



BREIF BIOATA

Name: Prof. Dr. Shahina Fayyaz

Qualification: M.Sc, Ph.D, Post Doctorate (UK)



Professional Responsibilities:

- Professor, Director (BPS-22) since March, 2014 National Nematological Research Centre (NNRC), Karachi University.
- Professor, Director (BPS-21) from 6th January, 2009-May, 2014 National Nematological Research Centre (NNRC), Karachi University.
- Director (BPS-19), NNRC, Karachi University from 26th June, 2003- 5th January 2009.
- Served as the In-charge (BPS-18) of NNRC, University of Karachi, from April 25, 2002 – June 25, 2003.
- Scientific Officer, NNRC, BPS-17 from 26th June 1988 through selection board.
- Joined NNRC as Research Fellow dt. 1.10.1981.

Research Experience: 32 years exclusively in Nematology.

Scholars Completed M.Sc, M.Phil & Ph.D: Post Graduate 5; M.Phil.1; Ph.D.5 and 5 enrolled.

International Training in Nematology: Agricultural Research Center, Beltsville, Maryland, USA (1983), Rothamsted Experimental Station, Harpenden Herts, UK (1992), Scottish Crop Research Institute, Dundee, Scotland (1995), International Institute of Parasitology, St Albans, UK (Post Doctorate) (1996), Guangdong Entomological Institute, Guangzhou, China, 2009, 2012.

National / International Awards: Marie Curie fellowship for Post Doc. (1995-1996), Productivity Allowance S.T. (2001), National Education Award (2004), Appreciation Shield Abu Dhabi UAE (2006), Appreciation certificate of ALP project (2006), STEP HEC (2007), Shield of Lead paper in Mycology and plant pathology (2007), 35th All Pakistan Science Conference & 10th Nematological Event (2008), Workshop on “Biofertilizer: Importance and development using indigenous resources”, (2009) Dr. Z. A. Hashmi R&D Gold Medal (2010).

HEC approved Supervisor: January 2006.

Seminars, Conferences & Workshops organized: 10

Meetings Attended: International 12 / National 68

Books: 13

Research Publications: 188

- **International Research Papers:** 62
- **National Research Papers:** 129
 - New nematode species: 100
 - New record species: 155
 - New genera: 2
 - New sub-genus: 1
 - New sub-species: 2

Regular Publication:

- Pakistan Journal of Nematology
- PSN News Letter



Problems and Solutions

To overcome the problems related to nematodes harmful to agricultural and other crops, different projects have been initiated and completed which produced a positive result beneficiary for the nations worldwide. In this regard we have produced some biopesticides in the form of EPN for the control of insect pests and also attended the meetings/ conferences/ training workshops and consultancy in different countries to find out the solutions of the problems.

Major achievement is Pak-China Collaboration under 17th Protocol of Science and technology and the Development of Mass production of Biopesticides.

National & International Projects: 17

Countries visited: USA, Canada, England, China, Scotland, France, Netherlands, South Africa, Turkey, Saudi Arabia, United Arab Emirates, India, Bangladesh, Indonesia.

Economic Impact

Remarkable Success has been made for highly potential Biopesticide in the form of entomopathogenic nematodes (EPN) which have been found highly virulent biocontrol agents against insect pests.

Accession Numbers form NCBI Gene Bank USA:170

S. abbasi = EF 469773; *H. bacteriophora* = EF 469774; *H. indica* 130179; *S. pakistanense* = GU 130180; *S. pakistanense* = GU 130181; *S. carpocapsae* = GU130182; *S. siamkayai* = GU130183; *S. siamkayai* = GU 130184; *S. siamkayai* = GU130185; *S. siamkayai* = GU130186; *S. siamkayai* = GU 130187; *S. pakistanense* = JF775374; *Steinernema* sp.109=JF775375; *Steinernema* sp.K8 = JF892544; *Steinernema* sp.SGmtr11=JF892545; *Steinernema* sp.5-APR-2003=JF892546; *S. pakistanense*=JN157768; *S. pakistanense* =JN157769; *Steinernema* sp. G98=JN157770; *Heterorhabditis indica* =JN157773; *H. indica* = JN157774; K8, *Steinernema* sp =JN571085; *S. abbasi*= JN571086; *H. indica* =JN571087; *H. indica* = JN571087; *Steinernema* sp. GAS1= JN571088; *Steinernema* sp. =109JN571089; *H. indica* =JN571090; *Steinernema* sp. 105= JN571091; *Steinernema* sp. SGrj19 =JN571092; *H. indica* =JN571093; *H. indica* =JN571094; *Steinernema* sp. SGmtr = JN571095V; *S. abbasi* =JN571096; *Steinernema* sp. SGrj20 =JN571097; *S. siamkayai* =JN571098; *H. bacteriophora* =JN57109; *S. carpocapsae* = JN571100; *S. siamkayai* =JN571101; *S. siamkayai* =JN571102; *H. bacteriophora* = JN571103; *S. siamkayai* = JN571104; *S. siamkayai* = JN571105; *H. bacteriophora* =JN571106; *S. siamkayai* =JN571107; *S. siamkayai* =JN599138; *S. siamkayai* =JN599139; *S. abbasi* = JN599140; *S. siamkayai* =JN599141; *S. siamkayai* = JN599142 ; *S. siamkayai* =JN599143; *H. bacteriophora*= JN599144; *S. siamkayai* = JN599145; *S. siamkayai* = JN599146; *S. litorale* =JN599147.

Patents

- **National:** 10 awarded: 140579, 140580, 141035, 141095, 140622, 141447; 141614, 141515, 141630 and 3 applied for registration Nos. 26/2011, 107/2011, 163/2012.
- **International Patent:** 1 US 2010/ 0197289.
- **Impact factor:** 88.18
- **Citation index:** 484



Prof. Dr. Shahina Fayyaz

Father's Name: Mr. Fayyaz Ahmed
Current Positions: Prof. Director, National Nematological Research Centre (NNRC), University of Karachi, Karachi-75270
General Secretary/Treasurer, Pakistan Society of Nematologists (PSN)
Managing Editor, Pakistan Journal of Nematology (PJN)
Date of Birth: 4th April, 1959
Nationality: Pakistani
Marital Status: Married
NIC: 42201-6928520-4
Official Address: National Nematological Research Centre, University of Karachi, Karachi-75270, Pakistan
Residential Address: N-1, Gulistan-e-Jauhar, Block-3, Karachi, Pakistan.
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Mobile: 0333-2316796
E-mail: shahinafayyaz@gmail.com
Education: Post Doctoral studies as Marie Curie fellow by the Commission of the European Communities (CEC) in Plant Nematology: "The Biodiversity and Systematics of Plant, Soil and Entomopathogenic Nematodes" (1995 – 96) at IIP, England.
Ph. D. Plant Nematology Dissertation: "Studies on the important plant parasitic nematodes of cereal and vegetable crops of Pakistan with special reference to *Heterodera zea* and *H. avenae*" (1989).
Postgraduate Diploma Course (Statistics) in 1st Division from University of Karachi (1989).
M. Sc. from Karachi University in 1st Division in Botany (Plant Pathology) (1980).
B. Ed. from Karachi University in 1st Division (1979).
B. Sc. from Karachi University in 2nd Division (1978).
Intermediate from Karachi Board in 2nd Division (1975).
Matriculation from Karachi Board in 2nd Division (1973).
Ph. D. Supervisor: Dr. M. A. Maqbool, Ex-Director, NNRC, University of Karachi, Karachi.
Research Experience: 32 years of research experience exclusively in Nematology.
HEC Approved Supervisor: Approved by HEC as a Ph. D. supervisor from January 31, 2006.



Produced Ph.Ds:

- Ms. Tabassum Ara Khanum, Thesis entitled: “Taxonomic studies on plant and soil nematodes of sugarcane fields with special reference to Entomopathogenic nematodes” (2010)
- Ms. Erum Iqbal, Thesis entitled: “Screening of the genetic diversity of wheat germ plasm against cyst nematodes of Pakistan” (2011)
- Ms. Mussarat Ramzan, Thesis entitled: “Genetic diversity of resistant and susceptible rice and soybean cultivars with reference to root-knot nematodes” (2011)
- Mr. M. Ismail Bhatti, Thesis entitled: “Biological control of red palm weevil, fruit fly and armyworm through EPNs” (2011)
- Mr. Syed Asim Rehan Kazmi, Thesis entitled: “Studies on Biodiversity of Entomopathogenic Nematodes, Symbiotic Bacteria and their Insecticidal Properties” (2013)
- Ms. Salma Javed, Thesis entitled: "Mass Production of Entomopathogenic nematodes for Biological Pest Suppression" (2014)
- Ms. Mehreen Gulsher, Thesis entitled: “Distribuiton and Phylogenetic Relationship (Molecular Identification) of Entomopathogenic Nematodes”. (2014).
- Ms. Hajra Nasreen Bhatti, Thesis entitled: "Bio-control of Root-knot Nematodes in Cucurbitaceae using Vascular Arbuscular Mycorrhizal Fungi (VAM)” (2014).

Produced BS/ MS:

- Mr. Amer Zareen, M. Sc. Project entitled: "Studies on fungi and nematodes associated with betelvine (*Piper betle* L.)" (2005).
- Mr. Shahan Aziz, B. S. (Agriculture) thesis entitled “Analysis of bio-diversity of nematode fauna at newly established Botanical Garden, University of Karachi, Karachi” (2007).
- Mr. Amir B.Sc. Thesis “Identification of Plant parasitic nematodes infecting vegetables in Dargi, Malakand area” (2009).
- Mr. Kamran B.Sc. Thesis, “Identification of Entomopathogenic nematodes from vegetables growing areas of Dargai” (2009).
- Ms. Tasneem Mujtaba Thesis, “Screening of genetic diversity of vegetables against *Meloidogyne* spp. Root-knot nematodes of Sindh, Pakistan” (2012).

Enrolled PH. D. Students:

Mr. Muhammad Tariq; Mr. Tamoor Khan, M. Asrar

Training And Post-Doctoral Research Experience In Nematology:

- Second National Training Course on Plant Nematology (November 20 – December 2, 1984) at NNRC, University of Karachi, Karachi, Pakistan.
- Advanced Training from United States Department of Agriculture, Maryland, USA under the guidance of Dr. A. Morgan Golden, on nematode taxonomy and morphology, primary emphasis on morphology and identification of cyst nematodes. Also studied various latest techniques in Nematology (June 1 – 24, 1983).
- Special Advance Training at Rothamsted Experimental Station, Crop and Environment Protection Division, Entomology and Nematology Department, U.K. under the guidance of Dr. D. J. Hooper, Dr. M. R. Siddiqi and Ms. Janet Rowe, on the taxonomy & techniques with the Scanning Electron microscope (SEM). Also studied the ‘phast’ and LKB ‘Multiphor’ iso-electric focusing systems for obtaining protein profiles of cyst nematodes (June 18 – July 11, 1992).



- Post Doctoral study as Marie Curie fellow by the Commission of the European Communities (CEC) on the “Biodiversity and systematics of plant and soil nematodes and entomopathogenic nematodes as a bio-control agent”, at the International Institute of Parasitology, U.K. (March 6, 1995 – January 6, 1996).
- Training on the techniques relevant to sampling, extracting, preserving and mounting Marine Nematodes and examine more than 30 species of marine nematodes at Scottish Crop Research Institute, Dundee, Scotland, U.K. (September 11-15, 1995).
- International workshop on Insect Pathology at the National Agricultural Research Centre, Islamabad, Pakistan (March 19 – 25, 1996).
- Special Nematological Training Course under the Expert Availing Foreign Services of Ministry of Science & Technology by Dr. M. R. Siddiqi, at NNRC, University of Karachi, Karachi, Pakistan (March 4 – June 2, 2004).
- HEC Workshop on “Diagnosis of Plant Diseases: Conventional and Molecular Approaches” organized by the M. A. H. Qadri Biological Research Centre, in collaboration with Department of Microbiology, and Department of Botany, University of Karachi (December 16 – 21, 2004).
- Four days workshop on “Biofertilizer: Importance and development using indigenous resources” organized by Center for Molecular Genetics, University of Karachi and DFID UK and British Council, Karachi (August 17 – 20, 2009).
- Training course from Prof. Dr. Richou Haun “Molecular Identification of Entomopathogenic nematode up to sequencing level” from Guangdong Entomological Institute, China (2009).
- Training course on “Molecular characterization, Mass Production and Formulation of Entomopathogenic Nematode” from Guangdong Entomological Institute, China 08 -22 July, 2012.

Experience:

- Served as "Research Fellow" (October 1, 1981 – December 30, 1982).
- Served as "Research Officer" in Grade -17 in the PL – 480, project entitled “Nematodes associated with fruit crops of Pakistan and their control” at NNRC, University of Karachi (1982 – 1987).
- Appointed as “Scientific Officer” in Grade - 17, in NNRC, University of Karachi on June 26, 1988.
- Upgraded to “Senior Scientific Officer” in Grade - 18 by selection grade, in NNRC, University of Karachi, on December 9, 2000.
- Served as the In-charge of NNRC, University of Karachi, from April 25, 2002 - June 25, 2003.
- Appointed as the Director of NNRC, University of Karachi on June 26, 2003.
- Appointed as Prof. Director of NNRC, University of Karachi on January 6, 2009 (till to date).

Awards:

- Granted the “Productivity allowance” by Pakistan Council of Science and Technology for the year 2001.
- 5th Dr. Z. A. Hashmi R&D Gold Medal (2010) and Prize for being the most productive principal investigator of PSF funded S&T projects during 1999-2009.
- Granted the “Productivity allowance” by Pakistan Council of Science and Technology for the year 2011.
- Granted the “Productivity allowance” by Pakistan Council of Science and Technology for the year 2012.



National / International Honors Received:

- Awarded a shield for the “Contribution in Nematology” on the occasion of “Second International Workshop on Plant Nematology” at Karachi, Pakistan (November 22 – 26, 1992).
- Awarded the “National Education Award” on the occasion of 10th Pakistan Education Forum (May 5, 2004).
- Awarded a certificate for presenting the lead paper in “International Symposium on Recent Trends in Plant Disease Management” held at University of Karachi, Karachi (December 20 – 22, 2005).
- Awarded a shield and appreciation certificate on the occasion of “3rd International Date Palm Conference” held in Abu Dhabi, U.A.E. (February 19 – 21, 2006).
- Awarded an appreciation certificate in recognition of successful completion of ALP Project “Integrated Nematode Disease Management (INDM) in some cereals, fruit and vegetables of Pakistan” by PARC: May 2003 – April 2006 (December 13, 2006).
- Visited NWFP Agricultural University, Peshawar under the scheme of Short Term Teachers Exchange Program (STEP) of HEC (May 2 – 9, 2007).
- Awarded a shield for presenting the lead paper on the occasion of “Third International Conference on Plant Pathology, 7th Biennial Meeting of Pakistan Phytopathological Society” held in Department of Mycology and Plant Pathology, University of the Punjab, Lahore (November 19 – 21, 2007).
- Awarded a shield for presenting the lead paper on the occasion of “35th all Pakistan Science Conference, “10th Nematological Event: International Conference on Nematology in Pakistan”, University of Karachi, Karachi (December 20 – 23, 2008).
- Awarded a shield for presenting the paper “Nematodes as biofertilizers” on the occasion of four days workshop on “Biofertilizer: Importance and development using indigenous resources” at University of Karachi, Karachi (August 17 – 20, 2009).
- Awarded a shield for presenting the paper entitled “Trophic composition of free-living marine nematodes in Sandspit backwater mangrove areas, Karachi” in Seminar on transboundary coastal and marine protected areas with special priorities for spawning grounds, May 27th-28th, 2009.
- Medallion Certificate of 5th Dr. Z. A. Hashmi R&D Gold Medal (2010) for being the most productive principal investigator of PSF funded S&T projects during 1999-2009.
- Awarded certificate for participation in workshop on Apiculture May 12, 2011.
- Awarded a certificate for participation in three day National Symposium on Biodiversity of Pakistan, June 7-9 2011 at Islamabad.
- Awarded a certificate for participation in 5th National Seminar on Intellectual Property Rights” organized by Patent Advisory Cell, PCSIR Laboratories Complex, Karachi 29th October, 2011.
- Awarded a shield on the occasion of Golden Jubilee year of Pakistan Phytopathological Society at 8th National conference, University of Agriculture, Faisalabad, November 28-29, 2011.
- Awarded a certificate for participation in the workshop on Patent protection for R & D organized by PASTIC, PSF/HEJ/ICCBS, Karachi February 01-2012.
- Awarded a certificate for presenting the paper in International Seminar on Advances in Molecular Genetics and Biotechnology for Public Education 6th- 8th June, 2012 at Atma Jaya Catholic University of Indonesia, Jakarta, Indonesia.
- Awarded a certificate for participation in second national Phycological conference Älgae for Mankind organized by Department of Botany, University of Karachi October 15-17, 2012.



- Awarded a shield on the occasion of 3rd International Conference of Pakistan phytopathological society January, 23-25, 2014.

Supervision of the Projects in Capacity of Principal Investigator or Co-Principal Investigator:

- **“Studies on the cyst nematodes of Pakistan with special reference to *Heteroderacynodontis* Shahina and Maqbool 1989” (January 1991 – December 1993). Sponsored by International Foundation for Science.**
- “Studies on the entomopathogenic nematodes” (April, 1997 – March, 1998). Sponsored by University of Karachi.
- “Studies on the entomopathogenic nematodes of Sindh region” (July, 1997 – June, 2000). Sponsored by Pakistan Science Foundation.
- “Studies on the infectivity of *Heterorhabditis indicus* (entomopathogenic nematodes) against the American bollworm of cotton” (November, 1998 – October, 1999). Sponsored by University of Karachi.
- “Studies on the infectivity of *Steinernema* BS-266 and *Heterorhabditis indicus* (entomopathogenic nematodes) against the *Heliothis* spp.” (August, 1999 – July, 2000). Sponsored by University of Karachi.
- “Taxonomic studies on the plant and soil nematodes of sugarcane fields with reference to entomopathogenic nematodes” (August, 2001 – July, 2002). Sponsored by University of Karachi.
- “Systematics and distribution of nematode fauna of citrus fields from Sindh and Punjab region of Pakistan” (April, 2002 – March, 2003). Sponsored by University of Karachi.
- “Systematics and distribution of nematode fauna of citrus fields from Sindh and Punjab region of Pakistan” (April, 2003 – March, 2004). Sponsored by University of Karachi.
- “Studies of the field efficacy of the entomopathogenic nematodes as bio-pesticides” (July, 2002 – June, 2005). Sponsored by Pakistan Science Foundation.
- “Integrated Nematode Disease Management (INDM) in some cereals, fruits and vegetables of Pakistan” (May, 2003 – April, 2006). Sponsored by Pakistan Agriculture Research Council (PARC) – ALP, Islamabad.
- “Genetic diversity of resistant and susceptible rice and soybean cultivars with reference to root-knot nematodes” (2004 – 05). Sponsored by University of Karachi.
- “Genetic diversity of resistant and susceptible rice and soybean cultivars with reference to root-knot nematodes” (2005 – 06). Sponsored by University of Karachi.
- “Nematode problem of medicinal plant and their management in Sindh” (2006-07). Sponsored by University of Karachi.
- **“Screening of the genetic diversity of wheat germ plasm against cyst nematodes of Pakistan” (July, 2006 – June, 2009). Sponsored by Higher Education Commission (HEC), Islamabad.**
- “Application of Biopesticides entomopathogenic Nematodes in vegetable fields affected with Root-Knot nematodes”(September, 2010 -August, 2013). Sponsored by Pakistan Science Foundation under NSLP.
- AM fungi as potential biocontrol agent for crop improvement and bio-protectant against root-knot nematodes" "(September, 2011 - August, 2014). Sponsored by Pakistan Science Foundation under NSLP.
- Molecular characterization, Mass production and Formulation of Entomopathogenic Nematodes (July, 2012-June, 2016). Sponsored by Pakistan Science Foundation under ILP.



SEMINARS CONFERENCE / WORKSHOPS ORGANIZED:

- US-Pakistan First International Workshop on Plant Nematology, at Karachi, Pakistan (April 6 – 8, 1986).
- FAO-NNRC “Second International Meeting on Plant Nematology”, at Karachi, Pakistan (November 22 – 26, 1992).
- “National Symposium on Nematology”, at Karachi, Pakistan (January 7 – 9, 2002).
- “International Symposium on Biodiversity of Nematode Fauna in Pakistan” (5th National Nematological Conference), at Karachi, Pakistan (May 17 – 19, 2004).
- “6th National Nematological Conference in Pakistan”, at Karachi (April 25-27, 2006).
- “International Training Workshop on Nematode Identification”, at NNRC, University of Karachi (October 22 – November 3, 2007).
- 35th all Pakistan Science Conference, “10th Nematological Event: International Conference on Nematology in Pakistan”, at University of Karachi (December 20-23, 2008).
- 11th Nematological Event: One-day Seminar” on “Molecular Techniques used in Nematology with emphasis on genetic diversity of wheat germ plasm” at KIBGE, University of Karachi (April 17, 2010).
- 12th Nematological Event International Workshop on Biological Control of Root-knot Nematode in Vegetables by EPNs (24th - 26th May, 2012)
- 13th Nematological Event on Prospective of Nematology in Pakistan at Sheikh Zaid Research Institute University of Karachi (23-25 January, 2014)

COUNTRIES VISITED:

Bangladesh, Canada, China, France, India, Indonesia, Netherlands, Saudi Arabia, Scotland, South Africa, United Arab Emirates, United Kingdom, Turkey, United States of America

MEETINGS ATTENDED:

In foreign countries:

- Attended the “Annual Meeting of the American Phytopathological Society”, the Society of Nematologists and Mycological Society of America, Iowa State University, Ames, USA, June 26 – 30, 1983.
- Attended meeting on “The management of problems caused by plant parasitic nematodes”, organized by the Society of Chemical Industries (SCI), London, U.K. April 25, 1995.
- Attended the “Bio-Net International Global Workshop (BIGW)”, held at Cardiff, Wales, U.K. August 20 – 26, 1995.
- Attended the “Association of Applied Biologists (AAB), Nematology Group meeting” held at the Linnean Society, London, U.K. December 13, 1995.
- Attended the “2nd Bio-Net International Global Workshop (BIGW2)”, held at Cardiff, Wales, U.K. August 22 – 29, 1999.
- Attended the 3rd Bio-Net International Global Workshop (BIGW3), held at Pretoria, South Africa, July 8 – 12, 2002.
- Attended the “SACNET Formulation Workshop” (focusing on implementing regional taxonomic capacity building) as a representative member of Taxonomy & Biodiversity Research Group of Pakistan (T & BRGP) held at Dhaka, Bangladesh, June 15 – 18, 2003.
- Attended the “Third International Conference on Plant and Environmental Pollution (TICPEP)” held at Lucknow, India, November 28 – December 2, 2005.



- Attended the “Third International Date Palm Conference (TIDPC)” held at Abu Dhabi, UAE, February 19 – 21, 2006.
- Attended the “International Symposium on the Research and Development of Entomopathogenic Nematodes” held at Sanya, China, April 9 – 13, 2009.
- Attended “43rd Annual Meeting of Society of Invertebrate Pathology and 10th International Colloquium on Invertebrate Pathology” held at Trabzon, Turkey, 11-15 July, 2010.
- International Seminar on Advances in Molecular Genetics and Biotechnology for Public Education 6th- 8th June, 2012 at Atma Jaya Catholico University of Indonesia, Jakarta, Indonesia.

In Pakistan:

- “First All Pakistan Conference of Plant Scientists”, organized by Pakistan Botanical Society, at the Department of Botany, University of Karachi, Karachi (February 23 – 26, 1982).
- “Agricultural Genotoxicity in Developing Countries”, organized by PARC, at Islamabad (November 1- 5, 1982).
- “Twenty-Ninth All Pakistan Science Conference”, at Karachi (December 26 - 30, 1983).
- “National Workshop on Mangrove”, University of Karachi (August 8 -10, 1983).
- Second National Training Course on Plant Nematology (November 20 -December 2, 1984) at NNRC, University of Karachi, Karachi, Pakistan.
- “US-Pakistan First International Workshop on Plant Nematology”, at Karachi (April 6- 8, 1986).
- “National Symposium on Status of Plant Pathology in Pakistan”, at Karachi (December 3 – 5, 1991).
- “Second International Meeting on Plant Nematology”, at Karachi (November 22-26, 1992).
- “Fourth National Conference of Plant Scientists”, at Faisalabad (February 16- 18, 1993).
- “3rd National Conference of Plant Pathology” at Islamabad (October 1 -3, 2001).
- “National Symposium on Nematology” at Karachi (January 7-9, 2002).
- “8th National Meeting of Plant Scientists”, organized by Pakistan Botanical Society at the Department of Botany, University of Karachi, Karachi (February 24 – 28, 2003).
- “Workshop of Integrated Pest Management (IPM)”, jointly organized by the National IPM Program, PARC, FAO and CAB International Pakistan at Mingora, Swat (April 29- May 3, 2003).
- Visited as Resource Person and conducted the lectures in Multan, D.G. Khan, Vehari, Lodhran and Bahawalpur (September 8 – 12, 2003).
- “4th National Conference of Plant Pathology” at University of Arid Agriculture, Rawalpindi (October 14- 16, 2003).
- “Marine Environment Resource, Pollution & Management”, jointly organized by the Centre of Excellence in Marine Biology, University of Karachi & the British Council Karachi, at the A.Q. Khan Institute of Biotechnology, University of Karachi, Karachi (February 21 - 22, 2004).
- “International Symposium on Biodiversity of Nematode Fauna in Pakistan” at Karachi (May 17 – 19, 2004).
- “Symposium on Biochemistry in Post Genomic Era”, jointly organized by PSBMB & Department of Biochemistry, University of Karachi at University of Karachi, Karachi (July 17, 2004).
- “Workshop on PCR application in Research and Diagnosis” jointly organized by Department of Biochemistry, University of Karachi & PSBMB – Rahila Research & Reference Laboratories, at Karachi (October 16-18, 2004).



- “Launching Ceremony of the Journal of Basic & Applied Sciences” organized by the Members of the Educational Forum, Department of Pharmacology & Department of Zoology, University of Karachi at University of Karachi, Karachi, (March 8, 2005).
- “8th Biennial National Conference of Pakistan Society for Biochemistry and Molecular Biology, on Emerging Trends in Biochemistry and Molecular Biology”, at Department of Biochemistry, University of Karachi, Karachi (March 7 -9, 2005).
- “Seminar on Prospects of Fisheries in Pakistan” organized by Pakistan Agricultural Research Council (PARC), Southern-zone Agricultural Research Centre (SARC) at the Coordination Unit Department of Plant Protection, Malir Halt, Karachi (March 17, 2005).
- “A National Workshop, Science in Mass Media” at Department of Genetics, University of Karachi, Karachi (June 8, 2005).
- “Workshop on Bioinformatics” at LEJ Information Centre, University of Karachi, Karachi (June 28 - 30, 2005).
- “Three day training Workshop on Mud Crab (Genus *Scylla*)” at A.Q. Khan Institute of Biotechnology and Genetic Engineering, University of Karachi, Karachi (July 19, 2005).
- “Workshop of Real Time PCR”, at Department of Genetics, University of Karachi, Karachi (August 15, 2005).
- “HEC-KU Health Awareness Seminar: How do we spread and control Gastro-intestinal Infections” at Arts Auditorium, University of Karachi, Karachi (September 21, 2005).
- Higher Education Commission – Digital Library Program, a workshop on “Introduction to Digital Library Resources and their Effective Usage” at University of Karachi, Karachi (October 6, 2005).
- “International Conference on Environmental Horizons”, at International Centre for Chemical Sciences, H.E.J. Research Institute of Chemistry, University of Karachi, Karachi (December 19 -21, 2005).
- “5th Meeting of Pakistan Phytopathological Society & International Symposium on Plant Disease Management” at University of Karachi, Karachi (December 20 - 22, 2005).
- “10th International Symposium on Natural Product Chemistry”, at International Centre for Chemical Sciences, H.E.J. Research Institute of Chemistry, University of Karachi, Karachi (January 5, 2006).
- “9th National Conference of Plant Scientists” at the Institute of Botany, University of Sindh, Jamshoro, Sindh (February 13- 15, 2006).
- “Contemporary Environmental Issues and Rural Communities”, at A.Q. Khan Auditorium, KIBGE, University of Karachi, Karachi (March 9, 2006).
- “6th National Nematological Conference in Pakistan” at A.Q. Khan Auditorium, KIBGE, University of Karachi, Karachi (April 25 -27, 2006).
- “41st National Mango & Summer Fruits Festival” at Mirpurkhas, Sindh (June 2 – 6, 2006).
- “Sixth Workshop on R & D Activities on Sugar Crops” organized by Shakarganj Sugar Research Institute (SSRI) at Jhung (November 27-28, 2006).
- “The 1st National Workshop / Seminar on Global Recognition of Patent System” organized by Patent Advisory Cell, PCSIR Laboratories Complex, Karachi, at Institute of Industrial and Electronics Engineering (IIEE) (December 13 – 14, 2006).
- “Consultative Workshop on National Agribusiness Policy” organized under Agribusiness Development Project, Ministry of Food, Agriculture and Livestock (MINFAL), Government of Pakistan and funded by Asian Development Bank (ADB), at Beach Luxury Hotel, Karachi (January 13, 2007).
- Inauguration ceremony of “Merck Water Testing Laboratory”, established at Institute of Environmental Studies, University of Karachi, Karachi, (March 28, 2007).



- A lecture on “Agricultural Development in the Desert Areas - Egypt as a case study” was delivered by Dr. Hassan El-Shear, organized by Prof. Dr. M. Ajmal Khan, Department of Botany, University of Karachi, at the Arts Auditorium, University of Karachi, Karachi (March 31, 2007).
- A seminar on “Human Activities and Marine Environment” organized by Prof. Dr. Javeed Mustaqim, Director, Centre of Excellence in Marine Biology (CEMB), University of Karachi in connection of Earth Day celebrations, at Regent Plaza Hotel, Karachi (April 22, 2007).
- One day seminar on “Empowering the R & D, Industrial and SME Sector with S & T Information” organized by Pakistan Science & Technology Information Centre, Pakistan Science Foundation / Ministry of Science and Technology in collaboration with Federation of the Pakistan Chamber of Commerce and Industry (FPCCI) at Karachi (May 19, 2007).
- A HEC workshop on “Bio-safety, Health and Environment: A New Frontier” in connection of World Environment Day at Institute of Environmental Studies, University of Karachi, Karachi (June 5, 2007).
- “Sixth Congress for IPM Farmers, Sindh, / National Seminar For IPM Farmers” organized by Sindh IPM Farmer Facilitators Organizations in collaboration with Department of Agriculture Extension Sindh & National IPM Program, NARC, Islamabad, held at Indus Hotel, Thandi Sarrak, Hyderabad (June 14-16, 2007).
- “Third International Conference on Plant Pathology / 7th Biennial Meeting of Pakistan Phytopathological Society”, organized by the Phytopathological Society of Pakistan, held at the Department of Mycology and Plant Pathology, University of the Punjab, Lahore (November 19 - 21, 2007).
- “International Training Workshop on Nematode Identification”, at NNRC, University of Karachi (October 22 - November 3, 2007).
- 35th All Pakistan Science Conference, “10th Nematological Event: International Conference on Nematology in Pakistan”, at University of Karachi (December 20-23, 2008).
- “11th Nematological Event: One-day Seminar” on “Molecular Techniques used in Nematology with emphasis on genetic diversity of wheat germ plasm” at KIBGE, University of Karachi (April 17, 2010).
- Tribute to the father of green revolution nobel peace laureate Prof. Dr. Norman Borlaug and launching of ISAAA Brief 41 / Press Conference. Organized by Pakistan Biotechnology Information Center (PABIC) at the Latif Ebrahim Jamal National Science Information Center, International Center for Chemical and Biological Sciences, University of Karachi, Karachi-75270(June 10, 2010).
- 12th International Symposium on Natural Product Chemistry at H. E.J Research Institute of chemistry International centre for chemical and biological sciences, University of Karachi, Karachi-75270,Pakistan(November 22nd-25th, 2010).
- “10th Biennial Conference of Pakistan Society for Biochemistry & Molecular Biology (PSBMB) on BIOMOLECULAR SCIENCES IN DEVELOPMENT” at Dr. A. Q. Khan Institute of Biotechnology & Genetic Engineering(KIBGE) Auditorium, University of Karachi.(December 1st- 5th, 2010).
- “Marine Biodiversity, Issues and Remedies” at Center of Excellence in Marine Biology, University of Karachi (December 21st & 22nd, 2010).
- International conference of chemistry and its role in science (ICCRS-1), “CHEMISTRY: THE PANACEA OF ALL PROBLEMS”, department of chemistry Jinnah University for Women, Karachi. (January 3rd - 5th, 2011).
- Training course on Apiculture in Arts Auditorium, University of Karachi (May, 12th 2011).
- Fifth National Seminar on “Intellectual Property Rights” in PCSIR Laboratories Complex, Karachi, October 29, 2011.



- PASTIC training workshop on library and information management, April 19th -21st, 2011 at Department of library and information sciences, University of Karachi.
- National Symposium on Biodiversity of Pakistan, June 7-9 2011 at Islamabad.
- One day seminar entitled “Indigenous commercialization potential of academic research”, June 27th, 2011 at Karachi Chamber of Commerce and Industry(KCCI)
- 8th National Conference of Pakistan Phytopathological Society (PPS), entitled “ Challenges and options for plant health management”, November 28th -29th, 2011, at Department of plant pathology, Faculty of agriculture, University of Agriculture, Faisalabad.
- Fifth National Seminar on “Intellectual Property Rights” in PCSIR Laboratories Complex, Karachi, October 29, 2011.
- International Travelling Expo entitled “Its all about Chemistry”, January 6th-13th, 2010 at Education Trust Nasira High School, Korangi, Karachi.
- “Workshop on Patent Protection for R&D” jointly organized by PASTIC, PSF and HEJ held at Karachi University, February 01, 2012.
- Symposium on “Omics Research: Road Map For Future”, February 22nd, 2012 at ICCBS Auditorium, University of Karachi.
- Awarded certificate for participation in workshop on Apiculture May 12, 2011.
- Awarded a certificate for participation in second national Phycological conference Älgae for Mankind organized by Department of Botany, University of Karachi, October 15-17, 2012.
- 9th Biennial International Conference of Pakistan for Microbiology organized by the Department of Microbiology, University of Karachi on January 28-31, 2013.
- Travelling wheat Seminar, wheat productivity enhancement Program (WPEP) NARC organized by Pakistan Agricultural Research Council.
- 3rd International Conference of Pakistan phytopathological society organized by Pakistan phytopathological society and Department of Agriculture and Agribusiness and Management on 23-25 January, 2014.
- 13th Nematological Event on Prospective of Nematology in Pakistan at Sheikh Zaid Research Institute University of Karachi (23-25 January, 2014)

MEMBERSHIP:

- Pakistan Society of Nematologists (Life member)
- Pakistan Botanical Society (Life member)
- Pakistan Society of Phytopathology (Life member)
- All Pakistan Association of Oceaners (APNAO)