoology Department,
Faculty of Science,
Ain Shams University,
Abbassia 11566, Cairo,
Egypt

Molecular detection of Fasciola gigantic within intermediate host(s)(2001-S)

108. **Egypt** US$12,000

YOUSSEFF, Diaa T A
Department of Pharmacognosy,
Faculty of Pharmacy,
Suez Canal University
Ismailia 41522, Egypt

Lithistid Sponges; a source of bioactive metabolites(2000-W)

109. **Egypt** US$9,380

ABD-ELSALAM, Kamel Ahmed
Molecular Markers Lab, Plant Pathology Research Institute
Agricultural Research Center, 9-Gamaa At, Gaza, Egypt

DNA Diagnostic technology for fusarium wilt of cotton in Egypt (2003-W)

110. **Egypt** US$12,000

YOUSSEF, Diaa T A
Department of Pharmacognosy
Faculty of Pharmacy, Suez Canal University, Ismailia 41522, Egypt

Discovery of novel selective anticancer agents from Red Sea sponges(2004-S)

111. **Egypt** US$11,200

KAMAL, Kamal Ouda Atia Ghodeif
Suez Canal University, Centre for Environmental Studies and Consultation, ISMAILIA
Estimation of the natural background of nitrate and arsenic in arid zones groundwater (Application on Sinai groundwater, Egypt) (2006-S)

112. **Egypt** US$10,500

MOSA, Ahmed Ali Mosa
Soil Department, Faculty of Agriculture
Mansoura University, 35516 El Mansoura

Wastewater remediation using low cost adsorbents made from chemically modified biochar(2009-W)

113. **Egypt** US$12,000

ZAYED, Mervat Farag Zayed
Department of Chemistry, Faculty of Science, El-Menoufia University
Shebin El-Kom, El-Menoufia, Egypt.

Bioassay-guided fractionation of two Egyptian traditional medicinal plants; Cymbopogon citrates and Hyphaene thebaica, on the basic of anti-schistosomiasis effect.(2010-S)

114. **Egypt** US$10,650

EL-KADY, Ahmed Abdel-gawad El-kady
Faculty of Agriculture
Food Toxicology & Contaminants Deptt.
National Research Center, Dokki, Egypt

Utilization of activated carbon to maximize the efficiency of zirconium oxide for photodegradation of some chemicals-induced hormonal disturbances. (2013)

115. **Egypt** US$12,000

ZAHRAN EL-NAGGAR, Eman
Dept of Internal Medicine, Infectious & Fish Diseases
Faculty of Veterinary Medicine
Mansoura University
Mansoura - 60 Elgomhoria Street
35516 Mansoura
Egypt

Molecular characterization of Nile tilapia antimicrobial polypeptides with dietary administration of AMPP recombinant enhances innate immune responses and elicits protection against S. iniae

116. **Egypt** US$12,000

ABDEL-WAHED, Mahmoud Saad
Department of Water Pollution Research
Faculty of Environmental Sciences
National Research Centre
El-Tahrir Street, Dokki
CAIRO, Egypt

Overcome Water and Energy Shortage by Magnetic Photocatalytic Materials

117. **Egypt**

Sally Ibrahim US$12,000
Veterinary Division, Department of Animal Reproduction and AI National Research Centre, 33 Al Behous St., 12622, Dokki, Giza, Egypt

"Deciphering the regulatory mechanism of corpus luteum formation, maturation and regression in Egyptian buffaloes"

118. **Egypt** US$ 10,000
Mohammed ROHAIM
Virology, Veterinary Medicine, Cairo University
Giza square, 12211, GIZA, Egypt
http://vet.cu.edu.eg/Home
Primary Email: mohammedvet1986@gmail.com
Establishing Field Data-Driven Universal Influenza Vaccine Platform in Poultry: Step Towards Poverty Alleviation & Food security in Egypt

119. **Gabon** US$11,500
ELLA Missang, Crépin
Institute National Supérieur d'Agronomie et de Biotechnologies (INSAB)
Univerité des Sciences et Techniques de Masuku (USTM)
B.P. 941, Franceville, Gabon

Etude du ramollissement post-récolte du safou (Dacryodes edulis)(2004-S)

120. **Gabon** US$12,000
APINDA-LEGNOUO, Emelie Arlette
Research Institute in Tropical Ecology (IRET in French) of National Centre of Scientific and technological research (CENAREST in French)
BP13354 Libreville Gabon

Biological Value of Reserve Areas in Gabon as indicated by Dragonflies(2008-W)

121. **Gambia** US$11,534
MANNEH, Baboucarr
National Agricultural Research Institute, PMB 526, Serre, Kunda, Gambia

Selecting rice (Oryza sativa L.) for tolerance to salinity and low nitrogen supply using molecular markers(2000-W)

122. **Gambia** US$8,000
Faburay, Bonto
National Agricultural Research Institute, PMB 526, Serekunda, Gambia

Molecular epidemiology of cowdriosis small ruminants in the Gambia (2003-S)

123. **Indonesia** US$8,900
HARTON, Arfah
Department of Aquaculture, Faculty of Fisheries,
Institut Pertanian Bogor, Kampus IPB Darmaga, BOGOR 16601, Indonesia

Genetic improvement of the common carp (Cyprinus carpio) in Indonesia VII: performances of hybrids among the three strains.(1998-W)

124. **Indonesia** US$9,600
DATTA, Frans Umbu
Department of Animal Production, University of Nusa Cendana
KUPANG 85001 NTT, Indonesia

Use of local feed resources to improve buffalo production and protect native grasslands and forests (1999)

125. **Indonesia** US$7,000

KUSMARTONO
Faculty of Animal Husbandry, Brawijaya University, JI Veteran
MALANG 65145, Indonesia
Potentials of jackfruit (<Arthocarpus <heterphyllus) wastes for ruminants (1999)

126. **Indonesia** US$11,000

DACHRIYANUS
Jurusan Farmasi FMIPA, Universitas Andalas Padang
Sumatera Barat 25163

Isolation of alkaloids and antimicrobial compounds from Voacanga cf.foetids (Apocynaceae) (2001-S)

127. **Indonesia** US$12,000

BAMBANG Kuswandi
Department of Chemistry, Faculty of Mathematics and Natural Sciences
University of Jember, JI. Kalimantan III/25, Jember 68121

Development of Optical Biosensors for Monitoring of Pollutants in Aqueous Environment(2000-W)

128. **Indonesia** US$8,200

EUGENIUS A. Renjaan
Marine Science Program, Poka Marine Sciences Centre,
Faculty of Fisheries Pattimura University,
P.O. Box 97233, Ambon

The Role of Estuarine Hydrodynamics on the Retention, Settlement and Recruitment of Meroplantonic Larvae in Kei Kecil (Kei Islands, Maluku, Indonesia)(2000-W)

129. **Indonesia** US$10,400

Subagio, Achmad
Department of Agricultural Products Technology, Faculty of Agricultural Technology, Universitas Jember (Jember University), Jl. Kalimantan 68121, Jember East Java

Studies on Physiochemical, Functional and nutrional properties of proteins from Indonesian non-oil beans for their development as food additives (2003-S)

130. **Indonesia** US$11,000

Dr. Sujaya I. Nengah
Integrated Laboratory for Bioscience and Biotechnology
Udayana University, Bukit Jimbaran Campus, Denpasar, Bali

Quality improvement of Balinese rice wine, brem (2005-W)

131. **Indonesia** US$12,000

Dr. Ririn Salwa Purnamasari
BPS-Statistics Indonesia, Directorate of Agricultural Statistics
JI. Dr. Sutomo No. 6-8, Jakarta 10710

Deforestation Dynamics in Indonesia: A Household Level Analysis of the Role of Poverty and Wellbeing Change (2005-W)

132. **Indonesia** US$12,000

WATURANGI, Diana Elizabeth
Atma Jaya Catholic University
Faculty of Biotechnology, Jalan Jendral Sudirman 51
Yustinus Building 1st Floor, Jakarta Ousat 12930, Indonesia

Prevalence and level of Vibrio cholerae in ice used by street vendors in Jakarta, Indonesia.(2008-W)

133. **Indonesia** US$11,600

MAULANY Risma Illa
Forestry Faculty
Hasanuddin University, Jalan Perintis Kemerdekaan Km. 10
Tamalanrea, Makassar (South Sulawesi)

The nesting biology and ecology of Olives ridely turtles (Lepidochelys Olivacea) in Alas Purwo National Park, Banyuwangi (East Java), Indonesia(2009-S)

134. **Indonesia** US$12,000

TAKARINA, Noverita Dian
Department of Biology, Faculty of Mathematics and Natural Sciences
Universitas Indonesia (University of Indonesia)
Jalan Salemba Raya 4, Jakarta

Benthic Community for Heavy Metal's Monitoring in Polluted Coastal Area of Jakarta Bay, Indonesia.(2009-W)

135. **Indonesia** US$11,720

KARTINI, Indriana
Chemistry Department, Faculty of Mathematics and
Natural Sciences (MIPA) Gadjah Mada University,
Sekip tara Bulaksumur, P.O. Box, Bis 21,
Yogakarta-55281

Highly Stable Indonesian "Batik" Dyes Sensitized Solar Cells with Novel Synergistic Blend of Natural Dyes and TiOx Passivation Layers

136. **Indonesia** US$11,800

JANRA, M Nazri
Department of Biology, Faculty of Mathematic and Natural Science,
Andalas University Padang, Jln. Kampus Unand, Limau Manis,
Padang, West Sumatra, Indonesia 25163

Systematic review on Stachyris (Babblers) genus in Sumatra by the means of DNA, morphological features and behavioral aspect

137. **Indonesia** US$10,000

ANDRIA AGUSTA, Andria
Faculty Research Center for Biology, Botany Division
Indonesian Institute of Sciences, Cibinong, Indonesia

Searching of bioactive microbial natural products for new antimicrobial and anticancer drug discovery(2013)

138. **Iran** US$11,900

SAMADANI, Batoel
Weed Research Department, Plant Pests & Diseases Institute
Ministry of Agriculture, AREEO, Evin, Tabnak Avenue, Tehran

Utilization of cover crops for weed control in transplanted tomato (1999)

139. **Iran** US$11,920

BANDANI, Ali Reza
Department of Plant Protection, Faculty of Agriculture
University of Teheran, 31587 Karaj

Study of digestive enzymes in Eurygaster intergriceps (Heteroptera:scutelleridae) and effects of plant proteineous inhibitors on the insect digestive enzymes.(2004-S)

140. **Iran** US$9,600

Dr. Mahdi K. KASHANINEJAD
Department of Food Science and Technology
Gorgan University of Agricultural Sciences and Natural Resources
Beheshti Ave., 49138-15739 Gorgan

Resistance to Airflow through Bulk Pistachio Nut As Affected By the Moisture Content, Direction of Airflow, Variety and Filling Method (2004-W)

141. **Iran** US$11,500

MOUSAVI, Amir
Molecular Plant Biology Department
National Institute for Genetic Engineering and Biotechnology
Pajoohesh Boulevard Tehran, Karaj Highway,
17 Km, Tehran

Yeast acetyltransferase for engineering deoxinivalenol metabolism in tobacco (2005-S)

142. **Iran** US$10,475

REZA, Akhavan
Research Institute of Forests and Rangelands, Teheran

Spatial variability and estimation of forest plantation stock using geostatistical analysis in the Caspian region of Iran(2006-S)

143. **Iran** US$10,900

RAZAVI, Seyed Mohammad Ali
Department of Food Science & Technology
Ferdowsi University, P.O. Box 91775-1163, Mashhad

The effect of fat substitutes and sweeteners on the sensory characteristics and rheological properties of reduced fat pistachio butter(2006-W)

144. **Iran** US$10,118

ESHAGH! RAD, Javad
Department of Forestry, Faculty of Natural Resources
Urmia University, Urmia

Use of understory vegetation as an indicator of soil physical and chemical properties in Fagetum communities in Caspian Forests.(2007-W)

145. **Iran** US$12,000

AMOOZEGAR, Mohammad Ali Amoozegar
University of Tehran , University College of Science
School of Biology, Dept of Microbiology, Tehran

Biodiversity of culturable moderately halophilic bacteria from lake Aran-Bidgol (2008-S)

146. **Iran** US$3,000

FATEMEH Mohammadipanah
Microbial Biotechnology Laboratory
Department of Microbiology, School of Biology, College of Science
University of Tehran, P.O. Box 14155-6455

Isolation and screening of actinomycete strains for shikimate pathway inhibitor production(2009-S)

147. **Iran** US$12,000

ALI RAZA Tehrani Bagha
The Department of Environmental Research
Institute for Colorants, Paint and Coatings (ICPC)
#59, Vafamanesh St., Hoseing Abad Sq., Pasdaran Cross
P.O. Box-16765-654, Tehran

Textile Wastewater Treatment by Advanced Oxidation Methods(2009-S)

148. **Iran** US$10,000

AMINZADEH, Saeed V
Department of Animal Biotechnology
National Institute for Genetic Engineering and Biotechnology
Sharek-e-Pajoohesh Km 15, Tehran-Karaj Highway
P.O. Box 14965/161, Tehran

Functional Genomics of Extermophile Chitinase isolated from shrimp pond(2009-W)

149. **Iran** US$12,000

SABAHI, Hossein
Department of Agro ecology, Environmental Science Research Institute, Shahid Beheshti University, G.C., 198 39 63 113 Evin. Tehran, Iran

The use of pomegranate (<Punica<granatum L.) fruit powder a nitrification inhibitor and phytotoxin(2011-S)

150. **Iran** US$11,910

GHORBANI, Abdol-baset
Taditional Medicine & Materia Medical Research Center
Shahid Beheshti University of Medical Sciences
P.O. Box 14155-6153
No. 10, Shams str., Vali Asr ave., Tehran, Iran

Wild crafting and trade of plants for food and medicine in Northern Khorasan Province, Iran: their role in empowering women and biodiversity conservation

151. **Iran** US$11,000

HEYDARIAN, Zohreh
Biotechnology College, Shiraz University
Bajgah, Agricultural College of Shiraz University, Shiraz, Iran

Molecular basis of ABA and ethylene-induced paraheliotropic leaf movement of soybean in response to heat and drought stress

152. **Iran** US$12,000

MOHAMMADIPANAH, Fatemeh
Faculty of Science, Department of Microbiology
University of Tehran, Tehran, Iran

Finding new species among antibacterial producing indigenous actinomycetes aiming at providing promising source of new antibacterial structures (2013)

153. **Jordan** US$7,500

Dr. Feras Mousa ZIADAT
Department of Agricultural Resources and Environment
Faculty of Agriculture, University of Jordan, P.O. Box 13693, Amman

Predicting soil properties from DEM-derived terrain attributes (2002-W)

154. **Jordan** US$12,000

Dr. Ahmed AL-MAJALI
Faculty of Vaterinary Medicine, Jordan University of Science and Technology, P.O. Box 3030, Irbid 22110

Prevalance of, and Risk Factors for, Brucella Infections among Camels in Jordan (2004-W)

155. **Jordan** US$12,000

AL ABDALLAT, Ayed
University of Jordan, Faculty of Agriculture
Department of Horticulture and Crop Science, Amman

Enhancement of Drought Tolerance in Barley (Hordeum Vulgare L.) by the over expression of a Putative Stress Responsive Gene.(2007-W)

156. **Jordan** US$12,000

ALZGHOUL, Mohammad
Jordan University of Science and technology
Department of Basic Medical Veterinary Sciences
Faculty of Veterinary Medicine, IRBID

Enhancement of theromotolerance and muscle growth in meat-type chicken by thermal manipulation (2007-S)

157. **Jordan**

Anas ABDELQADER US$12,000
The University of Jordan
Queen Rania, 11942, Amman, Jordan

Evaluating the nutritive value and the prebiotic activity of the Seaweed Ulva lactuca for broiler chickens

158. **Lebanon** US$12,000

HALA Gali-Muhtasib,
Department of Biology, American University of Beirut (AUB), Beirut

Chemical Characterization and Assay of Anticancer Activities of Essential Oil Components from Lebanese Sage (Salvia libanotica) (2001-W)

159. **Lebanon** US$11,500

BARICHE, Michel
American University of Beirut (AUB), Beirut

Juvenile pelagic fish assemblages in the coastal waters of Lebanon: biodiversity, biological characteristics, landings, and stock assessment (2006-S)

160. **Malaysia** US$3,100

KUA, Beng Chu
Fish Health Research Centre,
Fisheries Research Institute, 11960
BATU MAUNG,
Malaysia

Immunoprophylaxis of Crytocaryoniasis in Marine fish (1999)

161. **Malaysia** US$10,000

TENGKU MUHAMMAD, Tengku Sifzizul
School of Biological Sciences, Universiti Sains Malaysia,
11800 Penang

Molecular cloning of lipoprotein Lipase (LPL) promoter from bovine (1999)

162. **Malaysia** US$10,000

YAPP, Donald T T
Institute of Health and Community Medicine,
Universiti Malaysia Sarawak 94300 Kota Samarahan, Sarawak
New drug discovery: isolation of new compounds with anti-malarial activity from Lensium spp (2000)

163. **Malaysia** US$10,000

LEE, Soon Leong
Forest Research Institute Malaysia, Kepong, 52109 Kuala Lumpur
Spatial genetic structuring of two tropical forest tree species (Shorea leprosula and S. ovalis) with contrasting mating system in peninsular Malaysia (2000)

164. **Malaysia** US$10,500

TAN, C L
Lembaga Koko Malaysia
(Malaysian Cocoa Board)
Beg Berkunei 211, 88999 Kota Kinabalu Sabah

Genetic engineering of pod borer-resistant cocoa plants: isolation and characterization of trypsin inhibitor gene (2002-S)

165. **Malaysia** US$11,000

Dr. Ghufran Redzwan
Institute of Biological Scienes, Faculty of Science
University of Malaysia 50603, Kuala Lumpur

Towards the cleaning of Klang river: Identifying the polluted area by GIS application (2005-W)

166. **Malaysia** US$7,000

LIM, Yang Mooi
Institute of Postgraduate Studies & Research (IPSR)
Faculty of Engineering and Science, University Tunku Abdul Rahman
Selangor

Bioassay-guided Isolation and Elucidation of active anti-tumour-promoting andantioxidant compound(s) of four selected local medicinal plants. (2007-W)

167. **Malaysia** US$10,500

CHUI-PIN Leaw
Institute of Biodiversity and Environmental Conservation (IBEC)
Universiti Malaysia Sarawak (UNIMAS)
94300 Kota Samarahan, Kuching, Sarawak

Genetic diversity of amnesic shellfish poisoning-toxin producing diatom Pseudo-nitzschia (Bacillariophyceae) from Malaysia (2009-S)

168. **Malaysia** US$12,000
OTMAN, Raihan
Department of Science in Engineering, Faculty of Engineering
International Islamic University Malaysia
P.O. Box 10, Kuala Lumpur

Green Energy Generation from Rhizopus-Gloeophyllum Biofuel Cell (2009-W)

169. **Malaysia** US$11,200
LIM, Jitkang
School of Chemical Engineering
Universiti Sains Malasia Engineering Capus
Seri Ampangan, 14300 Nibong Tebal
Serberang Perai Selatan, Pulau Pinang

Development of nanostructured iron oxide colloid augmented polymeric membrane to remove arsenic from drinking water for the bottom billion.

170. **Malaysia** US$10,550
HAQUE, A.A. M.
Abu Ahmed Mokammel Haque
Environmental Engineering Program, School of Civil Engineering,
Engineering Campus, Universiti Sains Malaysia (USM),
14300 Nibong Tebal, Seberang Perai Selatan,
Pulau Pinang, Malaysia

Bio-regenerative treatments of high-strength wastewater using Bio-Fringe and White Jute (<Corchorus <capsularis) Fiberes(2011-S)

171. **Malaysia** US$8,000
CHIN, Suk Fun
Department of Chemistry
Faculty of Resource Science and Technology, Universiti Malaysia Sarawak, 94300, Kota Samarahan, Sarawak, Malaysia

Utilization of Regenerated Cellulose Nanoparticles from Cellulosic Wastes for Biomedical Applications

172. **Malaysia** US$12,000
ALKHATIB, Ma'an Fahmi R.
Department of Biotechnology Engineering
Facult of Engineering
International Islamic University (IIUM)
50728, Gombak, Selangor DE
Malaysia

Isolation of bacterial strains for bioremediation of Fat, Oil & Grease (FOG) in wastewater treatment plants

173. **Mali** US$10,000
DIALLO, Drissa
Départment Medicine Traditionelle, Institute National de Recherché en santé publique BP 1746, Bamako

Anti-Helicobacter pylori agents from medicinal plants (1998-W)

174. **Mali** US$10,555
Senou, Omar
Institute d'Economie Rural de Mali (IER), Bamako

Influence de parastisme des tapinanthus sur la production fruitiere du karate (Vitellaria Paradoxa Gaert.) en zone Mali-Sud (2003-W)

175. **Mali** US$5,805
DJOUARA, Hamady
Centre Régional de la Recherche Agronomique de
Sikasso
Institut d'Economie Rurale, Sikasso

Faisabilité socio-économique d'une plantation de Detarium microcarpum Guill. Et Perr. Dans la zone (2004-S)

176. **Mali** US$9,100
SAGARA, Bakary
Institut Polytechnique Rural (IPR/IFRA), Katjbougou-Koulikoro
Caractérisation et importance alimentaire des chenilles de Saturniidae au Mali.(2007-W)

177. **Mali** US$11,979
SANOGO, Mamoutou
Opération Aménagement du Parc National de la Boucle du Baoulé
Direction Nationale de la Conservation de la Nature
Ministère de l' Environnement et de l' Assainissement
Bamako

Etude des effets du cheptel sur la biodiversité végétale dans le corridor central de transhumance et dans les aires adjacentes dans la réserve de biosphère du Baoulé au Mali (2007-S)

178. **Mali** US$10,515
KORBO, Adama
Institute d' Economie Rurale (IER),
Rue Mohamed, V, BP 258 Bamako, Mali

Management of baobab for increased leaf production in common market garden system and improved adaptability (2011-S)

179. **Mali** US$11,200
SANOGO, Kapoury
Centre Régional de la Recherche Agronomique de Sikasso
Institut d'Economie Rurale, BP 186, Sikasso, Mali

Potential of Shea tree (Vitellaria paradoxa C.F.Gaertn.) for carbon sequestration in agroforestry parkland systems and improved rural livelihoods in southern Mali

180. **Mali** US$11,500
DICKO, Amadou Hamadoun
Departement de Biologie
Faculté des Sciences et Techniques
USTTB, Colline de Badalabougou
BP E-3206, Bamako
Mali
Les rhizobactéries et les champignons mycorhiziens pour une production durable et avantageuse du riz au Mali

181. **Mali**
Aboubacar TIMITEY US$11,000
Faculté d'Agronomie et de médecine Animale
Université de Ségou, Sébougou près du cerfitex, 97 Ségou, Ségou, Mali
Procédé technologique et qualité fonctionnelle, nutritionnelle et organoleptique du couscous de niébé produit au Mali

182. **Mali** US$ 10,970

Sanata TRAORÉ
Departement de Biologie
Faculté des Sciences et Techniques
Laboratoire de Recherche en Microbiologie et Biotechnologie microbienne (LaboREM-Biotech)
Primary Email: sanatatraore21@yahoo.fr
Wastewater irrigated vegetable production in Bamako and its peri-urban settlements: contamination pathway of microorganisms and heavy metals

183. **Mauritania** US$12,000

DIA Mamadou Lamine
Service de Parasitologie,
Centre National d'Elevage et de Recherches,
Vétérinaires BP 167,
NOUAKCHOTT

Epidemiology of camel trypanosomiasis T. evansi in Mauritania (1999)

184. **Morocco** US$12,000

YACOUBI-KHEBIZA, Mohammed
Departement de Biologie, Faculte des Sciences – Semlalia
Universite Cadi Ayyad BP 2390,
40000 Marrakech

The impact of agricultural, industrial, and urban acitivity on the water table in Morocco; an estimation of the level of organic and metal pollution through the study of biodiversity (1998-W)

185. **Morocco** US$9,000

FASSOUANE, Abdelaziz
Départment de Biologie, Faculté des Sciences,
Université Chouaib Doukkali
BP 20, EL-JADIDA,
Morocco

Production, isolation, and structure determination of antifungal compounds from bacteria isolated in southern Morocco(1998-W)

186. **Morocco** US$5,500

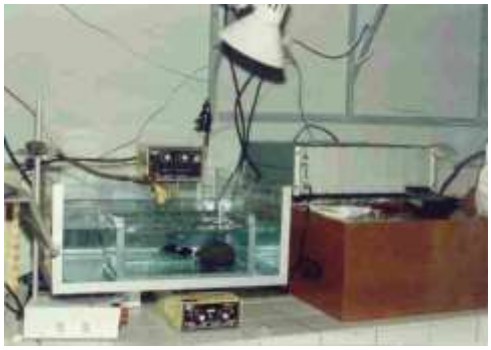
MOUKRIM, Abdellatif
Departement de Biologie,
Faculte des Sciences,
Universite Ibnou Zohr
BP 28/S, AGADIR

Pollution studies in the Bay of Agadir ecosystem (1999-S

187. **Morocco** US$6,000

MOUABAD, Abdelfattah
Departement de Biologie,
Faculte des Sciences et Techniques – Gueliz,
Universite Cadi Ayyad,
BP 618, 40000 Marrakech

Establishment of a toxicity test based on the filtration behaviour of the bivalve Unio elongatus as a response to micropollutants and effluents (1999-W)



188. **Morocco** US$10,000
ASTMANI, Fouad
Department de Biologie, Faculte des Sciences
Universite Mohammed 1er Oujda

Use of Herniaria hirsuta in the treatment of kidney stone formation (2000-S)

189. **Morocco** US$7,000
KRIEM, M.radouane
Institut Agronomique et Vétérinaire Hassan II
Départment: HIDAOA, B.P. 6202-Madinat Al Irfan, Rabat

Prévalence et caractérisation des vibrions pathogènes dans les produits de pêche.(2006-W)

190. **Morocco** US$10,620
ZAHER, Hafida
Département Sol, Biodiversité
Ecole Nationale Forestière d'Ingénieurs (E.N.F.I), Tabriquit

Qualité des sols marocains et séquestration du carbone : le rôle de la matière organique et des biomolécules (2007-S)

191. **Morocco** US$11,850
Hassani Zerrouk, Mounir
Université Abdelmalek Essaâdi
Faculté des Sciences et Techniques de Tanger,
Département de Biologies, Tanger

Activité antimicrobienne des huiles essentielles et leur potentiel application dans la conservation des aliments.(2008-S)

192. **Morocco** US$12,000
TAJDI, Amina
Département de Géologie,
Faculté des Sciences, Université Chouaib Doukkali, B.P. 20,
route de Sidi Said Maachou,
24 000 El Jadida,
MAROC.

Utilisation des données de satellites pour une gestion optimal de l' irrigation dans la région des Doukkala (Maroc occidental). Impact des changements climatique durant les trois dernières décennies.(2010-S)

193. **Morocco** US$12,000
EL ABBASSI, Abdelilah
Faculté des Sciences - Semlalia
Département Biologie, Université Cadi Ayyad, Marrakech, Morocco

Mise au point et optimisation d'un procede integer de traitement et valorisation des margines par recuperation d'antioxydants naturels a haute valeur ajoutee(2013)

194. **Morocco** US$12,000
YAHYAOUI AZAMI, Hind
Dépt de Pathologie et de Santé Publique Vétérinaires
Institut Agronomique et Vétérinaire Hassan II
BP 6202 Madinat al Irfane, Rabat-Instituts, Morocco

Investigations sur les souches responsables de tuberculose bovine au niveau des abattoirs au Maroc

195. **Morocco** US$ 12,000

Zineb BELABESS
Centre Régional de la Recherche Agronomique de Oujda
10, Bd Mohamed VI, BP428, 60000, Oujda, Morocco
www.inra.org.ma
Primary Email: belabess.zineb@gmail.com
Occurrence and distribution of virus and virus-like diseases of citrus and potato in North-East region of Morocco

196. **Mozambique** US$12,000

ROMANA Rombe Bandeira
Department of Forestry, Eduardo Mondlane University
P.O. Box 257, Maputo

Ecological Studies of Native Fruit Tree Pests with Particular Emphasis to Ceratitis spp. (Diptera: Tephritidae) in Southern Mozambique (2001-W)

197. **Mozambique** US$10,000

Mr. A.J. Manhique
Department de Fisica Catedra de Marinhas, Universidade
Eduardo Mondlane, P.O. Box 257, Campus Maputo

Studies of salt water intrusions and sedimentation in a tidal estuary of southern Mozambique (2002-W)

198. **Mozambique** US$9,000

Halafo, Jose Sebastiao
IIP Fisheries Research Institute 389 Mao – Tse Tung Avenue
P.O. Box 4603, Maputo

Towards conservation of potamodrous fish in the east part of Lake Niassa, Mozambique (2003-S)

199. **Mozambique** US$11,850

NEHAMA, Fialho Paloge Juma
School of Marine and Coastal Sciences
Universidade Eduardo Mondlane
Quelimane, Mozambique

Numerical study of the transport of freshwater and sediments in a buoyant plume(2013)

200. **Mozambique** US$12,000

MUCACHE, Hermógenes Neves
Dept de Epidemiologia e Diagnóstico Molecular
Centro de Biotecnologia, Universidade Eduardo Mondlane
Av. De Moçambique km 1.5, Maputo, Mozambique

Immunopathology of <Trypanosoma <vivax infections in cattle: Cytokine profiles and cellular responses

201. **Niger** US$10,000

Chaidou, Issa
Faculte Agronomie, Universite Abdou Moumouni de Niamey
BP 10960, Niamey

Impacts des Pratiques de transhumance dans la zone de transition de la reserve de biosphere du W du Niger (2003-W)

202. **Niger** US$12,000

ISSAKA, Souley

NRAN, CERRA, Section Riz,
Lab de Phytopathologie, BP 60, Kollo

Variabilité séro-biologique et moléculaire d'isolats du virus de la panachure jaune du riz (RYMV) : contribution á la connaissance de l'épidémiologie au Niger (2004-S)

203. **Niger** US$7,740
Mr. Bassirou, ALHOU
Départment de Biologie, Faculté des Sciences
Université Abdou Moumouni de Niamey

Impact des rejets urbains de la ville de Niamey sur la qualité des eaux du fleuve Níger (2004-W)

204. **Niger** US$10,000
ALI, Halidou
Department of Parasitology, College of Veterinary Medicine
South China Agricultural University, 483 Wushan Street, Tianhe District
Guangdong Province 510642

Genetic characterisation of Fasciola spp. from Niger by ribosomal and mitochondrial DNA sequences(2006-W)

205. **Niger** US$10,000
SABO, Haoua
Département de Chimie, Faculté des Sciences
Université Abdou Moumouni de Niamey

Investigation de sources mal connues de nutriments :Etude prospective de la teneur en nutriments des tourteaux et pâtes des graines des cucurbitacées et la caractérisation physico-chimique de leur huile produite localement (2007-S)

206. **Niger** US$12,000
ABDOU BABAYE, Maman Sani
Département de Géologie, Faculté des Sciences
Université Abdou Moumouni, BP 10662
NIAMEY, Niger

Contribution a évaluation des ressources en eaux souterraines du bassin de Dargol (Liptako - Niger)(2008-W)

207. **Niger** US$12,000
MOUSSA, Massaoudou
Département de Biologie
Faculté des Sciences et Techniques
Université de Maradi, BP 465, Maradi, Niger

Potentiel de séquestration et stocks de carbone des parcs agroforestiers à Faidherbia albida (Del.) A. Chev. et Prosopis africana (Guill., Perrot et Rich). Taub. du Centre-sud du Niger

208. **Niger**
Massaoudou **MOUSSA** US$12,000
Institut National de Recherche Agronomique du Niger/
Centre Régional de recherche agronomique de Maradi; BP 240 Maradi; Niger

Dynamique végétale et estimation de la biomasse aérienne de la forêt classée de Baban Rafi au Niger

209. **Nigeria** US$9,000
ADENIYI, Bolanle Alake
Faculty of Pharmacy, University of Ibadan
PO Box 22346 U I Post Office, IBADAN

Medicinal plants in Mali, ethnobotany, chemistry and biological testing (1999)

210. **Nigeria** US$6,000
OKPE, Godwin Chidozie
Department of Veterinary Anatomy,
University of Nigeria, NSUKKA

Comparative histology and post embryonic development of lymphoid organs of the Nigerian local and exotic breeds of chicken (2000)

211. **Nigeria** US$10,800
AIYELAAGBE, Olapeju O
Department of Chemistry, Faculty of Science,
University of Ibadan, Ibadan

Phytochemical, antibacterial, antifungal and cytotoxic investigation of Jatropha Multifida and Jathropha curcas (2001-S)

212. **Nigeria** US$10,500
BANKOLE, Samuel A
Department of Biological Sciences, Faculty of Science,
Ogun State University, PMB 2002, Ago-Iwoye

Aflatoxin contamination and control in postharvest melon seeds (2000)

213. **Nigeria** US$10,600
OFOR, Chukwuma Okereke
Fisheries Department
Collete of Natural Resources & Environmental Management
Federal University of Agriculture, Umudike, PMB 7267
UMUAHIA, Abia State

Impact of pond-production of nodulating soybeans on semi-intensive fish grow-out in Nigeria(2000-S)

214. **Nigeria** US$11,300
OGBONNA, A C
Department of Brewing Science and Technology
Faculty of Natural and Applied Sciences, University of Uyo
PMB 1017, Uyo Akwa Ibom State

Purification and characterization of proteolytic enzymes from sorghum malt varieties(2002-S)

215. **Nigeria** US$9,500
Mr. Oladele Olatunbosun, MABEKOJE
Department of Biological Sciences,
Faculty of Sciences
Olabisi Onabanjo University, PMB 2002, 234 Ago-iwoye, Ogun State

Fumonisin Contamination of Nigerian Maize and Maize-based Foods (2004-W)

216. **Nigeria** US$10,567
Miriam Nwanna IGWO-EZIKPE
Department of Biotechemistry, College of Medicine, University of Lagos
P.M.B. 12003, Lagos

Microbial Culture from Nigerian Polluted Soil Biodegradation of High Molecular Weight Polycyclic Hydrocarbon and Enhancement (2005-W)

217. **Nigeria** US$12,000
Dr. Benjamin Ewa UBI
Department of Crop Science, Faculty of Agriculture,
University of Calabar
P.M.B. 1115-Calabar, Cross River State

Amplified fragment length polymorphisms: diversity of drought tolerance of rice at the seeding stage and performance under an upland field agro-echology in Cross River State (2005-W)

218. **Nigeria** US$7,000
ADELEGAN, Joseph Akinkugbe
Global Network for Environment and Econonic
Development Research, Idaban, Oyo State

Urban Environment and Ecosystem Health: a Study of Animal waste Pollution and Management in South-Western Nigeria. (2007-W)

219. **Nigeria** US$11,258
KAZEEM, Shakiru Adewale
Nigeria Agricultural Quarantine Service (NAQS), Post-Entry Station,
Moor Plantation (NCRI Compound) Apata. P.M.B. 5672, Ibadan, Nigeria

Evaluation of resistance to ratoon stunting disease in sugarcane grown in different agro-ecological zones of Nigeria. (2010-S)

220. **Nigeria** US$12,000
SAIDU, Yusuf
Department of Biochemistry, Usmanu Danfodiyo University,
P.M.B. 2346, Sokoto, Nigeria

Screening for Protein Tyrosine Phosphatase 1B(PTP 1B) and Dipephtidyl Peptidase IV (DPP IV) inhibitors from Some Nigerian Medicinal Plants(2011-S)

221. **Nigeria** US$5,950
FALADE, Kolawole Olumuyiwa
Department of Food Technology, Faculty of Technology
Universit of Ibadan, Ibadan, Nigeria

Effect of gamma-irradiation on rheology, adsorption,physicochemical, total protein and amino acid profile of selected NIgerian legumes

222. **Nigeria** US$10,000
IGBINOSA, Etinosa Ogbomoede
Faculty of Life Sciences, Department of Microbiology
University of Benin, Benin City, Nigeria

Novel antimicrobial and anticancer related secondary metabolites of the aquatic Actinomyectes diversity of near-shore marine and estuarine environments in the Niger delta of Nigeria(2013)

223. **Nigeria** US$12,000
BABATUNDE, Bolaji Benard
Dept of Animal & Enviromental Biology
Faculty of Science, University of Port Harcourt, PMB 5323, Choba
Port Harcourt Rivers State, Nigeria

Application of nuclear techniques for poillution history reconsutrction and ocean addification monitoring

224. **Nigeria** US$12,000

AGBELEYE, Opeyemi Adeola
Grain Legume Improvement Programme
Institute of Agricultural Research and Training (IAR&T)
Obafemi Awolowo University
PMB 5029, Moor Plantation
Ibadan Oyo State, Nigeria
Genetic Diversity, Genotype x Environment Interaction, path and stability analysis in African Yam Bean (Sphenostylis stenocarpa Ex. A. Rich.)

225. **Nigeria** US$12,000

MOKWUNYE, Idongesit
Cocoa Research Institute of Nigeria
PMB 5244, Idi Ayunre
Ibadan Oyo State
Nigeria
Development of a kairomone-based lure for the management of Helopeltis spp in Nigeria

226. **Nigeria**

Andrew Agbontalor ERAKHRUMEN US$11,300
University of Benin
P. M. B. 1154; Benin City; Nigeria
Verifying the functional dendroremediation mechanism(s) applied by Nigerian red mangrove (Rhizophora racemosa G.F.W. Meyer) in the Niger-Delta region

227. **Nigeria**

Isoken Henrietta IGBINOSA US$12,000
Faculty of Life Sciences
Dept. Environmental Management and Toxicology
Benin-Lagos Expressway, Ugbowo Benin City; 300001, Benin City; Nigeria
Surveillance on the ecology of antibiotics resistant of salmonella pathogens

228. **Nigeria**

Unique Keke US$11,000
Federal University of Technology, Minna, Niger State
Bosso, Minna, Nigeria
Exploring the Spatial Patterns of Benthic Macroinvertebrates Biodiversity in Nigerian Streams

229. **Nigeria** US$ 12,000

Oluwadurotimi AWORUNSE
Biological Sciences
Science and Technology, Covenant University
Canaan land, km 10, Idiroko Road, P.M.B 1023, ota, Ota, Nigeria
www.covenantuniversity.edu.ng
Primary Email: oluwadurotimi.aworunse@covenantuniversity.edu.ng
Ethnobotany and Genetic Diversity Assessment of Telfairia Occidentalis Hook F. (Fluted Pumpkin) in Southern Nigeria

230. **Nigeria** US$ 12,000

John OYEWALE
Biological Sciences
Science and Technology, Covenant University
Km. 10, Idiroko Road, , Ota, Nigeria
https://www.covenantuniversity.edu.ng

Primary Email: john.oyewale@covenantuniversity.edu.ng
Molecular Characterisation of Mobile Colistin Resistance Genes in Livestock and Clinical Enteric Bacteria in Selected States of Southwestern Nigeria

231. **Pakistan** US$12,000
ASHRAF, Muhammad
Soil Biology Division, Nuclear Institute for Agriculture and Biology P.O. Box 128, Faisalabad

Use of exopolysaccharide (EPS) producing rhizospheric bacteria for crop improvement on salt-affected soils (1999-W)

232. **Pakistan** US$12,000
MANSOOR, Shahid
Plant Biotechnology Division, National Institute for Biotechnology and Genetic Engineering, PO Box 577,
Jhang Road, Faisalabad

Broad-Spectrum genetically engineered resistance against begomoviruses associated with cotton and tomato in Pakistan (2000)

233. **Pakistan** US$11,750
KHAN, O Y
Center for Molecular Genetics,
University of Karachi, University Road
Karachi – 75270

Genetic and molecular characterization of natural polymer-producing marine bacteria isolated from the Arabian Sea (2000-W)

234. **Pakistan** US$11,800
HUSSAIN, Mazhar
National Institute for Biotechnology and Genetic Engineering (NIBGE)
P.O. Box 577, Jhang Road, 38950, Faisalabad

RNA interference (RNAi) mediated resistance against cotton leaf curl virus (CLCUV)(2002-S)

235. **Pakistan** US$10,000
Mr. Mohsin Jamil Butt
Department of Space Sciences,
University of the Punjab, Quaid-e-Azam Campus, Lahore

Satellite Snow Cover Estimation and Related River Run-Off Studies for Agricultural use in Pakistan (2002-W)

236. **Pakistan** US$11,000
AMIN, Imran
National Institute of Biotechnology and Genetic Engineering (NIBGE)
P.O. Box 577, Jhang Road, Faisalabad

RNAi for development of broad-spectrum resistance aginst newly emerging begmovirus complexes (2003-W)

237. **Pakistan** US$12,000
Ms. Asma, SAEED
PCSIR Laboratories Complex, Ferozpur Road, Lahore-54600

Biomediatin of Toxic Heavy Metals and Organic Pollutants from Industrial Wastewaters by Basidiomycetes and Agrowastes (2008-W)

238. **Pakistan** US$11,000
Ms. Shazia Iram

Plant Biotechnology Division
National Institute of Biotechnology and Genetic Engineering (NIBGE)
Jhang Road, P.O. Box 577, Faisalabad

Molecular Characterization of RNA and DNA viruses infecting melons in Pakistan and RNAi based genetically engineered resistance (2005-W)

239. **Pakistan** US$6,000
Dr. Amir Jamil
Department of Chemistry, University of Agriculture, Faisalabad

Purification, Characterization and hyperexpression of antifungal proteins/peptides from potential medicinal plants (2005-W)

240. **Pakistan** US$6,000
KALSOOM, Kalsoom Akhtar
National Institute for Biotechnology and Genetic Engineering (NIGBE)
Faisalabad

Genetic manipulations of Mutation that leads to hyperproduction of Tylosin from Streptomyces fradiae NRRl-2707 and development of Solid State Fermentation (SSF) Process Using that mutant (2006-W)

241. **Pakistan** US$8,500
SHAH, Muhammad Raza
University of Karachi, 75270 Karachi

HELlOS — A new innovative access to ultra pure drinking water from highly contaminated water resources in Karachi, Pakistan (HELlOSDRINK)(2007-W)

242. **Pakistan** US$12,000
Memon, Saima Qayyum
University of Sindh, Hi tech Central Resources Laboratory, Jamshoro

Evaluation of Economical Adsorbents for Arsenic remediation(2008-S)

243. **Pakistan** US$12,000
SAEED, Asma
Pakistan Council of Scientific and Industrial Research Laboratories Complex,Pakistan Council of Scientific and Industrial Research
Ferozepur Road, Lahore-54600

Environment-friendly technology for the removal of metals, phenolics and textile dyes from industrial wastewaters(2008-W)

244. **Pakistan** US$12,000
SAEED, Dr. M. Khalid
Senior Scientific Officer(SSO)
Food and Biotechnology Research Centre (FBRC), Pakistan Council of Scientific and Industrial Research (PCSIR) Laboratories Complex
Ferozepur Road, Lahore

Development of Karela (Momordica charantia) Tea and Appraisement of its Antioxidant and Hypoglycemic activities(2008-W)

245. **Pakistan** US$3,000
NAZIA Jamil
Institute of Microbiology and Molecular Genetics
Faculty of Life Sciences, New Campus, University of the Punjab, Lahore-54590
Industrial and Domestic Wastewater as a Resource of Bacteria Producing Bioplastic(2009-S)

246. **Pakistan** US$11,995

SAQIB, Muhammad
Institute of Soil and Environmental Sciences
Faculty of Agriculture, University of Agriculture, Faisalabad

Characterizing ion uptake and activities of H+-ATPases of semial and nodal roots, and rhizoshere acidification of salt-resistant and sensitive wheat genotypes salinity and salinity x sodacity(2009-W)

247. **Pakistan** US$11,500

SAMINA, Samina Anwar
Environmental Biotechnology Division
National Institute for Biotechnology and Genetics
P.O. Box 577, Jhang Road, Faisalabad

Biodegradation of organophosphate pesticides in liquid culture and soil under influence of different environmental conditions(2009-W)

248. **Pakistan** US$11,400

HASSAN, Muhammad Nadeem
Department of Biosciences, COMSATS Institute of Information Technology (CIIT), Chak Shahzad Campus, Park Road, Islamabad. Pakistan

Bio-control of Macrophomina phaseolina causing charcoal rot in oil seed crops by using plant growth promoting rhizobacteria (PGPR).(2010-S)

249. **Pakistan** US$11,962

NAIM, Asma
Department of Microbiology, University of Karachi, Karachi-75270, Pakistan

Virulence factors profile of shiga toxin-producing E.coli isolates from food and drinking water samples.(2010-S)

250. **Pakistan** US$11,750

UL ABDIN, Zain
Department of Agri. Entomology University of Agriculture
Faislabad, Pakistan

Development of environmentally benign novel natural bioinsecticides for effective insect control derived from the naturally occuring toxic genes in the female secretions of insect parasitoids (2011-W)

251. **Pakistan** US$11,600

ASHFAQ, Muhammad
Department of Plant Pathology
PMAS-Arid Agriculture University,
Murree Road Shamasabad, Rawalpindi-46300

Molecular studies on a complex of potyviruses infecting solanaceous vegetables/crops in Pakistan and their management

252. **Pakistan** US$10,000

ANJUM, Fozia
Assistant Professor
Department of Chemistry, Faculty of Science and Technology
Government College University, Faisalabad

Biomineralization/ Biorecovery of metals from hospital wastes incinerator bottom ash using indigenous microbes

253. **Pakistan** US$12,000
TUFAIL, Asma
Assistant Professor
IRCBM, COMSATS Institute of Information Technology, Lahore

Synthesis and characterization of novel polyoxometalates catalysts for production of fuel oil by catalytic cracking of polyethylene waste(2013)

254. **Pakistan** US$11,905
UDDIN, Reaz
Assistant Professor
Dr. Panjwani Center for Molecular and Drug Research
University of Karachi, Karachi

Deciphering Natural Products, Potential in Modulating Protein-Protein Interactions (PPIs) among the Infectious Druggable Genomes(2013)

255. **Pakistan** US$10,000
AKHTAR, Nasrin
Senior Scientist
Industrial Biological Division
National Institute for Biotechnology and Genetic Engineering
Faisalabad

Exploiting biodiversity of Carbon-Sulfur bond cleaving microorganisms to select new strains potentially interesting for enhanced desulfurization of coal(2013)

256. **Pakistan** US$11,500
ZAFAR BAJWA, Sadia
Industrial Biotechnology Division
National Institute for Biotechnology and Genetic Engineering (NIGBE)
Engineering (NIGBE), PO Box 577, Jhang Road, 38950 Faisalabad
Pakistan

Development of smart sensors for the detection of veterinary drugs residues in human food

257. **Pakistan** US$12,000
GHUFFAR, Sajid
Department of Space Science
Institute of Space Technology
P.O. Box 2750
Islamabad 44000
Pakistan

Glacier Monitoring using High Resolution Satellite Stereo Imaging

258. **Pakistan** US$12,000
TANWIR, Samina
Department of Botany
Faculty of Sciences
University of Agriculture
Agriculture University Road, Faisalabad 38000
Pakistan

Improving drought tolerance of wheat by mapping quantitative trait loci of some important physiological traits

259. **Pakistan** US$11,600
SHAH, Syed Zakir Hussain
Dept of Zoology, Wildlife & Fisheries
Faculty of Sciences

University of Agriculture
38040 Faisalabad, Pakistan

A comprehensive study to evaluate the Zinc bioavailability from organic and in-organic sources in practical diet for Labeo rohita fingerlings

260. **Pakistan**
FARID, Akhlaq — US$12,000
Department of Biology, SBASSE Complex
Syed Babar Ali School of Science and Engineering
Lahore University of Management Sciences
Opposite Sector U, DHA, Lahore 54792, Pakistan
Understanding the role of 1-Methylcyclopropene in Mango Fruit Ripening to reduce Postharvest Losses of Mango in Pakistan

261. **Pakistan**
RAUF, Mamoona — US$11,000
Department of Botany
Faculty of Chemical & Life Sciences
Abdul Wali Khan University, Garden Campus, 23200 Mardan, KPK, Pakistan
Generation of salt resistant Tomato through genetic transformation with SERF1-DREB2A regulatory cascade

262. **Pakistan**
REHMAN ARIF, Mian Abdur — US$11,500
Wheat Group
Plant Breeding and Genetics Division
Nuclear Institute for Agriculture and Biology (NIAB)
PO Box 128, Jhang Rd, Faisalabad, Pakistan
Genetic mapping of adult plant stripe rust resistance in novel germplasm of wheat

263. **Pakistan**
Muhammad ASHFAQ — US$12,000
PMAS-Arid Agriculture University
RawalpindiMurree Road Shamasabad; 46300, Rawalpindi, Pakistan

Current status, genetic variability and molecular characterization of major viruses infecting onion and garlic crops in Punjab, Pakistan

264. **Pakistan**
Muhammad Zuhaib — US$12,000
National Institute for Biotechnology and Genetic Engineering
Agricultural biotechnology division; 38000, Faisalabad, Pakistan

Development of an automated promoter based CRISPR/Cas9 system for control of Cotton leaf curl khokran virus-Burewala strain (CLCuKo-Bur) in cotton

265. **Pakistan**
Aitezaz Ahsan — US$11,800
Animal Sciences Institute, National Agricultural Research Council
Prevalence and antimicrobial resistance of Salmonella in slaughtered animals in Pakistan

266. **Pakistan**
Syed Zakir Hussain SHAH — US$11,930
University of Gujrat
Dietary zinc requirements of Cirrhinus mrigala fingerlings

267. **Pakistan** US$ 11,400

Kamal AHMED
Water Resources Management
Faculty of Engineering Sciences and Technology
Lasbela University of Agriculture, Water and Marine Sciences
Regional Cooperation for Development Highway, 90150, Uthal, Lasbela, Pakistan
http://www.luawms.edu.pk/
Primary Email: kamal_brc@hotmail.com
Groundwater Sustainability Assessment over Pakistan for Adaptation to Changing Environment

268. **Pakistan** US$ 12,000

Najeeb ULLAH
Plant Pathology
Plant Protection Division
Nuclear Institute for Agriculture and Biology (NIAB)
P.O. Box 128, Jhang Road, 38000, Faisalabad, Pakistan
http://www.niab.org.pk
Primary Email: najeeb241@hotmail.com
Exploring the etiology of Urdbean leaf crinkle disease of mungbean and identification of its insect vector (s) in Pakistan

269. **Palestine** US$12,000

SALMAN, Mazen
Technical and Applied Research Center (TARC)
Palestine Technical University-Kadoorie (PTUK)
P.O. Box. 7, Tulkarm

Possibilities of biological control of Peacock spot disease caused by Spilocaea oleagina on Olive using bacteria (2011-W)

270. **Palestine** US$10,000

ABUAMSHA, Ruba
National Agriculture Research Center (NARC)
P.O. Box 209, Qabatya, Jenin, West Bank, Palestine

Overwintering Forms of Erysiphe necator and It's Roll in Epidemiology of Grapevine Powdery Mildew in Palestinian Vineyards

271. **Senegal** US$5,000

MISSOHOU, Ayao
Departement des Sciences Biologiques et, des Productions Animales
Ecole Inter-Etats des Sciences et Medecine Veterinaries
BP 5077, Dakar-Fann

Productivity and economic contribution of the Senegalese hen to the income of rural farms(1998-W)

272. **Senegal** US$8,540

CISSE, Maimouna
Laboratoire National de l'Elevage et de Recherches Veterinaires,
Institute Senegalais de Recherches, Agricoles, BP 2057, Dakar

Variation des reserves corporelles et activite ovarienne post-partum chez la vache zebu Gobra (2000-S)

273. **Senegal** US$11,550

Gueye, Mame Codou
Centre d`Etude Régional Pour l`Amélioration,
del`Adaptation á la Sécheresse (CERAAS),

Institut Sénégalais de Recherches Agricoles (ISRA)
BP 3320 Thiés Escale

Diversity Assessment of Cowpea landraces from Senegal using molecular tools (2003-S)

274. **Senegal** US$11,290

NDOUR, Ndeye Yacine
UR 083, Laboratoire d'Ecologie Microbienne des Sols Tropicaux
IRD/ISRA/UCAD, BP 1386, Bel Air, Dakar

Irrigation de cultures maraîchéres par des effluents urbains: effets de l'apport de résidus végétaux exogénes sur le devenir de l'azote dans le sol(2005-S)

275. **Senegal** US$11,751

NDIAYE, Daouda
Centre de Suivi Ecologique, Fann Residence, Dakar

Effet de la déforestation des réserves sylvopastorales de Mbégué et de Dolly (Sénégal) sur les émissions de GES et le stock de C (2007-S)

276. **Senegal** US$10,800

SALL, Mamadou
Institut Sénégalais de Recherches Agricoles Route des Hydrocarbures Bel Air, Boite Postale 3120, Dakar

Caractérisation et modélisation du transfert des nitrates dans la nappe de la zone des Niayes. (2008-W)

277. **Senegal** US$12,000

KABA ANGA, Mariama
Department de Geologie, Faculte des Sciences et Tchniques
Unversite Cheikh Anta Diop Anta Diop de Dakar (UCAD)
B.P. 5005, Fann, Dakar

Analysis and evaluation of the complex water/soil/plant for optimization of the agricultural production in the Northern Littoral zone of Senegal: Contribution of remote sensing and Geographical Information System (GIS)(2009-W)

278. **Senegal** US$12,000

SALL, Mamadou
Institut Sénégalais de Recherches Agricoles
Centre ISRA-Fleuve, BP 240 Saint-Louis, Senegal

Contribution à l'utilisation optimale de l'humidité du sol en zone de décrue dans la vallée du fleuve Sénégal

279. **Senegal** US$12,000

ASSOUMY, Abdou Moumouni
Santé Publique et Environnement
Ecole Inter-Etats des Sciences et Médecine Vétérinaires (EISMV)
Dakar, Senegal

Qualite et pharmacovigilances des medicaments veterinaries au Niger(2013)

280. **Senegal** US$11,300

SYLLA, Elhadji Serigne
Département de Biologie Animale
Faculté des Sciences et Techniques, Université Cheikh Anta Diop de Dakar (UCAD), BP 5005, DAKAR-FANN, Senegal

Invasion de la mineuse de la tomate, Tuta absoluta, en Afrique sub-saharienne: dynamique, niche écologique et potentiel de régulation biologique

281. **Senegal**
Mame Farma **NDIAYE** US$10,500
Institut Sénégalais de Recherches AgricolesRoute des Hydrocarbures, Bel Air, Dakar 3120, Senegal

Conception de systèmes maraichers innovants pour une gestion améliorée des nématodes et des nutriments

282. **Senegal**
Fatoumata FALL US$11,900
Centre de recherches de Bel-Air
Laboratoire Commun de Microbiologie IRD/ISRA/UCAD
Route des Hydrocarbures, 18524, Dakar, Senegal

Effet « plante nurse » de Sporobolus robustus Kunth pour la revégétalisation des terres salées par Prosopis juliflora (Swartz) DC. et Vachellia seyal Del. dans le delta du Sine Saloum au Sénégal

283. **Somalia** US$12,000
SALAH, Abdirahman
Seikh Technical Veterinary School (STVS), Somaililand c/o Terra Nuova PO Box. 74916-00200 Nairobi, Kyniya

Epidemiological studies of camel trypanosomosis in Somaliland

284. **Sierra Leone** US$11,920
JALLOH, Abdulai
Institute of Agricultural Research, Tower Hill, PMB 540, Freetown
Sierra Leone

Optimizing plant densities of intercropped rice/cassava/maize for improved productivity of the system on the upland (2000-W)

285. **Sierra Leone** US$12,000
CONTEH, Abdul R
Institute of Agricultural Research, Tower Hill, PMB 540, Freetown

An evaluation of green manure cropping for sustainable soil management in upland cropping system of Sierra Leone (2000-W)

286. **Sierra Leone** US$1,000
GEORGE, Sidikie
Institute of Agriculture Research, Tower Hill, PMB 540, Freetwon

Withdrwan due to resignation from Institute

Selection of sweet potato genotypes for high pro-vitamin A carotene and high nutrient efficiency (2005-S)

287. **Sierra Leone** US$12,000
BOIMA, Bindi.
Institute of Agricultural Research (IAR)
National Agricultural Research Coordinating Council (NARCC), Freetown
Variation in yield and quality of multiple products of cassava with plant age and season.(2007-S)

288. **Sudan** US$9,000
HAMID, Mohammed Elamin

Department of Prev Medicine and Public Health
Faculty of Veterinary Medicine, University of Khartoum
P.O. Box 32, Khartoum North

Experimental immunization of Zbu calves against bovine farcy with attenuated and killed vaccines (1999)

289. **Sudan** US$11,800

SHARAWI, Huda
Department of Forest Management,
Faculty of Forestry
University of Khartoum,
P.O. Box 32, Khartoum North,
Shambat 13313

Sustainable land-use management in Central Sudan: a case study of the Daly area (2001-S)

290. **Sudan** US$12,000

YAHIA Hasssan Ali Osman
Central Veterinary Research Laboratories, Virology Department
P.O. Box 8067, El Amarat, Khartoum

Studies on Rota Virus Infection of Camels in Sudan (2001-W)

291. **Sudan** US$12,000

Dr. Maowia M. Mukhtar
Institute of Endemic Diseases,
University of Khartoum, P.O. Box 1463

Safety, Immunogenicity and efficacy of strain RB51 and strain 19 Brucella, Vaccines in camels (2002-W)

292. **Sudan** US$12,000

Mr. Diaeldin Ahmed, SALIH
Department of Ticks and Tick-borne Disease
Central Veterinary Research Laboratories
P.O. Box 8067, Alamarat, Khartoum

Molecular Epidemiological Studies on East Coast Fever (Theileria parva infection of catle) in Southern Sudan (2004-S)

293. **Sudan** US$12,000

SALIH Diaeldin Ahmed
Department of Ticks and tick-borne Diseases
Cenral Veterinary Researh Laboratories, P.O. Box 8067
Alamarat, Khartoum

Molecular Characterization of different strains of Theileria parva from southern Sudan (2009-S)

294. **Sudan** US$11,865

ELSHEIKH, Eman Rahamtalla Ahmed
Land & Water Research Center
Agricultural Research Corporation (ARC)
PO Box 388, Wad Medani, Sudan

Optimization of agricultural water productivity under different water conditions: case sudy The Gezira Scheme, Sudan

295. **Sudan** US$12,000

MOHAMMEDSALIH, Khalid

Department of Clinical Studies
Faculty of Veterinary Science
University of Nyala
P.O. Box 155
Nyala, Sudan

Evaluation of Albendazole resistance status of gastrointestinal nematode in cattle and goats in South Darfur State, Sudan

296. **Sudan**
ABDELHALIM, Tilal — US$11,300
White Nile Research Station
Agricultural Research Corporation (ARC)
PO Box 300, Kosti, Sudan
Introgression of the Low Germination Stimulant Genes (lgs) for Striga resistance Into Sudanese farmer-preferred varieties of Sorghum

297. **Sudan**
Khalid Mohammedsalih — US$12,000
Faculty of Veterinary Science
University of Nyala, Nyala, Sudan

Evaluation of albendazole, levamisole and ivermectin efficacy as well as resistance status against gastrointestinal nematodes of cattle, sheep and goats in South Darfur State, Sudan

298. **Suriname** — US$12,000
NURMOHAMED Riad, Jozef
Anton de Kom University of Suriname
Faculty of Technology, Department of Infrastructure
Leysweg, POB 9212, Paramaribo

Management of water resources in north-west Suriname under climate change conditions (2009-S)

299. **Togo** — US$9,600
DOURMA, Marra
Laboratoire de Botanique et Ecologie Végétale
Département de Botanique, Faculté des Sciences
Université du Bénin (UB) = Université de Lomé, BP 1515, Lomé

Régénération naturalle et écologie d'Isoberlinia doka Craib. & Stapt. et d'I. tomentosa (Harms) Craib. & Stapf. (Caesalpiniaceae) des forêts claires au Togo (2005-S)

300. **Togo** — US$11,650
KOKUTSE, Adzo D
Faculte des Sciences, Universite du Benin, Benin

Formation du durament chez le teck (Tectonia grandis). Etude de la durabilite et des varaiation intra et inter-provenances(2001-S)

301. **Togo** — US$11,999
JEAN Mianikpo Sogbedji
Universite du Lome, Ecole Superieure d'Agronomie
BP 1515, Lome

Sustaining maize yields in smallholder cropping systems on West African ferralsoils (2001-W)

302. **Togo** — US$12,000
KETOH, Koffiwi Komlan Guillaume
Faculte des Sciences, Universite de Lome, B.P. 1515 Lome

Evaluation des potentialities d'utilisation de trios plantes a l'activite insecticides dans la lutte contre les termites de champs et des habitats au Togo (2001-W)

303. **Togo** US$11,300
Mr. Adjossou Kossi
Département de botanique, Faculté des Sciences, Univerité de Lomé
B.P. 1515, Lomé

Biodiversité, fragmentation et dynamique spatio-temporalle dans les forêts tropicales humides du Togo (2006-S)

304. **Togo** US$10,430
DJEGUEMA, Komi Fon'deh
Institut Togolais de Recherche Agronomique (ITRA)
Centre de Recherche Agronomique Zone Forestière (CRAF)
BP 90 KPALIME

Gestion des conflits agriculteurs pasteurs: mécanismes traditionnels en savane humide au centre-Togo.(2007-W)

305. **Togo** US$12,000
TENOU, Yawo Jonky
Université Lomé
Faculté Sciences,
Départemnet de chimie, Lomé

Impacts of transhumant livestock farming on the quality of ground water resources: case of Oti basin in the north of Togo.(2008-S)

306. **Togo** US$10,550
TOUNOU, Agbeko Kodjo
Ecole Supérieure d'Agronomie, Université de Lomé,
BP 1515 Lomé-Togo

Impact of climate change on host-parasitoids interaction in cereal agroecosystem in Togo(2011-S)

307. **Togo** US$10,950
BADANARO, Fègbawè
Faculté des Sciences, Université de Lomé,
BP: 1515 Lomé-Togo

Les insectes comestibles au Togo: ethnoentomologie, bioécologie et potentiel nutritionnel

308. **Togo**
BADANARO, Fègbawè Dorothée US$10,400
Departement de Biochimie Nutrition
Faculté des Sciences
Université de Lomé, BP 1515 Lomé , Togo

Evaluation des risques liés à la consommation des insectes au Togo

309. **Togo**
AMEGNAGLO, Kossi Béssan US$11,900
Laboratoire de Botanique et Ecologie Végétale
Département de Botanique
Faculté des Sciences, Université de Lomé, 01 BP 1515, Lomé 01, Togo

Caractérisation, dynamique et vulnérabilité des formations végétales pâturées et interactions avec le climat du domaine soudanien au Togo

310. **Togo**
AGBODAN Kodjovi Mawuégnigan Léonard US$11,800

Botanique, Faculté des Sciences, Université de Lomé, Nationale N° 1, 1515, Lomé, TOGO

Savoirs locaux et phytoindicateurs dans l'évaluation de l'état de dégradation des sols dans la zone guinéenne du Togo

311. **Togo** US$ 11,400

Koba Ulrich Spéro EDIKOU
Centre d'Excellence Régional sur les Sciences Aviaires
Faculté des Sciences, Université de Lomé
, CERSA 01BP1515 LOME, Lomé, Togo
http://www.cersa-togo.org
Primary Email: speral@yahoo.fr

Caractérisation physico-chimique, biochimique, microbiologique et organoleptique des viandes de poulets grillés au Bénin

312. **Tunisia** US$12,000

HAMADA, Wallid
Département d'Agronomie et Biotechnologie Végétale
Institut National Agronomique de Tunisie, 43,
Avenue Charles Nicolle,
1082 Tunis-Mahrajéne

Caractérisation génétique d'une population de Phytophthora infestans agent causal du mildiou de la pomme de terre en Tunisie (2005-S)

313. **Tunisia** US$9,000

KHARRAT, Riadh
Laboratoires de Venins et Toxines, Institut Pasteur de Tunis,
BP 74, 1002 Tunis Belvedere, Tunisia

Biochemistry and pharmacology of the active polypeptides in the venom of Scorpio maurus(1998-W)

314. **Tunisia** US$9,500

SOUISSI, Thouraya
Department de Biologie Appliquee et, Agro-alimentaire
Institut National Agronomique de Tunisie, 43,
Avenue Charles Nicolle,
TUNIS 1082 Mahrajene

Biological control of brome (Bromus spp.) using deleterious rhizobacteria (1998-W)

315. **Tunisia** US$10,300

HAMZA-CHAFFAI, Amel
Institut Preparatoire aux Etudes
D'Ingenieurs de Sfax
BP 805, 3018,
Sfax

Les metallothioneines, des outils predictifs pour controler la pollution marine: aspect fondamental et applique (2000-S)

316. **Tunisia** US$11,900

NCIBI, Mohamed Chaker

Laboratoire de Chimie
Ecole Préparatoire aux Académies Militaires, 4000 SOUSSE

Fabrication de charbons actifs a partir de déchets lignocellulosiques et leur valorisation dans la pollution des eaux contaminées (2007-W)

317. **Tunisia** US$12,000
Akrout-Baccour, Hanene
Centre de recherché et technologies des eaux
Laboratoire de traitement et recyclage des eaux usées, Sliman

Treatment of industrial waste water by electrochemical oxidation on electrodes equipped with a layer of boron doped diamond (2008-S)

318. **Tunisa** US$12,000
NOUIRI, Issam
Ecole Superieure d' Agriculture du kef, Le Kef

Demand forecasting and water pumping optimization in hydraulic network (2009-W)

319. **Tunisia** US$12,000
ARFAOUI, Arbia
Institut de la Recherche Vétérinaire de Tunisie ;
20, rue Djebel Lakhdar, La Rabta 1006, Tunis, Tunisie

Utilisation des actinomycètes dans la lute biologique contre deuz agents pathogènes chez les abeilles: cas de Paenibacillus larvae, agent de la loque américaine et d'Ascosphaera apis, agent de l'ascospheras (2010-S)

320. **Tunisia** US$9,900
HAIFA, Feki
Ecole Supérieure des Ingénieurs de l'Équipement Rural
Université de Jendouba, Campus universitaire de Jendouba
Route du Kef Km 5, 9070 Medjez el beb, Tunisia

Impact du changement climatique sur les ressources en eau et les extrêmes hydrologiques dans le bassin de la haute vallée de la Medjerda.

321. **Tunisia** US$12,000
MASMOUDI, Khaoula
Wastewater Treatment Laboratory
Water Research and Technologies Centre (CERTE)
Route touristique de Soliman, POBox 273
8020 Soliman, Tunisia

Modelling and Life Cycle Assessment of biological MF/UF membrane reactors for the treatment and reuse of grey water

322. **Tunisia**
Ridha Ibidhi US$12,000
Laboratory of Animal and Forage Production
Carthage University, National Institute of Agricultural Research of Tunisia (INRAT), Street Hedi Karray, 2049, Ariana, Tunisia

Water, carbon and land footprints assessment of meat and dairy products produced in Tunisia under different farming systems.

323. **Tunisia** US$ 11,930
Rym Ben SLIMANE
Horticultural sciences, Sousse
Higher Insitute of Agronomy of Chott Meriam, 4042, Sousse, Tunisia
http://www.isa-cm.agrinet.tn

Primary Email: bslimane.rym@gmail.com
Potential of Moringa leaf extract in improving quality of 2 green leafy vegetables

324. **Uganda** US$12,000
HAWUMBA, Joseph
Department of Biochemistry, Faculty of Science
Makere University, P.O. Box 7062, Kampala

Development of a bacterial system for the production of industrial protease enzyme(s) (2004-S)

325. **Uganda** US$7,200
OKORIO, John
Forestry Research Institute, P.O. Box 1752, Kampala

Quantifying interactions in upper-storey tree/crop agroforestry systems (1998-W)

326. **Uganda** US$9,000
BIGIRWA, George
Namulonge Agricultural, and Animal Production Research Institute
P.O. Box 7084, Kampala

Epidemiology of Peronosclerospora sorghi and its effects on maize yield in Uganda (1999)

327. **Uganda** US$10,000
HAWUMBA, Jseph
Department of Biochemistry, Faculty of Science
Makere University, P.O. Box 7062, Kampala

Characterization of protease enzymes secreted by thermophilic bacillus from hot springs in Uganda and their biotechnological potential (2001)

328. **Uganda** US$11,340
Dr. Abdel Lufafa
Department of Soil Sciences, Faculty of Agriculture
Makerere University, P.O. Box 7062, Kampala

Spatial Soil Variability and its Effect on Maize Yield in the Lake Kyoga Basin, Uganda (2005-W)

329. **Uganda** US$7,680
Mr. Omeja, A. Patrick
Department of Forest Biology and Ecosystems Management
Faculty of Forestory and Natural Conservation, Makerere University, P.O. Box 7062, Kampala

Restoration potential of trees on degraded Forest Lands in and around Kibale National Park; An alternative means for meeting Rural Household needs and Conservation (2006-S)

330. **Uganda** US$12,000
ONGENG, Duncan
Department of Food Science and post Harvest Technology
Faculty of Agriculture and Environment
Gulu University, GULU

Fate of Salmonellae and E.coli 0157:H7 during contamination of vegetables grown in manure amended soils under tropical climate (2007-S)

331. **Uganda** US$11,996

AINEMBABAZI John Herbert
Department of Agricultural Economics and Agribusiness
Faculty of Agriculture, Makerere University, P.O. Box 7062, Kampala

Forestry and environmental health on the verge of loss or gain? Deforestation cum reforestation leasing policy in Uganda(2009-S)

332. **Uganda** US$12,000

ABILA, Patrick P'Odyek
National Livestock Resources Research Institute (NaLIRRI)
Entomology Section, Tororo, Uganda

Host range and genetic diversity of Glossina Fuscipes in Lango sub-region, Uganda. (2008-W)

333. **Uganda** US$12,000

WASIGE, John Ejiet
Faculty of Agriculture, Makerere University,
P.O. Box 7062, Kampala, Uganda

Improving nutmon methodology for quantification of soil nutrient balances in steep landscapes (2011-S)

334. **Uganda** US$12,000

Asiimwe, Benon B.
Uganda National Council for Science and Technology (UNCST)
Kampala

Molecular Characterization of Mycobacterium tuberculosis complex isolates from food animals slaughtered in major abattoirs around the Lake Victoria Basin, Uganda (2009-W)

335. **Uganda** US$11,958

GUMISIRIZA, Robert
Department of Biochemistry and Sports Science
School of Bioscience, College of Natural Science, Makerere University,
P.O. Box 7026, Kampala, Uganda

Designing and Optimisation of a bioreactor system for improved biogas production from Fish processing wastewater generated along shores of Lake Victoria (2012)

336. **Uganda** US$12,000

TUMUHIMBISE, Robooni
National Forestry Resources Research Institute
National Agricultural Research Organization
Kampala, Uganda

Enhancing Food Security through Appropriate Cocoyam Varieties and Agronomic Practices in Uganda (2013)

337. **Uganda** US$10,300

GUMISIRIZA, Robert
Department of Biochemistry and Sports Science
College of Natural Sciences, Makerere University
PO Box 7062, Kampala, Uganda

Enhancement of a "biofox" bioreactor system for improved biogas production from Fish processing wastewater generated along shores of Lake Victoria

338. **Uganda**
MENYA, Emmanuel — US$9,000
Faculty of Agriculture and Environment
Gulu University
P O Box 166, GULU, Uganda

Enhancing biogas production through optimal removal of lignocellulosic fractions and cyanide in cassava peels for co-digestion with cowdung and pigdung

339. **Uganda**
Hedmon Okella — US$12,000
Department of Pharmacy, Medicine
PharmBiotechnology and Traditional Medicine center, Mbarara
University, Mbarara-Bushenyi Highway, 1410, Mbarara, Uganda

Bio-preservation of food through novel antimicrobial peptides from fish mucusBio-preservation of food through novel antimicrobial peptides from fish mucus

340. **Uganda** — US$ 12,000
Ellen KAYENDEKE
Department of Environmental Management
College of Agricultural and Environmental Sciences, Makerere University
P.O. Box 7062, Kampala, Uganda
https://www.mak.ac.ug/
Primary Email: ekayendeke@gmail.com
Water storage potential of tropical papyrus wetlands

341. **Uganda** — US$ 12,000
Ssemwanga MOHAMMED
Agricultural Sciences
College of Agricultural & Environmental Sciences (CAES)
Makerere University
Wandegeya Kampala-Uganda, 7062, Kampala, Uganda
https://www.mak.ac.ug
Primary Email: ssemwangaali@gmail.com
Using integrated conservation management approaches for rescuing, regeneration and restoration of the critically endangered Bothriocline auriculata plant species in Uganda

3. COMSTECH-IFS-INWRDAM Joint Research Grants Program

The Muslim world consists of nearly one-fifth of mankind and its area extends from Morocco to Indonesia and from Madagascar to Central Asia. Most of the Muslim countries are located in the arid middle belt of the globe. Shortage of water in this area touches all aspects of life and the environment. Increasing living standards and expanding national economies make more and more demands on the available water supply. The gap between water supply and demand is increasing very rapidly. Demand for more water is temporarily being met by over-exploitation of dwindling groundwater sources or is obtained from energy-intensive non-conventional sources of supply.

In 1995, COMSTECH-INWRDAM published water scarcity data for fifty-five member states of OIC. It is a matter of serious concern that most of the Islamic countries have water availability per capita of less than 1000 $m^{3,}$ and 10 of the countries have water availability per capita of less than 500 m^3.

To address this emerging problem, COMSTECH INWRDAM and IFS had a meeting in Stockholm. It was agreed to enter into a partnership to make the best possible use of resources in conducting scientific research, and create a cadre of skilled people who can significantly contribute to providing solutions for the most pressing problems relating to the worsening state of water scarcity in the OIC region.

Partnership agreements between IFS, COMSTECH and INWRDAM for strengthening capacity in OIC countries for Water Resources Research was first signed on 8.2.2004 and a Plan of Action for 2004-2013 was agreed on. According to that agreement INWRDAM and COMSTECH each were to contribute every year a sum of US$25,000 and IFS contributes matching sum of US$50,000. This project is aimed to identify and support promising young researchers in the area of water resources in the OIC countries who are eligible for IFS support.

Eight research areas are targeted for support.

A- Water for livelihoods: i) Safe drinking water, ii) Sustainable sanitation, iii) Pollution abatement, iv) Water treatment,

B- Water for agriculture: v) Rain-fed agriculture and rainfall harvesting, vi) Use of low-quality irrigation water, vii) Micro-irrigation technologies, and

C- Social and economic dimensions: viii) Social and economic dimensions of water resources management.

The 5th and 6th General Body meetings of INWRDAM approved the cooperation program between IFS and COMSTECH and INWRDAM. This program is running and supporting on the average 10 young scientists from OIC countries each year. INWRDAM paid US$25,000 as its contribution to this program for the year 2004.

INWRDAM, IFS and COMSTECH agreed on Phase II of this cooperation, with contribution in the following format

	Year 2007	**Year 2008**	**Year 2009**
- INWRDAM (in-kind equivalent)	25,000	25,000	25,000
- COMSTECH	25,000	25,000	25,000
- IFS	50,000	50,000	50,000
Sub total/ per year	100,000	100,000	100,000

The collaborative program is to be revised every three years. Based on achievement of objectives appropriate financial resources can be allocated by each cooperating organization. The following projects have been funded under the tripartite collaboration.

This program has so far provided 39 research grants in 16 member states of OIC at a cost of US$499,110. Besides the research projects COMSTECH-IFS-INWRDAM also organized 13 workshops and trained 414 from OIC member states. Currently this program is suspended.

Table 4. Countrywise Distribution of COMSTECH-INWRDAM-IFS Research Grants

S. No.	Country Grantees	No. of Grantees
1.	Bangladesh	04
2.	Burkina Faso	04

3.	Benin	01
4.	Cameroon	07
5.	Ivory Coast	04
6.	Egypt	03
7.	Indonesia	01
8.	Iraq	01
9.	Morocco	01
10.	Niger	01
11.	Nigeria	04
12.	Pakistan	02
13.	Senegal	01
14.	Tunisia	01
15.	Togo	01
16.	Uganda	03
	Total	**39**

Details of Grantees

1. Bangladesh

SARKER, Md. Motaleb Hossain

Assessment of Dry Season Water Availability and Water Demand in Floodplain Beel Areas (2006)

2. Bangladesh

FERDOUSI, Farhana Khanam

Role of organic pollutants for the formation of humic substances on Buriganga River

3. Bangladesh

RAHMAN, Mohammad Arifur

role of toxic metals-humic substance interactions of buriganga river water for sustainable environment

4. Bangladesh

DEWAN, Ashraf Mahmmood

Integrating GIS and remote sensing techniques to evaluate risk of flood and water-borne diseases in Dhaka Metropolitan Area of Bangladesh

5. Burkina Faso

YONLI, H. Arsène

Elimination de l´ endosulfan des eaux soutairrenes par absorption su zeolithes

6. Burkina Faso

KONATE, Yacouba

Efficacité du traitement primaire par lagunage anaérobie pour l'élimination de la pollution organique et microbienne sous climat sahélien: cas des eaux usées urbaines de Ouagadougou (Burkina faso)

7. Burkina Faso

SOW, Jules Auguste

Utilisation des lits de sable pour l'amélioration du traitement des eaux usées et boues de vidange dans l'optique d'une saine valorisation agricole des effluents en milieu urbain au Burkina Faso.(2006)

8. Burkina Faso

YARO, Yéni

Modélisation de la pollution des nappes liée à l'utilisastion des pesticides en zone cotonnière au Burkina Faso (2006)

9. Benin

TOTIN-VODOUNON, S. Henri

Variabilite hydroclimatique et disponibilite en eau de surface dans le bassin beninois de la volta

10. Cameroon

KENGNE NOUMSI, Ives Magloire

Potentialités des macrophytes locaux pour le traitement des boues de vidange par filtres plantés à flux vertical au Cameroun(2006)

11. Cameroon

NZALI, Serge

Application des plasmas non-thermiques a la depollution des eaux usees et polluants industriels rejetes dans l'environnement.(2006)

12. Cameroon

TONLE KENFACK, Ignas

Matériaux hybrides organo-minéraux à base d'argiles camerounaises de type kaolinite: Synthèse, caractérisation et application à la détection et à l'élimination de polluants inorganiques et organiques.

13. Cameroon

ZEBAZE TOGOUET, Serge H

Recherche d'especes animales indicatrices de la qualite des eaux souterraines du Cameroun

14. Cameroon

NOLA, Moise

Evolution de la microflore des eaux souterraines à domicle, et importance de la forme bactérienne et de la paroi du rocher dans la rétention des bactéries des eaux souterraines en région équatoriale au Cameroun.

15. Cameroon

FONKOU, Théophile

Performances of local macrophytes in constructed wetlands for wastewater treatment in the western highlands of Cameroon

16. Cameroon

MPAKAM, Hernanie Grelle

Etude de la dynamique de pollution des ressources en eau et impacts sur la santé des populations dans un quartier à habitat spontané au Cameroun: cas de Kouogouo à Bafoussam.

17. Cote d'Ivoire

KOUAME, Kouamé Martin

Impact du rejet des effluents de caoutchouc traités par lagunage sur la qualité des eaux de la rivière Amia (Bongo, Côte d'Ivoire).

18. Cote d'Ivoire

AKESSE, Djamatchè Paul Valéry

Variation saisonnière de la contamination métallique de l'environnement aquatique et la spéciation des métaux lourds dans l'eau, le sédiment et dans Tympanotonus fuscatus et T. fuscatus radula de la lagune Ebrié (Côte d'Ivoire)

19. Cote d'Ivoire

YEO, Tenena Martial

Influence des caractéristiques physico-chimiques, biochimiques et microbiologiques des sables et des boues de vidange sur les performances d'un lit de sechage fonctionnant en regime non sature.(2006-S)

20. Cote d'Ivoire

KOUASSI, Kouassi Lazare

Modélisation de la sédimentation dans les lacs des barrages hydroélectriques de Côte d'Ivoire (2006)

21. Egypt

KAMAL

Estimation of the natural background of nitrate and arsenic in arid zones groundwater (Application on Sinai groundwater, Egypt) (2006-S)

22. Egypt

BADR, El-sayed Abdel-rahman

Water Quality Assessment: Dissolved Organic Nitrogen (DON) and Carbon (DOC) Biogeochemistry in the River Nile, Egypt

23. Egypt

EL-KADY, Ahmed Abdel-gawad El-kady

Non conventional low-cost application of nanoporous activated carbons for the removal of pesticides from aqueous solution

24. Indonesia

SANTOSA, Sri Juari

Fixed bed column application of bioadsorbent of humic acid-clinth hybrid for recovery and reuse of chromium in the effluent of tannery wastewater treatment

25. Iraq

AL-OBAIDI, Riyadh M. Saleh

Effect of Stabilization Properties of contact-stabilization activated sludge in the removal of specific pollutants from wastewater

26. Morocco

SBIH, Loubna

Apport de la télédétéction spatiale dans les géstion des ressources en eau des zones semi-aride de Abda-Doukkala (Maroc occidenat) (2006)

27. Niger

ABDOU BABAYE, Maman Sani

Contribution à l'évaluation des ressources en eaux souterraines du bassin de Dargol (Liptako - Niger)

28. Nigeria

HORSFALL JNR, Michael

Optimization of process conditions for the removal of inorganic and organic pollutants from aqueous systems by activated carbon derived from agrowaste of luted pumpkin (2006)

29. Nigeria

OKORO, Elizabeth Ifeyinwa

Hydrogeochemical implications of salt and lead-zink deposits in water resources of the southeastern part of lower benue trough of Nigeria.(2006)

30. Nigeria

OLADOJA, Nurudeen Abiola

Studies On The Treatment Of Metal Ion Contaminated Aqua System Using Natural Tannin(2006)

31. Nigeria

ERAKHRUMEN, Andrew Agbontalor

Evaluation of dendroremediation capability of nigerian red mangrove (rhizophora racemosa g.f.w. meyer) in the niger-delta region.

32. Pakistan

MEMON, Saima Qayyum

Evaluation of Economical Adsorbents for Arsenic Remediation

33. Pakistan

SAEED, Asma

Environmental-friendly technology for the removal of metals, phenolics and textile fyes from industrial wastewaters

34. Senegal

SALL, Mamadou

Caractérisation et modélisation du transfert des nitrates dans la nappe de la zone des Niayes

35. Tunisia

AKROUT-BACCOUR, Hanene

Traitement des eaux usées industrielles par oxydation électrochimique sur des électrodes dotées d'une couche de diamant dopé au bore "boron doped diamond"

36. Togo

TENOU, Yawo Jonky

Impacts de l'élevage du bétail transhumants sur la qualité des ressources en eaux de surface: cas du bassin de l'Oti au nord du Togo

37. Uganda

LEJJU, Bunny Julius

Receding water levels of Lake Victoria: An investigation of the influence of climate change and human-induced environmental degradation (2006)

38. Uganda

KADDUMUKASA, Martha Adrona

Water safety and pollution: a case study of v. cholerae in uganda

39. Uganda

MULEBEKE, Robert

Towards efficient water resource productivity: Characterization of the surface water and green water flows in different land use types in a banana-based microcatchment of Lake Victoria basin.

Table 5. List of Workshops Jointly Organized under COMSTECH-INWRDAM-IFS Programme

S. No.	Description	Thematic Fields	City	Partici-pants	Date
1-	Scientific Methodology and Development of Grant Application in paralleled with Manuscript Development	Water management	Nairobi	34	29-04-2008
2-	Scientific Methodology and Development of Grant Application	Sustainable sanitation solutions	Bobo Dioulasso	36	25-02-2008
3-	Scientific Methodology and Development of Grant Application	Water management	Cali	31	21-04-2008
4-	Scientific Methodology and Development of Grant Application	Grey Water	Amman	21	29-06-2008
5-	Equipment Maintenance and Repair		Kathmandu	33	16-06-2008
6-	Scientific Methodology and Development of Grant Application	Multiple water use services	Lomé	39	28-07-2008
7-	Scientific Methodology and Development of Grant Application	Water quality and microbiology	Accra	38	27-10-2008
8-	Training Workshop on Delivery of Capacity on Water & Sanitation (WATSAN) Management in Bangladesh	Water and Sanitation	Gopalganj	17	25-10-2008
9-	Scientific Methodology and Development of Grant Application	Water management	Dhaka	44	09-04-2008

10-	Delivery of Capacity on Water and Sanitation (WATSAN) management in Bangladesh	Water and Sanitation	Six villages	17	13-09-2008
11-	Scientific Methodology and Development of Grant Application		Chapi Nawajganj	43	27-04-2008
12-	Scientific Methodology and Development of Grant Application	Solid and liquid waste reuse and hazard mitigation	Abidjan	47	04-04-2008
13-	Training workshop on delivery of capacity on water and sanitation management in Bangladesh	Water and Sanitation	Dhaka	14	27-07-2008
	Total Workshops 13	**Total Participants**		**414**	

4. COMSTECH-ISESCO Joint Research Grants Program

COMSTECH-ISESCO Joint Research Grants Program was announced in May 2005 and eighteen successful applicants in the fields of Agricultural Biotechnology, Health Biotechnology, Frontier Areas of Science and Technology, Engineering Sciences, and Medicinal Plants were awarded grants during 2005-2007. This programme continued intermittently until 2011. COMSTECH-ISESCO managed to implement almost all of the activities listed in the previous joint agreements. This important program has supported **23** research projects in **15** member states of the OIC. The countries supported under this programme include **Bangladesh, Burkina Faso, Cameroon, Egypt, Gambia, Iran, Jordan, Malaysia, Morocco, Nigeria, Pakistan, Palestine, Sudan, Togo** and **Tunisia**. The funds provided amount to **US$227,745** so far, and country-wise distribution of the grants is as follows:

Table 6. COMSTECH-ISESCO Grants from 2005-2011

S. No.	Country Grantees	No. of Grants	Year	Grant in US$
1.	Bangladesh	02	2005-06 2010-11	20,000
2.	Burkina Faso	01	2006-07	10,000
3.	Cameroon	02	2005-06 2006-07	20,000
4.	Egypt	02	2005-06 2006-07	20,000
5.	Gambia	01	2006-07	8,970
6.	Iran	02	2006-07	20,000
7.	Jordan	01	2005-06	10,000
8.	Malaysia	03	2005-06 2006-07 2010-11	30,000
9.	Morocco	01	2006-07	10,000
10.	Nigeria	01	2005-06	8,850
11.	Pakistan	02	2005-06 2006-07	20,000
12.	Palestine	01	2005-06	10,000

13.	Sudan	02	2005-06	20,000
14.	Togo	01	2010-11	9,925
15.	Tunisia	01	2010-11	10,000
	Total	**23**		**227,745**

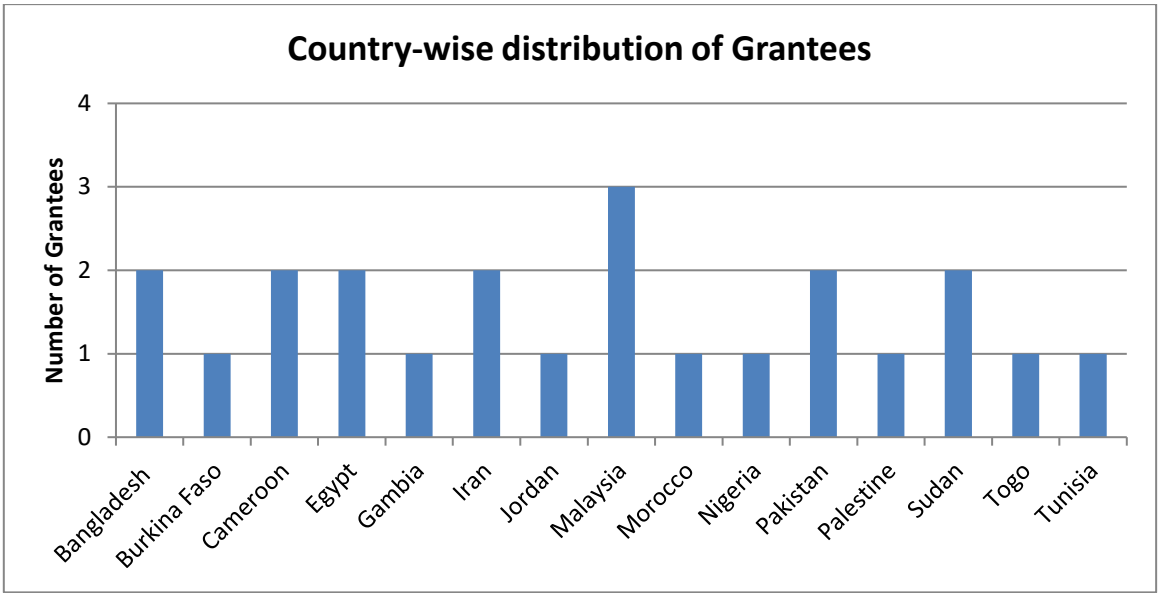


Fig. 6. Country-wise distribution of COMSTECH-ISESCO grantees

Details of Grantees

1. **Bangladesh** US$10000

Dr. M.D. Tozammel Hoque
Institute of Biological Sciences, Rajshahi University, Rajshahi

Novel Bioactive Compounds from Sewage Microbes (2005-2006)

2. **Bangladesh** US$10000

Md. Sadiqul Islam
Associate Professor
Bangladesh Agricultural University
Department of Fisheries Biology & Genetics
Faculty of Fisheries, Mymensingh-2202

Arsenic in fish – a threat to fish reproduction of Bangladesh (2010-2011)

3. **Burkina Faso** US$10000

Mr. Zerbo Patrice

Contribution of the valorisation and sustainable management of biodiversity, Medicinal plants case study in San region (2006-2007)

4. **Cameroon** US$10000

Dr. Gisele Yolande Nganou
Institute of Medical Research and Medicinal Plants Studies (IMPM)
P.O. Box 6163, Yaounde

Evaluation of androgenic and aphrodisiac properties of two Cameroonian medicinal plants *Carpolobia alba* and *Carpolobia lutea* (Polygalaceae) (2005-2006)

5. **Cameroon** US$10000

Dr. M. G. Zebaze Kana
Physics Advanced Laboratory, Sheda Science & Technology Complex
Federal Ministry of Science and Technology, Abuja

Development of 4d & 5d metal-porphyrin-sinsitized titanium dioxide solar cells (2006-2007)

6. **Egypt** US$10000

Dr. El-Rashdy Moustafa Redwan
Protein Research Department, BEBRI, Mubarak Scientific Research and Technology Applications, New Bor El Arab 21934, Alexandria

Recombinant anti-AB blood groups antibody(2005-2006)

7. **Egypt** US$10000

Dr. Nermin Abdel El-Semary
Department of Botany and Microbiology Faculty of Science
Helwan University Cairo

The use of modern molecular techniques to characterize the toxic cyanobacteria in our water(2006-2007)

8. **Gambia** US$8970

Ms. Saho Mama Mariama
National Agricultural Research Institute NARI, PMB 526
Serekunda, Banjul

Potential of fodder tree/shrub as feed resources for dry season(2006-2007)

9. **Iran** US$10000

Dr. Farzin Roohvand
Hepatitis and AIDS Unit, Pasteur Institute of Iran

Production of novel diagnostic and therapeutic tools based on a Native r-core protein of Hepatitis(2006-2007)

10. **Iran** US$10000

Dr.Kayhan Zadmanesh
Hepatitis and AIDS Department Pasteur Institute of Iran

Establishing a mouse model to evaluate anti-HTLV-1 Tax immuno modulatory vaccination against HAM/TSP(2006-2007)

11. **Jordan** US$10000

Dr. Raeed Attiyat, P.O. Box 425362, Amman-11140

Biodiversity Assessment and Genetic Conservation of Jordan indigenous (Baladi) cattle breeds using DNA fingerprinting and PCR based markers(2005-2006)

12. **Malaysia** US$10000

Dr. Md. Zahangir Alam
Department of Biotechnology Engineering, Faculty of Engineering, International Islamic University, Kuala Lumpur

Production of lignin peroxidase enzyme from organic residues as new substrates by liquid state bioconversion (2005-2006)

13. **Malaysia** US$10000

Dr. Mohd Roslee Othman
School of Chemical Engineering, 14300, Nibong Tebal Penang

Gas adsorption and diffusion in sub-super adiabatic laps and inversion (2006-2007)

14. **Malaysia** US$10000

Norbahiah Misran
Associate Professor
Institute of Space Science, Faculty of Engineering and Build Environment, Universiti Kebangsaan Malaysia, Bangi-43600, Selangor

Development of multi-band antenna array system for seismo-ionospheric coupling studies(2010-2011)

15. **Morocco** US$10000

Dr. Souad El Hajjaji
Faculte des Sciences, Department de Chimie Av Ibn Bttouta, BP 1014, Agdal Rabat

Elaboration of new thin films photo-catalyst by sol-gel coating Process on functionalized metallic support. Degradation of some selected Organic pollutants (pesticides) from water using photolysis technology(2006-2007)

16. **Nigeria** US$8850

Dr. Ibrahim Adebayo Oladosu
Department of P/A Chemistry, Ladoke Akintola University of Technology Ogbomoso-23401

Development of new MDR-TB Drugs Candidates from Nigerian Plants(2005-2006)

17. **Pakistan** US$10000

Dr. Muhammad Raza Shah
HEJ Research Institute of Chemistry, International Centre for Chemical Sciences, University of Karachi

Design, Synthesis and Characterization of *p*-octiphenyloctacalix [4]arene a supramolecular multifunctional pore having practical applications in medicine and mechanics(2005-2006)

18. **Pakistan** US$10000

Dr. Muhammad Ahmad Mesaik
Dr. Panjwani Centre for Molecular Medicine and Drug Research
International Centre for Chemical Sciences, University of Karachi

Discovery of Anti-inflammatory Natural and Synthetic Compounds Through Inhabitation of Interleukins (IL)-1 and -4(2006-2007)

19. **Palestine** US$10000

Dr. Moundeer Fanoun, Faculty of Science and Technology, Jerusalem 20002
Packing of ailment and medical substances(2005-2006)

20. **Sudan** US$10000

Dr. Ilham Abdelkader Eldaw, Assistant Professor, Biotechnology and Genetic Engineering Body, NRC, Kartoum
Use of Genetic Marketing in improvement of some Sudanese's Maize(2005-2006)

21. **Sudan** US$10000

Asaad Khalid Mohamed Ali AHMED
Medicinal and Aromatic Plants Research Institute
National Center for Research, Khartoum-11111

Discovery of specific *plasmodium falciparum* Enoyl- ACP Reductase inhibitors from Sudanese Medicinal Plants: Towards the Development of Antimalarial Agents (2010-2011)

22. **Togo** US$9925

KORIKO Moursalou
Assistant
Enseignant Chercheur- Département de Chimie
Faculté des Sciences, BP : 1515 Université de Lomé

Etat de la contamination des sols et des eaux par les résidus de pesticides dans la zone cotonnière de NOTSE (2010-2011)

23. **Tunisia** US$10000

Saber Masmoudi
Associate Professor
Centre of Biotechnology of Sfax, Route sidi mansour Km 6, BP "1177"
Sfax-3018

Construction of a DNA Microarray for the Detection of Mutations Among Patients with Hearing Loss in Islamic North African Mediterranean Countries (2010-2011)

5. COMSTECH Cooperation Program with TWAS

To facilitate young scientists who are involved in indigenous research within the OIC region, COMSTECH launched a joint program of research grants with The World Academy of Sciences (TWAS) in May 2009. This Program in science and technology enables young researchers to apply for grants of up to **US$15000**.

The program aims at encouraging the pursuit of scientific excellence in OIC countries by identifying and supporting the best young scientists; reinforcing and promoting scientific research and strengthening the indigenous capacity in science and technology; counteracting the brain-drain and reducing the exodus of scientific talent from the OIC countries.

- COMSTECH-TWAS Joint Research Grants are awarded to promising research projects carried out by young scientists working in OIC countries.
- The Research Grant amounts to a maximum of **US$15,000**.
- It is normally provided for a period of 18 months and is renewable once.
- The grant may be used to purchase scientific equipment, consumables and specialized literature (textbooks and proceedings only). The grant does not cover salaries of researchers and/or students, field expenses, travel expenses and/or participation in international conferences.

Subject Areas

The program provides support for research projects in earth sciences, engineering sciences, information technology and computer sciences, materials science including nanotechnology, pharmaceutical sciences and renewable energy.

Eligibility of Applicants

- Individual applicants must be nationals of OIC Member States, with a PhD and some research experience, but at the beginning of their careers. They should hold positions at universities or research institutions in one of the OIC countries. As a general rule, the grants are awarded to competent scientists under the age of 40 years.
- Scientists who submit a satisfactory final report on a previous grant may apply for a renewal.

Table 7. COMSTECH-TWAS Grants:

2009

S. No.	Country Name	No. of Grantees	Grant in US$
1.	Albania	1	8,000
2.	Algeria	1	7,500
3.	Bangladesh	2	20,000
4.	Egypt	1	9,000
5.	Iraq	1	10,000
6.	Malaysia	4	41,500
7.	Pakistan	6	74,000
8.	Senegal	1	10,000
9.	Sudan	1	10,000
10.	Tunisia	1	10,000
	Total	**19**	**200,000**

2010

S. No.	Country Name	No. of Grantees	Grant in US$
1.	Algeria	1	10,000
2.	Bangladesh	1	10,000
3.	Iran	2	20,000
4.	Jordan	1	3,000
5.	Lebanon	1	14,000
6.	Mali	1	3,000
7.	Malaysia	8	66,500
8.	Nigeria	2	17,500
9.	Pakistan	2	17,000
10.	Palestinian Authority	1	10,000
11.	Turkey	2	22,000
	Total	**22**	**193000**

2011

S. No.	Country Name	No. of Grantees	Grant in US$
1.	Bangladesh	1	2,000
2.	Egypt	1	13,000
3.	Indonesia	2	14,500
4.	Jordan	2	10,500
5.	Malaysia	9	83,000
6.	Pakistan	6	61,000
7.	Turkey	2	16,000
	Total	**23**	**200,000**

2012

S. No.	Country Name	No. of Grantees	Grant in US$
1.	Egypt	2	**25,000**
2.	Iran	1	**10,000**
3.	Malaysia	7	**82,500**
4.	Morocco	1	**11000**
5.	Pakistan	6	**71,500**
	Total	**17**	**200,000**

2013

S. No.	Country Name	No. of Grantees	Grant in US$
1.	Algeria	1	**6,000**
2.	Bangladesh	1	**5,000**
3.	Cameroon	1	**11,000**
4.	Iran	1	**9,000**
5.	Lebanon	2	**14,500**
6.	Malaysia	10	**65,500**
7.	Nigeria	1	**5,000**
8.	Pakistan	6	**53,500**
9.	Tunisia	2	**15,500**
10.	Turkey	1	**15,000**
	Total	**26**	**200,000**

2014

S. No.	Country Name	No. of Grantees	Grant in US$
1.	Bangladesh	2	**20,000**
2.	Iran	2	**18,000**

3.	Jordan	1	**10,000**
4.	Malaysia	7	**69,500**
5.	Pakistan	7	**59,500**
6.	Tunisia	2	**23,000**
	Total	**21**	**200,000**

2015

S. No.	Country Name	No. of Grantees	Grant in US$
1.	Bangladesh	1	**7,000**
2.	Egypt	1	**5,000**
3.	Indonesia	1	**5,000**
4.	Iran	5	**32,000**
5.	Jordan	1	**5,000**
6.	Malaysia	21	**81,450**
7.	Nigeria	1	**1,200**
8.	Pakistan	13	**60,350**
9.	Tunisia	1	**3,000**
	Total	**45**	**200,000**

2016

S. No.	Country Name	No. of Grantees	Grant in US$
1.	Bangladesh	1	**9,000**
2.	Indonesia	1	**5,000**
3.	Iran	3	**31,000**
4.	Malaysia	7	**52,000**
5.	Morocco	1	**6,500**
6.	Nigeria	2	**13,500**
7.	Pakistan	11	**66,000**
8.	Palestinian Authority	1	**6,000**
9.	Tunisia	2	**11,000**
	Total	**29**	**200,000**

2017

S. No.	Country Name	No. of Grantees	Grant in US$
1.	Burkina Faso	1	7,000

2.	Egypt	3	25,700
3.	Indonesia	4	32,770
4.	Iran	1	7,000
5.	Jordan	1	4,000
6.	Malaysia	6	36,840
7.	Morocco	1	3,000
8.	Pakistan	11	70,914
9.	Tunisia	1	7,910
10.	United Arab Emirates	1	4,790
	Total	**30**	**199,924**

2018

S. No.	Country Name	No. of Grantees	Grant in US$
1.	Bangladesh	3	30,340
2.	Egypt	1	5,000
3.	Indonesia	1	6,860
4.	Iran	3	24,704
5.	Jordan	1	5,000
6.	Kazakhstan	1	11,500
7.	Malaysia	3	22,675
8.	Nigeria	1	8,435
9.	Pakistan	7	56,941
10.	Turkey	1	3,300
11.	Uzbekistan	2	25,230
	Total	**24**	**199,985**

Under COMSTECH-TWAS joint program **256** research projects amounting to **US$ 1,992,909** from **24** OIC Member states have been approved during 2009-2018. Country-wise distribution is as under:

Table 8. COMSTECH-TWAS Grants for 2009-2018

S. No.	Country	No. of Grantees	Grant in US$
1.	Albania	1	8,000
2.	Algeria	3	23,500

3.	Bangladesh	12	103,340
4.	Burkina Faso	1	7,000
5.	Cameroon	1	11,000
6.	Egypt	9	82,700
7.	Indonesia	9	64,130
8.	Iran	18	151,704
9.	Iraq	1	10,000
10.	Jordan	7	37,500
11.	Kazakhstan	1	11,500
12.	Lebanon	3	28,500
13.	Mali	1	3,000
14.	Malaysia	82	601,465
15.	Morocco	3	20,500
16.	Nigeria	7	45,635
17.	Pakistan	75	590,705
18.	Palestine	2	16,000
19.	Senegal	1	10,000
20.	Sudan	1	10,000
21.	Tunisia	9	70,410
22.	Turkey	6	56,300
23.	United Arab Emirates	1	4,790
24.	Uzbekistan	2	25,230
	Total	**256**	**1,992,909**

Details of Grantees

1. **Albania** US$8,000

RECI, Hamza
Unit of the RTD&I Projects
Academy of Sciences of Albania,
Square Fan S. Noli, Nr. 7, Tirana

Monuments in Albania by new geophysical methods (EDRAAMG) (2009)

2. **Algeria** US$7,500

DERHAB, Abdelouahid
Division des Theories et Ingenierie des Systemes Informatiques

Centre for Research on Scientific and Technical Information
5 Rue des trois freres Aissou Ben Aknoun, BP 143, Algiers 16030

Wireless sensor networks in precision irrigation (2009)

3. **Algeria** US$10,000

MELLIT, Adel
Department of Electronics, Faculty of Sciences and Techniques
Jijel University, Ouledaissa, P.O. Box 98, Jijel 18000

Design and implementation of intelligent controller for photovoltaic systems on FPGA for real time applications (2010)

4. **Algeria** US$6,000

MELLIT, Adel
Department of Electronics
Faculty of Sciences and Technology, Jijel University, Jijel

Performance analysis and degradation study of a grid-off photovoltaic system (BP poly c-Si photovoltaic modules) over 10 years at Jijel University, Algeria

5. **Bangladesh** US$10,000

RAHMAN, S.M. Abdur
Department of Clinical Pharmacy and Pharmacology
Faculty of Pharmacy, University of Dhaka, Dhaka 1000

Synthesis and biological investigation of benziimidazole derivatives (2010)

6. **Bangladesh** US$12,000

HOSSAIN, Mohammad Bakhtiar
Nutritional Biochemistry Lab, LSD, ICDDR, GPO Box 128, Dhaka – 1000

Exploring the possibility of using intestinal mRNA levels of zi nc transporter genes, and changes in their expression levels in response to zinc supplementation as a bio-marker for zinc status(2009)

7. **Bangladesh** US$8,000

ISLAM, Md. Johurul
Department of Applied Physics and Electronic Engineering, Rajshahi University, Rajshahi 6205

Investigation of LaF3-passivated silicon nanocrystal-based solar energy (2009)

8. **Bangladesh** US$2000

SIDDIKI, A.M. Zonaed
Department of Pathology and Parasitology
Chittagong Veterinary and Animal Sciences University
Kulshi, Chittagong – 4202

Bioinformatics approach to Cryptosporidium and capacity development for postgraduate studies and research on bioinformatics and computational biology in CVASU, Bangladesh (2011)

9. **Bangladesh** US$5,000

KHALIL, Md. Ibrahim
Department of Biochemistry and Molecular Biology
Jahangir Nagar University, Dhaka-1342

Cardio protective effects of oral administration of methanolic extract of Withania somnifera leaves on myocardial infarction in rat

10. **Bangladesh** US$10,000

GHOSH, Gopal Chandra
Department of Environmental Science and Health Management
Jessore Science and Technology University
Dogachia, Ambottola
Jessore 7408

Research and development for strengthening livelihood security in coastal Bangladesh through sustainable water supply: implications of climate change

11. **Bangladesh** US$10,000

MOMIN, Md. Abdul
Department of Farm Power and Machinery
Bangladesh Agricultural University
Mymensingh 2202

Development of a computervision system for grading mango

12. **Bangladesh** US$7,000

KHALIL, Md. Ibrahim
Department of Biochemistry and Molecular Biology
Jahangirnagar University
Dhaka 1342
DNA damage inhibition properties of Withania somnifera and its protective effect on endogenous antioxidants and phase 2 enzymes in cardiomyocytes of myocardial infracted rats

13. **Bangladesh** US$9,000

KHAN, M. Nuruzzaman
Department of Applied Chemistry and Chemical Engineering
Faculty of Engineering and Technology
University of Dhaka, Dhaka
New approach for the fabrication and modification of DNA based biochips by long wavelength ultraviolet radiation for detection of bio-proteins

14. **Bangladesh** US$11,990

HM Abdullah
GIS and Remote sensing Lab., BSMR Agricultural University
Exploring the utility of drone remote sensing in land degradation study

15. **Bangladesh** US$11,700

Rahaman Md. Hasibur

Department of Environmental Science and Technology, Jessore University of Science
Domestic Sewage Treatment in Multilayer Horizontal Subsurface Flow Constructed Wetland: Treatment Performance, Filter Media and Macrophyte Selection

16. Bangladesh US$6,650

Islam Aminul
Department of Petroleum and Mining Engineering, Jessore University of Science
Self-assembly of large-scale multipacking carbon nanorods supported functional group containing ligands for efficient removal of trace arsenic to meet standards of drinking water in Bangladesh

17. Burkina Faso US$ 7,000

Ouedraogo
arnoufou2@yahoo.fr
Anti-inflammatory effects of medicinal plants extracts on enzymes (COX 1 & 2 and 5-LOX) and on production of cytokines (TNF α, IL 1β, IL 6): bioguided isolation of anti-inflammatory molecules

18. Cameroon US$11,000

NGWA, Caroline Neh
Volcanology and Geophysical Research Center Ekona
Institute for Geological and Mining Research
Buea

Magma evolution and magma chamber characteristics at Mt. Cameroon, Cameroon Volcanic Line

19. Egypt US$9,000

MAHMOUD, Amal
Cotton Research Institute, Agricultural Research Centre
9 El Gamma Str., Giza
Production of ethanol from cotton stalk (2009)

20. Egypt US$13000

EL-NAGGAR, Shahenda
Children Cancer Hospital Egypt
1 Sekeat El-Emam, Saieda Zeineb, Cairo 11441

Targeting mTOR/PI3 kinase in glioblastoma multiforme (2011)

21. Egypt US$13,000

ELAGROUDY, S.
Public Works Department
Faculty of Engineering, Ain Shams University, 11517 Cairo

Enhancement of renewable energy production from biomass (2012)

22. **Egypt** US$12,000

GHANNAM, R
Egypt Nanotechnology Research Centre, Cairo

Light trapping in thin film photovoltaic cells using cascaded nanostructures (2012)

23. **Egypt** US$5,000

MAYHOUB,Abdelrahman
Department of Organic Chemistry
College of Pharmacy
Al-Azhar University
Nasr City
Cairo
Design and synthesis of phenylthiazoles for treatment of methicillin and vancomycin-resistant stapltylococcu aureus (MRSA & VRSA) with enhanced pharmacokinetic profiles

24. **Egypt** US$ 6,000

Abdelkareem

mohamed.abdelkareem@sci.svu.edu.eg

Mapping areas of high mineral resources using advanced remote sensing techniques and field data

25. **Egypt** US$10,000

Eldawlatly
seldawlatly@eng.asu.edu.eg
Developing an Optimized Stimulus Coder for Thalamic Visual Prostheses

26. **Egypt** US$9,700

Eldesoky
wasseif@yahoo.com
Development of RANKL Induced Osteoclastogenesis inhibitors in Murine Macrophages from Egyptian Medicinal Plants to Enable the Treatment of selected Bone Malfunctions.

27. **Egypt** US$5,000

Salem Rania
Research-Children's Cancer Hospital-57357-Egypt
Effect of genetic variations in Drug Metabolizing Enzymes and Drug Transporters on chemotherapeutic pharmacokinetics, response, and toxicity in Rhabdomyosarcoma patients

28. **Indonesia** US$3,000

WIDYAWAN
Department of Electrical Engineering and Information Technology
Gadjah Mada University, 2 Grafika, Yogyakarta

Landslide monitoring system based on wireless sensor network (2011)

29. **Indonesia** US$11500

JAMARI, Jamari
Mechanical Engineering Department
Faculty of Engineering, University of Diponegoro
Jl. Prof. Sudharto SH, Tembalang, Semarang 50275

Development of gear small medium enterprise based on tribology and surface technology for increasing quality and competitiveness (2011)

30. **Indonesia** US$5,000

KUSUMANINGTYAS, Ratna Dewi
Chemical Engineering Program
Faculty of Engineering
Semarang State University (UNNES)
Gunungpati
Semarang 50229
Development of reactive distillation process for a multi-feedstock sustainable biodiesel production

31. **Indonesia** US$5,000

NURHATI, Intan Suci
Research Center for Oceanography
Indonesian Institute of Sciences (LIPI)
Jalan Pasir Putih 1. Ancol Timur
Jakarta

Towards building a network of coral records of climate and marine environmental changes in Indonesia

32. **Indonesia** US$ 5,670

Hadibarata
hadibarata@curtin.edu.my
Characterization of Magnetic Enzyme Activated Carbon (Magnezyme) for effective removal of oil spills

33. **Indonesia** US$ 14,000

Lintang
hendrik.lintang@machung.ac.id
Synthesis of Copper Pyrazolate Complexes as Nanostructures and Mesoporous Silica Nanocomposites for Phosphorescent Chemosensor of Volatile Organic Compounds

34. **Indonesia** US$ 4,000

Sambudi
soraya.sambudi@utp.edu.my
Carbon quantum dots encapsulated hydroxyapatite for drug delivery system and biocompatible materials

35. **Indonesia** US$ 9,100

Suhartini
ssuhartini@ub.ac.id
Developing integrated anaerobic digestion and aerobic granular sludge technology for textile wastewater treatment in Indonesia

36. **Indonesia** US$6,860

Nurmalia Nurmalia
School of Applied Science
Technology Engineering and Mathematics - Prasetiya Mulya
Ultrasonic NDT for Evaluation of Tropical Fruits

37. **Iran** US$10,000

REZAEI, Mehran
Chemical Engineering Department
University of Kashan, Km 6 Ravand Road, Kashan 87317-51167
rezaei@kashanu.ac. ir,rezaei.mehran@gmail.com

Synthesis of highly active and stable nickel catalyst supported on nanocrystalline powder for dry reforming reaction (2010)

38. **Iran** US$10,000

TAGHAVINIA, Nima
Department of Physics, Sharif University of Technology, Tehran 14588
taghavinia@sharif.edu

Dye sensitized solar cells based on a single sided electrode configuration (2010)

39. **Iran** US$9,000

SADEGHI, Morteza
Persian Advanced Ind. Co.
Isfahan University of Technology, Isfahan

Preparation of domestic air purifier based on membrane technology

40. **Iran** US$10,000

DOURAGHI, M.
Department of Pathology
School of Public HealthTehran
University of Medical Sciences
Tehran

Study of the expression of multidrug efflux pumps in acinetobacter baumannii: from gene to function (2012)

41. **Iran** US$10,000

MEHDI, Mohammadi
National Institute of Genetic Engineering and Biotechnology
Shahrak-e Pajoohesh, km 15
Karaj Highway
Tehran 14965/161

Enzymatic production of biodiesel using immobilized lipases on functionalized magnetic silica nanocomposite

42. **Iran** US$8,000

NATEGHI ROSTAMI, Mahmoud
Cellular and Molecular Research Center
School of Allied Health Sciences
Qom University of Medical Sciences
Saheli Street
Qom

Study of genes involved in drug resistance in clinical isolates of Leishmania spp. (amastigote/promastigote stages) in treatment responder and non-responder cutaneous leishmanianisis patients

43. **Iran** US$6,000

NESHAT, Mohammad
School of Electrical and Computer Engineering
Faculty of Engineering
University of Tehran
Tehran
Design and fabrication of a portable biosensor for water pollution monitoring

44. **Iran** US$6,000

JAFARI, Seid Mahdi
Department of Food Materials and Process Design Engineering
University of Agricultural Sciences and Natural Resources
Gorgan
Production of spray-dried nano-encapsulated saffron extract and evaluation of its release kinetics

45. **Iran** US$5,000

AMINZADEH, Saeed
National Institute of Genetic Engineering and Biotechnology (NIGEB)
Tehran
Heterologous expression of a novel thermophilic cellulase for biofuels

46. **Iran** US$5,000

SAFAVI, Maliheh
Iranian Research Organization for Science and Technology (IROST)
Tehran
Evaluation of anticancer and antioxidant activities of marine microalgae from Iran

47. **Iran** US$10,000

ZAFARANI, Hamid
International Institute of Earthquake Engineering and Seismology (IIEES)
Tehran
Single-station sigma for Iranian strong-motion stations

48. **Iran** US$12,000

EMADZADEH, Bahareh
Department of Food Nanotechnology
Research Institute of Food Science & Technology
Km12, Mashhad-Quchan Highway Mashhad
Khorasan Razavi, Mashhad
The development of thermochromic electrospun nanofibres for monitoring of temperature

49. **Iran** US$12,000

REZAEI, Mehran
Chemical Engineering Department
Catalyst and Advanced Materials Research Laboratory (CAMRL)

University of Kashan, Km 6 Ravand Road
Isfahan, Kashan
Preparation of nanostructured iron based catalyst for high temperature water gas shift reaction

50. **Iran** US$7,000

SEYEDJAFARI, Ehsan
Department of Biotechnology
College of Science
University of Tehran
Tehran
Design and fabrication of nanofibrous scaffolds containing nanoparticles as gene carriers for bone tissue engineering applications

51. **Iran** US$ 7,000

Avan

amir_avan@yahoo.com
Evaluating the antitumor potential of crocin and nano-curcumin in combination with standard therapy in treatment of colorectal cancer as preventive and therapeutic approaches: from basic studies to clinical trial for finding new drug

52. **Iran** US$6,904

Montazeri Leila
Department of Cell Engineering, Cell Science Research Center, Royan Institute for Stem Cell Biology
Exosome delivery via anti-adhesive gel based on hyaluronic acid/carboxymethyl cellulose in the prevention of Asherman's syndrome

53. **Iran** US$5,800

Farahmand Leila
Recombinant Proteins Department, Breast Cancer Research Center, Motamed Cancer Institute, ACECR
Preclinical data with anti-CD3 x anti-MUC1 bispecific nanobodies for tumor therapy

54. **Iran** US$12,000

Ebrahimi-Nik Mohammadali
Department of Biosystems Engineering, Ferdowsi University of Mashhad
Technical and economical evaluation of biogas production from dairy manure in the presence of some micro-nutrients and biofilms; batch and continuous tests

55. **Iraq** US$10,000

HUSSAIN K. HUSSAIN, Hussain
Department of Chemical Engineering, College of Engineering
Baghdad University, P.O. Box 47024, Ajadria, Baghdad

Bubble properties and mixing performance in a concentric cylindrical airlift reactors (2009)

56. **Jordan** US$3,000

ALSMADI, Izzat

CIS Department, CS and IT Faculty, Yarmouk University, Irbid

Building a test automation tool to reduce time and effort required for software projects' testing (2010)

57. **Jordan** US$7,000

MAYYAS, Abdulraouf
Department of Conservation Science
Queen Rania's Institute of Tourism and Cultural Heritage (QRITCH)
The Hashemite University, P.O.Box 330127, Zarqa-13133

Scientific investigation of bronze age and iron age ceramics from the site of Sahab, Jordan (2011)

58. **Jordan** US$3,500

SALAH, Mohammad Hasan Abdallah
Department of Mechatronics Engineering
Faculty of Engineering, Hashemite University
P.O. Box 330127, Zarqa 13115

Design and control of a laboratory emulator for a small wind turbine system (2011)

59. **Jordan** US$10,000

LINA, Abu Ghunmi
Water Energy and Environment Center
University of Jordan
Amman 11942

Developing a bio-zeolite filter for treatment of surfactants in grey water

60. **Jordan** US$5,000

ALSAFADI, Dija
Royal Scientific Society
Amman 11941
Production of biobutanol from date fruit wastes and its usage as green gasoline

61. **Jordan** US$ 4,000

Sunoqrot
ssunoq2@gmail.com
Synthesis and Evaluation of Polyphenol Nanoparticles for Targeted Drug delivery to Cancer Cells

62. **Jordan** US$5,000

Mahmoud Nouf
Faculty of Pharmacy, Al-Zaytoonah University of Jordan, Amman-Jordan
Gold Nanorods Decorated with Phospholipid-Polyethylene glycol as a Novel Platform for Transdermal Vaccination of Tetanus

63. **Kazakhstan** US$11,500

Yessimbekov Zhanibek
Food Science and Engineering Faculty, Shakarim State University of Semey

Scientific and technical reason of functional meat food production with high level of macro- and microelements bioavailability

64. **Lebanon** US$14,000

KURDI, Mazen
Department of Chemistry and Biochemistry
Faculty of Sciences, Section –I, Lebanese University
Rafic Hariri Educational Campus, Hadath

Expression and regulation of IL-6-type cytokine signaling in coronary endothelial cells (2010)

65. **Lebanon** US$5,000

JAALOUK, Diana
Department of Biology
Faculty of Arts and Sciences
American University of Beirut
Beirut 1107 2020

Investigating the effects of sub-lethal HIFU exposure on mammary epithelial tumorigenesis and cytotoxic response to anti-neoplastic agents

66. **Lebanon** US$9,500

KARAM, Pierre
Department of Chemistry
American University of Beirut
Beirut

Towards highly photostable conjugated polymers

67. **Mali** US$3,000

SIDIBE, Kalilou
Ecole Nationale d'Ingenieurs Abderhamane Baba Toure
410, Av. Van Vollenhoven, BP 242, Bamako

Computer simulation of the metal cutting process using mesh free methods(2010)

68. **Malaysia** US$10000

ARIS, Ahmad Zaharin
Department of Environmental Sciences
Faculty of Environmental Studies, University Putra Malaysia
43400 UPM Serdang, Selangor

A study on heavy metals distribution in mangrove water, sediment and mollusk of Kota Marudu, Sabah, Malaysia (2010)

69. **Malaysia** US$6500

SALI, Aduwati
Department of Computer and Communication Systems
Faculty of Engineering, Universiti Putra Malaysia
43400 Serdang, Selangor

Radio resource management for mobile sensor networks (2010)

70. **Malaysia** US$13000

CHEONG, Kuan Yew
School of Materials and Mineral Resources Engineering
Engineering Campus, Universiti Sains Malaysia
14300 Nibong Tebal, Seberang Perai Selatan, Pulau Pinang

Investigation of ZrO2 gate produced by thermal oxidation and nitridation in N2O of sputtered Zr on 4H-SiC substrate (2010)

71. **Malaysia** US$10000

A. RAHMAN, M.Y.
Engineering Science and Mathematics Department
College of Engineering, University of Tenaga National
43009 Kajang, Selangor

Fabrication, performance and stability studies of a dye-sensitized solar cell of ITO/ZnO/PEMA-LiBF4/graphite (2010)

72. **Malaysia** US$5000

YUHANIZ, Siti Sophiayati
Faculty of Computer Science and Information System
Universiti Teknologi Malaysia, 81310 UTM Skudai, Johor

Criminal's face sketch reconstruction with PSO-growing grid kohonen (2010)

73. **Malaysia** US$10,000

LEE, Hong Boon
Cancer Research Initiatives Foundation (CARIF)
Level 2 Outpatient Centre, Sime Darby Medical Centre
No. 1 Jalan SS12/1A, 47500 Subang Jaya Selangor Darul Ehsan

Understanding the origin of secondary metabolites in homalomena by chromatographic fingerprint analyses and molecular phylogenetic mapping (2010)

74. **Malaysia** US$10,000

MAHDI, Mohd Adzir
Department of Computer and Communication Systems Engineering
Faculty of Engineering, Universiti Putra Malaysia
43400 UPM Serdang, Selangor

Design and development of femtosecod fiber laser incorporating carbon nanotubes saturable absorber (2010)

75. **Malaysia** US$2,000

RAIH, Mohd
School of Biosciences and Biotechnology,
Faculty of Science and Technology
Universiti Kebangsaan Malaysia, 43600 UKM Bangi

Computational analyses of nucleotide base interactions in RNA three-dimensional structures (2010)

76. **Malaysia** US$13000

ANUAR, Hazleen
Department of Manufacturing and Materials Engineering
Kulliyyah of Engineering International Islamic University of Malaysia
P.O. Box 10, 50728 Kuala Lumpur

Novel polylactic acid obtained by chemical and biochemical hydrolisis of Kenaf fibre (2009)

77. **Malaysia** US$9000

OTHMAN, Raihan
Department of Science and Engineering
Faculty of Engineering, International Islamic University Malaysia
P.O. Box 10, 50728 Kuala Lumpur

An enzymatic biofuel cell utilizing glucose oxidase and laccase (2009)

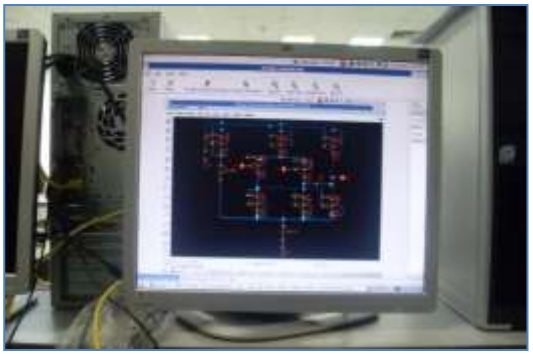
78. **Malaysia** US$13000

IRWANDI, Jaswir
Department of Biotechnology Engineering, Faculty of Engineering
International Islamic University of Malaysia, Jalan Gombak
531000 Kuala Lumpur

Study on dose-dependence of Malyasian dietary carotenoids in their biological actions for human cancer research (2009)

79. **Malaysia** US$6500

NORDIN, Anis Nurashikin
Department of Electrical and Computer Engineering
Kulliyah of Engineering, International Islamic University of Malaysia
Jalan Gombak, Kuala Lumpur 53100



Development of a low-loss CMOS-based RF surface acoustic wave resonator (2009)

80. **Malaysia** US$3000

ALAM, Md. Zahangir
Department of Biotechnology Engineering
Faculty of Engineering
International Islamic University Malaysia
Gombak, 50728 Kuala Lumpur

Production of lipase enzyme from bioconversion of palm oil mill effluent as renewable media using stirred tank bioreactor (2011)

81. **Malaysia** US$15000

MUZAIMI, Mustapha
Department of Neurosciences

School of Medical Sciences, Universiti Sains Malaysia
Health Campus, 16150 Kubang Kerian, Kelantan

CB 1 cannabinoid receptors as cerebellar molecular targets of mitragyna speciosa (ketum) addiction in the brain of mitragynine-sensitised albino Wistar rats (2011)

82. **Malaysia** US$11,000

ISMAIL, Widad

School of Electrical & Electronics Engineering
Engineering Campus, Universiti Sains Malaysia
14300 Nibong Tebal, Pulau Pinang

Automated tracking system using RFID for oil & gas industry (2011)

83. **Malaysia** US$3,000

OTHMAN, Mohs Shahizan

Faculty of Computer Science and Information System
Universiti Teknologi Malaysia, 81310 UTM Skudai, Johor

Open e-learning system using social network technology (2011)

84. **Malaysia** US$9,000

NG, Eng Poh

School of Chemical Sciences
Universiti Sains Malaysia 11800 USM
Pulau Pinang

A novel ionic molten salt as a combustion-free structural directing agent for synthesizing zeolites materials (2011)

85. **Malaysia** US$10,000

YULIATI, Leny

Ibnu Sina Institute for Fundamental Science Studies
Universiti Teknologi Malaysia, UTM Skudai 81310
Johor Bahru

Hybrid metal oxide-carbon nitride composites for visible light driven photocatalysts (2011)

86. **Malaysia** US$10,000

YAP, Boon Kar

Electronics and Communication Engineering Research Centre
College of Engineering, Universiti Tenaga National
Jalan Ikram-Uniten, 43009 Kajang, Selangor

A mobility and injection efficiency study of anode interlayer in polymeric led via space-charge-limited dark injection (slc di) transient measurements (2011)

87. **Malaysia** US$10,500

ABDULLAH, Huda
Department of Electric, Electronic and System Engineering
Faculty of Engineering and Built Environment
Universiti Kebangsaan Malaysia, 43600 UKM, Bangi
Selangor

Development of nano-channel mesoporous oxides to improve photovoltaic performance of dye sensitized solar cell for the green technology (2011)

88. **Malaysia** US$11,500

LIM, Hwee San
School of Physics, Universiti Sains Malaysia
11800 Penang

Development of a new algorithm for land use and greenhouse gases concentration in peninsular Malaysia(2011)

89. **Malaysia** US$7,000

KUSIN, Mohd Faradiella
Department of Environmental Sciences
Faculty of Environmental Studies,
Universiti Putra Malaysia
Selangor

Development of cost-effective, sustainable passive in-situ remediation of metal mine-impacted waters

90. **Malaysia** US$2,500

ABDUL KARIM, Hezerul
Faculty of Engineering,
Multimedia University
Selangor

Error concealment for multiple description 3D video codingy

91. **Malaysia** US$6,000

HOW, Fiona
Department of Chemistry Kulliyyah of Science
International Islamic University Malaysia, Kuantan

Synthesis, characterization and biological studies of cocrystals of substituted dithiocarbamate derivatives

92. **Malaysia** US$15,000

LIM, Hong Ngee
Department of Chemistry, Faculty of Sciences
University Putri Malaysia, Selangor

WonderSunMat - a benign option to water purification

93. **Malaysia** US$8,000

ABDOLLAH, Mohd Fadzli
Department of Automotive Faculty of Mechanical Engineering
Universiti Teknikal Malaysia Melaka, Melaka

Experimental investigation to the effect of nano-based engine oil on performance and emission characteristics of a diesel engine

94. **Malaysia** US$5,000

OO, Chuan Wei
School of Chemical Sciences
Universiti Sains Malaysia, Penang

Synthesis and characterization of novel heterocyclic chalcones and evaluation of their biological activities

95. **Malaysia** US$7,500

SULAIMAN, Puteri Suhaiza
Faculty of Computer Science and Information Technology
Universiti Putra Malaysia, Selangor

NILe: N-way Interactive Learning

96. **Malaysia** US$9,000

PAIMAN, Suriati
Functional Device Laboratory
Institute of Advanced Technology
Universiti Putra Malaysia, Selangor

III-V semiconductor nanowires for optoelectronic device applications

97. **Malaysia** US$8,000

NORLIZA, M.
Department of Pharmacology Faculty of Medicine
Universiti Kebangsaan Malaysia
Kuala Lumpur 50300
Malaysia

Eurycoma longifolia for prevention of osteoporosis and promotion of fracture healing in androgen-deficient osteoporosis rat model(2012)

98. **Malaysia** US$12,000

NG, S.S.
School of Physics
Universiti Sains Malaysia
Penang, Malaysia

Experimental and theoretical studies of surface phoon polariton characteristics of AlxIn1-xN thin films grown on SiC substrate(2012)

99. **Malaysia** US$12,000

ZAINAL, N.
School of Physics
Universiti Sains Malaysia
11800 Penang, Malaysia

Producing cubic GaN using porous Si substrate(2012)

100. **Malaysia** US$11,000

PRAVEENA, S.M.
Centre of Marine Science
Universiti Putra Malaysia
Negeri Sembilan, Malaysia

Coral reefs as potential records of environmental pollution(2012)

101. **Malaysia** US$14,000

SYED-HASSAN, S.S.A.
Faculty of Chemical Engineering
Universiti Teknologi MARA
40450 Selangor, Malaysia

Natural gas storage with wet adsorbents(2012)

102. **Malaysia** US$12,000

GAN, S.H.
Department of Pharmacology School of Medical Sciences
Universiti Sains Malaysia
Kelantan, Malaysia

Antioxidative effects of oral administration of honey samples on myocardial ischemia-reperfusion in rat heart(2012)

103. **Malaysia** US$13,000

MOHAMED SAHARI, K.S.
Department of Mechanical Engineering
Universiti Tenaga Nasional, Selangor, Malaysia

Modeling of building thermal comfort control using RLF method for non-linear HVAC system (2012)

104. **Malaysia** US$3,000

NORDIN, Rosdiadee
Department of Electrical, Electronics and Systems Engineering
Faculty of Engineering and Built Environment
Universiti Kebangsaan, Selangor Malaysia

Radio frequency authentication protocol for secured IEEE 802.22 WRAN wireless communication(2013)

105. **Malaysia** US$2,500

SALI, Aduwati
Department of Computer and Communication Systems
Faculty of Engineering, Universiti Putra Malaysia, Selangor

Intelligent Spectrum Sensing and Sharing in Cognitive Radio Networks (2013)

106. **Malaysia** US$10,000

ANUAR, Hazleen
Department of Manufacturing and Materials Engineering
Kulliyyah of Engineering
International Islamic University Malaysia
P.O. Box 10
Kuala Lumpur 50728

Effect of cristallinity on the degradation of durian skin nanofiber reinforced green nanocomposites

107. **Malaysia** US$10,000

JUAN, Joon Ching
Laboratory of Applied Catalysis and Environmental Technology
School of Science
Monash University
Sunway Campus
Bandar Sunway 46150

Reduced black titanium oxide photocatalyst for degradation of organic pollutants

108. **Malaysia** US$9,500

LIM, Jit Kang
School of Chemical Engineering
Engineering Campus
Universiti Sains Malaysia
Seri Ampangan
Nibong Tebal 14300

Magnetophoretic separation of microalgae from fishfarm water at low field gradient.

109. **Malaysia** US$10,000

MAT ALI, Mohamed Sukri
Department of Mechanical Precision Engineering
Malaysia-Japan International Institute of Technology
Universiti Teknology Malaysia
Jalan Semarak
Kuala Lumpur 54100

Aerodynamic characteristics and its associated noise emission of a high speed train

110. **Malaysia** US$10,000

RASHID, Umer
Institute of Advanced Technology
University Putra Malaysia
43400 Serdang
Selangor

Synthesis of sulfonated carbon catalyst from oil-cake waste for biodiesel production

111. **Malaysia** US$10,000

WONG, Kok Sheik
Multimedia Lab
Faculty of Computer Science and Information Technology
University of Malaya
Kuala Lumpur 50603

Real time scalable software video encoding and its applications through hi-performance computing

112. **Malaysia** US$10,000

YAM, Mun Fei
School of Pharmaceutical Sciences

Universiti Sains Malaysia
I1800, Pulau
Penang

Sinensetin as a potential anti-inflammatory agent: synthesis and acute anti-inflammatory and chronic arthritis studies

113. Malaysia US$200

AB RAHIM, Lukman
High Performance Computing Centre
Universiti Teknologi Petronas
Tronoh 31750
Design pattern based slicing algorithm for parallel model checking

114. Malaysia US$6,000

MD YUNUS, Nurul Amziah
Department of Electrical and Electronic Engineering
Faculty of Engineering
Universiti Putra Malaysia
Sedang 43400
Microfluidics organic light emitting diode (OLED) array for vegetative growth period of plants

115. Malaysia US$6,000

PALANIANDY, Puganeshwary
School of Civil Engineering
University Sains Malaysia
Nibong Tebal
Penang
Pharmaceutical wastewater treatment using heterogeneous photocathalytic process by NanoHematite- low cost semi amorphous catalyst

116. Malaysia US$11,000

BEG, Mohammad Dalour Hossen
Faculty of Chemical and Natural Resources Engineering
Universiti Malaysia Pahang
Gambang-26300
Development of nanocrystalline cellulose reinforced biodegradable nanocomposites

117. Malaysia US$5,000

LIM, Kue Peng
Oral Cancer Research Team
CARIF (Cancer Research Initiatives Foundation)
Sime Darby Medical Centre
Subang Jaya 47500
The development of MAGED4B-specific long peptide for cancer therapy

118. Malaysia US$4,000

ABU BAKAR, Muhammad Hafiz Bin
Department of Computer & Communication Systems Engineering

Faculty of Engineering
Universiti Putra Malaysia
Serdang 43400
Nanomaterial-coated optical fiber sensor for rapid, early detection of Dengue virus

119. **Malaysia** US$1,200

ABDUL RAZAK, Rafiza
Department of Curriculum and Instructional Technology
Faculty of Education
University of Malaya
Kuala Lumpur 50603
Design and development of electronic interactive professional development for educators

120. **Malaysia** US$10,000

LAI, Chin Wei
Nanotechnology and Catalysis Research Centre
Institute of Postgraduate Studies (IPS)
Universiti Malaya
Kuala Lumpur 50603
Bimetallic W-TiO2 nanotubes film for efficient water electrolysis hydrogen generation

121. **Malaysia** US$4,500

OTHMAN, Mohd Shahizan
Department of Information System
Faculty of Computing
University Teknologi Malaysia (UTM)
Skudai 81310
A new framework to improve student performance through collaborative learning using social media

122. **Malaysia** US$3,000

YUSOF, Yus Aniza
Department of Process and Food Engineering
Faculty of Engineering
Universiti Putra Malaysia
Serdang 43400
Design and fabrication of low cost moringa oleifera leaves and seeds solar tunnel dryer, shredder and tablet forming machine for rural areas

123. **Malaysia** US$4,000

ZAINAL ABIDIN, Sumaiya Center of Excellence for Advanced Research in Fluid Flow
Faculty of Chemical and Natural Resources Engineering
University Malaysia Pahang
Gambang 26300
Investigation on the performance of oscillatory flow reactor (OFR) in the continuous catalytic esterification of higly acidified oil using heterogeneous catalyst

124. **Malaysia** US$1,200

ALI AHMED, Abdulghani
Faculty of Computer Systems and Software Engineering
Universiti Malaysia Pahang
Gambang 26300
Distributed system for unsolicited traffic detection in large-scale networks

125. **Malaysia** US$6,000

RAZALI, Akhtar Razul
Fakulti Kejuruteraan Mekanikal
University Malaysia Pahang
Pekan 26600
Fundamental study on coreless electric generator for plug-in hybrid and electric vehicles applications

126. **Malaysia** US$450

SAWAL HAMID, Md Ali
Department of Electrical, Electronics and System Engineering
Faculty of Engineering and Built Environment
University Kebangsaan Malaysia (UKM)
Bangi 43600
Human emotion recognition system for automotive drivers using psychophysiological signals

127. **Malaysia** US$1,600

HASHIM, Fazirulhisyam
Department of Computer and Communication Systems Engineering
Faculty of Engineering
Universiti Putra Malaysia
Serdang 43400
Dynamic resources management via opportunistic spectrum allocation and scheduling in heterogeneous cognitive radio sensor networks

128. **Malaysia** US$450

NORMAN, Azah Anir Binti
Department of Information System
Faculty of Computer Science and Information Technology
University of Malaya
Kuala Lumpur 50603
Trust, reliability and integrity of the online spiritual application (online Al-Quran) using the smart mobile devices: the socio-technical research perspective

129. **Malaysia** US$2,000

LEE, Yean Kee
Department of Chemistry
Faculty of Science
University of Malaya
Kuala Lumpur 50603
Utilizing Aza-Diels Alder Chemistry in the synthetic approach of mitraphylline and its isometers

130. **Malaysia** US$4,000

ABDULL RAZIS, Ahmad Faizal
Laboratory of UPM-MAKNA Cancer Research
Institute of Bioscience
Universiti Putra Malaysia (UPM)
Serdang 43400
Chemopreventive efficacy of glucomoringin isolated from the seed of Moringa oleifera on three human colon carcinoma cell lines

131. **Malaysia** US$9,000

NYAM, Kar Lin
Faculty of Applied Sciences
UCSI Heights
Kuala Lumpur 56100
Production of kenaf (Hibiscus cannabinus L.) seed oils nanoemulsions with improved bioavailability for food supplement

132. **Malaysia** US$200

SAFIE, Sairul Izwan
Malaysian Institute of Industrial Technology
Universiti Kuala Lumpur
Johor Bahru 81750
Pulse domain of electromyogram (emg) and electroencephalogram (eeg) signals for classification of nyctophobiaepisodes during essay writing execises

133. **Malaysia** US$1,650

NASIEN, Dewi
Faculty of Computing
Universiti Teknologi Malaysia
Johor 81310
Freeman chain code (FCC) representation in signature fraud detection for forensic applications

134. **Malaysia** US$12,000

ZAHRA, Gholami
Centralized Analytical Laboratory
Universiti Teknologi PETRONAS (UTP)
Perak Darul Ridzuan
Bandar Seri Iskandar

Synthesis and characterization of promoted bimetallic catalysts supported on zeolite using the reverse microemulsion method for Fischer-Tropsch synthesis

135. **Malaysia** US$1,500

ANISI, Mohammad Hossein
Department of Computer System and Technology
Faculty of Computer Science and Information Technology
University of Malaya
Kuala Lumpur
An efficient system for healthcare monitoring applications based on body sensor networks

136. **Malaysia** US$5,000

CHE MAN, Hasfalina
Department of Biological and Agricultural Engineering
Faculty of Engineering
Universiti Putra Malaysia Serdang
Selangor
Behavioural pattern of groundwater pollution by poultry waste using MODFLOW simulation model

137. **Malaysia** US$6,000

ZAINUL AZLAN, Norsinnira
Department of Mechatronics Engineering
International Islamic University Kulliyyah of Engineering
Jalan Gombak, Kuala Lumpur
Sliding mode-function approximation technique (S.M.C. - F.A.T.) adaptive control of manipulating deformable deformable objects by multiple manipulators

138. **Malaysia** US$7,500

SUPANGAT, Azzuliani
Department of Physics, Faculty of Science
Low Dimensional Materials Research Centre
University of Malaya
Kuala Lumpur
Fabrication of nanostructured nitride-based optoelectronics

139. **Malaysia** US$10,000

SULAIMAN, Sarina
Department of Biotechnology Engineering
Kulliyah of Engineering, International Islamic University Malaysia
P.O. Box 10, Kuala Lumpur
Kinetic of in situ transesterification of solid coconut waste using chemically treated catalysts

140. **Malaysia** US$10,000
KADIRGAMA, Kumaran
Automotive Engineering Centre
Universiti Malaysia Pahang
Pekan
Nano-structured diamond and silica coatings on Co-Cr-Mo substrate for biomedical applications

141. **Malaysia** US$ 3,000
Jamal
ayuni_jamal@iium.edu.my
Development of Lightweight Closed-Cell Porous Magnesium Alloy via Powder Metallurgy technique

142. **Malaysia** US$ 3,340

Ibrahim
idnin@salam.uitm.edu.my
Underwater Electromagnetic Sensing based on Angle Estimation using Orthogonal Multiple-Input Multiple-Output (MIMO) Waveform

143. **Malaysia** US$ 4,500
Rahmatullah
bahbibi@fskik.upsi.edu.my
Learning-based ultrasound image quality characterization for accurate fetal growth assessment

144. **Malaysia** US$ 6,200
Md Tomari
mdrazali@uthm.edu.my
Alternative Input Interface Development for a Wheelchair User with Severe Spinal Cord Injury

145. **Malaysia** US$ 11,800
Othman
nurmiza@uthm.edu.my
Development of Three Dimensional Magnetic Nanoparticle Imaging System for Breast Cancer Detection.

146. **Malaysia** US$ 8,000
Wan Mohamed Zin
wmkhairul@umt.edu.my
Development of Conjugated Ethylene-Immines as Green Semiconductive Materials For Organic Solar Cells Application

147. **Malaysia** US$7,275

Tan Maxine Yen Ling
Electrical and Computer Systems Engineering Discipline, School of Engineering, Monash University
New Computer-Aided Diagnosis Schemes using Deep Learning Networks to Automatically Classify Lung Cancer in Computed Tomography Scans

148. **Malaysia** US$10,400

Mohd Nor Norehan
Department of Physics, Universiti Teknologi Malaysia
Malaysian Computational Phantom from CT Scan using MCNP6 Algorithm

149. **Malaysia** US$5,000

Abu Bakar Mohamad Hafizi
Bioprocess Technology Division, School of Industrial Technology, Universiti Sains Malaysia
In vitro study of celastrol as a novel potential therapeutic target in fatty acid-induced obesity and insulin resistance: Unraveling the mechanism of action

150. **Morocco** US$11,000
ELKALAY, K
Faculté polydisciplinaire de Safi
Université Cadi Ayyad, 46000 Safi

Variations of phytoplankton community structure related to water quality trends in Oualidida lagoon (Atlantic, Morocco)

151. **Morocco** US$6,500

ELBELRHITI, Hicham
Département des Sciences Fondamentales et Appliquées
Unité de Géologie
Institut Agronomique et Vétérinaire Hassan II
BP 6202 Rabat Instituts, Rabat
Collision between barchan dunes field and their effect on sand flux distribution inside a dune field, toward new techniques against sand encroachment

152. **Morocco** US$ 3,000

El Abbassi
abdelilah2010@gmail.com
Recovery of phenolic compounds from olive mill wastewater (OMW) by adsorption/desorption process using macroporous resins

153. **Nigeria** US$10,000

OSOWOLE, Aderoju Amoke
Department of Chemistry, University of Ibadan, Ibadan

Synthesis, crystal structure, physico-chemical and in-vivo anti-tumor properties of some M(II) amino indane Schiff base chelates (M=VO, Mn, Co, Ni, Cu, Pd, Zn) in carcinomas induced albino rats

154. **Nigeria** US$7,500

OLADOSU, Olarunle Rufus
Department of Physics
Federal University of Technology, P.M.B. 704, Akure

Studies of seasonal variation of H20/CO2 and heat flux observations in a humid tropical site, Akure (2010)

155. **Nigeria** US$5,000

KADEIGE Joseph
Department of Biochemistry
School of Science, Federal University of Technology, Akure

Pharmacological potentials of organoseleniums in the management of painful diabetic neuropathy

156. **Nigeria** US$1,200

OJOKOH, Bolanle Adefowoke
Department of Computer Science
Federal University of Technology
Akure
Extracting high-quality question and answer pairs from online forums

157. **Nigeria** US$6,000

AKINBILE, Christopher Oluwakunmi
Department of Agricultural and Environmental Engineering Akure
Federal University of Technology
P.M.B 704, Akure

Growth and yield responses of upland rice to treated wastewater (TWW) recycled from a low-cost treatment plant

158. **Nigeria** US$7,500

BAFOR, Enitome Evi
Department of Pharmacognosy
Faculty of Pharmacy
University of Benin
Edo State
Isolation, identification and pharmacological evaluation of the uterine active constituents of the leaf extracts of calopogonium mucunoides Desv (Fabiaceae) and justicia flava vahl (Acanthaceae

159. **Nigeria** US$8,435

Bafor Enitome Evi
Department of Pharmacology, University of Benin, Nigeria
Characterization of the mechanism associated with Justicia Flava and Calopogonium mucnoides on uterine contractility

160. **Pakistan** US$4,000

UL-HAQ, Noaman
Department of Chemical Engineering
School of Chemical and Material Engineering
National University of Science and Technology,
H-12, Islamabad
Synthesis of molecularly imprinted membranes for chiral separation of aminoacid (2010)

161. **Pakistan** US$13,000

JAMIL, Yasir
Department of Physics, University of Agriculture
Faisalabad
Quantitative analysis of soil contaminants using laser induced breakdown spectroscopy (2010)

162. **Pakistan** US$12,000

SADAF SAIMA
Institute of Biochemistry and Biotechnology
School of Biological Sciences, University of the Punjab, Lahore
Recombinant production of biopharmaceutical using a prokaryotic expression system (2009)

163. **Pakistan** US$14,000

NIAZI, Umar H.K.
Centre of Virology and Immunology
National University of Sciences and Technology (NUST)
Tamizuddin Road, Lalkurti, Rawalpindi 46000
Computer simulations of structure and interactions of MAL protein(2009)

164. **Pakistan** US$14,000

GUL, Iftikhar Hussain
School of Chemical and Materials Engineering,
National University of Sciences and Technology, H-12, Islamabad

Comparative study of co-ferrite nanoparticles synthesized by co-preparation and sol.gel techniques (2009)

165. **Pakistan** US$12,000

MURTAZA, Iram
Department of Biochemistry,
Faculty of Biological Sciences
Quaid-i-Azam University,
Islamabad – 45320

Therapeutic interventional study for lethal pathological disorders by employing ROS regulating endogenous factors (2009)

166. **Pakistan** US$14,000

SHAH, Ghalib Asadullah
Department of Computer Engineering, College of E & ME
National University of Science and Technology, Peshawar Road
Rawalpindi - 46000

Disaster monitoring and surveillance system in uniquitous networking environment(2009)

167. **Pakistan** US$8,000

MEHMOOD, Sajid
Department of Biochemistry, University of Gujrat, Gujrat

Production of biofuel (ethanol) from energy crop(s) (2009)

168. **Pakistan** US$11,000

KARIM, Shafqat
Physics Division, PINSTECH
Nilore, Islamabad 44000

Development of experimental setup for synthesis of magnetic nanowires (2011)

169. **Pakistan** US$15,000

IQBAL, Jamshed
Department of Pharmacy
COMSAT Institute of Information Technology
University Road, Tobe Camp, Abbottabad

Design, synthesis and biochemical evaluation of ecto-5'-nucleotidase inhibitors as potential anti-tumor agents (2011)

170. **Pakistan** US$2,000

KHAN, Asifullah
Department of Computer and Information Sciences
Pakistan Institute of Engineering and Applied Science
P.O. Box 45650, Nilore, Islamabad

Development of an intelligent and high throughput prediction system for the classification of membrane proteins (2011)

171. **Pakistan** US$11,000

SOHAIL, Muhammad
Department of Microbiology, University of Karachi
Karachi - 75270

Studies on indigenous mycoflora of yeast for the production of some industrially important enzymes(2011)

172. **Pakistan** US$12,000

ABDUL, Ghaffar
Isotope Application Division
Pakistan Institute of Nuclear Science and Technology
Islamabad

Identification/remediation or organic pollutants in sediment and wastewater and reuse of wastewater in Pakistan(2011)

173. **Pakistan** US$10,000

HASHMI, Imran
Institute of Environmental Science and Engineering
School of Civil and Environmental Engineering
National University of Science and Technology
Sector H-12, Islamabad

Bacteriological and chemical quality determination of drinking water within the distribution network of Rawalpindi and Islamabad(2011)

174. **Pakistan** US$10,000

RAZA, Abida
Diagnostic Department
Nuclear Medicine Oncology and Radiotherapy Institute, Islamabad

Chemically modified glycol chitosan for molecular imaging guided drug delivery of 5 fluoro uracil

175. **Pakistan** US$4,000

KHAN, Asifullah
Department of Computer and Information Sciences
Pakistan Institute of Engineering and Applied Science, Islamabad

Protection of DNA sequences through particle swarm optimization based watermarking

176. **Pakistan** US$14,000

Atta ul HAQ
Department of Physics School of Science and Engineering
Lahore University of Management Sciences, Lahore
Quantum fluidics in cavity polaritons based on semiconductor microcavities

177. **Pakistan** US$10,000

SHAH, Syed Irtiza Ali
School of Mechanical and Manufacturing Engineering

National University of Science and Technology, Islamabad

Development of 5000 meter range unmanned helicopter along with all its associated systems

178. **Pakistan** US$8,500

MEHMOOD, Khalid
Department of Pharmacy
Hazara University, Havelian, Abbottabad

Screening of H. pylori infected patients for advanced disease states using AhpC marker

179. **Pakistan** US$ 7,000

SANAULLAH, Muhammad
Institute of Soil and Environmental Sciences
University of Agriculture, Faisalabad

Use of soil conditioners for better plant growth under drought stress

180. **Pakistan** US$12,000

FARRUKH, M.A.
Department of Chemistry
GC University Lahore
Lahore - 54000

Synthesis, characterization and application of lanthanide nano particles doped on ZnO, TiO2, SiO2 (2012)

181. **Pakistan** US$11,000

IRAM IFTIKHAR, S.
Department of Environmental Sciences
Fatima Jinnah Women University, Rawalpind

Biosorption of earth heavy metals by using fungal biomass (2012)

182. **Pakistan** US$14,000

HAIDER, S.
Artificial Intelligence Lab
Faculty of Computer Science
Institute of Business Administration, Karachi - 75400

STEM Education with robotics(2012)

183. **Pakistan** US$13,000

SHAH, M.R.
International Centre for Chemical and Biological Sciences
H.E.J. Research Institute of Chemistry
University of Karachi, Karachi - 75270

Understanding ligand selectivity in nanocluster synthesis(2012)

184. **Pakistan** US$13,000

REHMAN, Z.
Department of Chemistry
Quaid-i-Azam University
Islamabad 45320

Comparative evaluation of the antimicrobial and anticancer properties of new palladium(II) and platinum(II) dithiocarboxylates(2012)

185. **Pakistan** US$8,500

AKHTAR, I.
College of Electrical and Mechanical Engineering
National University of Sciences and Technology, Rawalpindi - 46000

HP2C-based integration and automation in energy efficient buildings (2012)

186. **Pakistan**

AHMAD, Mashkoor US$7,500
Nanomaterial Research Group
Physics Division
PINSTECH
P.O. Nilore, Islamabad

Development of graphene based highly sensitive and low cost glucose biosensor

187. **Pakistan** US$10,000

BAIG, Jameel Ahmed
National Centre of Excellence in Analytical Chemistry
University of Sindh Jamshoro
Jamshoro

Evaluation of chromium speciation in drinking water, domestic waste water and industrial effluents on Sindh, Pakistan and its bio-remediation

188. **Pakistan** US$10,000

FAROOQI, Abida
Department of Environmental and Earth Sciences
Quaid-i-Azam University
Islamabad

Hydro-geochemical studies to understand the mechanism of arsenic and fluordide release, targeting low arsenic and fluoride groundwater aquifers in Punjab Pakistan

189. **Pakistan** US$10,000

FAROOQUI, Rizwan Ul Haque
Department of Civil Engineering
NED University of Engineering and Technology
University Road, Karachi

Development of an energy-retrofit optimization model for sustainable energy management of institutional buildings in Pakistan

190. **Pakistan** US$4,000

IQBAL, Razi
Lahore Leads University
Kahaman Road, Off Defence

Lahore

Inter-device communication based on near field communication

191. **Pakistan** US$8,000

NASEER, Muhammad Moazzam
Department of Chemistry
Quaid-i-Azam University
Islamabad 45320

Hybrid molecular approach for novel antimalarial and anti tubercular agents: design, synthesis and biological evaluation

192. **Pakistan** US$10,000

SAEED, Muhammad
Department of Chemistry
Government College University
Faisalabad

Synthesis and characterization of metal based catalysts and investigation of their catalytic activities for degradation of organic pollutants in aqueous medium

193. **Pakistan** US$4,000

IQBAL, Sanaullah
Department of Food Science and Human Nutrition
Faculty of Bio-Sciences
University of Veterinary and Animal Sciences
Lahore
Role of prebiotic galacto-oligosaccharides in rehabilitation of colonic microbiota in antibiotic therapy

194. **Pakistan** US$11,000

MANSHA, Asim
Department of Chemistry
GC University
Faisalabad 38000
Waste water treatment by application of nano-materials

195. **Pakistan** US$2,000

CHAUDHARY,
Safee Ullah
Department of Biology
School of Science and Engineering
Lahore
Development of a MATLAB-based high performance computing toolbox for top-down proteomics

196. **Pakistan** US$4,700

CHOTANA, Ghayoor Abbas
Department of Chemistry
LUMS School of Sciences and Engineering
Lahore 54792

Regiospecific synthesis of carbazoles

197. **Pakistan** US$11,000

TUFAIL, Asma
Interdisciplinary Research Centre in Biomedical Materials (IRCBM)
COMSATS Institute of Information Technology (CIIT)
Lahore
Fabrication of drug loaded silica-based bioactive nanocomposite scaffolds for bone regeneration

198. **Pakistan** US$6,000

BASHIR, Qamar
School of Biological Sciences
University of the Punjab
Lahore
Evaluation of antitumor activity of a thermostable L-asparaginase from Thermococcus kodakarensis

199. **Pakistan** US$6,000

UL-HAQ, Noaman
Department of Chemical Engineering
School of Chemical and Materials Engineering
National University of Sciences and Technology
Islamabad
Synthesis of nano-porous membrane for the separation of heavy metals

200. **Pakistan** US$5,000

ZEESHAN, Muhammad Ali Khan
Institute of Environmental Sciences and Engineering
School of Civil and Environmental Engineering
National University of Science and Technology
Islamabad
Satellite remote sensing of total PM and selected PM components in Islamabad, Pakistan

201. **Pakistan** US$2,000

BOKHARI, Syed Ali Imran
Department of Bioinformatics and Biotechnology
Faculty of Basic and Applied Sciences
International Islamic University
Islamabad
Production of Lipase from Humicola sp.

202. **Pakistan** US$4,000

ANEES, Mariam
Department of Biochemistry
Quaid-i-Azam University
Islamabad
To study the role of decoy receptors in NF-kappaB regulation in human cancer

203. **Pakistan** US$3,000

MEHMOOD, Muhammad Aamer
Department of Bioinformatics and Biotechnology
Government College University
Faisalabad 38000
ABC-transporter mediated secretion of heterologously synthesized botryococcene for biofuel production

204. **Pakistan** US$450

MALIK, Salman Amin
Department of Mathematics
COMSATS Institute of Information Technology
Islamabad
Image restoration using non-local partial differential equations

205. **Pakistan** US$1,200

REXTIN, Aimal Tariq
Department of Computer Science
COMSATS Institute of Information Technology
Islamabad
Visualization of flight data

206. **Pakistan** US$10,000

AMJAD, Raja Muhammad Junaid
Defence Road, Off Raiwind Road
Department of Physics
COMSATS Institute of Information Technology
Lahore Campus
Lahore
Enhanced solar cell efficiency by sunlight down-shifting and upconversion

207. **Pakistan** US$8,200

ZAIDI, Nousheen
Microbiology and Molecular Genetics
New Campus, University of the Punjab
Lahore
Mevalonate pathway: potential target for leukemia therapeutics

208. **Pakistan** US$5,000

BIBI, Asima
School of Biological Sciences
University of the Punjab
Lahore
Investigation of hepatoprotective role of azoles mediated cytochrome P450 pathway inhibition in liver fibrosis

209. **Pakistan** US$4,400

SHAHNAZ, Gul
Department of Pharmacy

Faculty of Biological Sciences
Quaid-i-Azam University
Islamabad
Development and evaluation of mannose-anchored thiolated nanocarriers for leishmaniasis therapy

210. **Pakistan** US$1,500

IQBAL, Shahid
Department of Physics
School of Natural Sciences
National University of Sciences and Technology
H-12, Islamabad
Engineering entanglement of continous-variable quantum states via passive optical devices

211. **Pakistan** US$1,500

REHMAN, Hafeez ur
Department of Agronomy
University of Agriculture
Faisalabad
Greenseeker TM-optical sensor, a technology for efficient nitrogen management in rice and wheat

212. **Pakistan** US$1,500

KHAN, Muhammad Usman Ghani
Bioinformatics Lab
Department of Computer Science & Engineering
Al-Khawarizmi Institute of Computer Science
University of Engineering & Technology
Lahore
Human mind gauge: computational model of brain and its applications using brain computer interface

213. **Pakistan** US$4,000

HASHMI, Muhammad Zaffar
Department of Meterology
COMSATS Institute of Information Technology
Islamabad
Biotransformation (detoxification) of arsenic in soil and human samples from Pakistan

214. **Pakistan** US$8,900

HAQ, Zaheer ul-
Dr. Panjwani Center for Molecular Medicine and Drug Research
International Center for Chemical and Biological Sciences
University of Karachi
Karachi
Computer guided synthesis and biological evaluation of novel immuno-modulatory agents

215. **Pakistan** US$13,000

JAFFARI, Ghulam Hassnain

Department of Physics
Quaid-i-Azam University
Islamabad
Synthesis and characterization of ZnO nanorods composited with N and Cr codoped TiO2 thin films

216. **Pakistan** US$8,000

ZAHID, Muhammad
Department of Chemistry
University of Agriculture
Faisalabad
Wastewater treatment using nanocomposites of graphene oxide and reduced graphene oxide

217. **Pakistan** US$ 2,000

Hassan
mujtaba@ist.edu.pk
An assessment of future extreme events in the Northwestern Upper Indus Basin (NUIB) Pakistan by using Coordinated Regional Downscaling Experiments (CORDEX) dataset under the AR5 Scenarios

218. **Pakistan**

Sabir US$ 3,000
aneela.pet.ceet@pu.edu.pk
Design and fabrication of hollow fiber membrane reactor for industrial wastewater treatment in Pakistan.

219. **Pakistan** US$ 6,000

Amjad
umesalma@ciitlahore.edu.pk
Low temperature steam reforming of waste plastic oil to convert it to energy efficient fuel: A kinetic study

220. **Pakistan** US$ 11,160

Aftab
zohaib@live.fr
Towards an affordable leg Exoskeleton device for paraplegics and Polio victims

221. **Pakistan** US$ 8,400

Qurrat-ul-Ain
qurrat_chem@uok.edu.pk
Green Synthesis of Iron Oxide Nanoadsorbents Functionalized with L-Histidine for Removal of Hazardous Azo Dyes from Water

222. **Pakistan** US$ 5000

Muhammad
muhammadnasir@ciitlahore.edu.pk
Efficient Photocatalytic Hydrogen Evolution from water splitting through Graphitic Carbon Nitride and Polyoxovanadates /Polyoxoniobates nanocomposite

223. **Pakistan** US$ 8,000

Rasul
azcheena37@hotmail.com
Identification and Characterization of Tumor-Stromal Cell Interactions Modulators- A Promising Novel Therapeutic Approach

224. **Pakistan** US$ 11,254

Ali
alibiotech01@gmail.com
Studying viral isolates in patients non-responders to Antiviral therapies in Pakistan

225. **Pakistan** US$ 8,000

Jahan
jahan_pcmd@yahoo.com
Identification and characterization of antiglycation compounds for attenuating advanced glycation end products-induced inflammatory response by modulating RAGE/NF-KB nexus.

226. **Pakistan** US$ 7,500

Rashid
umer.rashid@upm.edu.my
Synthesis of Palm based Magnetic Biochar Acidic Catalysts for Biodiesel Production

227. **Pakistan** US$ 600

Riaz
sarahasnain@ciitlahore.edu.pk
Magnetic nanoparticles-decorated functionalized graphene sheets for energy storage applications

228. **Pakistan** US$7,171

Sajjad Amna
Department of Zoology, Government college university Faisalabad.
Role of lysine methyltransferase to p53 dependent cardiomyocyte apoptosis in human heart upon myocardial infarction

229. **Pakistan** US$12,500

Nazir Rashid
Department of Environmental Sciences, COMSATS Institute of Information Technology
Impact of veterinary medicines on anaerobic digestion efficiency to generate biogas and potential spread of environmental multidrug resistance

230. **Pakistan** US$4,990

Khan Suleman
School of Information Technology, Monash University Malaysia
Towards trace back Digital Forensic Model for Secure Communication in Internet of Things

231. **Pakistan** US$6,250

Rasheed Sajida
Department of Biotechnology, University of Kotli, Azad Jammu and Kashmir, Pakistan
Removal modeling of selected non-steroidal anti-inflammatory drugs (NSAID) from surface water using pine needles based bio-char (PNBC) supplemented with indigenous microbial consortium using response surface methodology-central composite design (RSM-CCD)

232. **Pakistan** US$7,000

Ali Murtaza Najabat
Biomedical Engineering and Sciences, School of Mechanical and Manufacturing Engineering
Design and Development of Drug Eluting Stent Graft for the Treatment of Coronary Diseases

233. **Pakistan** US$8,000

Andleeb Saadia
Department of Industrial Biotechnology, National University of Sciences & Technology
Antibiotic resistance profiling of hospital and water isolates to trace the source of multidrug resistant nosocomial infections

234. **Pakistan** US$11,030

Bibi Irshad
Institute of Soil & Environmental Sciences, University of Agriculture Faisalabad
Understanding dolomite-water interface reaction kinetics: Impact of solution composition

235. **Palestine** US$10,000

TAYA, Sofyan
Department of Physics, Faculty of Science
Islamic University of Gaza, P.O. Box 106, Gaza

Developing of organic light emitting diodes and dye sensitized solar cells (2010)

236. **Palestine** US$6,000

TAYEH, Bassam
Civil Engineering Department
School of Civil Engineering
The Islamic University
Gaza, P O Box 223
Investigation of the mechanical, durability and microstructure properties of recycled aggregate concrete

237. **Senegal** US$10,000

DIAGNE, Mababa
Earth Sciences Institute, Technics and Sciences Faculty, Cheikh Anta Diop University
BP 5396, Dakar-fann

New oxidation processes for wastewater treatment (2009)

238. **Sudan** US$10,000

MOHAMED ALI, Mohamed Abdelwahab
Faculty of Earth Science and Mining, University of Dongola, Wadi Halfa

Integration of geophysical techniques for archaelogical prospect ion in Sudan (2009)

239. **Tunisia** US$10,000

MECHICHI, Tahar
Department of Biological Engineering, Ecole, Nationale d'Ingenieurs de Sfax, BP 1173, 3038 Sfax
Decolonization and detoxification of textile industry dyes and wastewaters by fungal laccases(2009)

240. **Tunisia** US$5,000

GRIBAA, Moez
Laboratory of Cytogenetic and Biology of Reproduction
Farhat Hached Hospital, 4000 Sousse

Association study between opioid receptors polymorphisms and morphine response in Tunisian cancerous patients

241. **Tunisia** US$9,500

ABDELKAFI, Slim
Department de Génie Biologique, Ecole Nationale d'Ingenieurs de Sfax
Universite' de Sfax, Sfax

Microalgae as a feedstock for biodiesel production

242. **Tunisia** US$13,000

HADJ KACEM, Hassen
Laboratoire de Microorganismes et de Biomolecules

Centre de Biotechnologie de Sfax
Route de Sidi Mansour Km6
BP 1177, Sfax 3018

SLC26A4 gene silencing for a potential siRNA-based therapy of respiratory inflammation.

243. **Tunisia** US$10,000

RAOUAFI, Noureddine
Faculty of Science of Tunis
University of Tunis El-Manar
Campus Universitaire de Tunis El-Manar
Tunis El Manar 2092

Carbon nanotube-modified carbon fibers electrodes for organophosphate pesticides biosensing

244. **Tunisia** 3,000

KHARRAT, Najla
Centre of Biotechnology of Sfax
Sfax 3018
Screening inflammatory response biomarkers antioxidant activities within coronary heart disease fulfilling Mediterranean diet

245. **Tunisia** US$6,000

MNIF, Sami
Laboratory of Molecular and Cellular Screening Processes
Centre of Biotechnology of Sfax
Road of Sidi Mansour km 6- B.P 1177
Sfax
Novel active biomolecules from foliar endophytic microorganisms selected from the Saharan and arid Tunisian flora

246. **Tunisia** US$5,000

FRIKHA-GARGOULI, Olfa
Laboratory of Protection and Plant improvement
Centre of Biotechnology
Faculty of Science
Sfax
Development of biological control strategies to protect apple and pear against fire blight

247. **Tunisia** 7,910

Ben Ismail
sana.benismail@instm.rnrt.tn
The Golfe of Gabes hydrodynamics: Physical forcing of the unusual case of a Mediterranean ecosystem under strong tidal influence. GaphyMed

248. **Turkey** US$10,000

GULER, Mustafa Ozgur
Institute of Materials Science and Nanotechnology, Bilkent University
Bilkent, Ankara 06800

Design and synthesis of self-assembling peptidic molecules for artificial extracellular matrix development (2010)

249. **Turkey** US$12,000

TEKINAY, Ayse Begum
Institute of Materials Science and Nanotechnology
Bilkent University, Bilkent, Ankara 06800

Molecular characterization of respiratory epithelium specific Lynx3 (2010)

250. **Turkey** US$15,000

CAMURLU, Pinar
Department of Chemistry
Akdeniz University, 07058 Antalya

Synthesis and characterization of bithiazole containing polythiophenes and investigation of their electrochromic properties (2011)

251. **Turkey** US$1,000

ULUTAGAY, Gozde
Department of Industrial Engineering
Izmir University, Gursel Aksel blv. No. 14 – Uckuyular, 35350 Izmir

Design and modeling of fuzzy expert system for the diagnosis and treatment of the thyroid disease (2011)

252. **Turkey** US$15,000

CAMURLU, Pinar
Department of Chemistry
Akdeniz University, Antalya

Investigation of thermo chromic and electro chromic properties of thiophene based conducting polymers

253. **Turkey** US$3,300

Yilmazel Yasemin Dilsad
Department of Environmental Engineering and Middle East Technical University
Development of a two-stage hydrogen production process from agro wastes by combining hyperthermophilic dark fermentation with a microbial electrolysis cell

254. **United Arab Emirates** US$ 4,790

Khaleel
mkhaleel@pi.ac.ae
Thin and highly selective molecular sieving membranes for cost effective hydrogen separation

255. **Uzbekistan** US$11,230

Ruzmetov Azizbek
Laboratory for Advanced Studies, Turin polytechnic university in Tashkent

Effective models for charging system of power engine of electric vehicles and batteries

256. Uzbekistan US$14,000

Hojamberdiev Mirabbos
Uzbekistan-Japan Innovation Center of Youth, Laboratory of Chemistry and Petrochemistry
Visible-light-active noble metals-loaded bismuth oxyiodide nanosheets for environmental remediation and energy conversion

6. Lindau Nobel Laureate Meetings

The Lindau Nobel Laureate Meetings were started under the patronage of former German President Horst Köhler, and are funded by the Robert Bosch Stiftung and the Bunderministerium für wirtschaftliche Zusammenarbeit. Participation in the meetings is highly prestigious and it is a unique opportunity for most promising young scientists to enhance their knowledge, establish new contacts and discuss relevant topics. Currently about 600 highly talented young scientists attend these meetings every year.

The Lindau Meetings provide a globally recognized forum and more than 200 Nobel Laureates are Members of Founders' Assembly for the transfer of knowledge between generations of scientists, about 30 Nobel Laureates convene at Lindau to meet the next generation of scientists. The most exciting feature of the event is Lectures by Nobel Laureates on current scientific topics and relevant fields of research of the future. In panel discussions, seminars, and various events of the social programme, young researchers nominated by a worldwide network of Academic Partners like COMSTECH get the opportunity to directly interact with Nobel Laureates and benefit from their lectures.

COMSTECH nominates 20 candidates for meetings on Natural Sciences and 15 candidates for meeting on Economics held at Lindau, under the agreement signed between COMSTECH and Lindau Council of Nobel Laureates in 2015. Final selection of candidates is made by scientific review panel of the Nobel Laureate Meetings.

The scientific programme of each Lindau Meeting is based on the principle of dialogue. The different sessions – lectures, discussions, master classes, and panel discussions – are designed to activate the exchange of knowledge, ideas, and experience between and among Nobel Laureates and young scientists.

Applicants who have successfully mastered the application process undoubtedly represent the emerging generation of leading scientists and researchers. Apart from taking the one-time chance to participate in a Lindau Meeting, these young scientists become part of a special community – a network of excellence. As alumni of the Lindau Meetings, former participants stay connected with each other and become ambassadors of the scientific dialogue fostered by the Lindau Meetings. In order to participate in a meeting, they have to pass a multi-step application and selection process.

The participants are recruited among: i) under-graduate students, ii) master and doctoral students, and iii) young post-doctoral scientists in both meetings. The

process of application and selection is administered with the web-based system NAPERS.

It is intended to have a good balance between these three groups:

i. Undergraduate students, who exhibit a solid general knowledge in physiology or medicine have done some practical work and/or have laboratory experience.

ii. Master and doctoral students, who show excellent academic accomplishments and have produced some very good research work and/or are in medical clinical training.

iii. Postdoctoral scientists, who have up to 5 years of postdoctoral experience (optimum about 2-3 years after doctoral degree), have published results of their own scientific research in peer-reviewed journals, preferably as first author, and have presented their work at international scientific meetings, preferably as lecturers.

Eligibility: Candidates with the following selection criteria are eligible to participate in the meetings:

- Must not be older than 35 years of age or younger at the time of meeting.
- Be fluent in English and capable of active participation in discussions.
- Belong to the top 5% of their class.
- Show a genuine interest in science and research.
- Show a strong commitment to their principal field of study and to interdisciplinary work.
- Who have not participated in the previous Lindau meetings
- Who have not yet a permanent position (scientists with permanent position – in particular on the professor level – will not be admitted to the meeting).
- Receive strong support of their application by their academic advisor and/ or by the international renowned scientists, through a detailed letter of recommendation, which greatly influence the evaluation. For those in medical clinical training, two letters of recommendation would be helpful – one from a scientist's mentor and one from a medical mentor.

Selection: After scrutiny at COMSTECH, names of suitable candidates are to be forwarded to the Lindau Council in Germany for final decision.

In view of the strict deadlines by the Lindau, nominations received after the deadlines are not entertained.

The award includes economy class return air ticket and €5000 Registration Fee and Accommodation Charges per selected candidate for one week in Lindau.

COMSTECH has so far disbursed US$83,101 to support 24 young scientists and scholars from Algeria, Egypt, Iran, Jordan, Palestine, Saudi Arabia, Senegal, Sudan, Suriname, Tajikistan, Pakistan, Malaysia, Turkey and Uzbekistan.

Table 9. Detailed breakup of Lindau Nobel Laureate Meetings Programme payments					
#	Name	Country	Particulars	Amount US$	Total Amount US$
1.	Anis Alamshoev	Tajikistan	Reg. Fee	3,010.00	3,925.57
			Air Ticket	915.57	
2.	Hamza Medhat Mohammed	Egypt	Reg. Fee	2,887.43	2,887.43
3.	Imane Zitouni	Algeria	Reg. Fee	3,010.00	3,010.00
4.	Islam Hassouneh	Palestine	Reg. Fee	3,010.00	3,010.00
5.	Khurshid Khurramovich	Uzbekistan	Reg. Fee	3,010.00	4,026.00
			Air Ticket	1,016.00	
6.	Madesta Leda	Suriname	Reg. Fee	3,010.00	4,610.81
			Air Ticket	1,600.81	
7.	Maedeh Ramezani	Iran	Reg. Fee	2,887.43	2,887.43
8.	Mamadou Konte	Senegal	Reg. Fee	3,010.00	4,054.03
			Air Ticket	1,044.03	
9.	Nilufar Akdodova	Tajikistan	Reg. Fee	3,010.00	4,264.81
			Travel Insurance	17.59	
			Air Ticket	1,237.22	
10	Nisreen Alissawi	Palestine	Reg. Fee	2,805.00	3,272.79
			Air Ticket	467.79	
11	Noura Mansouri	Saudi Arabia	Reg. Fee	3,010.00	3,010.00
12	Omima Osman Mohammed Osman	Sudan	Reg. Fee	2,805.00	3,801.93
			Air Ticket	996.93	
13	Rabeh Saleh Morrar	Palestine	Reg. Fee	3,010.00	3,910.00
			Air Ticket	900.00	
14	Rustam Abduraupov	Uzbekistan	Reg. Fee	3,010.00	4,131.93
			Air Ticket	1,121.93	
15	Sawsan H. AbuSharkh	Palestine	Reg. Fee	2,805.00	3,350.79
			Air Ticket	545.79	
16	Sharif Ghithan	Palestine	Reg. Fee	2,805.00	3,028.00
			Air Ticket	223.00	
17	Ms lee SOO Ching	Malaysia	Air ticket	1,046.43	3,968.93
			Reg. Fee	2,922.50	
18	Mohammed Ramadan Abdel Ghafar Habib	Egypt	Air ticket	701.00	3,623.50
			Reg. Fee	2,922.50	
19	Duygu Kocyigit	Turkey	Air ticket	287.00	3,209.50
			Reg. Fee	2,922.50	
20	Ahmed El Badawy Ismaeil	Egypt	Air ticket	1,388.00	4,310.50
			Reg. Fee	2,922.50	
21	Samodov Furkatjon Nosibjanovich	Uzbekistan	Air ticket	686.49	3,608.99
			Reg. Fee	2,922.50	
22	Menattallah Elserafy	Egypt	Air ticket	546.00	3,468.50
			Reg. Fee	2,922.50	
23	Maha Al Asmakh	Qatar	Reg. Fee	2,922.50	2,922.50
24	Ms Lala Rukh Memon	Pakistan	Air ticket	808.04	808.04
				Total:	**83,101.98**

7. Visiting Scientists Programme

During the biennium of 1998-1999, COMSTECH launched a program to encourage collaboration between scientists and technologists in the OIC member states. The programme involves providing air travel support to scientists who wish to carry out visits to scientific institutions in OIC member countries for at least four weeks for conducting joint research programs or for delivering a series of lectures in a selected field of research.

This program was launched in 1998 and the last grant was provided in 2006. During this 9-year period, twenty four scientists have been supported to visit other OIC member states for joint research work by disbursing Rs. 490,245 and US$ 8,140.

Table 10. COMSTECH Visiting Scientists

From	Number of Scientists	To
Tajikistan	1	Pakistan
Bangladesh	2	UAE, Pakisan
Iran	1	Pakistan
Pakistan	8	Syria, Uzbekistan, Germany, UK, Uzbekistan, USA, Tunisia, Bangladesh
Malaysia	2	UAE, Iran
Canada	1	Pakistan
Kazakhstan	7	Pakistan
Egypt	1	Pakistan
Cameroon	1	Pakistan

Table 11. Details of COMSTECH Visiting Scientists Grants

1998-2001

S.No.	Particulars of Participants	Plance of Visit	Amount	
			Rs	US$
01	Dr. Khassan Karimov Physical Technical Institute, Academy of Sciences, Dushanbe, **Tajikistan**	Ghulam Ishaq Khan Institute for Engineering Sciences and Technology, Topi, N.W.F.P., **Pakistan**	-	400
02	Dr. M. D. Khalilur Rahman Professor, Department of Biotechnology, University of Dhaka, Dhaka – 1000, **Bangladesh**	Department of Biochemistry, Faculty of Medicine & Health Science, United Arab Emirates University, Al Ain, **U. A. E.** January 1999.	-	827
03	Dr. Parvin Paslar, Assistant Professor, Biochemistry Department, Faculty of Medical Sciences, Tehran University of Medical Sciences, Tehran, **Iran**	Dr. A. Q. Khan Research Laboratories, Biotechnology Division, Mauve Area, G-9/4, Islamabad, **Pakistan** Aug. 1998	31,030	-
04	Mr. Mustanser Jehangir, Head TIDG, NCD, Nuclear Chemistry Division, PINSTECH, Nilore, Islamabad, **Pakistan**	Syrian Atomic Energy Commission, Damascus, Damascus, **Syria** 15 Sep. 1999	39,255	-
05	Prof. Madya Dr. Saleem Mustafa, Borneo Marine Research Unit, University Malaysia Sabah, **Malaysia**	United Arab Emirates University, Al Ain, **U. A. E.** Between 12, 2000 to April 12, 2000		1,090
06	Dr. Adedayo Otunola Biotechnology Unit Department	HEJ Research Institute, Karachi, **Pakistan**		1,500

	of Chemical Engineering, University of Waterloo, **Canada**			
07.	Dr. Asghar Qadir Dean, Faculty of Natural Sciences Quaid-e-Azam University, Islamabad, **Pakistan**	2nd international symposium on Experimental Gravitation in Samarkand. Tashkent, Uzbekistan. 16-21 Aug. 1999. Islamabad-Tashkent-Islamabad, **Pakistan**	20,000	
08.	Pak Ruslan Nikolaevich, **Kazakhstan**	HEJ Research Institute, Karachi, **Pakistan**		345
09.	Tursunbekova Annelya Ernazarovna, **Kazakhstan**	HEJ Research Institute, Karachi, **Pakistan**		345
10.	Khasenov Bekholat Baurzhanovich, **Kazakhstan**	HEJ Research Institute, Karachi, **Pakistan**		345
11.	Dr. Nauan Zhangablylov Institute of Photochemistry, Karaganda, **Kazakhstan**	HEJ Research Institute, Karachi, Pakistan Dr. A. Q. Khan Research Laboratories (Biomedical And Genetic Engineering Division), Islamabad, **Pakistan**	14,775 8,240	200
12.	Dr. Rustam Axartov Institute of Photochemistry, Karaganda, **Kazakhstan**	HEJ Research Institute, Karachi, Pakistan Dr. A. Q. Khan Research Laboratories (Biomedical And Genetic Engineering Division), Islamabad, **Pakistan**	14,775 8,240	200
13.	Dr. Dina Kussainova Institute of Photochemistry, Karaganda, **Kazakhstan**	HEJ Research Institute, Karachi, Pakistan Dr. A. Q. Khan Research Laboratories (Biomedical And Genetic Engineering Division), Islamabad, **Pakistan**	14,775 8,240	200
14.	Ms. Zhamilya Assanova Institute of Photochemistry, Karaganda, **Kazakhstan**	HEJ Research Institute, Karachi, Pakistan Dr. A. Q. Khan Research Laboratories (Biomedical And Genetic Engineering Division), Islamabad, **Pakistan**	14,775 8,240	200

2002

15.	Prof. Dr. Mushtaq Kazmi Associate Professor, Faculty of Agriculture, University College of Agriculture Rawalakot, AJK, Azad Kashmir, **Pakistan**	Martin-Luther-University Hale-Wittenberg Bonn, **Germany**	67,000/-	
16.	Ms. Shamsun Nahar Khan Department of Pharmacy & Clinical Pharmacology, Gono shwabidyalaya (People's University), Savar, Dhaka-1344, **Bangladesh**	HEJ Research Institute of Chemistry, University of Karachi, Karachi, **Pakistan**		546
17.	Prof. Mohammad Naseer Khan	BRUNEL University Uxbridge Middlesex	47,000/-	

	Pro-Rector (Academic), Ghulam Ishaq Khan Institute of Engineering Sciences & Technology, Topi, District Swabi, NWFP-**Pakistan** Tel: 92-0938-71858, Fax: 92-0938-71865, Email: mnkhan@giki.edu.pk	UB8 3PH, **United Kingdom** Tel: 44-1895-274000 Fax: 44-1895-232806 Dept Fax: 44-1895-812636		
18.	Prof. Dr. El Sayed H. El Ashray Head, Chemistry Department Faculty of Agriculture Alexandria University Alexandria, **Egypt** Tel: 0020-3-4271360 Fax: 0020-3-4271360 Email: eelashry60@hotmail.com	H.E.J. Research Institute of Chemistry, University of Karachi, Karachi-**Pakistan**		467
19.	Prof. Dr. Yoshisuke Tsuda H.E.J. research Institute of Chemistry University of Karachi Karachi-**Pakistan**	Academy of Sciences Institute of the Chemistry of Plant Substances, Bd 77 acad. Kh. Abdullaev Str. 700170 Tashkent, **Uzbekistan**	36,450/-	
		Total:	**332,795**	**6,665**

2003

20.	Dr. Syed Khurshid Hasanain Department of Physics Quaid-i-Azam University, Islamabad, **Pakistan**	Department of Materials Science and Engineering Physics and Astronomy University of Delaware, **USA** (During April-June 2003)	81,200	
21.	Dr. Saifullah Khan Plant Tissue Culture and Biotechnology Division H.E.J. Research Institute of Chemistry, University of Karachi Karachi-**Pakistan**	Agriculture Institute in **Tunisia** (November 2003)	46,750	
			127,950	

2004

22.	Prof. Dr. Allah Bukhsh Baloch Government Degree College Bela, District Lasbela, Balochistan, **Pakistan**	Institute of Marine Sciences, University of Chittagong, **Bangladesh** (April May 2004)	29,500	

2005

23.	Mrs. Nsangou Mbouangouere Roukayatou Chemistry Department University of Dschang, Faculty of Science P.O. Box 67 Dschang, **Cameroon** Tel: 231-7310449 Email: tirouka@yahoo.fr	H.E.J. Research Institute of Chemistry, University of Karachi Karachi-**Pakistan** January 2005		975

2006

24	Dr. Seik Weng Ng Associate Professor Department of Chemistry University of Malaysia 50603-Kuala Lumpur, **Malaysia**	Department of Chemistry, Shahid Beheshti University, Tehran, **Iran**		500

8. COMSTECH Travel Grant Programme

This programme was started in 2001 but due to financial constraints COMSTECH discontinued it on 29 August 2011.

Total Number of Applications	=	350
Approved Applications for **Pakistan**	=	34
Approved Application from **Jordan**	=	02
Approved Application from **Sudan**	=	02
Approved Application from **Iran**	=	04
Approved Application from **Egypt**	=	02
Approved Application from **Malaysia**	=	01
Approved Application from **Oman**	=	01
Approved Application from **Turkey**	=	02
Approved Application from **Syria**	=	01
Approved Application from Central Asian Countries	=	01
Total Approved Applications	=	**50**
Total paid	**=**	**39**

Table 12. COMSTECH Travel Grants

S. No.	Name & Addresses of Visiting Scientists	Conference/ Workshop	COMSTECH Financial Support	
			PKRS	***US$***
01	Dr. Nabil Bashir Dean Faculty of Science and Technology P.O. Box 3030 Irbid 22110, **Jordan** nbashir@just.edu.jo	Workshop/Bio-safety 2, **Italy** March 2001		410
02	Dr. Shafiq Ahmad Mujahid PSO, RPD PINSTECH, P.O. Nilore Islamabad**, Pakistan**	"Frontiers in Advanced Materials" from 15-18 May 2001 in Trieste, **Italy**	42,000	
03	Mr. Mohammad Anwar Assistant Professor Department of Chemistry University of Balochistan, Quetta, **Pakistan**	"Protein Folding, Structure and Design" from 11-22 June 2001 in Trieste, **Italy**	48,955	
04	Dr. Feisal Subhan, PhD Assistant Professor of Physiology, Dept of Biological and Biomedical Sciences, The Aga Khan University, Karachi-74899, **Pakistan**	The Meeting on Neural Control of Breathing, **New Zealand**, 31st August 2001.		210

	Tel: 021-48594545 E-mail: Feisal.subhan@aku.edu			
05.	Dr. Zulfiqar A. Bhutta The Hussein Laljee Dewaraj Professor of Paediatrics Department of Pediatrics The Aga khan University, Dept of Biological and Biomedical Sciences, P.O. Box. 3500, Stadium Road, **Karachi**-74800, **Pakistan**	The 23rd International Congress of Pediatrics, Sep. 9-14, 2001, **China**	55,547	
06.	Prof. Dr. M. Naseer Khan Pro-Rector (Academic) Ghulam Ishaq Khan Institute of Science and Technology, Topi, Swabi, NWFP, **Pakistan**	International Conference on Magnetic and Super-Conducting materials, **Yarmouk**, 9-13 September 2001	33,560	
		Total	**180,062**	620

2002

07.	Major Rashid Ansari Institute of Environmental Sciences & Engineering NUST, Rawalpindi**, Pakistan**	International Workshop on "Renewable Energy Technologies for Clean Environment" 26-29 March 2002, Amman, **Jordan**	32,000	
08.	Dr. Ahsana Dar Associate Professor H.E.J. Research Institute of Chemistry, University of Karachi, Karachi-75270, **Pakistan**	"10th Amine Oxidase Workshop" 25-29 August, 2002 at Kadir Has University, Istanbul, **Turkey**	28,140	
		Total	**60,140**	

2003

09.	Dr. Ali Rashid Tabrez National Institute of Oceanography St-47, Block 1, Clifton, Karachi, **Pakistan**	Role of The National resources and Environment in Sustainable Development in South and Southeast Asia (NESDA) 17-21 Jan.2003, Dhaka, **Bangladesh**	15,500	
10.	Prof. Dr. M. Qasim Jan Vice Chancellor Sarhad University of Science & Information Technology, # 2, Sir Syed Road, **Peshawar** Cantt., **Pakistan**	18th Himalaya-Karakoram-**Tibet** International Workshop 2~4 April 2003	42,915	
11.	Dr. Nabil Bashir Dean Faculty of Science and Technology P.O. Box 3030 Irbid 22110, **Jordan** nbashir@just.edu.jo	Course in Medical Genetics for the Developing Countries, Trieste, **Italy** September 15-17, 2003		679
12.	Dr. Ahsana Dar Associate Professor H.E.J. Research Institute of Chemistry, University of Karachi, Karachi-75270, Pakistan	International conference on "Natural Products: Chemistry, Technology & Medicinal Perspectives" 8-11 October, 2003 Almaty **Kazakhstan**	26,405	
		Total	**84,820**	**679**

2004

13.	Dr. Iqrar Khan Sultan Qaboos University C0leege of Agriculture P.O. Box. 34, PC-123, Muscat, **Oman** Ph: 968-515213, Fax:968-513418 Email: iqrar@squ.edu.om	10th International Citrus Congress, Agadir, **Morocco**, 14-20 February 2004		800
14.	Professor Asghar Qadir: Relativistic Astrophysics 13, St. 7, F-8/3, Islamabad, **Pakistan**	11th Regional Conference in Mathematical Physics, 3-6 May 2004, Tehran, **Iran**	28,000	
15.	Professor Riazuddin High Energy Physics National Centre for Physics Quaid-i-Azam University Campus, Islamabad, **Pakistan**	11th Regional Conference in Mathematical Physics, 3-6 May 2004, Tehran, **Iran**	28,000	
16.	Dr. Samir El-Agamy Department of Horticulture Faculty of Agriculture Assiut University Assiut, **Egypt** Tel: 2088-411552, 2088412112 Fax:2088-331384,2088-2875 Email: samiragamy@hotmail.com	10th International Citrus Congress, Agadir, **Morocco**, 14-20 February 2004		600
17.	Dr. Imtinan Elahi Qureshi Head Physics Research Division Pakistan Institute of Nuclear Science and Technology P.O. Nilore, Islamabad**, Pakistan**	22nd International Conference on Nuclear Tracks in Solids, Barcelona, **Spain,** 23-27 August 2004	55,000	
18.	Mr. Shahzad Mahmood Senior Scientific Officer, PINSTECH(Physics Research Division) P.O. Nilore Islamabad, **Pakistan** & PhD Scholar, Department of Physics COMSATS Institute of Information Technology(CIIT),H-9, Islamabad, **Pakistan**	12th International Congress on Plasma Physics" from 25–29 October 2004 in Nice, **France**.	26,713	
		Total	**137,713**	**1,400**

2005

19.	Dr. Khan Bahadar Marwat Meritorious Professor Department of Weed Science NWFP Agricultural University Peshawar, **Pakistan**	XVII International Botanical Congress, 17-22 July 2005, Vienna, **Austria**	58,600	
20.	Prof. Dr. Viqar Husain Department of Geology University of Karachi Karachi, **Pakistan**	First Economic Jordanian Forum, 9-10 August 2005, Natural Resources & Environment And Investment, Organized By Jordanian Society For Expending And Developing Natural Resources. Mafraq-**Jordan**	35,000	
21.	Dr. Nasim Akhtar Dy Director General Animal Sciences Institute, NARC, Islamabad, **Pakistan**	Open Conference, Global Environmental Change Research Community and Follow up meeting of National Chairs of International Human	51,050	

		Dimension Program(IDHP) of Global Environmental Change" 9-13 October 2005, Bone**, Germany**		
22.	Dr. M. M. Rabbani Director General National Institute of Oveanography St-47, Block-1, Clifton Karachi-75600, **Pakistan**	"The Protection of Coastal & Marine Environment" 9-11 November, 2005, Izmir-**Turkey**	37,130 181,780	
		Grand Total-2005	**644,515**	**2,699**

2006

23.	Dr. Mona Lisa Assistant Professor, Department of Earth Sciences, Quaid-i-Azam University Islamabad, **Pakistan** Email:lisa_qau@yahoo.com	"The Conduct of Seismic Hazard Analyses for Critical Facilities" to be held on 15-19 May, 2006 at International Centre for Theoretical Physics (ICTP), Trieste, **Italy**.	36,945	
24.	Dr. Ahmed Anwer Ali Rattani Teaching Assistant Department of Biological & Biomedical Sciences Aga Khna University Stadium Road, P.O. 3500 Karachi-74800, **Pakistan** Tel:021 4930051 Fax: 021 4934294	"Bioinformatics: Computer Methods in Molecular Biology" to be held on 23-30 June 2006. Trieste, **Italy**	60,000	
25.	Syed Noorullah Hussaini Physics Research Division, PINSTECH P.O. Nilore, Islamabad, **Pakistan** Tel: 051-2207217 Fax: 051-9290275(Att:Mr. Hussaini) Email: husaini@pinstech.org.pk	23rd International Conference on Nuclear Tracks in Solids, 11-15 September 2006, Beijing, **China**	30,000	
26.	Dr. M. Ashraf Professor and Chairman Department of Botany University of Agriculture Faisalabad, **Pakistan**	International Conference on Bio-Saline Agriculture & High Salinity Tolerance" 2006, ICBA & HST at Gammarth (Tunis), **Tunisia**	53,000	
27.	Prof. M. Ajmal Khan Distinguished National professor University of Karachi Karachi, **Pakistan**	International Conference on Bio-Saline Agriculture & High Salinity Tolerance" 2006, ICBA & HST at Gammarth (Tunis), **Tunisia**	48,512	
28.	Prof. Munir Ozturk EGE University, Science Faculty, Botany Department E-Block, Bornova 35100, Izmir-**Turkey**	International Conference on Bio-Saline Agriculture & High Salinity Tolerance" 2006, ICBA & HST at Gammarth (Tunis), **Tunisia**		700
29.	One Person from **Syria**	Characterization and management of Emerging viral Diseases in the developing world, 14-22, Nov. 2006, Faisalabad, **Pakistan**	40,000	
30.	Dr. Ng Seik Weng Department of Chemistry Jabatan Kimia, Fakulti Sains, University Malaya, 50603 Kuala Lumpur, **Malaysia**	Shahid Beheshti University Tehran, **Iran**		500

			268,457	700
		Grand Total	**912,972**	3,399

2007

31.	Prof. Dr. Mehmet Ozturk Head of the Department of Molecular Biology and Genetics Bilkent University 06533 Bilkent, Ankara-**Turkey**	**Bangladesh**		1,050
32.	Prof. Dr. Muhammad Iqbal Bhanger Director National Centre of Excellence in Analytical Chemistry University of Sindh Jamshoro, **Pakistan**	"Recent Trends in Solid Phase Extraction Methods" April 26-29, 2007 Department of Chemistry University of Selcuk, Konya, **Turkey**	37,000	
33.	Prof. Mojtaba Shamsipur Department of Chemistry, Razi University, Kermanshah, I.R. **Iran** (Through Dr. M. Iqbal Bhanger)	"Analytical Sciences" 7-9 September 2007, National Centre of Excellence in Analytical Chemistry University of Sindh Jamshoro, **Pakistan**	18,156	
			55,156	1,050
			968,128	**4,454**

2008

34.	Muhammed Ansar, Assistant Professor Department of Biochemistry, Faculty of Biological Sciences, Quaid-I-Azam University, Islamabad , **Pakistan** Tel- +92-51-90643146 Mobile- +92-321-5159827 Email- ansar@qau.edu.pk	"Computational Biology Workshop" which will be held in Muscat, **Oman**, 24-28th January 2009.	**26,500/-**	
35.	Ambreen Ansari, PhD Student The Aga Khan University , First Floor, Research Office, JUMA Building , Stadium Road, P.O. Box-3500, Karachi-74800, **Pakistan**. Tel- +92-21-4864937 Mobile- +92-334-3558679 Email- ambreen.ansari@aku.edu **Fare** (Karachi-Muscat-Karachi)	"Computational Biology Workshop" which will be held in Muscat, **Oman**, 24-28th January 2009.	**23,327/-**	
			1,017,955	**4,454**

2010

36.	Dr. Wajiha Nasir NORI Hospital G-8/3, Islamabad, **Pakistan**	Singapore Radiological Society & College of Radiologists, 19th Annual Scientific Meeting Incorporating SGH Nuclear Medicine Update 2010 **Singapore**, 25-28 February 2010	**62,215/-**	
37.	Dr. Muhammad Yasin Ashraf, T.I. Nuclear Institute for Agriculture and Biology (NIAB) P.O. Box 128, Jang Road Faisalabad, **Pakistan**	"Refresher Course on "Trace Elements in the Environment: Contamination Cleanup to Phytoproducts" to be held on 11-17 June, 2010, Istanbul University, Istanbul, **Turkey**	**60,000**	

38.	**DR. SADDIA GALANI** Karachi Institute of Biotechnology &Genetic Engineering (KIBGE) University of Karachi, **KARACHI** 021-4823887	"Wellcome Trust Advanced Course: Proteomics Bioinformatics Workshop" to be held on 13-17 December, 2010, Hinxton, Cambridge, UK.	**70,000/-**	
			1,210,170	**4,454**

2012

39.	Prof. Dr. Mustafa Soylak Department of Chemistry, Faculty of Sciences, Erciyes University, 38039, Kayseri, Republic of **Turkey** (Through Prof. Dr. Mohammad Ilyas, Co-Chief Organizer)	11th International al and 23rd National Chemistry Conference, National Centre of Physical Chemistry, University of Peshawar, Peshawar (15-17 Oct. 2012)	**74, 833**	
			1,285,003	**4,454**

9. COMSTECH Thematic Workshops Program

The Coordinator General of COMSTECH in 2006 conceived the idea to offer thematic symposia, training courses and training courses in frontier technologies. The ultimate aim behind it was to build capacity of young scientists in the Islamic world, and to develop strategies to find solutions through the applications of advanced technologies. These strategies are hoped to provide guidance and prescribed agenda of research for various university laboratories and Research and Development organizations. Initially, the main thrust of the proposed program was on emerging sciences and technologies under the broad umbrella of biotechnology, with the main outcome directed towards research programs geared to impact national economies.

The first phase of this program started in August 2006, and was completed in June 2009. The total cost in this phase amounted to US$ 0.566 million. The program was jointly sponsored by COMSTECH and the Higher Education Commission of Pakistan.

Originally, it was planned to organize 10 thematic training courses to benefit 200 researchers over a period of two years. The project was later revised and extended till June 2009 and, instead, 19 international training courses were offered within the same budget. Resource persons from Australia, Bangladesh, China, Cuba, Germany, Iran, Italy, Netherlands, South Africa, Spain, Sweden, Turkey, U.A.E., U.K., and U.S.A., made themselves available to train 447 scientists from 23 OIC member states. In addition a number of resource persons from Pakistani universities and institutes who were actively involved in research were also invited to conduct training sessions.

It is worth mentioning that all presentations given in each training course are put on COMSTECH website (www.comstech.org) for one month for the benefit of all concerned in the OIC.

Looking at the success of the training courses, COMSTECH decided to revive the program in 2011. During this phase, 55 courses have been organized to-date at a cost of US$ 0.378 million. These training courses covered broad areas of Science and Technology, and have brought together a large number of young scientists from OIC member states to update their knowledge and develop future collaborations.

The 55 training courses of this phase were attended by 1,631 participants from 32 countries, from Afghanistan, Algeria, Azerbaijan, Bangladesh, Cameroon, China, Egypt, Indonesia, Iran, Iraq, Jordan, Kazakhstan, Libya, Malaysia, Morocco, Nepal, Nigeria, Oman, Pakistan, Palestine, Qatar, Russia, Saudi Arabia, Senegal, Sri Lanka, Sudan, Syria, Tajikistan, Tunisia, Turkey, UAE and Uganda. They were trained by 195 resource persons from Australia, Bangladesh, Canada, China, Egypt, France, Germany, Greece, Iran, Iraq, Italy, Jordan, Kyrgyzstan, Malaysia, Morocco, Nepal, New Zealand, Oman, Philippines, Qatar, Romania, Slovenia, South Africa, Switzerland, Taiwan, Thailand, Turkey, UAE, UK, USA, and 442 from Pakistan. Judging from the feedback received from the participants, COMSTECH intends to continue with this activity.

Eight workshops had been organized in 2006 and 2007 the detailed summary of these workshops is given in the Table 12 below:

Table 13. Summary of the Thematic Workshops Programme 2006-2007

S. No.	Workshop	Local Participants	Participants from OIC Member States
1	Bioinformatics Aug. 19 – Sept. 02, 2006	10	9
2	Industrial Bio tech Nov. 06-17, 2006	11	11
3	RNAi Nov. 25 – Dec. 08, 2006	11	9
4	Stem Cell Jan. 10-18, 2007	11	9
5	Molecular Medicine Jan. 16-27, 2007	10	8

6	Computational Bio, Oman Jan. 13-24, 2007	21	16
7	Gene Therapy Apr. 02-10, 2007	20	7
8	DNA Vaccine: Sept. 3-9, 2007	19	10
	Total	**113**	**79**

Eleven thematic workshops were organized during 2008-2009, summary of these workshops is given in the following table 13:

Table 14. Summary of the Thematic Workshops Programme 2008-2009

No.	Name of Workshop	Participants
1.	Biofertilizer: Jan. 22-28, 2008	26
2.	Nano Medicine: Mar. 13-20, 2008	33
3.	Climate Change: Jun. 30 – Jul. 05, 2008	23
4.	Separation Science and The Omics Apr. 6-10, 2009	18
5.	Enhanced production of Recombinant Bimolecular of Commercial Importance Jul. 6-10, 2009	23
6.	Policies and Strategies for successful Implementation of Employment Generating Programs in Renewable Energies, Biotechnology, Agriculture, Environment and ICTs Aug. 11-12, 2009	23
7.	Proteomics in Health and Disease: Aug. 17-20, 2009	18
8.	Laboratory Bio Safety and Containment Facilities Oct. 5-9, 2009	30
9.	Recent Advances in Plant Abiotic Stress Management Oct. 9-11, 2009	12
10.	Advances in Bio-inoculants/ Biopesticide Production, Formulation and Application: Oct. 20-22, 2009	24
11.	Challenges for Socio-economic Development in Pakistan: Role of Science and Technology. Oct. 26-28, 2009	25
	Total	**255**

The list of workshops and training programs held during 2011-2019 is as follows:

Table 15. Thematic Workshops held during 2011-2019

No.	Workshop Title	Date	Participants			Resource Persons	
			Total	Foreign	Local	Foreign	Local
1.	Synthetic Biology and its Dual Use	Feb. 3-5, 2011	24	4	20	10	7
2.	Biotechnology for Economic Development	Feb. 16-18, 2011	17	6	11	3	10
3.	Frontiers in Molecular Biology and Biotechnology	March 28-30, 2011	25	4	21	7	10
4.	Essential Need of Nano-Education in OIC Countries	April 7-9, 2011	24	5	19	5	8
5.	Mathematical Sciences and their Applications	May 23-25, 2011	28	3	25	5	14
6.	Modern Techniques in Combinatorial Chemistry	June 14-16, 2011	27	9	18	2	5
7.	Green Technology	June 28-30, 2011	29	4	25	3	15
8.	Integrated Pest Management	July 4-6, 2011	25	9	16	2	10
9.	Biosafety Practices: Need & Necessity (Workshop for Laboratory Professionals)	Sept. 26-28, 2011	23	2	21	5	9
10.	Modern Techniques in Structural Biology (Venue: ICCBS, Karachi)	Oct. 1-4, 2011	45	10	35	2	3
11.	Biosafety, Biosecurity and Bioethics (for Managers)	Oct. 17-19, 2011	29	1	28	3	9
12.	Healthcare in the 21st Century: Importance of Interoperability	Nov. 21-23, 2011	36	1	35	2	10
13.	Advancement in Genetic Engineering of Plants	Dec. 20-22, 2011	34	2	32	1	8
14.	Latest Advancements of Mathematical Research	Dec. 27-29, 2011	27	0	27	2	20
15.	Nanotechnology and its Industrial Applications	Jan. 10-12, 2012	36	9	27	2	12
16.	High Performance Computing Using Multicore Processors	Feb. 6-8, 2012	14	4	10	0	2
17.	Applications of Modern Biotechnology in Muslim Countries- Specific Issues and Challenges	Feb. 27-29, 2012	26	1	25	8	5
18.	Vacuum Technology	Mar. 6-8, 2012	36	1	35	2	22
19.	Bioinformatics: Database Mining and High	Mar. 19-21, 2012	35	4	31	2	0

	Throughput Genomic Analyses						
20.	Pakistan's Energy Options: Availability and Affordability, and the role of regional grids	Mar. 29-30, 2012	40	5	35	5	10
21.	Recent Trends in Analytical Chemistry	April 3-5, 2012	31	0	31	0	5
22.	Ensuring Food Security through Prevention of Biodiversity Loss	April 18-20, 2012	14	4	10	10	3
23.	An update on Pathogenesis of Mycobacterial Diseases	April 25-27, 2012	18	3	15	1	3
24.	Computational Methods in Mathematics	May 7-9, 2012	30	2	28	4	10
25.	Green Economy	May 16-18, 2012	18	0	18	3	1
26.	Marine Biology – Ecology and Applications, Advancements & Issues of the 21st Century	June 26-28, 2012	25	2	23	3	2
27.	Industrial Biotehcnology	July 10-12, 2012	26	7	19	3	5
28.	High Altitude Ecosystem and Climate Change	Sept. 3-5, 2012	22	3	19	1	3
29.	Laser-Matter Interaction	Sept. 11-13, 2012	24	0	24	2	5
30.	Adaptation to Natural Hazards under the Changing Global Climate Scenario	Sept. 25-27, 2012	27	5	22	5	8
31.	Nonlinear Problems in Mathematics	Oct. 9-11, 2012	20	1	19	4	10
32.	Water Quantity and Quality Assessment	Oct. 16-18, 2012	31	3	28	4	6
33.	Food Production and Processing Technologies	Nov. 6 - 8, 2012	26	1	25	3	10
34.	Plasma Science	Nov. 19-21, 2012	36	0	36	2	9
35.	Radiotracers: Production Technology and Applications	Oct. 21-23, 2013	27	2	25	2	5
36.	Sustainable Water Management	Oct. 28-30, 2013	22	1	21	4	3
37.	Disaster Management and Risk Reduction	Nov. 19-21, 2013	14	**0**	14	1	5
38.	Advances in Food Analytical Methods: Oil/Fat and Phenolics	Dec. 4-6, 2013	23	0	23	2	2

39.	Market Analysis for Technology Innovations	Jan. 27-29, 2014	14	0	14	1	2
40.	Solutions of Differential Equations from Transform Techniques	Jan. 30-Feb.1, 2014	17	4	13	7	2
41.	Innovation in Drug Discovery, Delivery and Pharmacy Practice	May 13-15, 2014	39	6	33	2	8
42.	Saponins, a Group of Useful Natural Products	June 24-26, 2014	31	5	26	2	2
43.	Bioinformatics: Ensembl Database Mining and Whole Genome Sequencing Analysis	Dec. 16-18, 2014	33	5	28	4	0
44.	Current Developments and Applications of Mathematical Sciences	5 – 7 Jan, 2015	30	0	30	4	18
45.	Integrating Clinical Pharmacy Education, Practice & Research: Bridging the Gap	22 – 24 Feb, 2016	39	13	26	5	2
46.	Application of Nuclear Radiation in Agriculture, Medicine, Non-Destructive Testing and Nuclear Regulatory Practices	18 – 23 Apr, 2016	35	16	19	5	37
47.	Genomics & Genome Editing	24 – 27 May, 2016	27	14	13	3	9
48.	Nano-sciences: Education and Industrial Applications	Dec. 13-15, 2016	16	8	8	7	8
49.	Science Communication: Enhancing Public Understanding	Jan. 10-11, 2017	19	3	16	4	16
50.	Dr. S. Qasim Mehdi Symposium - Human Population and Disease Genomics	Apr. 10-12, 2017	20	8	12	5	12
51.	Rational Design of Materials for Energy Needs: Computation & Experimentation	May 22-26, 2017	12	2	10	7	10
52.	A Public Lecture by Prof. Mark Tester on “Food Security in Perspective of Advances in Increasing the Salinity Tolerance of Crops”	March 15, 2018	100	0	100	1	0
53.	Singularity University Islamabad Chapter’s First Event on Technology for the Greater Good	March 16, 2018	90	0	90	5	1
54.	International Workshop on Plant Genetic Resources	May 8-11, 2018	29	19	10	4	10

	and Genebank Operations Management System						
55.	Options for an Energy Mix: Issues of Cost and Sustainability	June 26-28, 2018	66	4	62	5	20
56.	RSC Pakistan 1st Int'l Conference on Medicinal Chemistry and Drug Discovery	Oct. 18-19, 2018	217	3	214	21	12
57.	Use of Genome Editing and Other New Breeding Technologies for Global Food Security	Apr. 8-10, 2019	97	18	79	12	10
58.	2nd Annual Biodiversity and Health Big Data (BHBD) Alliance Meeting & International Symposium on Global Biodiversity and Health Big Data	July 18, 2019	202	2	200	8	4
59.	International Workshop on Renewable Energy: Affordable & Clean Energy for All	29-31 Jul 2019	41	41	0	10	2
			2188	**289**	**1899**	**247**	**469**

COMSTECH have state of the art training facilities. Below is a pictorial snapshot of these facilities.

Lecture Room

Library

Auditorium

Video Conference Room

Conference Room

Cafeteria

10. BRIEF SUMMARY OF OTHER COMSTECH INITIATIVES

In addition to the above detailed programs, COMSTECH has been engaged in a number of other S&T activities. These are briefly dealt with in the following.

A. COMSTECH Cooperation Program with IROST

The Iranian Research Organization for Science and Technology (IROST) organizes the annual Khwarizmi International Award (KIA). The aim of this award is to acknowledge the efforts by researchers, innovators and inventors, both in Iran and abroad and to appreciate their invaluable achievements and contributions to various fields of science and technology. COMSTECH has been contributing **US$5000/-** annually towards this program since Twelfth Khwarizmi International Award and has so far contributed **US$65,000** to IROST.

B. COMSTECH Inter-Islamic Networks Program

In its institution-building program, COMSTECH has established the Islamic World Academy of Sciences headquartered in Amman, Jordan and thirteen Inter-Islamic Networks on

1. Space Sciences and Technology (ISNET), Karachi, Pakistan
2. Water Resources Development & Management (INWRDAM), Aman, Jordan
3. Oceanography (INOC), Izmir, Turkey
4. Tropical Medicine (INTROM), Kuala Lumpur, Malaysia
5. Information Technology (INIT), Islamabad, Pakistan
6. Biosaline Agriculture (INBA), Dubai, UAE
7. Virtual Universities (CINVU), Tehran, Iran
8. Science and Technology Parks (INSTP), Rasht, Iran
9. Nano-Technology (INN), Tehran, Iran
10. Environment (INE), Khartoum, Sudan
11. Veterinary Science Research (INVSR), Khartoum, Sudan
12. Renewable Energy Sources (INRES), Niamey, Niger
13. Genetic Engineering and Biotechnology (INOGEB), Cairo, Egypt

COMSTECH Inter-Islamic S&T Networks on i) Oceanography; ii) Bio-Technology; iii) Tropical Medicine; iv) Water Resources; v) Space Sciences and; vi) Renewable Energy Sources were established by the Third meeting of COMSTECH held on 19-22 November 1986 in Islamabad, Pakistan.

The Inter-Islamic S&T Network on Bio-Saline Agriculture and Inter-Islamic Network on Information Technology were established by the Tenth General Assembly of COMSTECH held on 16-18 February 2002 in Islamabad, Pakistan

Three Inter-Islamic S&T Networks on i) Science & Technology Parks, ii) Virtual Universities and iii) Nano-technology were commissioned recently in Iran are the newest institutions that have started to function more than a year ago therefore they are still in the teething phase.

COMSTECH Inter-Islamic S&T Networks held seminars, workshops, and support research projects to bring scientific community of the OIC region closer together. Thus, COMSTECH Inter-Islamic S&T Networks held a number of events either in collaboration with Islamic Development Bank or with their own resources. The year-wise activities of Inter-Islamic Networks are enlisted under section F.

In the above list the networks enlisted from number 10 to 13 have been suspended due to their poor performance.

C. Islamic World Academy of Sciences

Islamic World Academy of Sciences (IAS) located in Amman, Hashemite Kingdom of Jordan, is an important COMSTECH institution that is non-political, non-governmental, independent body, comprising of eminent scientists committed and dedicated to the promotion of science and technology in the OIC region. Islamic Academy of Sciences functions under the Patronage of the President of Islamic Republic of Pakistan and His Royal Highness Prince Al Hassan bin Talal of Jordan. Islamic World Academy of Sciences is a premier institution that has so far arranged Seventeen annual thematic conferences. Of the total contribution of **US$763,000** provided by COMSTECH to IAS, **US$35,000** was provided during 2010-2011.

D. COMSTECH Directory of Active Scientists in OIC Member States and their Recent Scientific Publications

Activated during the biennium of 1996-1997, the project has continued to move forward despite of resource limitations. This massive publication comprises of internationally abstracted information in agriculture, biology, chemistry, environmental sciences, and *medical technology* from thousands of scientific journals arranged according to fields and sub fields offering library search facility. On account of its wide acceptability and active role that the publication is now playing in creating joint programs and collaborations among the OIC scientific community, the Directory of Active Scientists is accepted as a major resource by the research community of the OIC scientists. COMSTECH had completed *16 volumes* (21,997 pages) and covering research publication of scientists from fifty-seven Member States of OIC. This massive database is now available on http://www.comstech.org with electronic search facility.

E. Establishment of Biotechnology Information Centers (BICs) in OIC Member States

The International Service for the Acquisition of Agri-Biotech Applications (ISAAA) is a small, responsive, non-bureaucratic, international network. Its centers analyze the needs of the region's resource-poor farmers, and identify biotechnology applications suitable for transfer to developing nations. In addition, the centers manage biotechnology knowledge sharing activities at their respective regions. ISAAA also cooperates in establishing Biotechnology Information Centers to help initiate multidisciplinary research and enhance the awareness and appreciation of biotechnology at the local and international levels. OIC has many universities, which offer various degrees in biotechnology. However, there is a serious lack of appreciation of biotechnology at the public and industrial levels. Therefore, coordination and exchange of information among institutions and practitioners of biotechnology is less than adequate. Consequently, there is a need of resource center in many OIC Member States, which can serve to disseminate information, to support the collaborative efforts and to develop a network of institutions and Individuals working in this field.

To push forward the idea of establishing resource centers in selected OIC member states the Coordinator General allocated **US$100,000** over a period of five years to help establish these centers. Through COMSTECH's assistance a number of BICS have already been established. Thus, resource center in Pakistan (PABIC) is fully functional and Iran Biotechnology Information Centre (IrBIC) has officially been inaugurated by for former President of Islamic Republic of Iran, Mr. Akbar Hashmi Rafsanjani. Initial work on Turkish Biotechnology Information Centre (TrBIC) has been recently completed. COMSTECH has already made available **US$40,000** towards this program.

F. COMSTECH Financial Assistance Towards Seminars/ Conferences/ Workshops/Symposia

COMSTECH is an active supporter of scientific events including seminars, workshops, symposia, training programs and conferences throughout the OIC region. The support is available to scientific community on merit and on availability of funds. Since 1996 COMSTECH supported the following events:

1996

1. Regional Workshop on Living Resources of the Centre East Atlantic Coastline, 25-27 March 1996, Inter Islamic Network on Oceanography, Nouadhibou, Mauritania. (US$5,000)
2. Iranian Research Organization for Science and Technology (IROST) October 1996 for preparation of Industrial Profile of the Muslim World, (US$5,000)
3. Inter Islamic Network on Water Resources Development and Management (INWRDAM) for Activities during the year 1996, (US$10,000)
4. ISESCO as 50% COMSTECH's share for Cooperative Activities in 1996 (US$25,100)
5. Islamic Academy of Sciences, Amman, Jordan, annual grant for Conferences / Printing of Proceedings and Journals for the year 1996. (US$50,000)
6. Inter Islamic Network on Oceanography (INOC) for Activities during the year 1996, (US$5,000)

1997

7. Research in Marine Organisms from Red Sea Area, Department of Marine Chemistry, King Abdul Aziz University, Saudi Arabia, February 1997. (US$3,000)

8. Air ticket to Dr. Tanwir Wasti from Istanbul to Karachi to attend COMSTECH-ISESCO Workshop on University Industry Interaction 12-13 September 1997. (US$815)

9. 5th International Symposium on Advanced Materials, 21-25 September 1997, Islamabad, Pakistan. Dr. A.Q. Khan Research Laboratories, Rawalpindi, Pakistan. (PKR.100,000)

10. Islamic Academy of Sciences, Amman, Jordan, annual grant for Conferences / Printing of Proceedings and Journals for the year 1997. (US$50,000)

11. Regional Training Workshop on Water Conservation and Pollution Control for Vegetable Oil Processing Industries, 6-15 July 1997, Kuala Lumpur, Malaysia, INWRDAM. (US$5,000)

12. Inter Islamic Network on Water Resources Development and Management (INWRDAM) for Activities during the year 1997, (US$5,000/)

1998

13. Propagation of Economically Important Fruit Plants and some other Important Exotic Ornamental Plants using Micro-propagation and other Tissue Culture Techniques, HEJ Research Institute of Chemistry and National Institute of Biotechnology and Genetic Engineering, January 1998, (PKR1,168,000)

14. A Practical Course on Application of Genetic Engineering in Agriculture, 16-27 February 1998, NIBGE, Faisalabad. (PKR.469,500)

15. US-Pakistan Symposium-Workshop on Silicon Technology, 8-11 March 1998, Inter Islamic Network on Renewable Energy Resources, Islamabad. (PKR28,710)

16. IUCN Consultative Workshop on Conservation of Genetic Resources and Sustainable use in Central Asia, 23-24 May 1998, Bishkek, Kyrgyzstan. (US$.5,000)

17. PASTIC Printing Press printing Charges of Selected Papers on Science and Islam, Vol. II, 1998, Dr. M.M. Qureshi, (PKR15,750)

18. ISNET International Training Course on Remote Sensing and GIS Applications, 13-21 July 1998. Inter Islamic Network on Space Sciences and Technology. (PKR500,000)

19. Inter Islamic Network on Oceanography, annual grant for activities during the year 1998, July 1998. (US$5,000)

20. 6th National Conference of Plant Scientists, 20-22 October 1998, University of Peshawar. (PKR.30,000)

21. Training Workshop on Applications of 3-D Finite Elements in Groundwater Modeling, 2-7 November 1998, PCRWR, Islamabad. (PKR100,000)

22. International Workshop on High Tc Superconductor, 2-6 November 1998, Rajshahi University, Rajshahi, Bangladesh. (US$3,000)

23. Air ticket to Dr. Ashraf Cheema, Ministry of Labor, Manpower and Overseas Pakistani, Islamabad to Visit IDB, December 1998. (US$584)

24. Inter Islamic Network on Water Resources Development and Management (INWRDAM) for Activities during the year 1998, (US$5,000/)

1999

25. 6th International Symposium on Protein Structure Function Relationship, 5-7 February 1999, HEJ Research Institute of Chemistry, Karachi. (PKR.50,000)

26. 19th Congress of Zoology, 19-21 April 1999 at NARC, Islamabad, Zoological Society of Pakistan. (PKR30,000)

27. Second National Symposium on Applications of Plant Tissue Culture and Genetic Engineering, May 1999, NARC, Islamabad. (PKR.30,000)

28. Development of Transgenic Basmati Variety Resistant to Bacterial Blight Agriculture and Biotechnology Institute, NARC, Islamabad, May 1999, (PKR170,000)

29. World Conference on Science “Science for Development” 28 June 1999, Third World Academy of Sciences, Budapest, Hungary. (US$10,000)

30. UOP-HEJRIC Second Joint Workshop on Spectroscopic Techniques, 6-10 July 1999, University of Peshawar. (PKR30,000)

31. International Conference on “Gravitation Frontiers”, Uzbekistan, 16-21 August 1999. (Air ticket to Asghar Qadir) (PKR.20,000)

32. 6th Islamic Conference on Statistical Sciences, 27-31 August 1999, Islamic Society of Statistical Sciences (ISOSS), Lahore. (PKR25,000)

33. 6th International Meeting of IGCP 421 North Gondwana Biogeography / Bioevent Patterns in Relation to Crustal Dynamics, 8-26 September 1999, University of Peshawar. (PKR.25,000)

34. 6th International Symposium on Advanced Materials, 19-23 September 1999, Dr. A. Q. Khan Research Laboratories, Rawalpindi, Pakistan. (PKR100,000)

35. 1st Regional conference on Magnetic and Superconductor Materials MSM 99, 27-30 September 1999, Sharif University of Technology, Iran. (US$2,000)

36. 10th National Chemistry Conference, 28-30 October 1999, Department of Chemistry, Quaid-e-Azam University, Islamabad. (PKR25,000)

37. Trained a Scientist, Dr. Khurshid Zaman in Switzerland, October 1999 by providing assistance (US$5,000)

38. 7th General Conference, 21-26 November 1999, Dakar, Senegal, Third World Academy of Sciences, Trieste, Italy. (US$3,908)

39. Islamic Academy of Sciences Council Meeting, 21-24 November 1999 Dakar, Senegal. 1999. (US$25,000)

40. Inter Islamic Network on Water Resources Development and Management annual grant for activities during the year 1999. (US$5,000/)

41. Inter Islamic Network on Space Sciences and Technology (ISNET) for Activities during the year 1999, (PKR10,551)

2000

42. Propagation of Economically Important Fruit Plants and some other Important Exotic Ornamental Plants using Micro-propagation and other Tissue Culture Techniques, HEJ Research Institute of Chemistry and Nuclear Institute of Biotechnology and Genetic Engineering, (PKR100,000)

43. 6th National Symposium on Analytical and Environment Chemistry, 24-25 January 2000, Centre of Excellence in Analytical Chemistry, University of Sindh, Jamshoro. (PKR.10,000)

44. Twentieth Pakistan Congress of Zoology, 24-26 March 2000, University of the Punjab, Lahore. (PKR.20,000)

45. Workshop on Bioorganic Chemistry, 3-5 April 2000, University of Sindh, Jamshoro. (PKR.10,000)

46. International Seminar on Prospects for Saline Agriculture, 10-12 April 2000, Pakistan Academy of Sciences. (PKR400,000)

47. International Workshop on Sustainable Use of Medicinal and Food Plants, HEJ Research Institute of Chemistry. 15-17 September 2000 (PKR234,850)

48. International Workshop on “Human Genome Diversity”, Islamabad, B&GE Division, Dr. A. Q. Khan Research Laboratories, ICGEB and the Welcome Trust. 9-14 October 2000 (US$7,153)

49. 8th International Congress of “Soil Sciences by the Soil Sciences Society of Pakistan” 13-16 November 2000, Islamabad. (RKR25,000)

50. “7th National Conference of Plant Scientists” at University of Punjab, 14-16 November 2000, Lahore, (PKR25,000)

51. 10th Asian Symposium on “Medicinal Plants, Spices and other Natural Products” 18-23 November 2000 Dhaka, Bangladesh. (US$5,000)

52. Carbohydrate Modifications of P. Falciparum surface protein MSP-1, Institute of Biomedical Sciences, Lahore March - November 2000. (PKR168,000)

53. 10th Conference of the Islamic Academy of Sciences on “Information Technology for Development in Islamic Countries” 20-24 November 2000 Tunis, Tunisia (US$25,000)

54. Inter Islamic Network on Water Resources Development and Management annual grant for activities during the year 2000 (US$5,000)

55. 13th Khwarizmi International Award, Tehran, Iran, February 2000 (US$1,000)

56. “20th Pakistan Congress on Zoology”, Department of Zoology, Sindh University, Jamshoro, March 24-26, 2000 (PKR10,000)

57. Inter Islamic Network on Tropical Medicine, for holding conference on Traditional/Complimentary Medicine, Kuala Lumpur, Malaysia, 13-15 November 2000 (US$1,000)

2001

58. 1st International chemistry Conference, University of Peshawar, Peshawar, (PKR50,000)

59. 11th Conference of the Islamic Academy of Sciences on “Biotechnology and Genetic Engineering for Development in the Islamic World” in Rabat, Morocco, 22-26 October 2001. (US$25,000)

60. International Conference on “Bio-diversity”, Antalya, Turkey, 3-8 November 2001 (US$4,000)

61. Conference on “Economic Growth: The involvement of Biotechnology and Modern Bioindustries” Beirut, Lebanon, 10-11 November 2001 (US$4,000)

62. Inter Islamic Network on Water Resources Development and Management annual grant for activities during the year 2001 (US$5,000)

63. COMSATS-COMSTECH-SYRIAN Information Technology Centre, Damascus, Syria (US$40,000)

64. Iranian Research Organization for Science and Technology, for preparing Industrial Profile of the Muslim World (US$15,000)

65. 14th Khwarizmi International Award, Tehran, Iran, February 2001 (US$5,000)

66. 7th International Symposium on “Advanced Material”, Dr. A.Q. Khan Research Laboratories, Rawalpindi, September 2001 (PKR30,000)

67. Plant Tissue Culture Laboratory, H.E.J. Research Institute of Chemistry, University of Karachi, Karachi October 2001 (PKR125,000)

68. COMSTECH Gold Medal in Computer Sciences/Information Technology, Pakistan Academy of Sciences, Islamabad December 2001 (PKR300,000)

2002

69. 7th Eurasia Conference on “Chemical Sciences”, Chemical Society of Pakistan, Karachi, March 2002 (Rs.100,000)

70. 7th Eurasia Conference on “Chemical Sciences”, Chemical Society of Pakistan, Karachi, March 2002 (US$5,000)

71. Second Regional Workshop on “Application of Advanced Molecular Methods for the Diagnosis of Human Genetic Diseases”, Tehran, Islamic Republic of Iran 2-6 May 2002, (US$4,000)

72. 12th IAS International Conference on “Materials Science and Culture of Science”, 14-18 October 2002, Islamabad (US$15,000)

73. Pakistan Academy of Sciences, for hosting 12th IAS International Conference on “Materials Science and Culture of Science”, 14-18 October 2002, Islamabad (PKR.1,090,500)

74. IAS workshop on “Laser Physics and its Applications” in Tunisia during 11-17 December 2002, US$3,000/-

75. Registration Fees of Mr. Saifullah Khan and Mrs. Robina Tabbasum to attend international conference “HGM-2000”, 14-17 April 2002, Shinghai, China (US$345)

76. Pakistan Academy of Sciences, Islamabad for purchase of Books on “Prospects for Saline Agriculture” from Kluwer Academic Publisher (US$1,400)

77. International Workshop on “Purchasing, Servicing and Maintenance of Scientific Equipment in Western Africa”, 5-8 November 2002, University of BUEA, Republic of Cameroon, US$5,000/-

78. 1st Installment to “Somatic hybridization of citrus to breed for Witches’ Broom Disease of Lime”, joint Research Project of Sultan Qaboos University of Oman and Agricultural University of Faisalabad, US$5,000/-

79. One day national seminar on the “Frontiers of Chemistry”, 5 November 2002, Quaid-e-Azam University, Islamabad (PKR.20,000)

2003

80. ISNET International Workshop on “Satellite Imaging Technology and Applications”, 22-28 January 2003, Karachi, Pakistan. (PKR.150,000)

81. 7th International Symposium on “Protein Structure Functions Relationship”, 20-24 January 2003, HEJ Research Institute of Chemistry,University of Karachi (PKR.100,000)

82. Inter-Islamic Network on Biosaline Agriculture, Dubai, (US$5,000)

83. National Training Course on “Modern Techniques in Biotechnology” 2-7 March 2003, NIBGE, Faisalabad, (PKR. 50,000)

84. International Workshop on “Capacity Building of Science Academies” and Symposium on “Science, Religion and Values”, 5-7 March 2003, Trieste, Italy, (US$5,000)

85. First International & National Symposium on “Biotechnology” 22-23 March 2003, Centre for Advanced Studies in Biotechnology, University of Sindh, Jamshoro, (PKR.25,000)

86. International Workshop on “Emerging Technologies in Manufacturing Engineering” July 10-12, 2003, Rawalpindi, (PKR576,800)

87. International Seminar on “Vaccine Production and Utilization in Developing Countries: Issues, Prospects and Implications for Pakistan”, August 8-10, 2003, Karachi, (PKR573,800)

88. International Workshop on “The Impact of Climate Change on Agriculture: Challenges and Strategies” August 27-30, 2003, Rawalpindi, (PKR580,000)

89. 13th IAS International Conference on “Energy for Sustainable Development” and “Science for the Future of the Islamic World and Humanity”, Kuching, Sarawak, Malaysia, 29th September – 2nd October 2003 (US$25,000)

90. Seventh Biennial Conference of Pakistan Society for Biochemistry and Molecular Biology on “Trends in Biochemistry and Molecular Biology”, 2-5 April 2003 (US$2,000)

91. International Working Meeting, to review the ongoing research and development activities related to Food and Health Issues in Sub-Saharan Africa, 5-9 May 2003, Yaoundé, Cameroon, (US$1,000)

92. 3rd National Conference on “Pharmaceutical Sciences”, July 8-12, 2003, Department of Pharmacy, University of Peshawar, NWFP, Pakistan, (PKR25,000)

2004

93. International Workshop on “Geoinformatics”, 7-8 January 2004, Islamabad (PKR.62,310)

94. 9th International Symposium on “Natural Products Chemistry” 10-13 January 2004, Karachi University, Karachi, (PKR100,000)

95. 9th Ninth International Symposium on “Natural Products Chemistry” 10-13 January 2004, Karachi University, Karachi, (US$5,000)

96. 2nd International Symposium on “Biotechnology”, 11-13 January 2003, Sindh University, Jamshoro (PKR44,686)

97. International Workshop on “Bioethics”, 12-14 March 2004, Islamabad Pakistan (PKR571,800)

98. International Training Workshop on “Hydrosalinity Abatement and Advance Techniques for Sustainable Irrigated Agriculture”, 22-27 March 2004, Lahore, Pakistan (PKR587,500)

99. Network of Academies of Sciences in Countries of the Organization of Islamic Conference (NASIC), Islamabad, Pakistan (PKR.500,000)

100. COMSTECH-IFS-INWRDAM (US$25,000)

101. 2nd International Congress on “Traditional Medicine & Materia Medica”, 4-7 October 2004, Tehran, Iran (US$5,000)

102. 5th International & 15th National Chemistry Conference, 24-27 November 2004, Islamabad, Pakistan (PKR50,000)

103. 8th International Symposium on “Protein Structure Function Relationship”, 12-18 January 2005, Karachi, Pakistan (PKR100,000)

104. International Conference on “Drug Biotechnology and Medicinal Plants”, 9-11 October 2004, Amman, Jordan (US$5,000)

105. International Workshop on “Recombinant Single Chain Single Domain Camel Antibodies”, Tehran, Iran (US$5,000)

106. 2nd Installment of Research Project on “Somatic Hybridization of Citrus to Bred for Witched’ Broom Disease Resistant Lime”, Sultanate of Oman, (US$5,000)

107. 1st Installment of Research Project on “Bioprospecting of Malaysian Plants”, Malaysia (US$5,000)

2005

108. Economy Class air ticket to Irani Scientist Dr. Naheed Mojgani to attend 5th International Biennial Conference of Pakistan Society of Microbiology, 10-15 January 2005, Karachi, Pakistan (US$428)

109. Economy Class air ticket to Irani Scientist to attend 8th Symposium on “Analytical and Environmental Chemistry”, 6-7 February, 2005, Jamshoro, Pakistan.

110. INWRDAM Regional Training Workshop on “Participatory Integrated Water Resources Management”, 11-18 February 2005, Beirut, Lebanon (US$5,000)

111. Economy Class air ticket to Kazakh Student, Ms. Zhannat to complete her Research Work at HEJ Research Institute of Chemistry, March 2005, Karachi, Pakistan, (PKR.118,440)

112. National conference on “The Fossil Fuels and Mineral Resources of Sindh”, 28th February to 1st March 2005, Jamshoro, Pakistan (PKR25,000)

113. 14th IAS International Conference on “Science, Technology and Innovation for Socio-Economic Development of OIC Member Countries: Towards Vision 1441”, 21-24 March 2005, Kuala Lumpur, Malaysia, (US$25,000)

114. 1st UAE international conference on “Biological and Medical Physics” 27-30 March 2005, Al-Ain, United Arab Emirates (US$10,000)

115. International Conference on “Biotechnology for Salinity and Drought Tolerance in Plants”, 28-31 March 2005, Islamabad, Pakistan (PKR1,000,000).

116. (NASIC) International Conference on “Science and Technology for Socio-Economic Development of OIC Member Countries – Developing Strategy and Action Plan”,19-20 April 2005, Islamabad, Pakistan (PKR2,234,489).

117. Registration Fee of Two Pakistani Students “Virtual Presentation Conference”, 13-15 May 2005, Badajoz, Spain (US$241)

118. International Conference on “Nanoscience and its Impact for Renewable Energy and Medicine”, December 2005, Beirut, Lebanon (US$5,000)

119. Specialized “School of Molecular Physics”, 10-12 December 2005, Tunis, Tunisia (US$3,000)

120. Donated “10 P-IV Computers” to Ummul Khurra Institute, Dakar, Republic of Senegal (PKR208,800)

2006

121. Tenth International Symposium on “Natural Products Chemistry” 6-9 January 2006, Karachi, Pakistan (US$3,000)

122. COMSTECH-HEC-PAEC International Training Workshop on “Biosaline Agriculture Technology”, 06-17 February 2006, NIAB, Faisalabad (PKR1,303,942)

123. Third International Conference on “Models and Methods in Fluid Mechanics”, 16-18 July 2006, Islamabad, Pakistan (US$3,000)

124. International Workshop on “Integrated Water Management”, Beirut, Lebanon (US$5,000)

125. Ninth Symposium on “Analytical and Environmental Chemistry”, 24-26 July, Baragali, Pakistan (PKR50,000)

126. Air Tickets to 6 Scientists from Bangladesh, Iran, Jordan, Kazakhstan, Malaysia and Pakistan to attend 9th Eurasia Conference on “Chemical Sciences”, 9-13 September 2006, Ankara, Turkey, (Euro 4,023)

127. COMSTECH-HEC-CIIT International mini symposium on “Nano Science & Technology”, 2-3 November 2006, Islamabad (PKR500,000)

128. International Conference on “Biosaline Agriculture & High Salinity Tolerance”, 03-08 November 2006, Gammarth, Tunisia (US$2,420)

129. 12th Asian Symposium on “Medicinal Plants, Spices and Other Natural Products (ASOMPS XII), Padang – West Sumatra, Indonesia 13-18 November 2006 (US$3,000)

130. Economy Class Air Tickets to 3 Scientists from Bangladesh, Turkey and Iran to attend International Symposium on “Strategies for Crop Improvement against Abiotic Stresses”, Faisalabad, Pakistan (PKR130,500)

2007

131. 20th Khwarizmi International Award, Tehran, Iran, February 2007 (US$5,000)

132. 21st Khwarizmi International Award, Tehran, Iran, February 2007 (US$5,000)

133. 27th Pakistan Congress of Zoology (International) February 27 to March 01, 2007, Lahore, Pakistan (PKR50,000)

134. COMSTECH-ISESCO International Workshop on “Innovative aspects of Biotechnology and its better awareness and dissemination”, 12-14 March 2007, Islamabad, Pakistan (US$10,000)

135. Economy Class Air Ticket to Dr. M. Iqbal Bhanger as Key Note Speaker to attend Binational Workshop on “Chemical Sciences”, 26-29 April 2007, University of Selcuk, Konnya, Turkey (PKR.48,000)

136. Economy Class Air Tickets to 3 Scientists from Malaysia, Turkey and United Arab Emirates to attend International Conference on “Recent Developments in Fluid Mechanics”, July 02-04, 2007, Quaid-e-Azam University, Islamabad, Pakistan. (US$2,286)

137. Economy Class Air Ticket to 2 Scientists from Kingdom of Saudi Arabia to attend 2nd International Symposium on “Quantum Optics” 07-09 August 2007, Islamabad, Pakistan. (PKR76,171)

138. 1st National Workshop on “Crystallization of Protein”, 24-28 September 2007, Karachi, Pakistan (PKR100,000)

139. Economy Class Air Ticket to Dr. Mansoor Ellahi Babar to Visit Centre for Cellular and Molecular Biology CCMB, Hyderabad, India. (PKR57,830) (Visiting Scientist Program)

140. 4th International Symposium on “Biotechnology” and “1st Pakistan-China-Iran International Conference on Biotechnology, Bioengineering and Biophysical Chemistry (ICBBBC 07)” 04-08 November 2007, Jamshoro, (PKR150,000).

141. International Workshop on “High-Energy Physics and Applications”, 26-28 November 2007, Al-Ain, UAE (US$5,000)

2008

142. "The Third International Conference on Mathematical Sciences" 3-6 March 2008, Ai-Ain, UAE (AED10,000)

143. First International Conference on "The History of Science among Muslims and Arabs: The Impacts of Islamic Science on Human Civilization", March 24-27, 2008, University of Sharjah, UAE (US$10,000)

144. 16th IAS International Conference on "Science, Technology and Innovation for Sustainable Development in the Islamic World: The Policies and Politics Rapprochement", 25-29 August, Kazan, Tatarstan (US$25,000)

145. COMSTECH-ISESCO Training Workshop on "Integration of Information and Communication Technologies in Scientific Education", 25-27 June 2008, Bamako, Republic of Mali

146. COMSTECH-ISESCO Training Workshop on "Legal Framework for Protecting Intellectual Property Rights for the Benefit of Researchers and Scientists", 28-30 July 2008, Ouagadougou, Burkina Faso

147. INIT five-day Workshop on Bioinformatics: Current Progress and Practical Application", 23-28 June 2008, Baku, Azerbaijan. (US$10,000)

148. COMSTECH-ISESCO-ISNET Workshop on "Satellite Technology Applications in Communications and Remote Sensing", 5-8 May 2008, Lahore, Pakistan (US$10,000)

2009

149. 29th Pakistan Congress of Zoology, February 24-26, 2009, Jamshoro (PKR.100,000)

150. 22nd Khwarizmi International Award, Tehran, Iran, February 2007 (US$5,000)

151. ICLS Conference, April 2009, Casablanca, Kingdom of Morocco (US$10,000)

152. Economy Class Air Tickets to three Speakers to attend 1st International Seminar on Principles of Bio-safety, March 21, 2009, Agha Khan University Hospital, Karachi

153. International Workshop for Islamic Scholars "Islam and Biotechnology: Finding a Common Language between Ulema and Scientists" July 14-15, 2009, Kuala Lumpur, Malaysia, (US$2,000)

154. 5th International Symposium on "Biotechnology", Jamshoro, PKR.50,000/

155. 17th International Scientific Conference on "Towards the Knowledge Society in the Islamic World: Knowledge Production, Application and Dissemination", 14-17 December 2009, Selangor, Malaysia (US$25,000)

2010

S.#	Name of Beneficiary	Title of Activity	Place	Date	US $
1.	IAS (Islamic World Academy of Sciences)	IAS Activities (a). Workshop (b). Travel Grant (c). Medical Journal	Jordan	2010	10,000
2.	University of Sindh Jamshoro	International Conferences on Sustainable Water Management- (SWM 2010)	Jamshoro, Pakistan	Sept. 15-17	1,182
3.	NASIC	International Seminar on "Alternate Sources of Energy: Prop & Option".	Islamabad, Pakistan	Oct. 14-15	591
4.	Pakistan Vacuum Society	International Symposium on Vacuum Science & Technology	Islamabad, Pakistan	Nov. 2-6	1,182
5.	ICCBS, University of Karachi	12th International Symposium on Natural Product Chemistry.	Karachi, Pakistan	Nov. 22-25	5,051

6.	Arab Academy of Sciences	International Conference on Renewable Energy (Travel Grant 4-persons) $555 UAE, $1220 Malaysia , $550 Sudan & $720 Pakistan	Lebanon	Nov. 25-26	3,045
				Total US$	**21,051**

2011					
S.#	**Name of Beneficiary**	**Title of Activity**	**Place**	**Date**	**US $**
7.	H.E.J Research Institute of Chemistry, University of Karachi	9th International & 21st National Chemistry Conference.	Karachi, Pakistan	Mar. 14-16	1,182
8.	National Centre of Excellence in Analytical Chemistry, University of Sindh	"International Conference on Oils and Fats Current Tech in Oil & Facts" Sponsorship Air ticket for Keynote Speaker Dr. Husain Kara, Turkey.	Jamshoro, Pakistan	Mar. 21-23	1,063
9.	Zoological Society of Pakistan	31st Pakistan Congress of Zoology.	University of AJ&K, Muzaffarabad, AJ&K/Pakistan	Apr. 19-21	591
10.	Dr. Robina Shaheen	U.S. State Department Meeting: Changing Mindsets to Promote Women and Girls in Science - (Air-Ticket)	United State of America	Jun.12-15	1,728
11.	COMSTECH-ISESCO-ISNET	Expert Meeting for "Development of Data-sharing Platform and Technical Experience-sharing for Cost-effective Operation and Maintenance of National Satellite Earth Stations"	Islamabad, Pakistan	Jul. 12-15	11,427
12.	Dr. Panjwani Centre for Molecular Medicine & Drug Research	International Workshop on Modern Technologies in Structural Biology (MTSB).	University of Karachi, Pakistan	Oct. 01-04	5,263
13.	IAS (Islamic World Academy of Sciences)	18th Conference of the Islamic World Academy of Sciences (IAS)	Doha, Qatar	Oct. 22-24	25,000
				Total US$	**46,254**

2012					
S.#	**Name of Beneficiary**	**Title of Activity**	**Place**	**Date**	**US $**
14.	12th Eurasia Conference, Greece	12th Eurasia Conference on Chemical Sciences, Corfu, Greece	Corfu, Greece	April 16-21	2,000
15.	Islamic World Academy of Sciences	Kazakhstan Symposium "Science & Technology in Kazakhstan & the Islamic World Past Present & Future, IAS-COMSTECH Ibrahim Memorial Award. (Islamic World academy of sciences, Jordan)	Kazakhstan	May 22-23	12,500

16.	Dhaka University	International Workshop 'Nanotechnology and its prospects in Bangladesh'	Dhaka, Bangladesh	Sept. 21-23	2,000
17.	Zoological Society of Pakistan	32nd Pakistan Congress of Zoology.	Govt College Lahore, Lahore, Pakistan	Oct. 6-8	1,053
18.	Pakistan Vacuum Society	6th Vacuum and Surface Sciences Conference of Asia and Australia (VASSCAA-6)	Islamabad, Pakistan	Oct. 9-13	1,053
19.	National Centre of Excellence	11th International and 23rd National Chemistry Conference, Travel Grant (Prof. Dr. Mustafa Soylak)	University of Peshawar, Pakistan	Oct. 15-17	788
20.	COMSTECH-IESCO	COMSTECH-IESCO Jointly organized "International Seminar on Food Production and Processing Technologies Travel expense (Dr. M Hosseini & Dr. Winai Dhalan)	COMSTECH Islamabad, Pakistan	Nov. 6-8	811
				Total US$	**20,205**

2013

S.#	Name of Beneficiary	Title of Activity	Place	Date	US $
21.	Kuwait Institute for Scientific Research	International Conference on Women in Science and Technology in the Arab Countries	Kuwait	Apr. 21-23	10,000
22.	Islamic World Academy of Sciences	19th International Science Conference.	Dhaka, Bangladesh	May 6-9	25,000
23.	Solar Energy for World Peace, Turkey	Financial Assistance to Conference on "Solar Energy for World Peace".	Istanbul, Turkey	Aug. 17-19	5,000
24.	Bahauddin Zakariya University	12th International and 24th National Chemistry Conference.-2013	Multan, Pakistan	Oct. 28-30	1,053
25.	HEJ Research Institute of Chemistry, Karachi	"14th Asian Symposium on Medicinal, Plants, Spices and Other Natural Products".	Karachi, Pakistan	Dec. 9-12	5,263
26.	Dr. Panjwani Centre for Molecular Medicine and Drug Research	International Workshop on Modern Techniques and Structural Biology (MTSB)	Karachi, Pakistan	Dec. 9-12	5,263
27.	Independent University, Dhaka	Financial Support.18th International Mathematic Conference, Dept of Physical Sciences, Independent University, Bangladesh	Bangladesh	Dec. 22-23	1,000
				Total US$	**52,579**

2014

S.#	Name of Beneficiary	Title of Activity	Place	Date	US $
28.	Pakistan Congress of Zoology	34th Pakistan Congress of Zoology (International)	Bahauddin Zakariya University, Multan, Pakistan	Feb. 25-27	498

29.	Bendahari UTM	World Green Economy Summit Dubai	Malaysia	April 15-16	3,295
30.	ICCBS, HEJ, Karachi	Symposium on Bioequivalence Bioavailability Studies.	Karachi, Pakistan	April 15-16	996
31.	ICCBS, HEJ, Karachi	UNESCO-IYCR South Asia Regional Summit on Vistas in Structural Chemistry Celebrating International year of Crystallography	Karachi, Pakistan	April 28-30	1,992
32.	The African School of Fundamental Physics and applications	The African School of Fundamental Physics and Its applications	Dakar, Senegal	Aug. 3-23	2,000
33.	Forman Christian College Lahore	International Conference on Emerging Trends in Life Sciences for Sustainable Development	Lahore, Pakistan	Oct. 13-16	2,988
34.	University of Dhaka	International Conference on Advances in Materials Science (ICAMS-2013)	Bangladesh	Oct. 22-24	511
35.	Arab Academy of Sciences	International Conference Sustainable Energy & Water Resources Management for food Security in Arab Middle East.	Beirut, Lebanon	Dec. 12-13	5,000
				Total US$	**17,280**

2015					
S.#	**Name of Beneficiary**	**Title of Activity**	**Place**	**Date**	**US $**
36.	ICCBS, H.E.J, University of Karachi	5th International Symposium cum Training Course Molecular Medicine & Drug, Research.	Karachi, Pakistan	Jan. 12-15	2,988
37.	The Zoological Society of Pakistan	35th Pakistan Congress of Zoology	Karachi, Pakistan	Mar. 01-14	1,992
38.	NILOP	2-Day Int'l Workshop "GaN-based Light Emitting Diodes and Laser Diodes"	Islamabad, Pakistan	Mar. 5-6	1,462
39.	Jordan University of Science & Technology	International Conference on Advanced Materials (ICAM2015)	Jordan	Apr. 27-29	3,000
40.	Dr. Syed Khurshid Hasanain, NCP	Establish Links & Research collaboration between NCP & Turkish counterpart Air Ticket from Isb. to Turkey to Isb.	Islamabad, Pakistan	Aug. 12-15	818
41.	Institute of Space Technology	Fourth International Conference on Aerospace Science & Engineering" (ICASE) Support to one Keynote Speaker.	Islamabad, Pakistan	Sept. 2-4	1,321
42.	Bangladesh University of Health Sciences	First International Conference on Drug Discovery and Development	Dhaka, Bangladesh	Oct. 3-6	4,000
43.	FC College Lahore	"Int'l Conf. on Food & Natural Security".	Lahore, Pakistan	Nov. 5-7	1,992

44.	Prof. Ahmed Ali Prof. Ismail Boztosun	14th Regional Conference on Mathematical Physics QAU (Two Persons Air Travel).	National Centre for Physics, Islamabad, Pakistan	Nov. 9-14	2,199
				Total US$	**19,772**

2016					
S.#	**Name of Beneficiary**	**Title of Activity**	**Place**	**Date**	**US $**
45.	Director NORI-Nuclear Medicine Oncology & Radiotherapy Institute	Workshops & Symposium 1. Int'l Workshop on Advance Diagnosis Techniques 2. Int'l Symposium "Nan medicines Development, Testing & Application Possibilities" 3. Int'l Workshop on Experimental Biology	Islamabad, Pakistan	Feb. 26-29 Mar. 1 Mar. 2-4	671
46.	National Centre for Physics, QAU	Regional Conference on Women in Physics, NCP, (Air ticket Dr. Fatima & Dr. Dina Izadi from Iran).	Islamabad, Pakistan	Apr. 25-27	1,581
47.	INOC	Climate Change and the Caspian Sea	Tehran, Iran	May 7-13	15,000
48.	Kuwait Institute for Scientific Research	5th OWSD General Assembly and International Conference in Science & Technology in the Developing World - Air Ticket.	Kuwait	May 16-19	2,006
49.	N.C.E in Geology	International Conference on Earth Science, Pakistan 2016	University of Peshawar, Pakistan	Jul. 15-17	1,918
50.	NCP, QAU	First Refresher Course for Physics Teachers – 2016	Islamabad, Pakistan	Aug.01-20	2,397
51.	The International Dryland Development Commission	Twelfth International Conference on Development of Drylands "Sustainable Development of Dry lands in the Post 2015 World"	Egypt	Aug. 21-24	5,000
52.	University of the Malakand	27th National & 15th Int'l Chemistry Conference.	Malakand, Pakistan	Aug. 22-25	1,918
53.	Mr. Kadir Demir Mr. Bulent Cavas	International Workshop Teacher Training on Inquiry Based Science Education - Air Ticket.	PSF, Islamabad, Pakistan	Sept. 05-09	3033
54.	Ankara KURUMSAL SUBE	29th International Symposium on The Chemistry of Natural Products (ISCNP-20). & 9th International Conference on Biodiversity (ICOB-9)	Izmir, Turkey	Sept. 24-27	5,000
55.	KUST, Kohat	3-Day Workshop on "Recent Trends in Nanomagnetism and Spintronics.	NCP, Islamabad, Pakistan	Sept. 28-30	959
56.	Arab Academy of Sciences, Lebanon	International Conference on "Arab Universities: an Urgent Need for Change" Arab University Science, Technology & Innovation.	Lebanon	Nov. 4 & 5	5,000
57.	National Institute of Lasers & Optronics	3-days Symposium on Applied Materials and Nano devices (Two Air tickets of OIC Resources Persons)	Pakistan	Nov. 14-16	1,239

58.	G.C. University, Lahore	14th National Symposium on Frontiers in Physics	Pakistan	Nov. 23-25	2,181
59.	ICCBS	14th Eurasia Conference on Chemical Sciences	Karachi, Pakistan	Dec. 15–18	1,918
60.	LUMS	Fourth Regional Lab Immersion Programme 2016 (Air tickets)	Pakistan	Dec. 17 -22	2,397
				Total US$	**52,218**

2017					
S.#	**Name of Beneficiary**	**Title of Activity**	**Place**	**Date**	**US $**
61.	Sultan Qaboos University	4th International Conference on Numerical Analysis and Optimization	Oman	Jan. 2-5	2,258
62.	NCP, Islamabad, Pakistan	Consultative Meeting on Centre of Excellence in Nanotechnology- Vision 2025, (MOST) Air ticket Dr. Syed Khurshid Hasanian, Program Director, (13-Jan-2017 PCSIR Laboratories Complex, Lahore) (PKR.15,239/- Travel ON	Pakistan	Jan. 13-17	146
63.	University of Veterinary & Animal Sciences	6th International Fisheries Symposium & Expo 2017 & UVAS, Lahore (Air tickets to Mr. Arslan Murat and Mr. Yildiz Mustafa Turkey	Pakistan	Feb. 8-9	1,825
64.	Yao Potchoo	Reimbursement of Air Ticket COMSTECH International Workshop on Integrating Clinical Pharmacy Education, Practice & Research (Payment Oct-2017)	Togo	Feb. 22-24	1,425
65.	National Centre for Physics, Islamabad, Pakistan	Support for Airticket for International Speakers-for International Scientific School ISS, NCP, Islamabad	Pakistan	Mar. 13-17	2,252
66.	INN	Nanotechnology & Nano medicine at MERC	Iran	Apr. 19-20	5,000
67.	Vice Chancellor SBK Women University	6th International & 15th National Conference Dynamic Trent in Plant Sciences	Pakistan	May 9-11	1,001
68.	INOC	Training Course on Development of Aquaculture Product & Tech in The INOC member states	Tunisia	May 15-20	2,500
69.	National Centre for Physics, Islamabad, Pakistan	2nd Module of First Research Course for Physics Teachers “Problem Solving and Concept Development”	Pakistan	Aug. 1 – 19	1,918
70.	Hazara Univesity, Mansehra	4th Conference Computational Biology & Genomics	Pakistan	Sept. 27-29	1,000
71.	Sharif University of Technology, Iran	10th International Conference on Magnetic & Superconducting Materials (MSM17)	Iran	Sept. 18-21	5,000
72.	COMSATS IIT, Islamabad	"TUD-CIIT International mini-School on Quantum and Ultrafast Optics: Theory and Experiment	Pakistan	Oct 4-6	2,542

73.	Islamic World Academy of Sciences (IAS)	IAS-2017 Conference on Science, Technology & Innovation for Global Peace & Prosperity, Konya,	Jordan	Oct. 08-11	15,000
74.	Jordan University of Science & Technology	Co-Sponsoring of 14th HONET-ICT 2017 (14th International Conference on Smart Cities: Improving Quality of Life using ICT & IoT Amman, Jordan	Jordan	Oct. 09-11	5,000
75.	Federal Urdu University, Karachi	"CMFI-2017 International Conference on Mining and Fuel Industries, Karachi	Pakistan	Oct. 19-21	1,918
76.	Arab Academy of Sciences	Major Challenges to Higher Education in the Arab World: Quality Assurance and Relevance"	Lebanon	Nov. 03-04	5,000
77.	Malaysian Biotechnology Information Centre(MABIC)	Workshop on “Regulatory, scientific and communication aspects of implementation of international agreements relevant to agro-biotechnology “Venue: Monash University Malaysia	Malaysia	Nov. 6-7	2,000
78.	INTROM	Economy Class -Air Ticket (Train The Trainers-Biorisk Management) MYR 1722.38 (Dr. Kamal Haikal Bin Mat Rabi & Dr. Aswir Abd Rashed)	Malaysia	Nov. 03-11	788
79.	Institute of Space Technology	5th International Conference on Aerospace Sciences & Engineering (ICASE) Economy Class Air Ticket two Researchers from Malaysia & Turkey (Dr.M.Yusof Bin Ismail, Malaysia & Dr.Alim Rustem Aslan, Turkey	Pakistan	Nov 14-16	2,165
80.	University of Dhaka, Bangladesh	20th International Mathematics Conference 2017	Bangladesh	Dec. 8-10	2,500
				Total US$	**61,238**

2018					
S.#	**Name of Beneficiary**	**Title of Activity**	**Place**	**Date**	**US $**
81.	INOC	Training Course on Marine Sonor and Seismic Surveysin the INOC Member States	Izmir, Turkey	March 15-24	5,000
82.	University of Carthage, Tunisia (Prof. Maher Gtari)	19th International Meeting on Frankia and Actinorhizal Plants, at Hammamet-Tunisia	Tunisia	March 17-19	3,000
83.	Moroccan Association of Remote Sensing of the Environment (MARSE)	7th Digital Earth Summit-2018 on Digital Earth for Sustainable Development in Africa, El Jadida, Chouaib Douakkali University, Morocco	Morocco	April 17-19	3,500
84.	INOC	Conference on "Understanding the Problems of Inland Waters: Case Study for the Caspian Basin (UPCB) Event in Baku, Azerbaijan	Turkey	May 12-14	5,000
85.	National Centre for Physics	1st Module of Second Refresher Course for Physics Teachers	Pakistan	June 25-July14	2,830
86.	Institute of Space Technology	Space Summer School (SSS)	Pakistan	July 16-27	893

87.	Dr.Aeysha Khalique, Assistant Professor, NUST, Islamabad	Travel Support to Visit Quantum Information Group in Sharif Universiyt, Tehran, Iran	Pakistan	September 07-19,2018	792
88.	Botany Deptt, University of Suez, Canal, Egypt (Ahmed Mohamed Ahmed Abdel-Azeem)	The Second International Conference on Mycology in MENA (ICM-2018) organized by Arab Society for Fungal Conservation, Venue: University of Suez Canal University' Conference Main Hall, Ismailia 41522, Egypt	Egypt	October 16 - 18, 2018	3,500
89.	INOC	Interest Free Loan to INOC for Conference (Return able)	Turkey	11-Oct-18	5,000
90.	Arab Academy of Sciences	International Conference on "Higher Education and Entrepreneurship"	Lebanon	16-17 Nov, 2018	5,000
				Total US$	**34,515**

2019					
S.#	**Name of Beneficiary**	**Title of Activity**	**Place**	**Date**	**US $**
91.	University of Veterinary & Animal Sciences Lahore	International Fisheries and Aquaculture Conf & Exp-2019 (Reimbursement of Air ticket for the Participants of OIC States	Pakistan	30-31-January, 2019	1,156
92.	University of Veterinary & Animal Sciences Lahore	International Fisheries and Aquaculture Conf & Exp-2019 (Reimbursement of Air ticket for the Participants of OIC States	Pakistan	30-31-January, 2019	1,272
93.	Forman Chhristian College	Financial Support for International Conference on Microbes for Sustainable Agriculture, Lahore (Reimbursement of Air ticket for the Participants of OIC States)	Pakistan	25-30-March,2019	1,179
94.	Forman Chhristian College	Financial Support for International Conference on Microbes for Sustainable Agriculture, Lahore (Reimbursement of Air ticket for the Participants of OIC States)	Pakistan	25-30-March,2019	759
95.	Universiti Kebangsaan Malaysia	Travel Cost of 1-OIC Resource Persons / Speaker International Workshop "Affordable & Clean Energy for All" Universiiti Kebangsaan Malaysia(UKM)	Malaysia	July-29-31, 2019	1,060
96.	Universiti Kebangsaan Malaysia	Travel Cost of 1-OIC Resource Persons/ Speaker International Workshop "Affordable & Clean Energy for All" Universiiti Kebangsaan Malaysia(UKM)	Malaysia	July-29-31, 2019	141
97.	Universiti Kebangsaan Malaysia	Travel Cost of Focal Person from COMSTECH, International Workshop "Affordable & Clean Energy for All" Universiiti Kebangsaan Malaysia(UKM)	Malaysia	July-29-31, 2019	1,738
98.	Universiti Kebangsaan Malaysia	Travel Cost of 1-OIC Resource Person / Speaker International Workshop "Affordable & Clean Energy for All" Universiiti Kebangsaan Malaysia(UKM)	Malaysia	July-29-31, 2019	1,042
99.	Inter-Islamic Network on Nanotechnology (INN)	3rd International Conference and workshop on "Nanotechnology, Energy and Environment" MERC, Karaj, Alborz, I.R. Iran	Iran	10-Nov-19	5,000

100.	Dr. Yahya Khalil	2nd Consultative Workshop on "Development of Project Proposal on Promotion of Plant Genetic Resource Use, Varietal Development and Integration in the Seed System" Baku, Azerbaijan	Azerbaijan	18-19-Nov-19	949
				Total:	**14,296**

G. COMSTECH Scientific Literature Search Service

COMSTECH purchased scientific databases and started free Scientific Literature Search Service which continued to flourish during the past sixteen years (1999 to 2014) as COMSTECH received **14,206** requests from scientists and sent **30.665 GB** (about 15 million pages) of scientific information to researchers in 20 member states of the OIC including People's Republic of **Bangladesh,** Republic of **Bosnia and Herzegovina,** Sultanate of **Brunei Darussalam, Djibouti,** Republic of **Indonesia,** Islamic Republic of **Iran,** Republic of **Iraq,** Hashemite Kingdom of **Jordan, Malaysia,** Kingdom of **Morocco,** Republic of **Mozambique,** Sultanate of **Oman,** Islamic Republic of **Pakistan,** Kingdom of **Saudi Arabia,** Republic of **Sudan, Syrian** Arab Republic**,** Republic of **Tajikistan,** Republic of **Turkey, United Arab Emirates** and Republic of **Yemen.** COMSTECH invested **US$42,691** during 2008-2010 to upgrade its databases and further improved this program.

During the last four years, 2011 to 2014, 176 requests from Pakistan, Iraq and Jordan have been processed by providing 1.32 GB of data.

H. COMSTECH Spare Parts Program

Provided spare parts worth of Rs. 782,459 and US$ 3,261 during six years (1999-2004) to Forty-two laboratories in six OIC member states enlisted below:

	Country	No. of laboratories
1.	Republic of Iraq	1
2.	Hashemite Kingdom of Jordan	1
3.	Islamic Republic of Pakistan	36
4.	State of Palestine	1
5.	Republic of Senegal	2
6.	Republic of Turkey	1

I. COMSTECH Program of Preparation of Profiles on the Muslim World

a. Food and Agriculture, 1991
b. Medicine and Health, 1993
c. Mineral Resources, 1995
d. Industrial Profile, 2001

J. COMSTECH-COMSATS Joint Programs

1. COMSTECH-COMSATS-Syrian Arab Republic Information Technology Center in Damascus, Syria. Established in 2001.

2. COMSTECH-COMSATS-MTM Information Technology Center in Karachi, Pakistan. Established in 2002.

K. IT Centers in OIC Member States

COMSTECH setup its first computer center in Khartoum, Republic of Sudan in 1992 and installed the second computer center in Male, Republic of Maldives. Third Computer Center in association with ISESCO was set up in Free Town, Sierra Leone.

L. COMSTECH Cooperation with Senegal in IT

In 2005, COMSTECH shipped 10, P-IV Computers to Ummul Khurra Institute, Dakar, Republic of Senegal.

M. COMSTECH-IDB Collaborative Projects

MSc Scholarship program for LDMC: Since Program inception in 1998 and over 17 years, 560 students in 20 LDMCs received scholarships for education in other MCs, at a cost of US$ 3.8 million.

Centres of Excellence cooperation scheme: the IDB and the COMSTECH are implementing a scheme whereby identified and peer-reviewed S&T institutions of learning and research will be invited to develop cooperative arrangements among themselves, with the stronger centres assisting the relatively weaker ones, with COMSTECH and IDB as facilitators. The Bank has financed 2 such projects in 2005 respectively associating (i) HEJ Research Institute of Chemistry in Pakistan with the Medicinal and Aromatic Plants Research Institute in Sudan through a **US$130,000** grant and (ii) IDB's International Centre for Biosaline Agriculture (ICBA) with the National Institute for Agricultural Research in Niger (INRAN) through a **US$150,000** grant.

Collaborative research projects: Projects from OIC member countries were submitted to IDB in 1999 and early 2001, out of which IDB has approved following four projects for funding:

1. Equipment and Training for the Biofertilizers Center at BINA, Bangladesh **(US$260,000/-)**
2. Biofertilizer Resource Centre for the National Institute for Biotechnology and Genetic Engineering (NIBGE), Paksitan **(US$335,000/-)**
3. Equipment and capacity building for the Marmara Research Center (MRC), Turkey **(US$261,800/-)**
4. Capacity Building for the Institute of Physics and Technology, Kazakhistan **(US$341,000/-)**

Each of these projects is for significant financial assistance which is in the range of **US$300,000** to **US$350,000**.

Annual workshop scheme for Inter Islamic Networks: An annual state-of-the-art workshop scheme with an amount of $200,000 per year was approved in 1419H (1998). In 1426H (2005), the Bank completed seven cycles of implementation through the OIC Science and Technology Networks established by the COMSTECH.

These workshops are subject to official request from the Networks' Headquarters and recommendation of the COMSTECH.

IDB Prizes for Science & Technology: COMSTECH assisted in the establishment of IDB prizes for science and technology as part of the Bank's efforts to promote excellence in scientific research and education, three IDB Prizes for Science & Technology were established in 1423H (2002).

S&T Expatriate Nationals Scheme: On the proposal of COMSTECH, the S&T Expatriate Nationals Scheme was built on the model of the UNDP Transfer of Knowledge through Expatriate Nationals (TOKTEN) and is supported by the Bank with an allocation of $0.2 million. It was intented to facilitate short term recruitments of highly qualified expatriate nationals in the relevant fields of science and technology with a view to support institutional capacity building and development of S&T in OIC member states. To the best of COMSTECH'S knowledge, this programme could not be pursued.

COMSTECH Institute of Advanced Training (CIAT) Waqf fund 2003: On the proposal of COMSTECH, IDB established a perpetual Waqf fund in Islamabad for assistance to COMSTECH to promote science and technology in the OIC member states by offereing advanced research and training courses in Information Technology, Telecommunication, Biotechnology, Bioinformatics, Robotics, Nanotechnology and advanced Material Sciences.

The Waqf fund was initially established with US$ 2.0 million provided by the IDB in two equal instalments received in Sept. 2005 and March 2006. Contribution from member states is still awaited. The IDB grant of US$ 2.0 million has hence not been utilized and is lying intact.

N. COMSTECH-PTCL Frontier Technologies Research Collaboration

The proposal for establishing COMSTECH Research Centre on the lines similar to that of the Abdus Salam International Centre for Theoretical Physics in Trieste, Italy was proposed by the Executive Committee to the General Assembly during its tenth session held in Islamabad in February 2003. Having obtained the approval of the General Assembly, COMSTECH approached the Pakistan Telecommunications Limited to participate in this important project. The PTCL board approved the COMSTECH proposal and agreed to contribute funds equivalent to about US$250,000 from its R & D fund towards the project. The first instalment (US$63000/-) of the approved amount was released in December 2002 enabling COMSTECH to almost immediately begin the implementation effort.

Frontier Technologies Research Centre had organized following activities:

1. International Workshop on "Bioinformatics", April 22-25, 2003
2. COMSTECH Forum on "Biometrics: Identification Technology for a secure world" June 24, 2003.
3. International Workshop on "Emerging Technologies in Manufacturing Engineering" July 10-12, 2003.
4. International Workshop on "Vaccine Production and Utilization in Developing Countries: Issues, Prospects and Implications for Pakistan" August 8-10, 2003.

5. COMSTECH Forum on “Biotechnology: Perils and Promises” August 20, 2003.

6. International Workshop on “The Impact of Climate Change on Agriculture: Challenges and Strategies” August 27-30, 2003.

7. An International workshop on the "Development of Medicines from Plants" 8- 13 September 2003.

8. COMSTECH Forum on “OIC in the Phase of Emerging Global Scenario” September 25, 2003.

O. COMSTECH Research and Training Initiative

The establishment of the COMSTECH Research and Training Center (CRTC) was approved by the Tenth General Assembly in February 2002 and The work on CRTC began the moment Government of Pakistan released approximately US$ one million for construction and equipment procurement. CRTC started its programmes in 2003, in a rented premises in Islamabad.

The purpose of the Research Center is to impart IT training and to offer state-of-the–art facilities for short duration training programs in special branches of Information Technology for policy makers, government officials, planners, middle management in industry, bureaucracy, trainers, students, researchers, scientists, law enforcing agencies and crime detection agencies. The center is planned to lay a framework for rapid dissemination of IT in the OIC region and to conduct research on how best to make information technology available to the least developed parts of the OIC region.

The CRTC has been set up with the following objectives:

- To create and deploy information technology related human capital in the OIC region.
- To enhance the computer skills and competence of the human resources from the OIC member states.
- To foster a stimulating environment for use of information technology and realize new possibilities for innovative use of IT in all aspects of development activity within the COMSTECH countries.
- To contribute to the advancement of IT knowledge and professional skills of the OIC citizens.
- To train human resource for intelligent and sustainable development of information technology in government departments.
- To train upper and middle management executives in public and private sectors to help implement good governance in the OIC member states.

P. COMSTECH Program for Ph. D. Scholarships in Frontier Technologies

COMSTECH has started a program for supporting Ph.D. scholarships in Frontier Technologies in recognized university/research institution in the field of Nanotechnology, Stem Cell Research, High Tech Manufacturing Engineering and Renewable Energy. At present the scholarships are initially being sanctioned for one

year, with an indication that they will be renewable annually for another two years. The scholarship award carries an emolument PKR10,000 (equivalent to about US$175) per month to the successful candidate plus PKR100,000 (equivalent to about US$1700) honorarium to the Supervisor, which would be given at the time of award of Ph.D. degree and only after evaluation of Ph.D. thesis by international experts is successfully achieved. COMSTECH is also providing PKR200,000 (equivalent to about US$3,400) per annum to the institution for purchase of consumables and other laboratory expenses.

COMSTECH Ph. D. Scholarships in Frontier Technologies are available to those:

- Who hold post graduate degree in the proposed field of study
- Who are below thirty years of age on the day application is received in COMSTECH
- Who hold at least three first classes from recognized institutions.
- Who prepare a credible research proposal indicating, time frame for completing research project, employing methodology and equipment, results predicted/expected, short term research goals and impact on local research environment, long term advantages to the scientific development of the country of their origin, and list of equipment and major chemicals/specimen/samples/ consumables required for the proposed research project.
- Choose a Professor of international eminence with a proven track record of international publications in the topic of their interest and obtain written approval to act as research adviser.
- If major part of their work involves an independent research laboratory then they are required to select a second research adviser and obtain willingness of the university that will eventually award the degree on successful completion of thesis.
- Choose a Co-adviser from a university abroad who is pioneer or at least very active in research proposed by an applicant and secure willingness to be a Co-adviser.
- Secure provisional written approval of the university/institution where they expect to conduct research.
- Prove that the required equipment is available in the research laboratory where they propose to conduct major part of their research.

It is a recently started program under which COMSTECH has so far awarded scholarships in Fuel Cell Research and two applications, from a large number of requests, are under process.

In another variation of this program, COMSTECH awards economy class airfare to those students who win research assistance in top of the line universities of the West in any of the four fields mentioned above. Thus, COMSTECH has awarded economy class airfares to students who managed to win assistance in the fields of Stem Cell

and Nanotechnology research, respectively at the Oxford University U.K. and University of Delaware, USA.

COMSTECH Ph.D. Scholarships in Frontier Technologies one scholarship awarded to Mr. Muhammad Nawaz Akhtar, Principal Engineer, PMD, PAEC, Islamabad.

Q. COMSTECH Awards

1. Basic Sciences – Biennial Awards

The Organization of Islamic Cooperation Standing Committee on Scientific and Technological Cooperation (COMSTECH) has decided to recognize outstanding work carried out by scientists in OIC member states by offering a number of awards. COMSTECH General Assembly, through awards, honors distinguished individuals whose work/ technical innovations in science have led to important scientific contributions, discoveries, processes, and inventions.

The Eighth General Assembly of COMSTECH held in 1997 decided to give COMSTECH Awards biannually in four basic sciences disciplines to honor distinguished individuals whose scientific and technological innovations in a specific field of science have led to important scientific discoveries. Awards in two subjects (Physics and Mathematics, alternating with, Chemistry and Biology) are given during a regular session of COMSTECH General Assembly. The Award carries a cash prize of US$ 5,000 and a shield of honor for the recipient.

The President of Pakistan/Chairman COMSTECH has so far given away COMSTECH Awards in the fields of Biology, Chemistry, Physics and Mathematics to nineteen scientists from Egypt, Iran, Jordan, Pakistan, Sudan and Turkey:

Table 16. COMSTECH award winners

S.No.	Year	Flied	Name	Country
1.	1997	Biology	Prof. Mojtaba Shamspuri	Iran
		Chemistry	Prof. Mohammad Mostafa El-Mufty	Egypt
2	1999	Physics	Prof. Sohail Zubairi	Pakistan
		Mathematics	-	-
3.	2002	Biology Jointly awarded	Dr. Syed Qasim Mehdi Dr. Said M. Aj. Shawar	Pakistan Jordan
		Chemistry	Prof. Dr. Mohamed Helmy Ali Mohamed Elnagdi	Egypt
4.	2003	Physics	Prof. Riazuddin	Pakistan
		Mathematics	-	-
5.	2005	Biology	Prof. Dr. S. Riazuddin	Pakistan
		Chemistry	Prof. Seyed Habib Firouzabadi	Iran
6.	2007	Physics	Mohammad Mahdi (Shahin) Sheikh- Jabbari	Iran
		Mathematics	Prof. Ibrahim A. Eltayeb	Sudan
7.	2010	Biology Jointly awarded	Dr. Wasim ahmad, (SI) Prof. Dr. Ilkay Erdogan Orhan	Pakistan Turkey

		Chemistry Jointly awarded	Prof. Dr. Muhammad Iqbal Choudhary Prof. Yusuf Yagci	Pakistan Turkey
8.	2015	Physics	Prof. Dr. Altug Ozpineci	Turkey
		Mathematics	Prof. Dr. Tasawar Hayat	Pakistan
9.	2017	Chemistry	Dr. Engin Umut Akkaya	Turkey
		Biology	Dr. Ramy Karam Aziz Henein	Egypt

2. Awards for excellence in science & technology US$3000 and shield

Introduced in 2009, these biannual awards carried a cash prize of US$ 3,000 and a shield of honor for each recipient of an Award in the following categories:

1. Best Young Researcher Award

This award is meant for scientists under the age of 40.

The President of Pakistan/Chairman COMSTECH has so far conferred these Awards on participants from Malaysia, Pakistan, Turkey and Iran:

No.	Category	Name	Country
2017			
1.	Best Young Researcher Award	Dr. Farrokh Aminifar	Iran
2.	Best Young Researcher Award	Dr. Mehmet Atilla Tasdelen	Turkey
2015			
3.	Best Young Researcher Award	Dr. Muhammad Farooq	Pakistan
2010			
4.	Best Young Researcher Award	Prof. Mohd. Adzir Mahdi	Malaysia

2. Best Scientific Book Award

This award is for the author of an outstanding scientific book published by internationally renowned publisher during the last two years.

The President of Pakistan/Chairman COMSTECH has so far conferred this Award on participant from Egypt:

No.	Category	Name	Country
2017			
1.	Best Scientific Book Award	Prof. Salah Sabry Ahmed Obayya	Egypt

3. Best Research Paper Award

This award recognizes an outstanding research paper published in an international journal. The paper must have been published in the last two years.

The President of Pakistan/Chairman COMSTECH has so far conferred this Award on participants from Iran, Pakistan, Egypt and Algeria:

No.	Category	Name	Country
2017			
1.	Best Research Paper Award	Dr. Mohamed H. Alkordi	Egypt
2.	Best Research Paper Award	Dr. Abdelaali Boudjemaa	Algeria
3.	Best Research Paper Award	Dr. Maha Nasr Sayed Aly	Egypt
2015			
4.	Best Research Paper Award	Dr. Zia-ur-Rehman	Pakistan

2010			
5.	Best Research Paper Award	Dr. Farhad Islami	Iran

4. Patent Award

The award recognizes individuals for outstanding contributions that have had lasting impact in furthering the theory and or development of commercial systems.

The President of Pakistan/Chairman COMSTECH has so far conferred this Award on participant from Egypt:

No.	Category	Name	Country
2017			
1.	Patent Award	Prof. Ibrahim M. El-Sherbiny	Egypt

R. Science, Technology & Innovation (STI) Policy Research & Training Centre

Introduction

COMSTECH Science, Technology & Innovation (STI) Policy Research & Training Centre was established in 2006 to realize the vision of centre for science and techno-economic studies for the Islamic world approved by the fourth OIC Summit held in 1984 in Morocco. Located at the COMSTECH Secretariat in Islamabad, Pakistan, the Centre has been entrusted with following aims and objectives: (i) Act as a think-tank specializing in providing high-quality advisory services on STI to OIC member states; (ii) build capacity in STI by offering training for public policy makers, researchers, entrepreneurs and business managers; (iii) Initiate and conduct research on STI policy issues and to assist in the formulation and review of STI policy making in OIC member states; (iv) provide a forum for consultation and collaboration for STI policy makers and implementers, academic and research fraternity and the business community in OIC member states; and (v) develop collaborative linkages between well established STI Policy research and STI Policy advisory institutions in OIC member states and with world's best institutions.

Key Activities

1. Capacity building of senior managers, researchers and policy makers of OIC member states in STI policy formulation and implementation strategies through training courses
2. Consultancy services to member states for review of STI policies and innovation system.
3. Research on STI related issues

Training Courses

Since its establishment the STI Policy Research and Training Centre has organized 21 training courses and 2 workshops on the following topics:

1. Science, Technology and Innovation: Five intensive training courses on Science, Technology and Innovation Policy have been organized with a focus on key

concepts of innovation; economic history of innovation; building of national innovation systems; and best practices of STI policy for meeting challenges of globalization.

2. Innovation & Entrepreneurship: Three training courses have been organized so far. Modules covered in these courses include methods of entrepreneurship and strategic and business planning; university-industry partnership; intellectual property rights; role of technology incubators and technology parks for technology entrepreneurship and lastly the policy inputs for creating an ecosystem for entrepreneurship.

3. Technology Transfer Policy for Developing Countries: Two training courses were conducted with a focus on: different modes of technology transfer; the role of multinationals; diaspora networks and international training; joint research; international alliances; joint ventures; technology transfer leading to technical change and public policy for technology transfer. Best practices in Japan, South Korea, China, India and Brazil.

4. Foresight For Innovation Policy: Six courses on Foresight were organized. The key topics covered included: objectives of foresight; introduction to foresight methods; environmental scanning; forecasting; Delphi and other methods of envisioning future; developing and using scenarios; causal layered analysis (CLA); planning a foresight exercise; future technological prospects; social foresight; and regional and national foresight case studies.

5. Intellectual Property Rights (IPR): Two courses on IPR were offered in 2011. Topics covered in these courses were introduction to IPR; IP practices in OIC states; issues related to IPR; IPRs for Technology Transfer and Commercialization; Research Organizations and IP Policy; IPRs and Building of Innovation Systems; practical exercises on Patent writing and Trademark registration, and Techniques for enhancing Innovation skills.

Training Courses held during 2006-2015

1. Technology Transfer Policy and Industry Level Perspectives (12-18 July, 2006)
2. Technology, Innovation and Entrepreneurship (20-31 August, 2007)
3. Stakeholders Workshop on the Establishment of Technology and Innovation Policy Research Centre at COMSTECH28 – 30 March, 2008
4. Science, Technology and Innovation (21 April – 16 May, 2008)
5. Foresight (30 June – 11 July, 2008)
6. Science, Technology and Innovation (6-24 April, 2009)
7. Innovation and Entrepreneurship (18 – 29 May, 2009)
8. Foresight (29 June – 10 July, 2009)
9. Technology Transfer Policy for Developing Countries (12 – 17 October, 2009):
10. Design and Evaluation of Innovation Policy in Developing Countries (7 -12 December, 2009):
11. Foresight (22 February – 5 March, 2010)

12. Technology and Innovation Policy (19 – 30 April, 2010)
13. Technology and Innovation Policy , March 14-19, 2011
14. Intellectual Property Rights (IPR) and Innovation Policy , June 6-10, 2011
15. Intellectual Property Rights and Technology Transfer, Oct. 31 – Nov. 2, 2011
16. Foresight for Innovation November 28 - December 2, 2011
17. Innovation and Future Studies for Sustainable Development March 5-9, 2012
18. Int'l Conference on Science Policies and Restructuring of National Systems of Innovation October 3-5, 2012.
19. Innovation and Enterpreneurship, November 12-16, 2012.
20. Foresight for Innovation Policy, August 26-30, 2013.
21. The role of higher education in the knwledge economy, Sept. 21-25, 2014
22. Essentials of entrepreneurship – A toolkint for entrepreneur, December 9-11, 2014.
23. Design of Science, Technology and Innovation Policies in OIC Member States (Venue: Yazd University, Iran), 22 – 26 Feb, 2015.

Participation in Training Courses

So far COMSTECH training courses have trained 680 participants by 145 subject experts invited from the world's best institutions including 67 from abroad. These participants came from 30 OIC member states including Algeria, Azerbaijan, Bangladesh, Bahrain, Brunei Darussalam, Egypt, Gambia, Indonesia, Iran, Iraq, Jordon, Kazakhstan, Libya, Malaysia, Maldives, Mali, Morocco, Nigeria, Oman, Pakistan, Saudi Arabia, Senegal, Sierra Leone, Sudan, Syria, Tajikistan, Tunisia, Turkey, Uzbekistan and Yemen.

Table 17. Participation details

S.No	Country	Participants	S.No	Country	Participants
1.	Algeria	3	2.	Azerbaijan	1
3.	Bahrain	3	4.	Bangladesh	26
5.	Brunei-Darussalam	1	6.	Egypt	10
7.	Gambia	5	8.	Indonesia	11
9.	Iran	57	10.	Iraq	6
11.	Jordan	15	12.	Kazakhstan	7
13.	Libya	1	14.	Maldives	2
15.	Malaysia	14	16.	Mali	1
17.	Morocco	8	18.	Nigeria	28
19.	Oman	14	20.	Pakistan	402
21.	Saudi Arabia	4	22.	Senegal	1
23.	Sierra Leone	1	24.	Sudan	29
25.	Syria	3	26.	Tajikistan	1
27.	Tunisia	4	28.	Turkey	15
29.	Uzbekistan	1	30.	Yemen	6
		134			**546**

Consultancy Services

STI Policy Guidelines for Maldives (2005): After a UNESCO sponsored weeklong visit to Maldives and interviews with several Ministries, consultant COMSTECH prepared a report on the prevailing S&T system in Maldives and provided guidelines for a new S&T Policy.

Review of Innovation System of Nigeria Constituted by UNESCO (2006- 2008): Consultant COMSTECH was selected as member of International Advisory Board (IAB) to review the Higher Education and Innovation System of Nigeria. After two visits to Nigeria she along with other members of IAB wrote a report on "Steps in Establishing a Productive Science & Technology Policy in Nigeria", (2006) Interim report by the International Advisory Board, Joint Nigeria / UNESCO project for Reform of the Science, Technology and Innovation System of Nigeria, published by UNESCO, Paris

Three members of IAB including Consultant COMSTECH also made a presentation to the Nigerian Cabinet meeting chaired by the President on transformation of Nigerian Economy from resource base to knowledge base industries and services. This led to an allocation of US$5.0 billion as endowment fund to be used for research by Nigerian Science Foundation.

Technology Audit for Turkey (2007): Consultant COMSTECH was invited by the S&T secretariat of European Union to conduct Technology Audit for Turkey under the 7th EU Framework Programme on BIS-RTD funding and communication strategies. During her visit to Ankara she conducted several interviews at institutions such as ministry of S&T, universities, technology parks and industry. Based on interviews the Audit report was prepared and submitted to TUBITAK.

Establishment of an Institute for South-South Collaboration for G77 Countries (2008): Prepared feasibility for establishment of an institute for South-South Cooperation for G77 countries. A UNESCO sponsored visit and discussions with Malaysian Minister for S&T and officials of Malaysian Academy of Sciences and universities led to hosting ISTIC at the Malaysian Academy of Sciences.

Comments on STI Policy of Gambia (2013): In response to request from government of Gambia, the new Science, Technology and Innovation Policy of Gambia was reviewed and comments provided for improvements.

Publications

COMSTECH Centre for Policy Research and Training has published the following research studies in the form of Reports, Books and Journal Articles:

1. Migration of the highly skilled and its Impact on the Economic and Technological Development of Pakistan and Bangladesh, 2010. Research study commissioned by South Asian Network for Economic Research Institutes (SANEI), sponsored by World Bank.
2. Leading Scientists and Engineers of OIC Member States, published by COMSTECH (2008).
3. Steps in Establishing a Productive Science & Technology Policy in Nigeria", Interim report by the International Advisory Board, Joint Nigeria / UNESCO

project for Reform of the Science, Technology and Innovation System of Nigeria, published by UNESCO (2006).

4. Science and Technology Policy for Industrialization, Case Studies: Pakistan, South Korea, Malaysia and Egypt, Lessons for OIC countries, published by COMSTECH (2005).
5. Status of Scientific Research in the OIC Member States published by COMSTECH (2005).

Research Papers Published

1. “Critiquing the Social Construct of the Hawala System”, In Sohail Inayatullah and Ivana Milojević (Eds.), CLA 2.0: Transformative Research in Theory and Practice, Taipei: Tamkang University Press.
2. “Demystifying the Hawala System using Causal Layered Analysis”. Journal of Futures Studies, September 2014, 19(1): 1-12
3. “Foresight as a Tool for Sustainable Development in Natural Resources: The Case of Mineral Extraction in Afghanistan” Resources Policy, Vol. 39 (2014) pp 92–100
4. “Afghanistan Mineral Resources and Implications on India's Future” Futures, Vol. 56 (2014) pp 94–97
5. “SWOT Analysis of OIC Member States”, published online on COMSTECH website, (2013)
6. ”Futures 101 for the Top Guns”, Journal of Futures Studies (Vol 17, No.4, June 2013), 135-138
7. “E-Health Futures in Bangladesh” Futures: The Journal of Policy, Planning and Futures Studies, Vol. 15 No.3 2013 pp177-189
8. “Three Possible Pro-poor Futures of Afghanistan” East-West Affairs, Chicago, (2013)
9. “The Futures of Mineral Extraction in Afghanistan”, In proceedings of the 10th GLOBELICS International Conference, Hangzhou, China, (2012)
10. Chapter on South Asia (Afghanistan, Bangladesh, Maldives, Nepal, Pakistan and Sri Lanka) published in UNESCO Science Report 2010.
11. OIC Member States – The Road to a Knowledge Economy (Lessons from Contrasting Innovation Systems of 34 Scientifically Lagging OIC Countries with East Asian Countries)” in Virtual Incubator for Science-based Business (VISB) and on COMSTECH website, (2010).
12. “Mining Futures: Beyond the Headlines” published in the Journal of Future Studies, Vol. 15, No.2: 17-32, (2010)
13. A Fortnight of Foresight, published in the Futures Bulletin of the World Futures Studies Federation, Vol. 34, No. 4: 18-20, (2009)
14. Mapping Scientific Research in Member States of the Organization of Islamic Countries, published by UNESCO, Paris, (2009) (Occasional Paper No. 17).

15. The Dynamics of Innovation and Technology Capability in Pakistan" in Science, Technology Policy and the Diffusion of Knowledge" Edited by Tim Turpin and V.V. Krishna published by Edward Elgar, (2007).

16. Science and Technology Polices for Industrialization Case studies South Korea, Malaysia, Egypt and Pakistan published in Blue Chip, November 2004, Islamabad.

17. Essentials for Innovation Economy and New S&T Initiatives in Pakistan, paper published in proceeding of the international Conference on Regional Innovation System and S&T Policies in Emerging Economies, Experiences from China and the World 19th -21st April, 2004 Canton, China.

Reports/ Briefs

1. "Science and Technology Development in OIC Member States" Concept paper prepared for forthcoming OIC summit in 2014 (May 2013)

2. "Innovation Capabilities in OIC Member States" study conducted for Islamic Development Bank and presented at the Expert Group Meeting on "Innovation for Economic Development in IDB Member Countries" 18-19 February 2013, Jeddah, Saudi Arabia (February 2013)

3. "Guidelines for Promotion of Private R&D in OIC Countries" report prepared for Islamic Development Bank (April 2012)

4. "Developing a Knowledge Economy" report prepared for Islamic Academy of Sciences, Jordan (2012).

Funding and Facilities

COMSTECH, Islamic Development Bank (IDB), and Higher Education Commission (HEC) of Pakistan jointly fund the training courses.

COMSTECH offers excellent conference and accommodation facilities under the same roof. Thus, it provides an opportunity to engage participants and speakers in informal discussions besides the lecture room talks. In addition to accommodation and meals, the guest house offers free gym and internet connections. Free access to computer lab is also offered to all participants during the working hours. Participants benefit from this facility to complete their assignments.

S. COMSTECH-ISESCO joint workshops 2011

In addition to the Research Grants Program, COMSTECH and ISESCO jointly organized a number of international workshops. These include:

1. COMSTECH-ISESCO-ISNET Expert Meeting for Development of Data-sharing and Technical Experience-sharing for Cost-effective Operation and Maintenance of National Satellite Earth Stations, 12-15 July 2011, Islamabad, Pakistan

2. COMSTECH-ISESCO-INWRDAM Training Program on Household Water Recycling Technologies, July 2011, Amman, Jordan

3. COMSTECH-ISESCO Regional Training Course on Use of Information Technology for Small Scale Farming Communities in Rural Areas, October 2011, Islamabad, Pakistan

4. COMSTECH-ISESCO-INWRDAM Workshop on Green Roof Technologies and Vegetable Farming for Urban Households, October 2011, Islamabad, Pakistan

T. E-MAIL Directory of Scientists, Academicians, Engineers, Research Institutions, and Universities of the OIC Region

COMSTECH compiled an E-mail Directory of Scientists, Academicians, Engineers, Research Institutions, and Universities of the OIC region. The database has 7,954 e-mail addresses and it is available online on www.comstech.org

U. COMSTECH Inter-Library Resource Network Service

Coordinator General decided to use the existing resources of the OIC region by inviting important libraries to participate in **COMSTECH Inter-Library Resource Network Programme**. Under this program a Library that is a member of this Network is required to provide free re-prints of articles requested by an individual or organization from a member state, as well as bear the costs of postage. In return each member Library benefits by having free access to the photocopies of articles from any of the journals held by other Libraries in the Network, thereby providing a wealth of scientific information to library users across the OIC region.

As the initial response was rather encouraging therefore the Coordinator General entrusted the COMSTECH Secretariat with the task of setting up an in-house facility to commence the massive task of collecting the list of journal holdings from the member libraries and preparing the document in the form of a hardcopy as well as its electronic version to be made available on line.

COMSTECH has made available journal holdings of forty-seven libraries from thirteen member states including People's Republic of **Bangladesh**, Republic of **Indonesia**, Islamic Republic of **Iran**, Hashemite Kingdom of **Jordan**, **Malaysia**, Kingdom of **Morocco**, Federal Republic of **Nigeria**, Islamic Republic of **Pakistan**, State of **Qatar**, Kingdom of **Saudi Arabia**, Republic of **Senegal**, **Syrian** Arab Republic, and Republic of **Turkey**.

This massive database, launched in March 2001, now lists 30,187 journals on COMSTECH website.

The main objective of COMSTECH Inter-Library Resource Network Service is to make the scientific journal holdings of major OIC libraries accessible via free photocopy service that is to the scientific community of the OIC region. The aim is to benefit from the existing resources of the OIC region and organize the library resources to permit its collective utilization by a larger section of the OIC research community.

V. COMSTECH Publications

PROFILES

1. Mineral Profile of the Muslim World, 1995
2. Health and Medical Profile of the Muslim World, 1993
3. Food and Agriculture Profile of the Muslim World, 1991
4. Industrial Profile of the Muslim World, 2001
5. Renewable Energy Profile of OIC Member Countries, 2018

6. COMSTECH Report on Science Publications of OIC Member States, 2016

WORKSHOP PROCEEDINGS

1. Proceeding of the COMSTECH Workshop on RECENT ADVANCES IN MATERIAL SCIENCES
2. Proceeding of the COMSTECH-NIAB International Workshop on AGROCLIMATOLOGY, PESTS AND DISEASES AND THEIR CONTROL
3. Proceeding of the COMSTECH Workshop on RECENT ADVANCES IN BIOTECHNOLOGY
4. Proceedings of the COMSTECH-UAE University Workshop on POSSIBLE STRATEGY FOR ENERGY MIXES IN THE MUSLIM WORLD
5. Proceedings of the COMSTECH Workshop on RECENT ADVANCES IN SPACE TECHNOLOGY AND ITS APPLICATIONS
6. Proceedings of the COMSTECH-IDB International Seminar on S&T STRATEGIES FOR NATIONAL DEVELOPMENT
7. Proceedings of the COMSTECH General Assembly Meetings

COMSTECH COURSES

1. COMSTECH Course on Health Physics
2. COMSTECH Course on Plant Tissue Culture and Transformation
3. COMSTECH Course on Computer Literacy
4. COMSTECH Symposium on Policy Briefing on Aids Prevention and Control

OTHER PUBLICATIONS

1. COMSTECH Model Biosafety Guidelines
2. Islamic Biomedical Ethics: Issues and Resources
3. Climate Change: Global and OIC Perspective
4. Energy Strategies for the OIC Member States
5. World Trade Organization and OIC Member States
6. Bioinformatics
7. Science and Technology Policy for Industrialization
8. Status of Scientific Research in OIC Member States
9. Leading Scientists and Engineers of OIC Member States
10. The Impact of Climate Change on The Glaciers, Water Resources and Livelihood of Pakistan
11. COMSTECH Contribution to STI Capacity Building, Networking & Policy Initiatives for OIC Member States
12. COMSTECH Inter-Library Resource Network Service Vol. I, Vol. II, Vol. III, Vol. IV
13. COMSTECH Directory of Active Scientists in OIC Member States and their Recent Scientific Publications

14. Scientific and Technological Cooperation in the Muslim countries
15. Towards a Unified World Islamic Calendar
16. New Moon's Visibility and International Islamic Calendar for the Afro-Asian and European Regions
17. New Moon's Visibility and International Islamic Calendar for American Region

W. Conclusions

COMSTECH has been engaged in the promotion of S&T since its inception. The major activities of COMSTECH have centred around: Institution Building and Human Resource Development: through establishment of new centres, support to existing centres, Inter-Islamic Networks; Thematic workshops, seminars and training courses; Research grants and Scholarship programs in collaboration with IDB, WHO/EMRO, IFS, ISESCO, TWAS; Travel grants; Incentives (awards) to scientists for good performance and Publication of country profiles, monographs, proceedings of conferences, directories of scientists and online database services.

COMSTECH purchased scientific databases and started free Scientific Literature Search Service which continued to flourish during the past sixteen years (1999 to 2014) as COMSTECH received 14,206 requests from scientists and sent 30.665 GB (about 15 million pages) of scientific information to researchers in 20 member states of the OIC. COMSTECH invested US$42,691 during 2008-2010 to upgrade its databases and further improved this program.

COMSTECH Inter-Library Resource Network Service program is initiated to create a Network of libraries that can share their journal holdings with the scientific community of the OIC member states and provide free photocopies of research articles to active research scientists. Under this program, COMSTECH has networked the journal holdings of 48 major libraries spread across 15 OIC member states. The updated list, comprising more than 28,000 journals is now available on COMSTECH website www.comstech.org. COMSTECH has published a 16 volume directory of active scientists, and four profiles of OIC member states in the fields of mineral, health & medicine, industry, and food & agriculture.

During 1998-2019, COMSTECH has awarded joint research grants of US$ 7.1925 million to 719 projects in various OIC member states. Besides it spent US$ 1.476 million in organizing thematic workshops and training courses in advanced science and technology fields during 2006-2019 that were attended by 3,729 participants from OIC member states. It also provided financial assistance towards seminars, conferences, workshops and symposia across OIC member states.

In conclusion, COMSTECH took many HRD and capacity building measures, and launched a number of inter-Islamic networks in the cutting edge fields of science and technology. Within the resources at its disposal, COMSTECH has had a proud performance.

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