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## 1.0 Personal Record

**Name:** Engr. Dr. Niaz Ahmad Akhtar  
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## 2.0 Academic Record

<i>Examination</i>	<i>Session</i>	<i>Division</i>	<i>Subject</i>	<i>Institution</i>
Matric/SSC	1977	<b>First</b>	Pre-Engg.	Multan Board
Intermediate	1979	<b>First</b>	Pre-Engg.	Multan Board
B.Sc. (Engg.)	1985-86	<b>First</b>	Chemical Engg	Punjab University, Lahore.
Ph.D.	1995		Chemical Engg	University of Leeds, UK.

## 3.0 Employment Record

Nov. 1985 - Nov. 1987	Worked as a Chemical Engineer in Higher Polymer Industry
Dec. 1987 - Sept.1988	Worked as a A.E (Chemical) in PAEC
Oct. 1988 - July 1995	<b>Lecturer</b> in Chemical Technology at the Institute of Chemical Engg. & Technology, Punjab University Lahore- PAKISTAN
July 18, 1995- to July. 1999	<b>Assistant Professor</b> in Chemical Engg. at Punjab University. Also served as Sr. lecturer at BTI, Bahrain from Jan. 1998-March 2000 by getting leave from University.
July, 1999 - Jan. 23, 2003	<b>Associate Professor</b> , at Inst. of Chemical Engineering & Technology
Jan. 24, 2003- July 31, 2009	<b>Professor</b> at IQTM, P.U. Lahore.
August 1, 2009 – To date	<b>Rector</b> at National Textile University, Faisalabad.

## 4.0 Total Experience

Teaching/Research/Industrial: 23 yrs. (about)

## 5.0 Administrative Experience

- i) Convener, EA & QEC (Accreditation Committee), Pakistan Engineering Council*
- ii) Director, Inst. of Quality & Tech. Management (2004 -09)*
- iii) Director, Quality Enhancement Cell, University of the Punjab (2005 -09)*
- iv) Deputy Convener EA&QEC, (2008-09)*
- v) Advisor Students, University of the Punjab, (2005-2007)*
- vi) Head QMD, Punjab University (2002-04)*

- vii) Superintendent Boys Hostel No. 1 (2001-09))
- viii) In-charge Process Design Projects

## 6.0 Awards Received

- i) Outstanding Performance Award from State of Bahrain 1999
- ii) IEP National Award of Excellence, 2008
- iii) IEP National Award of Excellence, 2009

## 7.0 Distinction

- 1) *Earned 6 Advance Increments on the basis of excellent reports from Foreign Referees at the time of Associate Professor Selection*
- 2) *Established New Discipline of Quality Management at Punjab University in 2002*
- 3) *Designed and Launched MS and Ph D Total Quality Management Program in 2002 and 2003 respectively.*
- 4) *Established Institute of Quality and Technology Management in 2004*
- 5) *Established Quality Enhancement Cell, University of the Punjab, 2005*
- 6) *Launched Journal of Quality and Technology Management in 2005*
- 7) *Launched Industrial Engineering and Management Program in 2006*
- 8) *Supervised First Ph D in the field of Chem Engg at PU in 2007*
- 9) *Supervised First Ph D in the field of TQM at PU in 2008*
- 10) *Launched International Journal of Quality and Innovation in 2009*
- 11) *Launched M.Sc. Quality & Performance Management Program in 2009*

## 8.0 Honour

1. **Convener, EA&QEC (Accreditation Committee), Pakistan Engg Council**
2. **Approved Supervisor for Ph D studies**

## 9.0 Ph.D. Thesis successfully Supervised

- 1) Control of Oxides of Nitrogen and Sulphur from Coal Fixed Circulating Fluidized Bed Combustor by Abdullah Khan Durrani
- 2) Development of Pharmaceutical Distribution model for Customer Satisfaction by Usman Awan
- 3) Implementation of Quality Management Techniques to improve the Quality of Yarn in Textile Industry by Tajamal Hussain

## 10.0 Books Published

- "Quality Assurance in Higher Education, A Global Perspective" edited by Dr. Abdul Raouf and Dr. Niaz Ahmad published by Higher Education Commission 2008.
- "Quality in Higher Education: Challenges and Practices" Prof. Dr. Abdul Raouf, Prof. Dr. Riaz Hussain Qureshi, and Prof. Dr. Niaz Ahmad. Published by Punjab University, 2009

## 11.0 Editor of Research Journals

- Chief Editor of the Journal of Quality & Technology Management, Published by University of the Punjab

- Chief Editor of the International Journal of Quality & Innovation , Published by Inderscience
- Member Advisory Board, Journal of Quality Assurance in Education (Emerald Journal)

## **12.0 External Examiners**

- External Examiner in the subjects of Fuel & Combustion, Stoichiometry and Industrial Stoichiometry, at Department of Chemical Engineering, Department of Petroleum & Gas Engineering, Mehran University of Engineering and Technology, Jamshoro.
- External Examiner in the Subject of Process Design, and Particle Technology, at Chemical Engineering Department, NFC Institute of Engineering & Fertilizer Research, Faisalabad.
- External Examiner in the Subject of Transport Phenomena at NFC Institute of Engineering & Technological Training, Multan.

## **13.0 New Disciplines Established**

- 1) Chemical Engineering Discipline in State of Bahrain
- 2) Institute of Quality & Technology Management, University of the Punjab, Lahore
- 3) Quality Enhancement Cell, University of the Punjab

## **14.0 Accreditation Visits Conducted**

- B.Sc. Chemical Engineering, University of Engineering & Technology, Peshawar
- B.Sc. Energy & Environment, Quaid-e-Awam University of Engineering, Science & Technology
- B.Sc. Chemical Engineering, NFC Institute of Engineering & Fertilizer Research, Faisalabad
- B.Sc. Environmental Engineering, Mehran University of Engineering & Technology, Jamshoro
- B.Sc. Chemical Engineering, Dawood College of Engineering & Technology, Karachi.

## **15.0 Member Statutory Bodies of Punjab University**

- Member Academic Council, University of the Punjab
- Member Senate, University of the Punjab
- Member Board of Faculty of Engineering & Technology, University of the Punjab
- Member Board of Studies of the Institute of Chemical Engineering & Technology, University of the Punjab
- Convener Board of Studies of the Institute of Quality & Technology Management, University of the Punjab
- Member Board of Studies for Centre of Coal Technology, University of the Punjab
- Member Syllabi and Revision Committee at Institute of Chemical Engineering & Technology, University of the Punjab
- Member Punjab University Extra curricula activities committee (2003-04)
- Executive member academic staff association, Punjab University (2003)
- Member Board of Studies, Special Education, Punjab University

## **16.0 Member Statutory Bodies other than Punjab University**

- Member Governing Body Pakistan Engineering Council (2008-10)
- Deputy Convener Accreditation Committee, Pakistan Engineering Council (2008-09)
- Convener TQM Committee, Pakistan Engineering Council (2008-10)
- Member Board of Studies in Department of Energy & Environment QUEST, Sindh
- Member Board of Studies in Department of Environmental Engineering MUEST, Sindh
- Member Board of Studies in Department of Chemical Engineering, University of Engineering & Technology, Peshawar
- Member Board of Studies in Department of Chemical Engineering, University of Gujrat.

## **17.0 Member Professional Bodies**

- Member Pakistan Engineering Council
- Member Pakistan Institute of Chemical Engineers
- Secretary General, PIChE (session 2005-07)
- Secretary General, PIChE (session 2008-10)

## **18.0 International Conferences Organized**

- International Conference on Assessing Quality in Higher Education, 2006
- International Conference on Assessing Quality in Higher Education, 2008

## **19.0 Conferences Participated**

- First National Conference on Chemical Engineering Congress, April, 2003.
- Seminar on R & D Management in S. Korea from March 31 to April 3, 2003.
- Seventh International Conference on Coal s Science, Canada.
- Second International Conference on combustion technologies for a clean environment, Lisbon, PORTUGAL.
- First Int. conference on combustion and emissions control, Cardiff, U.K.
- Int. Conf. on Fluid and Thermal Energy Conversion,'94, Bali, INDONESIA
- Pacific International conference on Environmental Pollution Control of Combustion processes, Maui, HI, USA.
- First Int conf on the fuel and the environment, University of Peshawar,1996.
- 3-days workshop on Industrial Hazardous Waste Management in Punjab, EPA, Punjab, 26-28, March, 1997.
- International Seminar on Pollution Control in Chemical Process Industry, organized by PIChE, Lahore, 1997.
- International Conference on “Training and Management” organized by Ministry of Labor and Social Affairs, State of Bahrain, 1999, 2001 and 2002.
- International conference on Coal Science, Okinawa, Japan, 2005.

- AMDISA Conference, Dhaka-Bangladesh, 2007
- AMDISA Conference, Bhutan, 2009.

## 20.0 Countries Visited

Year	Countries	Purpose
1992-1995	UK	Ph.D. Studies
1994	UK, Netherland	Visit
1998-2001	Bahrain	Job
1998, 99, 2000, 2002, 2003	KSA	Visit
2003	S. Korea	Presented Paper at NPO Conference
2004	UK	Academic Visit
2004	KSA	Visit
2005	Japan	Presented Paper at Coal Conference
2005	Thailand, KSA	Visit
2005	UK	Academic Visit
2006	Bahrain, KSA	Visit
2006	UK	Academic Visit
2007	KSA	Visit
2007	Bangladesh	Conference
2007	Germany, UK and Austria	Academic Visit
2008	UK, France and Italy	Academic Visit
2009	Nepal, Bhutan	Visit to participate in the Conference

## 21.0 Curriculum Designed and Developed

Following new courses/programs were designed by me in Punjab University & in State of Bahrain:

### A. Courses/Programs Designed at University of the Punjab

- Designed Environmental Engineering Courses for Chemical Engineering Graduates
- **Designed Ph. D, M.S (TQM) M. S (TQM in Health Care), PGD and Short Courses on Quality Management**

### B. Courses/Programs Designed at Bahrain Training Institute

- Designed all the Diploma and Degree Programs in Chemical Engineering.
- Designed a more specialized one- year Diploma (full-time program) on Surface Treatment.

### C. Laboratories Established

The following labs were established and equipment were put in operation at Bahrain Training Institute:

- Unit Operations Lab.
- Fuel Technology Lab.
- Chemistry and Chemical Technology lab.

- Heat and Mass Transfer lab.
- Fluid Flow Lab.

## 22.0 Teaching & Research Experience

- A. Teaching Experience in Chemical Engineering Field
- B. Teaching Experience in TQM Field
- C. Industrial Experience

## 23.0 Research Experience

### Research Projects Completed

- 1) "Gaseous Emissions Control in CFB" Financial Grant from British Coal, UK
- 2) "Industrial Hazardous Waste Management in Punjab Province" sponsored by EPA Punjab) Pakistan, 1997.
- 3) "Experimental and theoretical studies on liquid-liquid extraction in a pulsed column.
- 4) Effect of Nitrogen Contents and lowering heating value of gas on Thermal Efficiency of Boilers.

### Chemical Plant Design and Process Experience

- Experimental study on Air Pollution and its Control in the Vicinity of Ittehad Chemicals, Lahore
- Experimental and theoretical studies on the factors influencing the extraction efficiency in a pulsed column.
- Mathematical model for the combustion of char in circulating fluidized beds
- Characteristic study of the Industrial effluents being discharged in Kala Shah Kaku, Lahore Pakistan
- Effluent Treatment Plant Design for Pulp and Paper Industry
- Effluent Treatment Plant Design for Glaxo-Wellcome Ltd. Pakistan
- Effluent Treatment Plant Design for Fertilizer Industry (Urea)
- Effluent Treatment Plant Design for Tanneries
- Manufacture of Silica Gel from sodium silicate
- Flue Gas Desulphurization technique for 26 MW power plant burning oil with 3% Sulphur.
- Manufacture of 24 Tons/day Acrylonitrile from hydrogen cyanide and Acetylene.
- Experimental study of saponification catalyst used in manufacturing of soap.
- Plant Design on the manufacture of 5 T/D of Silver Nitrate.
- Plant Design report on the manufacture of 5 T/D of Pentaerythritol.
- Plant Design report on the manufacture of 30, 000 T/Y of Ethylene Glycol Starting from ethylene oxide.
- Performance of water-water turbulent heat exchanger
- Energy Scenario of the State of Bahrain
- Liquid Effluents being discharged from Petroleum Refinery & Fertilizer Plant.

## Quality Projects Completed in 2002

Following quality management projects are completed progress under my supervision:

- Role of Quality Management in Textile Dyeing House.
- Failure of Pakistan to Achieve Economic Development.
- A Research Project on Quality Management System of **PEL**.
- Quality Management in Education.
- TQM in the Finance Division of SKMCH & RC-using ISO 9000 Model.
- Role of Quality Management in Orthopedic Workshops.
- Quality Assurance Radiation Oncology Department.
- System Analysis and Design in Pakistan Bait-ul-Mal.
- Quality Management Application in Local Industry.
- Enhancement of Quality and Productivity in the LCCI.
- Achieving Quality through Human Resource Development.

### **Quality Projects under my Supervision**

- Chemical Consumption re-evaluation of Waste Water
- Production Planning and Management
- Development of Quality Management System for a newly installed dairy plant manufacturing instant dry milk, butter and ghee
- Evaluation of Quality Tools and Techniques in Highnoon Laboratory
- Waste Water Management in a Pharmaceutical Industry
- Establishment of Quality Manual and Quality System Procedures from a manufacturing concern organization as per ISO 9001:2000
- Analysis Operations, Location and Waste Management Jomhoor Textiles
- An overview of ABM AMRO Bank with reference to Marketing & Finance Management
- Quality System Manual for a Pharmaceutical Concern
- Quality Management System for Quality Management Division
- Applying operation management decision tools on a construction steel trading organization (layout, design, forecasting demand inventory management)
- Implementing Quality Change in Pakistan Vinyl Industry
- Implementation of Quality Circles at Millat Tractors Workshop
- Implementing quality through process flow charts
- Conversion of Quality manual system of Shezan international limited from ISO-9002:1994 to ISO-9001:2000
- Quality Manual (for hospital)
- A study of ISO 9001 Quality Management Systems & a case study on conversion from ISO 9001:1994 to ISO 9001:2000
- A project report on production of gas oils through the process visbreaking of vacuum residue from 100% Arabia light crude
- Analysis of Quality Management System
- An appraisal of Quality Management concepts and contemporary practices in Pakistan in the light of on going quality techniques and system approaches
- Implementation of Quality Tools Maintenance Department of an IPP
- Shan Mudasar Shehroz (SMS) construction company (pvt) ltd.
- Conversion of Quality Manual system of musterhaft from ISO-9002:2000 to ISO-9001:2000

- Quality Management system development for Fazal Din's Pharma Plus
- Implementation of ISO 14001 in Honda Cars
- Environmental Legislation in Pakistan
- Control of Particulates emissions through Wet scrubber in secondary pharmaceutical industry
- Environmental Legislation in Pakistan
- Control of Particulates emissions through Wet scrubber in secondary pharmaceutical industry
- ISO 9001:2000 at Century Paper Mills
- Preparation of HACCP Certification in Bunnys (pvt) ltd
- Implementation of ISO 14001 in a Power Plant
- Quality Management System of Millat Tractors
- Performance Measurement of NESPAK Systems in Pursuance at professional excellence.
- Development and Implementation of Food Safety System with particular reference to consumer risk protection (CRP) in Food Manufacturing Organizations.
- Assessment and Evaluation of QMS in Star Labs
- Quality Assurance of NESPAK Consultation Services.
- TQM Approach towards Raw Mil Collection System.
- An appraisal of Quality Management System and Assurance of Food/Safety Standards in a Food.
- Effectiveness of the Implementation QMS with focus on Strong areas, Weak areas and Improvement of the System.
- Comparative study of Quality Assurance in the Higher Education Institutes Procedures.
- Implementation of Environment Management System (ISO 14001-2004) in Beverage Industry

### **Different Projects Completed under my Supervision**

- Comparison of Activated Carbon and clays for the removal of Organic Impurities from Water
- Conversion of an Electric based Blistering machine to Gas based Blistering Machine.
- Manufacturing "Biodiesel" from waste vegetable oil.
- Fertilizer Waste Water Treatment
- Bio Gas Production
- Measurement of Gas diffusivity in light Crude Oil
- Development of Catalysts for Three Phase Reaction
- Liquid-Liquid Extraction in Pulsed Column
- Carboxy Methyl Cellulose Preparation
- Alternative fuel Sources for firing of Cement Kiln
- Manufacturing of Zeolite (a)
- Effluent Treatment of Textile Industry
- Production of iso amyl acetate
- Manufacturing of Zeolite (b)
- Quality of high speed diesel available in the market
- Manufacturing of Alkyd Resin
- Solar Energy Utilization
- Toxic emission from Automobile Exhaust.
- Sweetening of Natural Gas using membrane technology
- Production of Zinc Sulphate
- Production of Hydrogen peroxide
- Formation of Acrylic Plastic

- Reaction study of production of Benzene mono sulphuric acid on pilot scale
- Production of Formic Acid
- Production of Calcium Chloride
- Recovery of Chromium from tanneries effluent
- Preparation of Silica Gel
- Manufacturing of Margarine
- Conversion of Canal Water into Mineral Water
- Factors affecting in the Manufacturing of Cellulose Nitrate
- Saponification process using catalyst
- Effluent treatment of Textile industry
- Adhesive for Metals, Phenolic-Neoprene
- Setting time of Cement by adding PV Alcohol
- Preparation of Metallic Stearates
- Preservation of Milk
- Soybean Oil (Extraction, Refining & Bleaching)
- Preparation of Raney Nickel Catalyst
- Chemical Cleaning of Boilers
- The Production of Brine From The Produced Water
- Milk Processing on Increase Shelf Life
- Study of Zeolites & Manufacturing of ZSM-5
- The Manufacture of Soap Based (Lubricating) Greases and Their Testing
- The Perfumes & Perfumery
- The Desalination of Sea Water
- Preparation of Inorganic Synthetic Zeolite
- Production of Perfumes Using Solvent Other Than Ethyl Alcohol
- The Preparation of Medicated Soap
- The Production of Phthalic Anhydride from O-Xylene
- Extraction, Refining & Bleaching of Cotton Seed Oil
- Production of Smokeless Coke By Low Temperature Carbonization
- Manufacturing of Colored Printing Ink
- Pump Sizing
- Estimation of Nickel Contents In Hydrogenated Oils
- Detergents
- Treatment of Wastewater From Tannery Industry
- Preparation of Organophilic Bentonite Clay
- The Comparison of Activated Carbons & Clays For The Removal of Organic Contaminants From Industrial Waste Water
- Characterisation of Industrial Wastewater Discharge Into Deg Nullah, Kala Shah Kaku, Lahore
- The Manufacturing Of Sodium Sulphate
- A Process Report On Manufacturing Of Soap
- Effects of Different Sands In The Manufacturing Of Glass
- Optimization & Substitution Of An Electrical Heater With A Natural Gas Burner In A Blister Packing Machine
- Study Of Toxic Emission From Automobiles Exhaust & Environmental Hazards
- Manufacturing & Testing of Paints
- Production Of Isomyul Acetate Using Different Catalyst
- Preparation Of Inorganic Synthetic Zeolite
- The Sweetening Of Natural Gas
- The Manufacture Of Floor Cleaners & Floor Polishers
- Process Manual For The SSE.62 Bubble Cap Fraction Column
- Manufacture of Adhesive For Metals
- The Preparation Of Precipitated Silica

- Manufacturing of whole Milk Powder from Standardized and Pasteurized liquid Milk.
- Manufacturing of Mineral Water from Tap Water
- Application of Echo-Friendly Reactive Dyes (Based on Cyanotic Chloride and Vinyl Siphoned) on Textile Fiber
- Reclamation of Used Lube Oil collected from different sources
- Preparation of Triethanolamine Oleate (Textile Softener)
- Manufacturing of Food Flavoring Concentrate (Banana Flavor-Amyl Acetate)
- Application of Hydrogen Peroxide as a Bleaching Agent
- Manufacturing of Acetyl Salicylic Acid using acetic acid and salicylic acid as reactant
- Production of Ethyl Alcohol by the fermentation of Molasses
- Production of Styrene
- Factors influencing in preparation of Urea Formaldehyde Resin
- Preparation of Precipitated Silica using sodium silicate and sulfuric acid as raw material.
- Manufacturing of Car Paint and Polish
- Production of Malachite Green Dye
- Production of Acrylic Fiber (Orlon) from Acrylonitrile
- Preparation of the Leather Dyes (Acid brown M.I.)
- Manufacturing of Poly Chloroprene Rubber Based Adhesive
- Characterization of Industrial Waste Water Discharged into River Ravi, Lahore
- Factors influencing in Production of Oxalic Acid from Sugar
- Factors affecting the Extraction Efficiency of a Pulsed Sieve Plate Extraction Column
- Preparation & Testing of Hydraulic Brake Fluids
- Experimental Study on Conversion of waste plastic into Liquid Fuel
- Preservation of fresh Milk using potassium dichromate as preservator
- Preparation of Ball Pen Ink Remover
- Preparation & Testing of Pulp & Paper From Kahi Grass by Using Soda Process.
- Extraction of Carbohydrates and Proteins from Corns
- Production of Azo Dyes
- Processing of Natural Gas Condensate
- Production of Unsaturated Polyester Resin
- Effects of Different indigenous Sands in the Manufacturing of Glass.
- Preparation of Metallic Stearates
- Preparation of Ammonium Chloride using Ammonium Sulphate.

## **24.0 Funded/Collaborative Research Projects**

- Rs. 40 million for construction of the Institute of Quality & Technology Management building by the Higher Education Commission, Government of Pakistan in 2005
- Rs. 0.27 million research project entitled “Development of Pharmaceutical Distribution Model for Customer Satisfaction” by Ministry of Health, Government of Pakistan, 2008.
- Southern Punjab Basic Urban Services Project Quality Management System funded by Asian Development Bank in 2006.
- Professional Development of Primary and Secondary Teachers of Government of the Punjab according to Quality Management System funded by Directorate of Staff Development, Government of the Punjab in 2008.

- Quality Initiatives by Quality Managers in Different cultural context funded by Aston Business School, Birmingham, UK.

## 25.0 Research Publications

- "NO<sub>x</sub> formation and destruction in a circulating fluidized bed combustor". (1993), in the proceedings of the 7<sup>th</sup> International Conference on Coal Science, Canada.
- "Factors influencing the combustion efficiency of coal in a circulating fluidized bed combustor" (1993) in the proceedings of the Second International Conference on combustion technologies for a clean environment, Lisbon, PORTUGAL.
- "Controlling SO<sub>2</sub> emissions from a circulating fluidized bed combustor" (1993) in the proceedings of the Seventh International conference on coal science, CANADA.
- "Fate of NO<sub>x</sub> in a circulating fluidized bed combustor burning coal" (1993) in the proceedings of the first international conference on combustion and emissions control, Cardiff, U.K.
- "Axial solids concentration in the riser of the Circulating fluidized bed" (1994) in the Journal of Pakistan Institute of Chemical Engineers.
- "NO<sub>x</sub> emissions control from a circulating fluidized bed combustor burning coal" (1994) in the proceedings of the International Conference on Fluid and Thermal Energy Conversion, '94, Bali, INDONESIA
- "A mathematical model for the combustion of char in a circulating fluidized bed" (1994) in the proceedings of the International Conference on Fluid and Thermal Energy Conversion,'94, Bali, INDONESIA
- "Experimental study on NO<sub>x</sub> and N<sub>2</sub>O emissions from a CFB combustor" (1994) in the proceedings of Pacific International conference on Environmental Pollution Control of Combustion processes, Maui, HI, USA.
- "Preparation of Iron Free Aluminium Sulphate from Indigenous Bauxite through Bayers Process" in the Journal of Pakistan Institute of Chemical Engineers, No. 1-2. Vol. XXXIII, 1995, pp 95-99.
- "Effects of operating parameters in removing fine particles in a TFC" in the Journal of Pakistan Institute of Chemical Engineers, No. 1-2. Vol. XXIII, 1995, pp 15-22.
- "Recovery of Barium from Indigenous Barites" in the Journal of Pakistan Institute of Chemical Engineers, No. 1-2. Vol. XXIII, 1995, pp 109-111.
- "Effect of number of partition with and without baffles in a TFC for fine particulates" in the Journal of Pakistan Institute of Chemical Engineers, No. 1-2. Vol. XXIII, 1995, pp 59-64.
- "Factors influencing the absorption of Nitrogen Dioxide in packed bed" in the Journal of Pakistan Institute of Chemical Engineers, Vol. XXIV, NO. 1-2, 1996, pp 115-121.
- "Effect of number of partition with and without baffles in a TFC for fine particulates" in the Journal of Pakistan Institute of Chemical Engineers, No. 1-2. Vol. XXIII, 1995, pp 59-64.
- "The separation of submicron particles from gas stream using Turbulent Diffusion Technique" in the Journal of Pakistan Institute of Chemical Engineers, Vol. XXIV NO. 1-2,1996, pp 67-72.
- "Utilization of Turbulent Diffusion Technique for separation of submicron particles from gas steams" in the Journal of Pakistan

Institute of Chemical Engineers, No. 1-2. Vol. XXIII, 1996, pp 95-100.

- "Modeling Heat transfer in a circulating fluidized bed" in the Journal of Pakistan Institute of Chemical Engineers, Vol. XXIV, NO. 1-2, 1996, pp 9-16.
- "Effect of addition of Polyester Fiber on properties of the cement" in the Journal of Pakistan Institute of Chemical Engineers, Vol. XXIV, NO. 1-2, 1996, pp 43- 46.
- "The control of gaseous emissions in the coal burning fluidized beds, a review" in the proceedings of the first international conference on the fuel and the environment, University of Peshawar, July, 1996.
- "Investigation of a turbulent flow contactor with hydraulic swirl spray pressure nozzles in removing very fine particulates from gas stream" in the proceedings of the first international conference on the fuel and the environment, University of Peshawar, July, 1996.
- "Characteristic study of the industrial effluents being discharged in Dek Nallah, Kala Shah Kaku, Lahore" in the proceedings of the 3-days workshop on Industrial Hazardous Waste Management in Punjab, EPA, Punjab, 26-28, March, 1997.
- "Controlling NOX and N2O emission from coal burning fluidized beds" in the Journal of the Pakistan Institute of Chemical Engineers, Vol. XXV, 1997.
- "Effect of Metal Oxides on BiSrCaCuO Glass Ceramic" 1999, in the Journal of Infrared and Millimeter Waves, USA
- "Mathematical Modeling of a Pulsed Extraction Column" 2000, in the Journal of Pakistan Institute of Chemical Engineers, Vol. XXVIII, 1-4, pp 29 – 36.
- "Energy resources and their utilization in Pakistan" 2000, in the Journal of the Pakistan Institute of Chemical Engineers, " XXIX, 1-4, pp 31-38.
- "Coal Combustion Modeling in a Circulating Fluidized Bed" 2000, in the Journal of the Pakistan Institute of Chemical Engineers, " XXIX, 1-4, pp 51-58.
- "Factors influencing the extraction efficiency in a pulsed column" 2000, in the Journal of the Pakistan Institute of Chemical Engineers," XXIX, 1-4, pp 11-16.
- "Experimental study on conversion of waste plastic into liquid fuel" 2001, in the Journal of the Pakistan Institute of Chemical Engineers, " XXX, 1-4, pp 10-18.
- "Effect of Composition and Calorific Value of natural gas on efficiency of the boiler." 2001, in the Journal of the Pakistan Institute of Chemical Engineers, " XXX, 1-4, pp 21-31.
- "Pollution level measurements of industrial effluents discharged into Deg Nullah" 2001, in the Journal of the Pakistan Institute of Chemical Engineers, " XXX, 1-4, pp 10-20.
- "Production of Dimethyl Amine by continuous vapor phase methylation of Aniline on Pilot Plant Scale" 2002, in the Journal of the Pakistan Institute of Chemical Engineers, " XXXI, 1-4, pp 9-16.
- "Mass Transfer Characteristics of a sieve plate pulsed column" 2002, in the Journal of the Pakistan Institute of Chemical Engineers, " in the Journal of the Pakistan Institute of Chemical Engineers, " XXXI, 1-4, pp 51-58.
- "Research & Development Management in Pakistan" in the Seminar on Research & Development organized by KPC in South Korea from March 31 to April 03, 2003.

- “Comparative study on separation performance of micro-porous and micro fibrous filter medium” ACTA, Pharmaceutica Turcica, Vol. 46, No. 2, 2004, Page No. 101.
- “Control of oxides of N and S from a coal fired CFB combustor: a review”, in the Journal of PICHÉ, vol-32, 2004.
- “The successful adaptation of quality management programs in Pakistan ISO certified organization” in the Journal of QTM, Pakistan
- “Role of Char in reducing NO<sub>x</sub> emissions during combustion of coal in fluidized bed” In the International conference on Coal Science, Okinawa, Japan, 2005.
- “Mathematical Model for CFB burning coal” In the International conference on Coal Science, Okinawa, Japan, 2005.
- “Design and operating experience of CFB burning coal” In the International conference on Coal Science, Okinawa, Japan, 2005.
- “The Successful Adaptation of Quality Management Programs in Pakistani ISO Certified Organizations” in the Journal of Quality & Technology Management Volume I, 2005
- “Role of Top Management and Ethical Teaching in Quality Education at Higher Educational Institutions” in the Journal of Quality & Technology Management, Volume II, June, 2006.
- “QA Model for universities: a case study of IQTM, University of the Punjab”, In the International conference on Assessing Quality in Higher Education, Dec11-13, 2006, Lahore-Pakistan.
- “Impacts of Multiple Blend Ratio & Different Spinning System on the Quality of Jute Yarn” in the Journal of Quality & Technology Management, Volume III, Issue II, December, 2007.
- “Implementation of Quality Management Practices and Its Impact on Performance: A study in Pakistan Cotton Spinning Industry” in the Journal of Quality & Technology Management, Volume III, Issue II, December, 2007.
- “Effect of operating parameters on extraction in sieve plate pulsed extraction column” in the journal of Pakistan Academy of science 44(3): 189-195, 2007
- “Statistical Estimation of Main Quality Contributor in Yarn Manufacturing Processes” in the Journal of Quality and Technology Management Vol IV, Issue II, December, 2008.
- “Quality Management Practices and their statistical interrelationships: A Case from Pakistan Yarn Industry” in the Journal of Quality & Technology Management, Volume II, Issue I, June, 2009.
- “Effect of Leadership and Academic culture on Implementation of self assessment manual in Public Universities of Pakistan” in 10th South Asian Management Forum Change and Continuity. Management Prospects & Challenges. 9-10 April, 2009.
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## **26.0 International Linkages Developed**

- ☒ Institute of Retail Studies, University of Stirling, UK.
- ☒ Northumbria University, New Castle upon Tyne, UK.
- ☒ Aston Business School, Birmingham, UK.
- ☒ MINES ParisTech University, France.