Javaid R. Laghari, Ph.D

Former Chairman, Higher Education Commission of Pakistan

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STRENGTHS

All Functions pertaining to Higher Education and Research, including but not limited to: Development of Knowledge Economy through Higher Education & Research, Science, Technology & Innovation, Technology Transfer, Incubation & Entrepreneurship, and Science & Technology Parks. High Energy Systems and Cutting Edge Technology. Establishment, Development & Expansion of Universities & Academic Programs, Strategic Planning, Policy Making, Academics & Curriculum, Accreditation & Quality Assurance, Research & Development, Monitoring & Evaluation, Human Resource Development, Scholarships, International Linkages, Enabling Technologies, Financials including Fund Raising & Sustainability, and Administration & Coordination.

In my last assignment as Chairman Higher Education Commission (HEC) of Pakistan, I was responsible for overseeing over 150 Universities and 258 campuses, including 66 private universities, with over 1.1 million students and a budget of over Rs. 57 billion (\$ 570 million) in 2013. Total portfolio was \$ 2+ billion over 4 years. Under my tenure, HEC acquired an additional \$ 468 million grant through USAID and \$ 400 million loan through World Bank under the successfully completed HESP and ongoing TESP program (HESP was rated highly satisfactory; TESP will complete by 2015). HEC has formal collaborative linkages with USAID, USEFP, British Council, AusAID, DAAD (Germany), EGIDE (France), JICA (Japan), etc and with a large number of leading Universities, and Science and Technology Parks, around the world through these organizations.

ACHIEVEMENTS

As Chairman HEC, due to the strategic planning and reforms carried out during my 4 year tenure, 7 Pakistani universities for the first time entered the ranks of the top 250 universities of Asia as per QS World University Rankings 2013, while none ranked in 2009. Also, Pakistan's score in the World Economic Forum Global Competiveness Report 2013 showed a consistent and marked improvement in indicators for Higher Education, Research & Innovation and Technology Readiness for four straight years. The number of ISI indexed research publications out of Pakistan increased by 50% just in the last two years. Scimago forecasts that at the current rate of increase, Pakistan's research ranking will move from 43 to 27 by 2018, the second highest increase worldwide. The first Supercomputer (133)

Teraflops) for NUST was acquired in 2013. Due to these exemplary reforms and achievements, Pakistan for the first time is now recognized as a regional leader in higher education and research.

New initiatives were introduced at the universities to improve quality of education. 84 Quality Enhancement Cells (QECs) for self-assessment of quality were established, which resulted in the universities improving their standards. For the first time ever, Institutional Performance Evaluation (IPE) with 8 standards for 20 universities was conducted in 2013. Ranking of Universities was done for the first time in 2012 as per global standards, which enabled our universities to identify their strengths and weaknesses and improve upon them, resulting in being ranked among the World's Best Universities in 2013. The HEC ranking model was recognized by the Association of Commonwealth Universities (ACU) at their 2012 Annual Meeting at Jamaica, West Indies as an appropriate model for the developing world, and was also adopted by the Islamic countries at the Sixth Conference of the OIC Ministers of Higher Education at Khartoum, Sudan, in 2012.

Associate Degree programs (US model) was introduced for the first time in Pakistan with the assistance of USAID. Enrollment at the universities increased by over 50% in the last four years, while the number of PhD faculty and PhD students increased by over 50% in the last two years alone. To further increase geographical accessibility to higher education, for the first time ever, Directorates of Distance Learning were established at the 6 largest universities to streamline private students, and a Policy for Online Education was conceived to enable quality education to reach out by universities who meet the minimum criteria.

A number of initiatives were undertaken during my tenure to promote the growth of Knowledge Economy. Business Competitions were encouraged at universities, jointly with the Chambers of Commerce, and 26 Outreach Programs in Research, Innovation and Commercialization (ORICs) to bridge the link between academia and industry, and 8 Business & Technology Incubators to inculcate entrepreneurship at the universities, were established where none existed prior to 2010. There are already success stories of companies that have graduated as a result of these initiatives. The first fourth-generation Science & Technology Park in Pakistan was conceived to be established at Islamabad.

Also during my tenure as Chairman HEC, the higher education sector in Pakistan successfully acquired \$ 468 million as USAID grants, including \$ 125 million for 3 Centers for Advanced Study in Energy, Water Resources, and Food Security, which included major US university partnerships, and \$ 400 million loan through World Bank under the completed HESP and ongoing TESP program (HESP was rated highly satisfactory; TESP will complete by 2015)

The HEC Reforms undertaken have proven to be a success story for the

developing world. According to US Ambassador to Pakistan, May 20, 2013, "We would be hard-pressed to find another country that has made so much progress this quickly in higher education". According to the Chief Editor "The Lancet", May 2013, "The HEC reforms changed the culture of academia to one that is focused on research, quality and impact".

As Founding President and Project Director SZABIST, established the American-modelled private university from scratch in 1995, with a MOU signed with SUNY Buffalo, as a multi-campus global university with 4 campuses, including a campus in Knowledge Village Dubai, and within 6 years, it was ranked among the best Business and Science & Technology Schools in Asia by BusinessWeek, AsiaInc, Asia Week and CNN-Time Inc. SZABIST had 7 faculties (including the first Media Sciences and Software Engineering programs in Pakistan) with over 3000 students, and had graduated over 4000 students during my tenure. Within SZABIST, established ZabFM (the first on-campus FM station run by the students), ZabNet (ISP provider for students), ZabSolutions (software development wing), Zab Online University (the first online course offerings by any university in Pakistan), Executive Development Center (corporate professional training), and the Center for Management and Development (think-tank for national development), which all reported to me as CEO.

As Tenured Full Professor of Electrical and Computer Engineering and Director of Graduate Studies at SUNY Buffalo, established the first Space Power Institute in the USA, with sponsored multi-year funding from DoD, SDI, BMDO, AFOSR, NASA, ONR, NSWC, Boeing, Hughes, Maxwell, etc among others. Engineering brought in maximum research funding from public and private sources, enabling a major growth in our graduate programs, and facilitating SUNY Buffalo in becoming the first public university in northeastern US to become a member of the prestigious Association of American Universities (AAU), limited only to the top 50 universities in the US and Canada (62 now).

EDUCATION

- Ph.D. Electrical and Computer Engineering (1980)
 State University of New York at Buffalo
 Buffalo, NY, USA
- M.S. Electrical Engineering (1975)
 Middle East Technical University
 Ankara, Turkey
- B.S. Electrical Engineering (1971) University of Sindh Jamshoro, Pakistan

ADVANCED INSTITUTES ATTENDED

- NATO Advanced Study Institute, "The Behaviour of Systems in a Space Environment," Pitlochry, Scotland, U.K., July 7-19, 1991.
- NATO Advanced Study Institute, "Fast Electrical and Optical Diagnostic Principles and Techniques," Castelvecchio Pascoli, Italy, July 10-24, 1983.

NATO Advanced Study Institutes are by invitation only, and limited to top 100 scientists in NATO countries.

EXPERIENCE

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• Chairperson 2013

August 2009 – August

(Status of Federal Minister)
Higher Education Commission (<u>www.hec.gov.pk</u>)
Government of Pakistan

The Commission is responsible for developing policy framework, establishing new and strengthening existing universities, funding of universities and research, quality assurance, and faculty and human resource development. HEC oversees 150 Universities and 258 campuses in Pakistan, including 66 private universities, with over 1.1 million students and a budget of over Rs. 57 billion (\$ 570 million) in 2013. Total portfolio is \$ 2+ billion over 4 years.

Under my tenure HEC acquired an additional \$ 468 million grant through USAID and \$ 400 million loan through World Bank.

The Commission has formal collaborative linkages with USAID, USEFP, British Council, AusAID, DAAD (Germany), EGIDE (France), JICA (Japan), and also with a large number of leading universities, and science and technology parks, around the world.

Also officiating as:

- Chancellor, Air University (<u>www.au.edu.pk</u>), Islamabad. A federally chartered public university. Air War College, a prestigious strategic institute of the Pakistan Air Force (PAF), is one of the affiliated institutes of Air University.
- Chairperson, Board of Governors, National College of Arts

(<u>www.nca.edu.pk</u>), Lahore. Established in 1872 as the Mayo School of Industrial Arts to commemorate Lord Mayo, the British Viceroy to India, NCA is one of the premier arts school in South Asia.

Coordinator General (Additional Charge)
 2012 - March 2013

August

COMSTECH (www.comstech.org)

COMSTECH is the Organization of Islamic Cooperation (OIC) Ministerial Standing Committee on Scientific and Technological Cooperation. The Coordinator General is the key person among the Ministers of Science and Technology of all 57 countries within the OIC for policy framework, general meetings of the Ministers, conferences, workshops and capacity building initiatives. COMSTECH comprises of 13 inter-Islamic networks focusing on technology development and growth.

• Senator March 2006

-August 2009 Parliament of Pakistan

Chaired session of the Senate in April 2009. Member of the Senate Standing Committees on

- Water and Power
- Information Technology
- Information and Broadcast

Member, Board of Governors, Pakistan Institute of Parliamentary Affairs (PIPS), 2009

Member, Senate Strategic Planning Committee, 2009.

Founding President & Project Director

July 95 -

August 2009

Shaheed Zulfikar Ali Bhutto Institute of Science and Technology (SZABIST), Pakistan.

SZABIST (<u>www.szabist.edu.pk</u>) is ranked among the best Business and Science & Technology Schools in Asia by BusinessWeek, AsiaInc, Asia Week and CNN-Time Inc.

Established SZABIST as a multi-campus global University from scratch in 1995, based on US education system, with a MOU signed with SUNY Buffalo, and within 6 years was ranked among the best universities in Asia.

Established 4 SZABIST campuses (Karachi, Islamabad, Larkana and Dubai, UAE) with 7 faculties and over 3000 students, and had graduated over 4000

students during my tenure.

Established a number of SZABIST divisions, including ZabFM, ZabNet, ZabSolutions, ZabOnline University, Executive Development Center, and the Center for Management and Development.

Professor and Director of Graduate Studies |u|v 95

August 92 -

Department of Electrical and Computer Engineering, State University of New York at Buffalo, NY, USA.

SUNY Buffalo (<u>www.buffalo.edu</u>) is the flagship university in the SUNY system, and the largest public university in northeastern USA.

Tenured Full Professor. Over \$5 million in Sponsored Research. Established the Space Power Institute at SUNY with additional \$4 million of federal, state and private funding.

Associate Professor

August 88 -

August 92

Department of Electrical and Computer Engineering State, University of New York at Buffalo, NY, USA

Assistant Professor

September 80 -

August 88

Department of Electrical and Computer Engineering, State University of New York at Buffalo, NY, USA

BOOK PUBLICATIONS

BOOKS

- 1. 'Reflections on Benazir Bhutto,' SZABIST Publication, ISBN 978-969-8666-13-2, February 2008, 195 pages.
- 2. 'Leaders of Pakistan,' SZABIST Publication, ISBN 978-969-8666-14-9, August 2009, 102 pages.
- 3. 'The Wizardry of Leadership', Paramount Publishing, ISBN 978-969-494-846-1, October 2011, 233 pages.

INVITED BOOK CHAPTERS

- 1. J. R. Laghari, "Dielectric Films for High Temperature High Voltage Power Electronics," Materials for Electronic Packaging, ed. Deborah D. L. Chung, Butterworth Publishers, USA, 1994.
- 2. J.R. Laghari, "Higher Education and Building Winning Formulas for the Knowledge Economy in Pakistan", Going Global: Identifying Trends and Drivers of International Education, ed. Mary Stiasny and Tim Gore, Emerald Publishers, UK, 2013, pp 41-54.

MONOGRAPH

1. J. R. Laghari, A. H. Qureshi and G. D. Theophilus, "Flashover Studies in SF6-N2 Mixtures Using Direct Applied Voltages," Gaseous Dielectrics II, edited by L. G. Christophorou, Pergamon Press, US, 1980, pp. 227-236.

IEEE STANDARD

IEEE Guide for Designing Multistress Aging Experiments in a Radiation Environment," IEEE Std 775-1993, J. R. Laghari, Chairman, IEEE Radiation Effects Committee, June 1993, pp. 1-16.

REFEREED JOURNAL PAPERS

- 1. J. R. Laghari and A. H. Qureshi, "Surface Flashover of Spacers in Compressed Gas Insulated Systems," IEEE Transactions on Electrical Insulation, Vol. EI-16, No. 5, 1981, pp. 373-387.
- 2. J. R. Laghari and A. H. Qureshi, "A Review of Particle-Contaminated Gas Breakdown, "IEEE Transactions on Electrical Insulation, Vol. EI-16, No. 5, 1981,pp. 388-398.
- 3. J. R. Laghari, "Spacer Flashover in Compressed Gases," IEEE Transactions on Electrical Insulation, Vol. El-20, No. 1, 1985, pp. 83-92.
- 4. J. R. Laghari, "Testing and Evaluation of Insulating Films: Part I: Description of Test Facilities at the University at Buffalo," IEEE Electrical Insulation, Vol. 2, No.6, 1986, pp. 16-21.
- 5. J. R. Laghari, "Testing and Evaluation of Insulating Films: Part II: Test Results using Facilities at the University at Buffalo," IEEE Electrical Insulation, Vol. 2, No. 6, 1986, pp. 22-26.
- 6. J. R. Laghari, "A Review of ac and Pulse Capacitor Technology," Applied Physics Communications, Vol. 6, No. 2, 1986, pp. 213-251.
- 7. S. Cygan and J. R. Laghari, "On the Design of Field-Controlled Multi-Layer Foil Insulation," IEEE Transactions on Electrical Insulation, Vol. EI-22, No. 1, 1987, pp.107-108.
- 8. J. R. Laghari, "Multifactor Stress Aging of Dielectrics," Applied Physics Communications, Vol. 7, No. 1, 1987, pp. 19-55.
- 9. M. Treanor, J. R. Laghari and A. K. Hyder, "Repetitive Phenomena in Dielectics"

- IEEE Transactions on Electrical Insulation, Vol. EI-22, No. 4, 1987, pp. 517-522.
- 10. S. Cygan and J. R. Laghari, "Dependence of Electrical Strength on Thickness, Area and Volume of Polypropylene," IEEE Transactions on Electrical Insulation, Vol. EI-22, No. 6, 1987, pp. 835-837.
- 11. B. Krishnakumar, R. K. Gupta, E. O. Forster and J. R. Laghari, "ac Breakdown of Melt-Crystallized Isotactic Polypropylene," Journal of Applied Polymer Science, Vol. 35, 1988, pp. 1459-1472.
- 12. N. Hammoud, J. R. Laghari and B. Krishnakumar, "Electron Radiation Effect on the Electrical and Mechanical Properties of Polypropylene," IEEE Transactions on Nuclear Science, Vol. NS-34, No. 6, 1987, pp. 1822-1826.
- 13. S. Cygan and J. R. Laghari, "Field-Grading of Multi-Layered Composite Insulation Structures," Applied Physics Communications, Vol. 7, No. 4, 1987, pp. 255-274.
- 14. N. Hammoud, J. R. Laghari and B. Krishnakumar, "Characterization of Electron Irradiated Biaxially Oriented Polypropylene Films" IEEE Transactions on Nuclear Science, Vol. NS-35, No. 3, 1988, pp. 1026-1029.
- 15. N. Hammoud, J. R. Laghari and B. Krishnakumar, "Effect of High Energy electron Radiation on MIPB-Impregnated Polypropylene Film," IEEE Transactions on Nuclear Science, Vol. NS-35, No. 4, 1988, pp. 1061-1065.
- 16. S. Cygan and J. R. Laghari, "Visual Observations of Surface Damage to Polypropylene and Polyvinylidene Films from High Voltage Discharges," Journal of Materials Science Letters, Vol. 8, 1988, pp. 835-837.
- 17. P. Cygan and J. R. Laghari, "Lifetimes of Polypropylene Films Under Combined High Electric Fields and Thermal Stresses," IEEE Transactions on Electrical Insulation, Vol. El-24, No. 4, 1989, pp. 619-625.
- 18. S. Cygan and J. R. Laghari, "Effects of Fast Neutron Radiation on Polypropylene," IEEE Transactions on Nuclear Science, Vol. NS-36, No. 4, 1989, pp. 1386-1390.
- 19. J. R. Laghari, "Model for Electro-Thermal Aging of Electrical Insulation," Applied Physics Communications, Vol. 9, Nos 1 & 2, 1989, pp. 73-86.
- 20. W. Khechen and J. R. Laghari, "Breakdown Studies of SF6-Argon Gas Mixtures, "IEEE Transactions on Electrical Insulation, Vol. El-24, No. 6, 1989, pp. 1141-1146.
- 21. J. R. Laghari and A. N. Hammoud, "A Brief Survey of Radiation Effects on Polymer Dielectrics," IEEE Transactions on Nuclear Science, Vol. NS-37, No. 2, 1990, pp.1076-1083.
- J. R. Laghari and A. N. Hammoud, "Effect of Nuclear Radiation on the Electrical Properties of Chemical Double Layer Capacitors," IEEE Transactions on Nuclear Science, Vol. NS-37, No. 2, 1990, pp. 1072-1075.
- 23. P. Cygan and J. R. Laghari, "Models for Insulation Aging Under Electrical and Thermal Multistresses," IEEE Transactions on Electrical Insulation, Vol. El-25, No.5, 1990, pp. 923-934.
- 24. J. R. Laghari, J. L. Suthar and S. Cygan, "PSPICE Applications in High Voltage Engineering Education," Computers and Education, Vol. 14, No. 6, 1990, pp.455-462.
- 25. J. R. Laghari, P. Cygan and W. Khechen, "A Short Method of Estimating

- Lifetime of Polypropylene Film Using Step-Stress Test," IEEE Transactions on Electrical Insulation, Vol. El-25, No. 6, 1990, pp. 1180-1182.
- 26. J. L. Suthar and J. R. Laghari, "Effect of Ionizing Radiation on the Electrical Characteristics of Polyvinylidene Fluoride (PVF2)," IEEE Transactions on Nuclear Science, Vol. NS-38, No. 1, 1991, pp. 16-19.
- 27. J. L. Suthar and J. R. Laghari, "The Influence of High Energy Electron Radiation on Tensile Properties of Polyvinylidene Fluoride Film," Journal of Materials Science Letters, Vol. 10, 1991, pp. 786-788.
- 28. S. Cygan and J. R. Laghari, "Effect of Multistress Aging (Radiation, Thermal, Electrical) on Polypropylene," IEEE Transactions on Nuclear Science, Vol. 38, No. 3, 1991, pp. 906-912.
- J. L. Suthar, J. R. Laghari and T. J. Saluzzo, "Usefulness of SPICE in High Voltage Engineering Education," IEEE Transactions on Power Systems, Vol. 6, No. 3, 1991, pp. 1272-1278.
- 30. J. R. Laghari and W. J. Sarjeant, "Energy Storage Pulsed Power Capacitor Technology," IEEE Transactions on Power Electronics, Vol. 7, No. 1, 1992, pp. 251-257.
- 31. J. L. Suthar and J. R. Laghari, "Breakdown Studies of Teflon Perfluoroalkoxy Film at High Temperature," Journal of Materials Science, Vol. 27, 1992, pp. 1795-1800.
- 32. J. L. Suthar and J. R. Laghari, "Evaluation of High Temperature Dielectric Films for High Voltage Power Electronic Applications," Journal of Materials Science: Materials in Electronics, Vol. 3, 1992, pp. 77-81.
- 33. J. R. Laghari, "High Voltage Pulsed Life of Multistressed Polypropylene Capacitor Dielectric," IEEE Transactions on Nuclear Science, Vol. 39, No. 1, 1992, pp. 21-24.
- 34. J. L. Suthar, J. R. Laghari and P. C. Cheng, "Laser Scanning Confocal Microscopy: A Non-Destructive Tool for Examining Microstructure of Polymer Dielectric Films," IEEE Electrical Insulation Magazine, Vol. 8, No. 4, 1992, pp. 20-24.
- 35. W. Khachen and J. R. Laghari, "Estimating Lifetime of PP, PI and PVDF Under Artificial Void Conditions Using Step-Stress Tests," IEEE Transactions on Electrical Insulation, Vol. 27, No. 5, 1992, pp. 1022-1025.
- 36. J. R. Laghari, "Complex Electro/Thermal/Radiation Aging of Polymers," Invited Review Paper, IEEE Transactions on Electrical Insulation, Vol. 28, No. 5, 1993, pp.777-788.
- 37. S. Akbar and J. R. Laghari, "Electromagnetic Guns and Launchers," Science Technology and Development, Vol. 12, No. 2, 1993, pp. 29-40.
- 38. W. Khechen and J. R. Laghari, "Determination of Aging Model Constants Under High Frequency and High Electric Fields," IEEE Transactions on Electrical Insulation, July 1994.
- P. Cygan and J. R. Laghari, "Accelerated Life Studies of Polyimide Film Under Electrical and Thermal Multistresses," IEEE Transactions on Electrical Insulation, July 1994.
- 40. Syed Zeeshan Arshad and J. R. Laghari, "CEMENTIDE: A Creativity Enhanced Model for Effective Integration and Technology Implementation in

- Developing Countries," Journal of Independent Studies & Research, Vol. 4, No. 2, 2006, pp 2 7.
- 41. Naheed Malbari and J.R. Laghari, 'Transformational Leadership and Benazir Bhutto', Journal of Independent Studies & Research, Vol. 8, No.1, January 2010, pp 203-220.
- 42. Naheed Malbari and J.R. Laghari, "Transformational Leadership in Bhutto's Reconciliation: Islam, Democracy and the West", Journal of Independent Studies and Research, Vol. 8, No. 2, July 2010, pp 117-137.

INTERNATIONAL CONFERENCE PROCEEDINGS

- 1. J. R. Laghari and A. H. Qureshi, "Effects of Partial Discharges on Synthetic Insulation Materials and Air and Other Gases," Proceedings, Third International Symposium on High Voltage Engineering, Milano, Italy, August 1979, pp. 221-224.
- 2. J. R. Laghari and A. H. Qureshi, "Effects of Surface Discharges on Synthetic Insulation Materials," Proceedings, International Electrical Electronics Conference and Exposition, Toronto, Canada, October 1979, pp. 180-181.
- 3. J. R. Laghari and A. H. Qureshi, "Surface Flashover Voltages in SF6-N2 Mixtures Under Uniform and Non-Uniform Fields," Proceedings, Conference on Electrical Insulation and Dielectric Phenomena, Pocono Manor, PA, October 1979, pp. 268-276.
- 4. J. R. Laghari, N. A. Malik, A. H. Qureshi and G. D. Theophilus, "Surface Flashover of Spacers in SF6-N2 Mixtures and Design of High Impulse Ratio Compressed Gas Insulated Apparatus," Proceedings, International Conference on Development in Design and Performance of EHV Switching Equipment, London, U.K., November 1979, pp. 71-74.
- 5. J. R. Laghari and A. H. Qureshi, "Flashover Studies of Cylindrical Spacers in SF6-N2 Mixtures," Proceedings, PES Winter Meeting, New York, NY, February 1980, pp. 1-7.
- 6. J. R. Laghari, A. H. Qureshi and G. D. Theophilus, "Flashover Studies in SF6-N2 Mixtures Using Direct Applied Voltages," Second International Conference on Gaseous Dielectrics, Knoxville, TN, March 1980, pp. 227-236.
- 7. J. R. Laghari and A. H. Qureshi, "Surface Flashover Along Spacers in SF6 and SF6-Gas Mixtures With and Without Electrode Surface Roughness," 18th Cage Club Meeting, Ottawa, Canada, May 1980.
- 8. J. R. Laghari and A. H. Qureshi, "Protrusion-Initiated Gas Breakdown in the Presence of Solid Insulators," Proceedings, Nordic Insulation Symposium, Trondheim, Norway, June 1980, pp. 111-120.
- 9. J. R. Laghari and A. H. Qureshi, "Flashover Voltages of Cylindrical Insulators in Gas Mixtures," Proceedings, Sixth International Conference on Gas Discharges and Their Applications, Manchester, U.K., September 1980, pp. 240-242.
- 10. J. R. Laghari and A. H. Qureshi, "Flashover of Spacers in SF6-N2 Gas Mixtures," Proceedings, 13th Symposium on Electrical Insulation Materials, Tokyo, Japan, September 1980, pp. 105-108.

- 11. J. R. Laghari and A. H. Qureshi, "Flashover of Spacers in Non-Uniform Fields," Proceedings, Canadian Conference on Communication and Power, Montreal, Canada, October 1980, pp. 280-283.
- 12. J. R. Laghari and A. H. Qureshi, "Breakdown Along Solid Insulators in Compressed SF6," Proceedings, 16th Universities Power Engineering Conference, Sheffield, U.K., April 1981, pp. 1-5.
- 13. J. R. Laghari and A. H. Qureshi, "Impulse Breakdown Voltages for a Cylindrical Spacer in the Presence of Electrode Protrusion," Proceedings, Third International Pulsed Power Conference, Albuquerque, NM, June 1981, pp. 285-288.
- 14. J. R. Laghari, D. T. Shaw and K. Chou, "Corona Discharges at High Temperatures and Pressures," 14th Aerosol Technology meeting, Baltimore, MD, August 1981.
- 15. J. R. Laghari and A. H. Qureshi, "Breakdown Voltages of Spacers in Compressed SF6," Proceedings, International Electrical, Electronics Conference and Exposition, Toronto, Canada, October 1981, pp. 42-43.
- M. Alem and J. R. Laghari, "A Prediction of Deposition of Contaminants on Insulator Surface With and Without Grading Rings," Proceedings, IEEE International Symposium on Electrical Insulation, Pittsburgh, PA, June 1982, pp. 192-196.
- 17. J. R. Laghari and M. Alem, "Particle Deposition on HVDC Insulators with Grading Rings," Proceedings, First Annual Conference, Aerosol Research Association, February 1982, pp. 282-283.
- 18. W. J. Sarjeant, J. R. Laghari and K. J. Bickford, "Charge Injection Effects Upon Partial Discharges in a dc and dc Plus ac Laminate Insulation Environment," Proceedings, Workshop on Space-Based Power, Arlington, VA, February 1982.
- 19. J. R. Laghari and W. J. Sarjeant, "Charge Injection Effects Upon Partial Discharges in Polymer Films," Gordon Conference on Dielectrics, Plymouth, NH, August 1982.
- 20. J. R. Laghari and M. Alem, "Precipitation of Atmospheric Aerosols on Transmission Line Insulators," 15th Aerosol Technology Meeting, Anaheim, CA, August 1982.
- 21. J. R. Laghari, W. J. Sarjeant, R. Gupta, K. J. Bickford and T. Springer, "Partial Discharges and Charge Injection in Polymer Insulation," Proceedings, Conference on Electrical Insulation and Dielectric Phenomena, Buck Hill Falls, PA, October 1982, pp. 541-548.
- 22. J. R. Laghari, K. H. Chou and D. T. Shaw, "A Study of Corona Discharges at High Temperatures and Pressures for Application to Advanced ESPs," Proceedings, Industrial Pollution Control Symposium, Houston, TX, January 1983, pp. 185-192.
- 23. J. R. Laghari and W. J. Sarjeant, "Partial Discharges and Breakdown in Laminate Insulation Structures," Proceedings, 1st International Conference on Conduction and Breakdown in Solid Dielectrics, Toluouse, France, July 1983, pp. 282-285.
- 24. J. R. Laghari, "Insulation Experiments on the Space Station," NASA Workshop on Plasma Physics and Fusion Scientific Activity on the Space

- Station, Rogerville, AL, May 1985.
- 25. M. Treanor, J. R. Laghari and W. J. Sarjeant, "Repetitive Phenomena in Dielectrics," Proceedings, International Conference on Properties and Applications of Dielectric Materials, Xian, China, June 1985, pp. 1-4.
- T. Bilodeau, M. Treanor, A. Hammoud, G. FitzPatrick and J. R. Laghari, "A Description of New Insulation Test Facilities at SUNY/AB," Proceedings, 5th IEEE Pulsed Power Conference, Arlington, VA, June 1985, pp. 481-484.
- 27. M. Rickley, R. N. Hitchcock, R. Dollinger and J. R. Laghari, "A Large 500 kV Double Resonant Transformer for Testing HV Probes and HV Resistor Materials," Proceedings, 5th IEEE Pulsed Power Conference, Arlington, VA, June 1985, pp. 824-827.
- 28. J. R. Laghari, A. H. Hammoud and W. J. Sarjeant, "Time-Induced Partial Breakdown in Laminate Structures," Proceedings, Conference on Electrical Insulation and Dielectric Phenomena, Buffalo, NY, October 1985, pp. 518-523.
- 29. S. Cygan, J. R. Laghari and W. Khechen, "Influence of Electrode Area and Weight on Breakdown of Multilayered Insulation Structures," Proceedings, IEEE International Symposium on Electrical Insulation, Arlington, VA, June 1986, pp. 62-65.
- 30. W. Khechen, A. Hammoud and J. R. Laghari, "A New Type of Life Testing of Dielectrics Under 60 Hz ac in the Laboratory," Proceedings, IEEE International Symposium on Electrical Insulation, Arlington, VA, June 1986, pp. 175-178.
- 31. G. J. FitzPatrick, J. R. Laghari and E. O. Forster, "The Effects of Impregnants on the Morphology and Dielectric Properties of Polypropylene Films," Proceedings, 2nd International Conference on Conduction and Breakdown in Solid Dielectrics, Erlangen, Germany, July 1986, pp. 211-216.
- 32. S. Cygan and J. R. Laghari, "Surface Damage to Films Under High Voltage Discharges," 23rd Annual Technical Meeting of the Society of Engineering Sciences, Buffalo, NY, August 1986.
- 33. B. Krishnakumar, J. R. Laghari, E. O. Forster and R. Gupta, "The Effect of Polypropylene Morphology on ac Breakdown," Proceedings, Conference on Electrical Insulation and Dielectric Phenomena, Wilmington, DE, November 1986, pp. 522-527.
- 34. W. Khechen, S. Cygan, J. R. Laghari and G. Kasper, "SF6-Argon Gas Mixtures for Insulation," Proceedings, 6th IEEE Pulsed Power Conference, Arlington, VA, June 1987, pp. 647-649.
- 35. Hammoud, B. Krishnakumar and J. R. Laghari, "Breakdown Behavior of Isotactic Polypropylene with Varying Morphologies for Use in Pulsed Power Electrical Insulation," Proceedings, 6th IEEE Pulsed Power Conference, Arlington, VA, June 1987, pp. 205-208.
- 36. Krishnakumar, J. R. Laghari, P. Cygan and M. Takacs, "Influence of Impregnation Temperature and Time on Electrical Properties of Dielectric Films," Proceedings, Fifth International Conference on Dielectric Materials, Measurements and Applications, Manchester, U.K., June 1988, pp. 89-92.
- 37. P. Cygan B. Krishnakumar and J. R. Laghari, "High Field Electrical and Thermal Aging of Polypropylene Films," Proceedings, IEEE International Symposium on Electrical Insulation, Boston, MA, June 1988. pp. 188-191.

- 38. W. Khechen and J. R. Laghari, "Glow Discharge Aging of Kapton Film." IEEE International Conference on Plasma Science, Buffalo, NY, May 1989, p 98.
- 39. J. Shea, D. McDonald and J. R. Laghari, "Air Conductivity Enhancement by Surface Charges Insulators in the Presence of Free Ions," Proceedings, Sixth International Symposium on High Voltage Engineering, New Orleans, LA, August 1989, pp. 34.05.1-4.
- 40. J. L. Suthar and J. R. Laghari, "High Temperature Studies of Perfluoroalkyl (PFA) Film," Conference on Electrical Insulation and Dielectric Phenomena, Leesburg, VA, October 1989, pp. 495-502.
- 41. W. Khechen and J. R. Laghari, "Polypropylene for High Voltage High Frequency Airborne Applications," IEEE International Symposium on Electrical Insulation, Toronto, Canada, June 1990, pp. 80-83.
- 42. P. Cygan and J. R. Laghari, "A Review of Electrical and Thermal Multistress Aging of Electrical Insulation," Invited Review Paper, IEEE International Symposium on Electrical Insulation, Toronto, Canada, June 1990, pp. 15-20.
- 43. N. Hammoud, J. L. Suthar and J. R. Laghari, "Characterization of Polybenzimidazole (PBI) at High Temperatures," IEEE International Symposium on Electrical Insulation, Toronto, Canada, June 1990, pp. 449-451.
- 44. J. R. Laghari and W. J. Sarjeant, "Energy Storage/Pulsed Power Capacitor Technology," Invited Review Paper, IEEE International Power Source Symposium, Cherry Hill, NJ, June 1990, pp. 380-386.
- 45. J. L. Suthar, J. R. Laghari and T. J. Saluzzo, "Usefulness of SPICE in High Voltage Engineering Education," IEEE Winter Power Meeting, New York, NY, February 1991, Paper No. 91WM077-8PWRS, pp. 1-7.
- 46. J. L. Suthar and J. R. Laghari, "Dielectric Films for High Temperature High Power Electronics Applications," First International High Temperature Electronics Conference, Albuquerque, NM, June 1991, pp. 105-110.
- 47. J. L. Suthar and J. R. Laghari, "Simulation of Air Core Pulse Transformer," 8th IEEE Power Conference, San Diego, CA, June 1991, pp. 237-240.
- 48. W. Khechen, J. R. Laghari and W. J. Sarjeant, "Influence of Space Pressure on Dielectric Properties of Pulsed Power Insulation," 8th IEEE Pulsed Power Conference, San Diego, CA, June 1991, pp. 346-350.
- 49. J. R. Laghari and J. L. Suthar, "Dielectric Films for High Temperature High Voltage Power Electronics," Invited Paper, Conference on Materials for Electronic Packaging, Buffalo, NY August 1991.
- 50. J. L. Suthar, J. R. Laghari and W. Khechen, "Poly-P-Xylene Film for High Temperature High Voltage Dielectric Applications," Conference on Electrical Insulation and Dielectric Phenomena, Knoxville, TN, October 1991, pp. 244-249.
- 51. J. R. Laghari, "Radiation Effects on Electrical Insulation," NATO Advanced Study Institute on "The Behaviour of Systems in the Space Environment," Pitlochry, Scotland, U.K., July 1991.
- 52. W. Khechen and J. R. Laghari, "Dielectric Breakdown of Polypropylene Under High Frequency Fields," IEEE International Symposium on Electrical Insulation, Baltimore, MD, June 1992, pp. 185-188.
- 53. J. R. Laghari and P. J. Cygan, "Accelerated Life Studies of Polyimide Film

- Under Electrical and Thermal Multistress," IEEE International Symposium on Electrical Insulation, Baltimore, MD, June 1992, pp. 66-69.
- 54. J. Suthar, J. R. Laghari, et al., "Evaluation of Dielectric Materials for Aerospace and Space Power Wiring Insulation," IEEE International Symposium on Electrical Insulation, Baltimore, MD, June 1992, pp. 17-20.
- 55. W. Khechen, J. L. Suthar, J. R. Laghari and W. J. Sarjeant, "High Energy Density Capacitor Dielectric Mismatch and Aging Characteristics," IEEE 35th International Power Sources Symposium, Cherry Hill, NJ, June 1992, pp. 377-380.
- 56. N. Stokes, J. L. Suthar, J. R. Laghari and W. J. Sarjeant, "Lifetime Characteristics of Electrically and Thermally Preaged Polypropylene Films," Conference on Electrical Insulation and Dielectric Phenomena, Victoria, British Columbia, October 1992, pp. 741-746.
- 57. Hammoud, E. D. Bauman, J. R. Laghari, et al., "High Temperature Properties of Apical Kapton, PEEK, Teflon AF and Upilex Polymers," Conference on Electrical Insulation and Dielectric Phenomena, Victoria, British Columbia, October 1992, pp. 549-554.
- 58. N. Stokes, J. R. Laghari and W. J. Sarjeant, "Effect of Thermal and Electrical Prestressing on the Lifetime Characteristics of Polypropylene," Gordon Conference on Dielectrics, Plymouth, NH, August 1992.
- 59. J. L. Suthar, A. Stokes, W. Khachen and J. R. Laghari, "Statistical Analysis of Multistress Aging Studies of Polyetherimide," Conference on Electrical Insulation and Dielectric Phenomena, Pocono, PA, October 1993, pp. 568-573.
- 60. J. R. Laghari, "Breakdown Testing for Wiring Insulation," Invited Paper, NASA 2nd Workshop on Space Applications, Cleveland, OH, October 1993, pp. 1-18.
- 61. N. Hammoud, J. R. Laghari and J. L. Suthar, "Breakdown Behaviour of Wiring Constructions for Space Applications," 2nd International Conference on High Temperature Electronics, Charlotte, NC, June 1994, pp. 1-6.
- 62. H. Hammoud, J. L. Suthar, W. Khachen and J. R. Laghari, "Testing of Cable Insulation for Aerospace Applications," IEEE International Symposium on Electrical Insulation, Pittsburgh, PA, June 1994, pp. 174-177.
- 63. N. Stokes, J. R. Laghari and W. J. Sarjeant, "Comparative Statistical Studies of Aging Models for Polypropylene Films," IEEE International Symposium on Electrical Insulation, Pittsburgh, PA, June 1994, pp. 332-335.
- 64. Syed Zeeshan Arshad and J. R. Laghari, "Business Plan ZabSolutions," National Research Conference, Karachi, Pakistan, December 2002.
- 65. S. Zeeshan Arshad and J. R. Laghari, "Learning Media Production," National Research Conference, Karachi, Pakistan, December 2003.
- 66. Naheed Malbari and J. R. Laghari, "Valorous Leadership and The Potter Mania," National Research Conference, Karachi, Pakistan, May 2007.
- 67. Naheed Malbari and J. R. Laghari, "Honor and Leadership and the Potter Mania," National Research Conference, Karachi, Pakistan, May 2007.
- 68. Naheed Malbari and J. R. Laghari, "Leadership The East / West Dichotomy," National Research Conference, Karachi, Pakistan, May 2008
- 69. Naheed Malbari and J.R. Laghari, "Transformational Leadership and Mohtarma Benazir Bhutto", National Research Conference, Karachi, Pakistan,

May 2009.

- 70. Naheed Malbari and J.R. Laghari, "Bhutto as Transformational Leader in 'Reconciliation: Islam, Democracy and the West", National Research Conference, Karachi, Pakistan, December 2009.
- 71. Naheed Malbari and J.R. Laghari, "Narcissist Leadership: Alexander in Film", National Research Conference, Karachi, Pakistan, December 2009.

<u>PUBLICATIONS</u> IN INTERNATIONAL MAGAZINES

- 1. 'We Never Learn Pakistan must put its money where its mouth is', Newsweek, November
 - 1, 2010.
- 2. 'Enter the Unraveling Islamabad is trying to fix what ain't broke', Newsweek, April 25, 2011.
- 3. 'Running Out Pakistan risks being left behind', Newsweek, May 6, 2011.
- 4. 'The Real War with India If we want to compete, we need to invest more in higher

education', Newsweek, July 29, 2011.

- 5. 'The Plausible Rise of Asia', Newsweek, September 2, 2011.
- 6.' From Start-up to Sustainability Innovation and Incubation are essential for economic

growth', Newsweek, September 30, 2011.

7.'Empires of the Mind - The correlation between investing in education and economic

prosperity is an axiomatic one', Newsweek, February 3, 2012.

8. 'Melting Glaciers bring energy uncertainty', Nature, Oct 31, 2013.

PUBLICATIONS IN NEWSPAPERS / MAGAZINES

- 1. 'Promoting Research for Development,' Dawn, Feb 7, 1997.
- 2. 'Internet in Pakistan,' The News, May 17, 1997.
- 3. 'Letter to the Editor on 'Asia's Best Universities,' Asiaweek, June 6, 1997.
- 4. 'An Institute of the 21st Century,' The News, June 30, 1997.
- 5. 'Vision of Professional Education in the 21st Century,' The News, Sept 29, 1997.
- 6. 'Wake-up Call for Pakistan,' The News, June 30, 1997.
- 7. 'The Next Fifty Years,' The News, March 23, 1998.
- 8. 'Next Generation Internet,' The News, Sept 12, 1998.
- 9. 'Role of Private Sector in Higher Education,' The News, Oct 25, 1998.
- 10. 'e-Commerce and the Business World-Cover Story,' Pakistan and Gulf Economist, Nov 8-14, 1999.
- 11. 'Building a Work Force for the Internet-Based Economy,' Invited paper,

- 'Training for the New Millennium,' Souvenir, Skills Development Council, Karachi. March 2000.
- 12. 'Leadership as a Career, H2 Consulting,' January 2006.
- 13. 'Power Vision for Pakistan,' Dawn, July 24, 2006 and The Nation, August 14, 2006.
- 14. 'Charter of Freedom,' The Nation, September 1, 2006.
- 15. 'What's the Big Deal,' Dawn, April 21, 2007.
- 16. 'Power Mess and Energy Conservation,' Dawn, April 23, 2007.
- 17. 'Pakistan's Choice,' The Guardian, Sept 3, 2007.
- 18. 'The Way Ahead,' Dawn, October 26, 2007.
- 19. 'The Constitution' Indus Asia Online Journal, December 5, 2007.
- 20. 'PPP Accuses Govt. for Creating Energy Crisis in Country,' Asia Pulse Data Source, December 24, 2007.
- 21. 'Musharraf Rule has Created Energy Crisis,' Frontier Post, December 25, 2007.
- 22. 'Mohtarma Benazir Bhutto and the Pakistan Peoples Party,' EMEL Magazine, January 2008 Issue.
- 23. 'A Ruler of Hearts,' The News, January 19, 2008.
- 24. 'PPP Leaders Flay Musharraf,' Rediff News, January 23, 2008.
- 25. 'The Lion King,' The News, April 4, 2008.
- 26. 'Challenges and Opportunities,' The Nation, October 09, 2008.
- 27. 'The Centurion Leader,' The Nation, December 23, 2008.
- 28. 'Challenges in Higher Education', Dawn, January 4, 2010.
- 29. 'Quality in Higher Education', The News, February 11, 2010.
- 30. 'Higher Education', The News, May 8, 2010.
- 31. 'Knowledge is Power', Dawn, July 7, 2010.
- 32. 'Reforms in Higher Education', Dawn, September 29, 2010.
- 33. 'Higher Education Reforms', Dawn, May 12, 2011.
- 34. 'Potential of our Youth', The News, June 23, 2011.
- 35. 'Power for Peace', The News, October 28, 2011.
- 36. 'A Quiet Revolution in Higher Education', Express Tribune, November 11, 2011.
- 37. 'Electric Energy Options', Newswatch, December 2011, pp 24-25.
- 38. 'We're Killing Education', The News, December 30, 2011.
- 39. 'The Energy Crisis', The News, January 14, 2012.
- 40. 'Soft Revolution in Higher Education', Dawn, February 4, 2012.
- 41. 'Higher Education', Dawn, Feb 5, 2012.
- 42. 'Revolution in Higher Education', The News, February 15, 2012.
- 43. 'Ranking Universities', Express Tribune, March 2, 2012.
- 44. 'Laptops are the Answer', Express Tribune, May 6, 2012.
- 45. 'Knowledge Economy', The News, May 21, 2012.
- 46. 'The Changing Dynamics of Higher Education', June 13, 2012.
- 47. 'Higher Education and National Development', The News Education Expo Supplement, June 13, 2012.
- 48. 'Building Universities', The News, June 25, 2012.
- 49. 'Laurels for Pakistani Research', The News, August 2, 2012.

- 50. 'Pakistan and the OIC', the News, November 19, 2012 'HEC: the next 10 Years'. The News, December 10, 2012.
- 51. 'Power Tussle HEC View', Letter to the Editor, Dawn, December 27, 2012.
- 52. 'HEC Working to Promote Scholarships', Letter to the Editor, Dawn, January 28, 2013
- 53. 'HEC: The Next 10 Years', Newswatch, January, 2013.
- 54. 'HEC's Working', Letter to the Editor, Dawn, February 14, 2013.
- 55. 'Let the Task Begin', The News, February 27, 2013.
- 56. 'HEC and Degree Verification', The News, March 5, 2013.
- 57. 'HEC: Points & Counterpoints', The News, Mar 14, 2013.
- 58. 'Higher Education and Economic Development', Express Tribune, May 29, 2013.
- 59. 'Higher Education', The News, June 6, 2013.
- 60. 'Challenges to Higher Education', The Jang, June 6, 2013.
- 61. 'Flying High', The News, July 6, 2013.
- 62. 'Pakistan Universities Excel Globally', Jang Group HEC Special Report, July, 2013.
- 63. 'Research should lead the way', The News, July 16, 2013.
- 64. 'State of Higher Education', The News, July, 31, 2013.
- 65. 'Knowledge and the Tigers', The News, Aug 1, 2013.
- 66. 'An Environment for Education', The News, Nov 29, 2013
- 67. "In Defence of the HEC", The News, Dec 21, 2013
- 68. "Glacier Melting and Hydroelectric Uncertainty in South Asia", Express Tribune, Jan 3, 2014
- 69. "Can Online Learning Help Pakistan", Express Tribune, Jan 10, 2014
- 70. "Fixing Higher Education", The News, Jan 31, 2014
- 71. "Top Notch Universities", The News, April 22, 2014

INVITED DISTINGUISHED LECTURES

- 1. 'Pakistan and the Contemporary World', A View From the Late Benazir Bhutto's Pakistan People's Party," The Brookings Institution, Washington, DC, January 21, 2008.
- 2. 'Pakistan and Central Asia: Post-Bhutto Implication', Lecture at the Paul H. Nitze School of Advanced International Studies (SAIS), The Johns Hopkins University, Washington DC,

January 25, 2008

3. 'Shifting Sand of Innovation and Entrepreneurship', Clinton School of Public Service,

University of Arkansas, Little Rock, January 31, 2011.

4. 'World Education: The New Power House' Keynote Speaker at the Plenary Session, Going

Global 5, Hong Kong, March 11, 2011.

- 5. 'I Dream of a Pakistan", TEDx, Hajvery University, Lahore, February 4, 2012.
- 6. 'Powering the Knowledge Economy', Keynote address at the Forum of All

Vice-Chancellors of the Muslim World, Islamabad, June 11, 2012.

7. 'Higher Education Pakistan', Invited presentation at the Forum of Vice-Chancellors of UK

Universities, British Council, London, UK, July 3, 2012.

- 8. 'Combating Extremism through Education, Science and Technology: Lessons from Pakistan and Across the Muslim World', Woodrow Wilson Center, Washington, DC, September 11, 2012.
- 9. 'Higher Education in Pakistan', George Mason University, Washington DC, September 12, 2012.
- 10. 'The Role of Higher Education in the Development of Science & Technology for a Prosperous Future', Sixth Conference of the OIC Ministers of Higher Education and Scientific Research, Khartoum, Sudan, November 22, 2012.
- 11. 'Research, Innovation and Entrepreneurship', Invited keynote plenary presentation at the European Union Parliament Conference on "EU Science: Global Challenges, Global Collaboration", Brussels, March 7, 2013.

INVITED PROFESSIONAL LECTURES

Chief Guest

1 'University and the Information Technology Industrial Revolution,' Rotary Continental,

Karachi, Oct 6, 1997.

- 2. "The Role of University in the Information Technology Revolution," University of Sindh, Jamshoro, March 7, 1998.
- 3. 'Information Technology and the Internet,' Sind Madrassat-ul-Islam, Karachi, Jan 29, 2000.
- 4. 'Empowering the Internet Generation,' University of Sindh, Jamshoro, Feb 24, 2000.
- 5. 'Research & Development in Universities,' IEEE SCONEST, August 21, 2002.
- 6. 'Skill Development and the Future,' SZABIST JSTC, Hyderabad, Jan 18, 2003.
- 7. Unemployment, Challenges, Opportunities & Role of Job Skill Training Centers, JSTC Nawabshah, March 1, 2005.
- 8. CSR in Action, CR Conference by Revelation, Karachi, December 10, 2005.
- 9. "Literacy and Education," Annual Rotary International Conference, April 5, 2008.
- 10. 'Medical Education', Inaugural of the Minimal Invasive Surgery Center, LUMHS, Jamshoro, September 29, 2009
- 11. Engineering Education', Convocation, College of Electrical and Mechanical Engineering, NUST, Islamabad, October 3, 2009
- 12. 'Advances in Biotechnology', 5th International Symposium on Biotechnology, (IBS-09), University of Sindh, Jamshoro, October 5, 2009.
- 13. 'Vision of Higher Education in Pakistan', 5th Vice-Chancellors' Conference, Islamabad, October 15, 2009.
- 14. 'Halophyte, Research and its Economic Implications', UNESCO Chair on Halophyte, University of Karachi, Karachi, October 26, 2009.
- 15. 'Challenges to Higher Education', Strategic Workshop, National Defence

- University, Islamabad, October 20, 2009.
- 16. 'Higher Education in Pakistan', USAID, Washington, DC, November 10, 2009.
- 17. 'Collaboration between US-Pakistan in Higher Education', American-Pakistan Business Council, Washington, DC, November 11, 2009.
- 18. 'Higher Education in the Developing World', World Bank, Washington, DC, November 12, 2009.
- 19. 'Engineering Education', Convocation, Mehran University of Engineering and Technology, Jamshoro, December 17, 2009.
- 'Climate Change and Global Warming', International Seminar on "Impact of Climate Change on Water Resources and Challenges", National Center for Physics, Quaid-i-Azam University, Islamabad, January 7, 2010.
- 21. 'Nursing Profession in the Developing World', Dow University of Medical and Health Sciences, Karachi, Pakistan, January 9, 2010.
- 22. 'Technological Advances and Education', Roots School System, January 14, 2010.
- 23. 'Role of Media and Fine Arts in Developing Economies', University of Gujrat, Gujrat, January 18, 2010.
- 24. 'Need for Research in Teaching Training', Pre-STEP National Educational Research Initiative, USAID, Islamabad, January 26, 2010.
- 25. 'Higher Education and Technology', 18th Convocation, National University of Computer & Emerging Sciences, Karachi, January 30, 2010.
- 26. 'Medical Education and its Challenges', 8th Convocation, Chandka Medical College, Larkana, February 1, 2010.
- 27. 'Biodiversity in Pakistan', Center for Biodiversity and Conservation', Shah Abdul Latif University, Khairpur, February 2, 2010.
- 28. 'Career Planning & Development', Sukkur Institute of Business Administration, Sukkur, February 2, 2010.
- 29. 'Quality in Higher Education', 6th Vice-Chancellors' Conference, Islamabad, February 28, 2010.
- 30. 'Participation of Women in Economic Development', 2010 Convocation, Fatima Jinnah Women's University, Islamabad, March 18, 2010.
- 31. 'Split Ph.D Program', Joint UK-Pakistan Ph.D Program Round Table Discussion, London, UK, March 28, 2010.
- 32. 'Pakistan-China Collaboration in Education', Pakistan China Institute, Islamabad, April 6, 2010.
- 33. Science and Technology for Economic Development', 6th Post-Graduate Convocation, National University of Science and Technology, Islamabad, April 15, 2010.
- 34. 'Universities Building Communities', 2010 Convocation, Federal Urdu University of Arts, Science and Technology, Karachi, April 17, 2010.
- 35. 'HEC Scholars and Fulbright', Annual Fulbright Conference, Islamabad, April 23, 2010.
- 36. 'Technology and Economic Development', 4th Convocation, University of Management and Technology, Lahore, April 25, 2010.
- 37. 'Career Placement and Alumni Associations', Government College University, Lahore, April 26, 2010.

- 38. 'France-Pakistan Research Collaboration', Pakistan-France Alumni Network, Islamabad, April 27, 2010.
- 39. 'Quality Assurance in Education', Liaquat University of Medical & Health Sciences, Jamshoro, May 3, 2010.
- 40. 'INSPIRE Joint UK-Pakistan Research Program', British Council HEC Event, Islamabad, May 10, 2010.
- 41. 'Technology and Education', Inaugural Wi-Fi Mesh Network, Allama Iqbal Open University, Islamabad, May 13, 2010.
- 42. 'Health Technologies and Post-Graduate Education', College of Physicians and Surgeons, Karachi, May 14, 2010.
- 43. 'Challenges in Quality Education', 3rd Convocation, SZABIST, Islamabad, May 17, 2010.
- 44. 'Education Challenges and Development', Convocation, Forman Christian College, Lahore, June 13, 2010.
- 45. 'Technology and Education', People Soft Launch, Liaquat University of Medical and Health Sciences, Jamshoro, July 2, 2010.
- 'Challenges in Research', International Conference on Sustainable Water Management, MUET, Hyderabad, September 17, 2010.
- 47. 'Universities for Development', Pakistan and German Universities Joining Focus for a Better Future, Islamabad, October 29, 2010.
- 48. 'Research in Engineering Universities', NED University of Engineering and Technology, Karachi, November 15, 2010.
- 49.'Building Cultures of Innovation in Higher Education', INSPIRE Regional Policy Dialogue, Islamabad, November 23, 2010.
- 50. 'Learning beyond the Classroom', Roots National Olympiad 2010, Islamabad, November 26, 2010.
- 51. 'Creativity among Children', Annual Award Distribution Ceremony, Bloomfield High School, Islamabad, November 27, 2010.
- 52. 'Challenges in Renewable Energies', International Conference on Power Generation Systems and Renewable Energy Technologies, International Islamic University, Islamabad, November 29, 2010.
- 53. 'Medical Research on Pakistan', 5th Regional Confernece of Eastern Medical Journals, College of Physicians & Surgeons, Karachi, December 3, 2010.
- 54. 'Alumni participation in National Development', Mehran University of Engineering & Technology, Alumni Dinner, Jamshoro, December 3, 2010.
- 55. 'Business Education Globally', 13th Convocation, Institute of Business Management, Karachi, December 4, 2010.
- 56. 'University building Economies', University of Engineering & Technology, Lahore, December 8, 2010.
- 57. 'Liberal Education', 5th Convocation, Beaconhouse National University, Lahore, December 8, 2010.
- 58. 'Advances in ICT', Microsoft Strategic Education Alliance, Islamabad, December 22, 2010.
- 59. 'Advances in Computer Vision', 2nd International Conference on Machine Vision 2010, Military College of Signals, Islamabad, December 29, 2010.

- 60. 'Quality Medical Education and Community Service', 9th Convocation, Liaquat University of Medical and Health Sciences, Jamshoro, January 15, 2011.
- 61. 'Password to Prosperity', Book Launch of Dr. Raees Mushtaq, Hyderabad January 22, 2011.
- 62. 'Challenges in Higher Education', 2010 Convocation, Bahria University, Karachi, February 7, 2011.
- 63. 'Universities Building Communities', International Conference on Floods 2010: A Dialogue to Transform Devastation to Opportunity, NUST, Islamabad, February 23, 2011.
- 64. 'Vision of Higher Education', National Security Workshop, National Defence University, Islamabad, February 23, 2011.
- 65. 'Regional Policy Dialogue', Going Global 5, Hong Kong, March 12, 2011.
- 66. 'Entrepreneurship and Innovation', Bahria University, Islamabad, March 31, 2011.
- 67. 'Nanotechnology Advances', COMSTECH Workshop Nanotechnology Education, Islamabad, March 9, 2011.
- 68.'New Challenges of Reform', Convocation Federal Urdu University of Arts, Science and Technology, Islamabad, March 21, 2011.
- 69. 'Entrepreneurship in University', Game Changers, Indus Entrepreneurship Annual Conference, Islamabad, March 30, 2011.
- 70. Career Options', Beaconhouse School High Achievers Awards Ceremony, Islamabad, March 30, 2011.
- 71. 'Global Publishing', Annual Research Conference, Aga Khan University, Karachi, May 13, 2011.
- 72. 'Global Research Culture', International Seminar on Crop Management: Issues and Options, University of Agriculture, Faisalabad, June 2, 2011.
- 73. 'Global Education', The News Jang Education Exposition, Islamabad, June 11, 2011.
- 74. 'Trends in Global Education', Fulbright Scholarship Award Ceremony, June 30, 2011.
- 75. 'Evolving Leadership', HEC Senior Management Workshop, Khanaspur, July 9, 2011.
- 76. 'International Workshop on "Safety Management and OSHA Standards", NUST, July 26, 2011.
- 77. 'Empowering Yourself to Success', HEC Junior Management Workshop, Khanaspur, July 30, 2011.
- 78. 'Higher Education Choices', Roots School System, Islamabad, August 10, 2011.
- 79. 'Video-Conferencing for Higher Education', Vice-Chancellors' Conference, Islamabad, September 13, 2011.
- 80. 'Emerging Challenges in Technology', 11^{th} Convocation, University of Engineering and Technology, Taxila, October 11, 2011.
- 81. 'Research and Economic Development', HEC Outstanding Research Awards, October 17, 2011.

- 82. 'Science and Prosperity', Science Olympiad (STEM) Awards, October 18, 2011.
- 83. 'Quality Education & Ranking', Punjab University, Lahore, November 17, 2011.
- 84. 'Challenges of Private Education', University of Lahore, November 18, 2011.
- 85. 'Importance of Science and Maths', Conference on Applications of Maths and Physics, NUST, Islamabad, November 21, 2011.
- 86. 'The Potential of Herbal and Medicinal Plants', International Workshop on Medicinal Plants, Quaid-i-Azam University, December 8, 2011.
- 87. 'Importance of Higher Education', Rotary Club, Islamabad, January 9, 2012.
- 88. 'Herbal Medicine Education in Universities & Institutes', Federal Urdu University of Arts, Science & Technology, Karachi, January 13, 2012.
- 89. 'Pain Management', International Conference on Pain Management, Aga Khan University, Karachi, January 13, 2012.
- 90. 'Innovation and Entrepreneurship', TiE. All Asia Business Plan Competition, Islamabad, January 22, 2012.
- 91. 'Research Ethics', Workshop on Research Ethics, Isra University, Islamabad, January 24, 2012.
- 92. 'Agriculture Backbone of our Economy', Sindh Agriculture University, Tando Jam, January 27, 2012.
- 93. 'Technology: The Driving Force of Research', 4th National Conference on ICTs, Usman Institute of Technology, Karachi, February 11, 2012.
- 94. 'Trends in Supercomputing', Inauguration of Supercomputing Center, NUST, Islamabad, March 6, 2012.
- 95. 'Research Trends in Medical Education', International Conference on Evolution and Innovation, LMUHS, Jamshoro, March 30, 2012.
- 96. 'Small Business Development in Education' SME Conference, Karachi, April 7, 2012.
- 97. 'Human Resource Development in Higher Education', Society for Human Resource Management, Islamabad, April 9, 2012.
- 98. 'Unity and Harmony among Muslim Countries', 24th Cultural Week, International Islamic University, Islamabad, April 17, 2012.
- 99. 'Innovation, and Entrepreneurship and Role of Universities', 7th Postgraduate Convocation, NUST, Islamabad, April 19, 2012.
- 100. 'Technological Challenges and the New World Order', Roots Higher Achiever Awards

Ceremony, Islamabad, April 19, 2012.

101. 'Global Education', Froebel's International School High Achievers Award Ceremony,

Islamabad, April 23, 2012.

- 102. 'Trends in Education', Roots High Achievers Award Ceremony, Islamabad, May 5, 2012.
- 103. 'Digital Revolution in Pakistan', Laptop Distribution Ceremony, Fatima Jinnah Women

University, Rawalpindi, May 11, 2012.

104. 'Higher Education and Development', VC Forum on Higher Education in the Muslim

World, Islamabad, June 11, 2012.

- 105. 'Technology and Education', NICON Graduation Ceremony, Islamabad, June 19, 2012.
- 106. 'Advances in Technology', 7th Convocation, National Defence University, Islamabad, June 28. 2012.
- 107. 'Technology Warfare', 25th Convocation, Air War College, Karachi, July 10, 2012.
- 108. 'The Future of Robotics', All Pakistan Robo Sprint Competition, CASE, Islamabad, July 16, 2012.
- 109. 'Community Service through Universities', Inauguration of the Institute of Rehabilitation Sciences, Isra University, Islamabad, October 18, 2012.
- 110. 'Importance of English Language in Teaching', 28th SPELT Conference, OPF College,

Islamabad, October 19, 2012.

111. 'The Future of Robotics', IEEE International Conference on Robotics and Artificial

Intelligence, EME College, Islamabad, October 22, 2012.

112. 'Education For All', Annual Award Ceremony, Bloomfield Hall School, Islamabad,

December 8, 2012.

113. 'Business Research in Pakistan', International Conference on Contemporary & Emerging

Trends in Business & Management', NUML, Islamabad, December 12, 2012.

- 114. 'Global Qualification', ACCA High Achievers Ceremony, Islamabad, February 11, 2013.
- 115. 'Equitable Access and the Private Sector', Sarhad University Groundbreaking Ceremony, Peshawar, April 4, 2013.
- 116. 'Education for All', Roots High Achievers Ceremony, Islamabad, April 10, 2013.
- 117. 'Knowledge is Power', Express Education Career Expo, Islamabad, May 29, 2013.

Keynote Lectures

- 1. 'The Role of Universities in the Information Technology Industrial Revolution,' 1st General Conference of the Federation of the Universities of the Islamic World, Rabat, Morocco, Feb 24 26, 1998.
- 2. 'Trends in Information Technology,' International Computer Conference and Exhibition 98, MUET, Hyderabad, Dec 8-9, 1998.
- 3. 'e-Revolution and Business Education,' National Conference on Restructuring IBA Curriculum, Oct 12, 1999.
- 4. 'Internetworking the Universities 1st Asia University Federation (AUF) Annual Conference of University Presidents on University Networking for an Asian community, Manila, Philippines, Nov 22-26-, 1999.
- 5. CIR Power and Energy Conference 'Alternate Energy Options for Pakistan,' March 21, 2000.
- 6. 'E-Technologies Vision and Challenges,' IEEE Conference on E-Technologies Vision and Challenges, Karachi, Nov 25, 2000.
- 7. 'Role of Information Technology in Economic Revival,' Conference on National Economic Revival: Vision 2011, April 21, 2001.
- 8. 'Pakistan at 61 Challenges and Opportunities,' NutShell Forum, September 27, 2008.
- 9. 'Socio-Economic Development of Sindh', Conference on Socio-Economic Development of Sindh, Institute of Business Management, Karachi, January 16, 2010.
- 10. 'Clash of the Titans', NSF Workshop on Indo-Asia Continental Collisions, Islamabad, May 10, 2010.
- 11. 'The Will and Wining Mindset of Leaders', 2nd Lahore Management and HRD Summit, Lahore, October 1, 2010.
- 12. 'Knowledge is Power: Innovation and Creativity is the Driving force for Economy', INSPIRE Regional Policy Dialogue, Islamabad, November 24, 2010.
- 13. 'Vision of Higher Education in Pakistan', Rotary Club, Nutshell Forum, Karachi, February 16, 2011.
- 14. 'Science and Technology Research in Pakistan', US Pakistan Science Cooperation, US National Academy of Sciences, Dubai, March 22, 2011.
- 15. 'Challenges in Higher Education', Challenges in Higher Education Conference, University of Baluchistan, Quetta, May 16, 2011.
- 16. 'Universities Building Pakistan', Conference on Setting Standards for 21st Century Pakistan, Islamabad, May 26, 2011.
- 'Higher Education & Socio-Economic Development of Pakistan', Distinguished Lecture Series 2011, Institute of Strategic Studies, Islamabad, July 27, 2011.
- 18. 'Institutional Partnerships', Friends of Democratic Pakistan Forum, Ankara, Turkey, September 8, 2011.
- 19. Leadership in Higher Education', 1st HEC Workshop for New VCs and Presidents, Islamabad, September 14, 2011.
- 20. 'Churches of Pakistan', Book Launch, British Council, Karachi, September 26, 2011.
- 21. 'The Wizardry of Leadership', Sind Club, October 1, 2011.

- 22. 'Innovation and Entrepreneurship', Capacity Building Initiates, CIPE, Islamabad, September 30, 2011.
- 23. 'Developing Linkages between Academic for Harnessing Fruits of Innovation', Conference of Ministers of Higher Education and Scientific Research, Riyadh, Saudi Arabia, October 5, 2011.
- 24. 'The Future of Nuclear Power', South Asian Security Stability Institute, Islamabad, November 3, 2011.
- 25. 'The Wizardry of Leadership', HEC, Islamabad, November 15, 2011.
- 26. 'The Wizardry of Leadership', Lahore College for Women University, Lahore, November 17, 2011.
- 27. 'Emerging Challenges for Teachers', KFC Teachers Convention, Lahore, November 19, 2011.
- 28. 'Education Crisis in Sindh', SANA Sindh Convention, Karachi, January 14, 2012.
- 29. 'Technology: An Innovative Tool for Learning & Knowledge Creation', Roots Connect, February 9, 2012.
- 30. 'Powering the Knowledge Economy', The News Education Conference 2012, Islamabad, June 13, 2012.
- 31. 'Quality Education and Good Governance', Education Dialogue on Good Governance in Education, Sindh Education Foundation AKEF, Karachi, July 10, 2012.
- 32. 'Global Developments on Nuclear Electric Power Technology', SASSI National Conference on Applications of Nuclear Science and Technology in Pakistan', Islamabad, July 12, 2012.
- 33. 'Business Entrepreneurship at Universities', T.E. Business Cup Launch, Islamabad, November 28, 2012.
- 34. 'Education System of Pakistan', 14th National Security Workshop, National Defence University, Islamabad, December 7, 2012.
- 35. 'US Alumni & Partnership', Columbia University Alumni Club, Islamabad, May 7, 2013.
- 36. 'Future of Research in Pakistan', HEC, MoET Most Joint Research Conference, Islamabad, May 18, 2013.
- 37. 'Science, Technology & Engineering for Development', US Workshop on STE for Development in Pakistan, Islamabad, Sept 26, 2013.

Invited Lectures & Presentations

- 1. "Electrical Breakdown in Sulphur Hexafluoride," SUNY at Buffalo, October 29, 1980.
- 2. "Danger High Voltage," SUNY at Buffalo, October 23, 1981.
- 3. "Nuclear Technology and its Non-Transference to South-West Asia," International College, SUNY at Buffalo, November 19, 1981.
- 4. "High Voltage Engineering," Wayne State University, Detroit, MI, March 4, 1982.
- 5. "Current Research and Applications of High Voltage Engineering," Mehran University of Engineering and Technology, Jamshoro, Pakistan, January 23,

- 1983.
- 6. "The Nuclear Controversy," SUNY/AB, April 27, 1983.
- 7. "Field-Induced Phenomena in Electrical Insulation," Air Force Office of Scientific Research, August 8, 1984.
- 8. "Impregnants in High Voltage Capacitors," Exxon Chemical Company, November 28, 1984.
- 9. "Gaseous Insulation for Pulsed Power Applications," Liquid Air Corporation, Countryside, IL, September 5, 1985.
- 10. "Space-Power Conditioning Mini Symposium," SDIO/DNA, Washington, DC, July 2, 1987.
- 11. "Space Insulation," Institute for Aerospace Studies, University of Toronto, November 27, 1987.
- 12. "Engineering Education in the United States," Mehran University of Engineering and Technology, Jamshoro, Pakistan, March 21, 1988.
- 13. "Advanced Technologies for Developing Countries," Mehran University of Engineering and Technology, Jamshoro, Pakistan, March 24, 1988.
- 14. "Space Power Technology," Royal Aeronautical Society/Institute of Engineers, Karachi, Pakistan, January 11, 1989.
- 15. "March Towards the 21st Century," Asian Development Group, Jamshoro, Pakistan, January 15, 1989.
- 16. "Sindh Today," SANA 5th Annual Meeting, St. Louis, MO, July 1, 1989.
- 17. "Development Strategy for Sindh," Asian Development Group, Jamshoro, Pakistan, January 12, 1990.
- 18. "A Review of Electrical and Thermal Multistress Aging of Electrical Insulation," IEEE International Symposium on Electrical Insulation, Toronto, Canada, June 4-6, 1990.
- 19. "Energy Storage Pulsed Power Capacitor Technology," IEEE International Power Sources Symposium, Cherry Hill, NJ, June 25-28, 1990.
- 20. "Electrical Insulation and Dielectrics for Space Power Applications," IEEE Toronto Section, Electrical Insulation Society, Toronto, Canada, November 14, 1990.
- 21. "High Powered Electrical Space Systems," Mehran University of Engineering and Technology, Jamshoro, Pakistan, January 19, 1991.
- 22. "Dielectric Films for High Temperature High Voltage Power Electronics," Conference on Materials for Electronic Packaging, Buffalo, NY, August 20-22, 1991.
- 23. "Breakdown Testing of Wiring Insulation," NASA 2nd Workshop on Space Applications, Cleveland, OH, October 26-27, 1993.
- 24. "Wiring Insulation for Space Applications," NASA Lewis Research Center, October 27, 1993.
- 25. "Vision of Higher Education by 2010," Vice Chancellors' Meeting, University Grants Commission, Islamabad, June 6, 1997.
- 26. 'Information Technology,' COMSTECH ISESCO Workshop on University Industry Interaction, Karachi, Sept 12-13, 1997.
- 27. "The Role of University in the Information Technology Industrial Revolution", to Governor of Sindh, Karachi, Nov 11, 1997.

- 28. "Pulse Power and Space Systems," SZABIST Forum, Karachi, August 25, 1998.
- 29. "Information Technology Education," Jang Forum, Karachi, Sept 17, 1998.
- 30. "Role of Private Sector in Higher Education," Vice Chancellors' Meeting, University Grants Commission, Islamabad, Oct 1, 1998.
- 31. "Information Technology and the Internet," 68th Advanced NIPA Course in Administration and Development, Karachi, Pakistan, Oct 23, 1999.
- 32. "Marketing in the E-Future," Thought Leader, Marcon 99, Karachi Pakistan, Nov 11-13, 1999.
- 33. "e-Revolution," SZABIST, Jan 25, 2000.
- 34. "Information Technology & the Internet," Beacon House School System, Karachi, March 1, 2000.
- 35. "Challenges in Higher Education", to Governor of Punjab, Lahore, October 14, 2009.
- 36. "Role of Higher Education in the Development of Pakistan", to President of Pakistan at Vice-Chancellors' Conference, Islamabad, October 16, 2009.
- 37. "Quality in Higher Education", to Governor of Sindh, Karachi, October 24, 2009.
- 38. "Creative Leadership", National Defence University, Islamabad, February 16, 2010.
- 39. "Problems faced by Pakistan Education, Economic Development, Good Governance," Intelligence Bureau Academy, Islamabad, November 2, 2010.
- 40. "Challenges in Higher Education", to Governor of NWFP, Peshawar, February 17, 2010.
- 41. "Challenges in Higher Education", to Governor of Sindh, Karachi, February 20, 2010.
- 42. "Role of Higher Education in the Development of Pakistan", to Prime Minister of Pakistan at Vice-Chancellors' Conference, Islamabad, February 27, 2010.
- 43. "Vision for Higher Education", National Workshop on Economic Growth and Reforms, Planning Commission of Pakistan, December 20, 2010.
- 44. "Pakistan Qualification Framework", British Council Workshop, Islamabad, February 27, 2012.
- 45. "Challenges to Higher Education", Vice-Chancellors Conference, March 26, 2012.
- 46. 'HEC', Presentation to SAARC Chairmen of Public Service Commissions, Islamabad, December 5, 2012.
- 47. 'Higher Education Institutions and Their Role Towards Socio-economic Development', HEC Workshop on Modern University Governance, May 28, 2013.
- 48. 'Building Societies and Leadership', Pak US Interactive on Civic Engagement', NUST, July 1, 2013.

<u>INTERVIEWS</u>

Newspapers & Magazine Interviews

1. The News, 'SZABIST - An Ambitious Venture,' July 29, 1996.

- 2. Jang, 'Higher Education in Pakistan,' August 9, 1997.
- 3. Durbeen (Jang Magazine), 'Science and Technology in Pakistan,' Oct 30, 1998.
- 4. Women's Own, 'Exploring New Frontiers,' November 1998.
- 5. New Age Magazine, 'Business Education, August 1999.
- 6. Pakistan & Gulf Economist Magazine, 'Aiming to be the Best in Pakistan,' Oct 25–31, 1999.
- 7. Computer Business Review (Europe), 'Y2K heat hits Pakistan,' November 1999.
- 8. The Nation, 'SZABIST plan for fast growth in IT,' Aug 25, 2000.
- 9. Pakistan & Gulf Economist Magazine, 'Moving towards e-SZABIST, Sept 25 Oct 1, 2000.
- 10. Kainat, 'Center of Excellence in IT,' Nov 5, 2000.
- 11. South Asia Magazine, 'Empowering Democracy,' May 2002.
- 12. The Nation, 'IT Policies yielding negative results, Nov 20, 2002.
- 13. Star, 'Fight on Different Fronts,' Jan 11, 2003.
- 14. Pakistan & Gulf Economist, 'Private Sector Varsities need Financial Support from Government,' May 22-28, 2006 (Cover Story).
- 15. Spider, 'Virtual Campus site unseen,' Feb 2006.
- 16. Pakistan & Gulf Economist, 'SZABIST progressing well ahead,' Nov 27 Dec 3, 2006.
- 17. Daily Ausaf, "Higher Education in Pakistan", May 25, 2010.
- 18. Business Recorder, 'Economic Recession and Higher Education', August 30, 2010.
- 19. The News, 'Knowledge based Economy', September 6, 2010.
- 20. Newsline, "The National must invest in education, October 2010.
- 21. Jang Magazine, "Challenges in Higher Education", January 16, 2011.
- 22. The News, "Universities to be ranked as per international yardstick", June 9, 2011.
- 23. Pakistan Today, "Pakistan Slashing Higher Education Budget', October 23, 2011.
- 24. Nawa-e-Waqt, "Life in the fast lane", October 30, 2011.
- 25. Samaa, "The Way Forward", November 26, 2011.
- 26. Manager Today, "The Future of Higher Education", Vol. 3, Issue 16, 2011.
- 27. The News, "Need for Innovation Policy", December 12, 2011.
- 28. Express Tribune, "Nation should invest in Higher Education", December 27, 2011.
- 29. Daily Times, "Education is Investment in Future Connections', January 22, 2012.
- 30. Nai Baat, "HEC is a Role Model Institution", April 16, 2012.
- 31. The News, "Cut in Budget to be Detrimented for Higher Education", May 30, 2012.
- 32. The News, "Prioritizing Education", June 13, 2012.
- 33. Friday Times, "The Future of HEC", July 6, 2012.
- 34. World Times, "Investing in Youth", September 2012.
- 35. Voice of Pakistan, "Higher Education", November 29, 2012.
- 36. Newswatch International, "Challenges in Pakistan", November, 2012, p. 16-17.

- 37. Business Recorder, "Knowledge Economy", January 7, 2013.
- 38. Economic Inspiration, "An interview with Chairman HEC", February, 2013.
- 39. National Lesson, "Education as a Mission", March, 2013.
- 40. The News, "Autonomy to HEC", May 18, 2013
- 41. Nai Baat, "HEC and Pakistan's Development", May 21, 2013.
- 42. Express Tribune, "Higher Education & Economic Development", May 29, 2013.
- 43. Express Magazine, "Challenges to Pakistan", July 7, 2013.
- 44. Pakistan Observer, "HEC Heralds Revolution", July 12, 2013.
- 45. Pakistan Ausaf, "The Ranking Status", July 31, 2013.
- 46. The News "On-line Education will be introduced", July 31, 2013.
- 47. Nawa-i-Wagt, "Technology Parks", Aug 1, 2013.

TV Interviews

- 1. Hum TV, "Komal Show," 2006.
- 2. Business Plus TV, Ayesha Tammy Haque Show, "Together with Sir Gerald Kaufman, MP, UK," March 30, 2007.
- 3. Geo TV, Kamran Khan, "Solo Interview on Power Crisis," April 23, 2007.
- 4. ATV, Asad Hussain Show, "Interview on Power Crisis," May 9, 2007.
- 5. Geo TV, Kamran Khan Show, "Solo Interview on Power Crisis (Second Interview)," May 10, 2007.
- 6. Business Plus TV, Twenty Four Seven with Ayesha Tammy Haque, "A Tribute to Benazir Bhutto," Dec 28, 2007.
- 7. Geo TV, "The Great Debate on Water," Jan 29, 2008.
- 8. DAWN TV, NewsEye with Saima Mohsin, "PPP Policies towards resolving the Energy Crisis in Pakistan," Feb 28, 2008.
- 9. DAWN TV, NewsEye with Saima Mohsin, "Remembering Shaheed Zulfikar Ali Bhutto," April 5, 2008.
- 10. Business Plus TV, Twenty Four Seven with Ayesha Tammy Haque, "Power Crisis and 100 Days," April 14, 2008.
- 11. Waqt TV, Budget Debates, "Interview on High Fuel Costs and Energy Crisis," June 8, 2008.
- 12. Waqt TV, Sitaron Pay Kamand, "Interview on Educational Issues," September 8, 2008.
- 13. DAWN TV, NewsEye with Saima Mohsin, "Karachi and the Power Crisis," September 17, 2008.
- 14. Business Plus TV, Twenty Four Seven with Ayesha Tammy Haque, "The Way Ahead to Resolving the Energy Crisis," September 20, 2008.
- 15. Dawn TV, Breakfast with Naveen Naqvi, 'Vision for Higher Education', August 31, 2009.
- 16. Business Plus TV, Twenty four Seven with Ayesha Tammy Haque, 'Vision for Higher Education', August 31, 2009.
- 17. Express TV (Urdu), Higher Education, September 4, 2009.
- 18. Express TV (English), Higher Education, September 10, 2009.
- 19. Dawn TV, Newseye with Saima Mohsin, Higher Education Policy, September 11, 2009.

- 20. Business Plus TV, Twenty four Seven with Ayesha Tammy Haque, Higher Education, September 30, 2009.
- 21. Geo TV, 50 Minutes, Higher Education, November 24, 2009.
- 22. British Council Documentary, Linkages with UK, November 25, 2009.
- 23. Pakistan TV, Samina Waqar Show, "Higher Education Commission", April 26, 2010.
- 24. Al-Jazeera TV, 'Fake Degrees Saga', June 28, 2010.
- 25. SAMAA TV, Pakistan This Week with Ihtesham ul Haq, "Education in Crisis", August 1, 2010
- 26. Business Plus TV, 24/7 with Ayesha Tammy Haq, "Who is Dr. Javaid Laghari", August 7, 2010
- 27. Geo TV, Jirga, "Education and Governments", August 8, 2010.
- 28. SAMAA TV, "Fake Degree Documentary", August 15, 2010.
- 29. CNBC TV, "Shahzad Mithan Show", Higher Education and Economic Development, August 17, 2010.
- 30. Waqt TV, Yashfeen Zafeer Show, "Leadership and Education", August 18, 2010.
- 31. ATV, Farah Hussain Show, "Pakistan's Energy Crisis" August 19, 2010.
- 32. Geo TV, Shuja Qureshi with Ek Say Do, 'Budget Crisis', September 13, 2010.
- 33. Express TV, 'Budget Crisis', September 21, 2010.
- 34. Geo TV, Jirga, 'Crisis in Higher Education Funding', September 27, 2010.
- 35. Geo TV, Kamran Khan Show, 'Issue of Fake Degrees', October 1, 2010.
- 36. PTV, Samina Waqar Show, 'Crisis in Higher Education Funding', October 4, 2010.
- 37. Dawn TV, Chaudhary Ki Baithak, 'Fake Degrees Saga', October 10, 2010.
- 38. Waqt TV, 'Budget Crisis Documentary', October 11, 2010.
- 39. CNBC, Mujahid Barelvi Show, 'The Role of Higher Education Commission', October 25, 2010.
- 40. Waqt TV, 'Vision of Benazir Bhutto', December 27, 2010.
- 41. Samaa TV, 'Fake Degree Update', December 31, 2010.
- 42.Geo TV, Jirga, 'Challenges in Higher Education', January 3, 2011.
- 43. CNBC, "Badalta Pakistan", Mujahid Barelvi, March 6, 2011.
- 44. Geo TV, Kamran Khan Show "HEC Crisis", April 4, 2011.
- 45. CNBC, "Doosra Pehlu", Mujahid Barelvi, April 5, 2011. 46. PTV, "Aaj Ka Pakistan", Anwarul Hassan, April 6, 2011.
- 47. DAWN TV "News Night" Talat Hussain, April 6, 2011.
- 48. Express TV "Kal Tak", Javed Choudhry, April 7, 2011.
- 49. NewsOne, "Capital Circuit", Farrukh Pitafi, April, 8 2011.
- 50. Aaj TV "Aaj Ki Baat", Nadia Naqi, April 9, 2011.
- 51. Dunya TV, "In Session", Asma Chaudhry, April 9, 2011.
- 52. KTN, "HEC and Sindh", Mohsin Baber, April 10, 2011.
- 53. BBC, "Higher Education in Pakistan", April 11, 2011.
- 54. Waqat TV "Yashfeen Kay Saath", Yashfeen Zafar, April 11, 2011.
- 55. Dunya TV, "Khari Baat", Mubashir Luqman, April 12, 2011.
- 56. NewsOne, "Bang Dara", Faisal Qureshi, April 16, 2011.

- 57. Express TV "Kal Tak", Javed Choudhry April 21, 2011.
- 58. Samaa TV "Kamran Kay Saath", Kamran Shahid, May 4, 2011.
- 59. Express TV "Kaltak", Javed Chaudhry, July 11, 2011.
- 60. PTV "Taleem Kiya Hai", Moeed Pirzada, July 22, 2011.
- 61. Hum TV "Reviving the Nation", August 4, 2011.
- 62. Dunya TV, "Academic Leadership", Naseem Zehra, September 15, 2011.
- 63. PTV, "Higher Education in Pakistan and India", January 18, 2012.
- 64. Dunya TV, "Financial Crisis in Education' June 26, 2012.
- 65. Geo TV, "Kamran Khan Show", HEC Funding Crisis, June 28, 2012.
- 66. Geo TV, "Awam Ki Adalat", HEC and its role for national development, August 5, 2012.
- 67. Dawn TV, "The Olympic Debacle:, Talat Hussain, August 10, 2012.
- 68. Geo TV, "Higher Education Crisis", Rashda Kiyani, August 31, 2012.
- 69. ARY TV, "Challenges at HEC", Beenish, November 15, 2012
- 70. Geo TV, "Higher Education Autonomy", Rashda Kiyani, November 29, 2012.
- 71. NewsOne TV, "Higher Education Commission and its Autonomy", Farrukh Pitafi.

December 3, 2012.

72. Dunya TV, "Higher Education Commission and its Autonomy", Mohammad Mallick,

December 4, 2012.

- 73. Dunya TV, "HEC Bill", January 28, 2013.
- 74. GeoTV, "HEC Amendment Bill", January 28, 2013.
- 75. Waqt TV, "HEC and Way Forward", Batool Show, January 29, 2013.
- 76. Waqt TV, "Education Policy", Moeed Pirzada Show, February 21, 2013.
- 77. ARY TV, "HEC & Degree Verification", Dr. Danish, March 9, 2013.
- 78. Samaa TV, "HEC and Fake Degrees", March 26, 2013.
- 79. Waqt TV, "Elections and Degree Verification", Fareeha Idrees show, March 27, 2013.
- 80. Waqt TV, "Fake Degrees", Fareeha Idrees show, April 2, 2013.
- 81. Geo TV, "The Elections and Degres", Kamran Khan show, April 2, 2013.
- 82. Capital TV, "The Continuing Saga", April 2, 2013.
- 83. BBC World, "Elections in Pakistan", April 5, 2013.
- 84. ARY TV, "Fake Degree and Elections", Dr. Danish show, April 9, 2013.
- 85. PTV, "The Verification Process", Current Affairs, April 11, 2013
- 86. Capital TV, "Elections and Degrees", Faisal and Benazir Show, April 11, 2013.
- 87. Express TV, "Higher Education & Economic Development", May 29, 2013.
- 88. Roze TV, "Higher Education and Innovation", July 25, 2013.

TECHNICAL REPORTS

- 1. W. J. Sarjeant, J. R. Laghari, et al., "Laminate Insulation Structures," Final Report, Subcontract SCEEE-SRAP/81/11, April 10, 1983, 23 pages.
- 2. J. R. Laghari, W. J. Sarjeant, et al., "Field-Induced Phenomena in Electrical

- Insulation," First Annual Report, AFOSR-830344, September 30, 1984, 119 pages.
- 3. W. J. Sarjeant, R. Dollinger, J. R. Laghari, et al., "Investigation on High Energy Density Capacitors," Final Report, WJSA-SC-83-109, September 30, 1984, 200 pages.
- 4. J. R. Laghari, W. J. Sarjeant, et al., "A Comparison of Four Liquid Impregnants for Use in Power Capacitors," Final Report, Exxon Chemical Company, December 31, 1984, 46 pages.
- 5. J. R. Laghari, P. Mukherjee, et al., "On Zeugmatorgraphy and Other Imaging Processes," Text Draft, December 31, 1984, 115 pages.
- 6. J. R. Laghari, W. J. Sarjeant, et al., "Field Induced Phenomena in Electrical Insulation," Second Annual Report, AFOSR-830344, September 30, 1985, 67 pages.
- 7. J. R. Laghari, "Breakdown Studies in Ultra-Pure Gases and Gas Mixtures," Final Report, Liquid Air Corporation, July 31, 1986, 44 pages.
- 8. J. R. Laghari, "Breakdown Studies in Ultra-Pure Gases and Gas Mixtures," Addendum to Final Report, Liquid Air Corporation, November 10, 1986, 142 pates.
- 9. J. R. Laghari, "Insulation for the Multistress Space Environment," Final Report, ONR-N0001485K0727, December 1, 1986, 83 pages.
- 10. J. R. Laghari, W. J. Sarjeant, et al., "Field Induced Phenomena in Electrical Insulation," Final Report, AFOSR 830344, December 1, 1986, 112 pages.
- 11. J. R. Laghari, "Sindhi," Text-Editing Software Manual for the IBM-PC, December 1986, 24 pages.
- 12. J. R. Laghari, "High Electric Field Phenomena in Insulation," First Annual Report, AFOSR-870063, December 15, 1987, 120 pages.
- 13. J. R. Laghari, "Feasibility Studies on Gas on Gas Mixtures for use in Pulsed Power Devices," Final Report, Liquid Air Corporation, August 15, 1988, 37 pages.
- 14. J. R. Laghari, "High Electric Field Phenomena in Insulation," Final Report, AFOSR-870063, January 15, 1989, 88 pages.
- 15. J. R. Laghari, "Multifacator Stress Aging of Electrical Insulation," First Annual Report, AFOSR-890272, December 15, 1989, 90 pages.
- 16. J. R. Laghari, "Electrical Insulation for High Temperature Space Environment," NASA-NAG 31019, July 31, 1990, 39 pages.
- 17. J. R. Laghari, "Multifactor Stress Aging of Electrical Insulation," Final Report, AFOSR-890272, December 1, 1990, 33 pages.
- 18. J. R. Laghari, "Electrical Insulation for High Frequency and High Temperature Space Power Applications," NASA-NAG 31019, July 31, 1991, 68 pages.
- 19. J. R. Laghari, "Electrical Insulation for High Frequency and High Temperature Space Power Applications," NASA-NAG 31019, May 1, 1992, 65 pages.
- 20. J. R. Laghari, "Electrical Insulation for High Frequency and High Temperature Space Power Applications," NASA-NAG 31019, October 1, 1992, 78 pages.

- 21. J. R. Laghari, "Wiring Insulation for Space Power Applications," NASA-NAG 33145, October 1, 1992, 66 pages.
- 22. J. R. Laghari, "Wiring Insulation for Space Power Applications," NASA-NAG 31345, May 1, 1994, 58 pages.
- 23. Higher Education Commission, Medium Term Development Framework II, 2010-15, 47 pages.
- 24. Higher Education Commission, Annual Report 2008-2009, 213 pages.
- 25. Higher Education Commission, Annual Report 2009-2010, 197 pages.
- 26. Higher Education Commission, Annual Report 2010-2011, 174 pages.
- 27. Higher Education Commission, Annual Report 2012-2013, 218 pages

MISCELLANEOUS TECHNICAL PUBLICATIONS

- 1. J. R. Laghari, W. J. Sarjeant and R. K. Gupta, "High Voltage Research at SUNY/AB," Engineering Progress, Vol. 4, No. 1, 1984, pp. 19-20.
- 2. R. Dollinger, W. J. Sarjeant, J. R. Laghari, et al., "But is it Safe," Physics Teacher, February 1985, pp. 70, 126.
- 3. J. R. Laghari, "Space Power Technology," Meh. Univ. Res. Jour. of Engr. and Tech., Vol. 4, No. 4, 1985, pp. 29-32.
- 4. T. Bilodeau, J. R. Laghari, et al., "A Description of New Insulation Test Facilities at UB," Engineering Progress, Vol. 5, No. 2, 1985.
- 5. J. R. Laghari, "Design of an EMP Simulator," Meh. Univ. Res. Jour. of Engr. and Tech., Vol. 6, No. 1, 1987, pp. 1-4.
- 6. J. R. Laghari, "The Kalabagh Dam and Loss of Waters to Sindh," Sindh Quarterly, Vol. 14, No. 4, 1986, pp. 24-30.
- 7. J. R. Laghari, "Exploration of Sindh's Energy Resources," Sindh Quarterly, Vol. 16, No. 2, 1988, pp. 50-56.
- 8. J. R. Laghari, "Pakistan's Return to Democracy," Sindh Quarterly, Vol. 17, No. 2, 1989, pp. 22-31.
- 9. J. R. Laghari, "Hard Times for Benazir Bhutto Ahead," Sindh Quarterly, Vol. 17, No. 3, 1989, pp. 9-18.
- 10. J. R. Laghari, "March Towards the Twenty-First Century," Sindh Quarterly, Vol. 17, No. 4, 1989, pp. 46-56.
- 11. J. R. Laghari, "Sindh Today," Sindh Quarterly, Vol. 18, No. 2, 1990, pp. 13-19.
- 12. J. R. Laghari, "Environmental Concern: Kalabagh Dam and Sindh-Punjab Water Dispute in Pakistan," Journal of Asian and African Affairs, Vol. 2, No. 2, 1990, pp. 175-192.
- 13. J. R. Laghari, "Kalabagh Dam: A Socio-Political Analysis," The Government, Vol. 5, 1991, pp. 75-96.

PROFESSIONAL ACTIVITIES

- 1. IEEE International Symposium on Electrical Insulation, Baltimore, MD, June 1992.
- 2. Chairman, Academic Symposium on Universities and the Islamic Ummah, "First General Conference of the Federation of the Universities of the Islamic World" Rabat, Morocco, Feb. 1998.
- 3. IEEE / ACM National Conference on Emerging Technologies, Karachi, Pakistan, Dec 2004.

CONFERENCE ORGANIZING COMMITTEE MEMBER

- 1. IEEE International Symposium on Electrical Insulation, Boston, MA, June 5-8, 1988.
- IEEE International Conference on Plasma Science, Buffalo, NY, May 21-24, 1989.
- 3. 6th International Symposium on High Voltage Engineering, New Orleans, LA, August 28-September 1, 1989.
- 4. IEEE International Symposium on Electrical Insulation, Toronto, Canada, June 3-6, 1990.
- 5. Gordon Research Conference on Dielectric Phenomena, Plymouth, NH, July 19-24, 1992.

CONFERENCE LOCAL ARRANGEMENTS CHAIRMAN

- 1. IEEE Conference on Electrical Insulation and Dielectric Phenomena, Buffalo, NY, October 21-24, 1985.
- 2. IEEE International Conference on Plasma Science, Buffalo, NY, May 21-24, 1989.

SESSION ORGANIZER

- 1. "Streamers in SF6," NATO Advanced Study Institute on "Fast Electrical and Optical Diagnostic Principles and Techniques," Castelvecchio Pascoli, Italy, July 19-24, 1983.
- 2. "Recent Advances in Pollution Control Technology," ASME First Industrial Pollution Control Symposium, Energy-Sources Technology Conference, Houston, TX, January 30-February 3, 1983.
- 3. "Aging," IEEE International Symposium on Electrical Insulation, Boston, MA, June 5-8, 1988.
- 4. "Special Measurements," 6th International Symposium on High Voltage Engineering, New Orleans, LA, August28-September 1, 1989.
- 5. "Multifactor Stress Aging," IEEE International Symposium on Electrical Insulation, Toronto, Canada, June 3-6, 1990.

SESSION CHAIRMAN

1. "Recent Advances in Pollution Control Technology," ASME First Industrial
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- Pollution Control Symposium, Energy-Sources Technology Conference, Houston, TX, January 30-February 3, 1983.
- 2. "Material Behavior," 23rd Annual Meeting of the Society of Engineering Science, Buffalo, NY, August 25-27, 1986.
- 3. "Vacuum," 6th International Symposium on High Voltage Engineering, New Orleans, LA, August 28 September 1, 1989.
- 4. "Energy Storage Devices," IEEE International Power Sources Symposium, Cherry Hill, NJ, June 27-29, 1990.
- 5. "Aging," IEEE Conference on Electrical Insulation and Dielectric Phenomena, Pocono, PA, October 18-20, 1993.
- 6. UNOPS GoS, Consultative Workshop on Commercialization of Wind Power Potential in Pakistan, Karachi, Nov 5, 2002.
- 7. IEEE Pakistan 19th Multi Topic International Symposium 2004, Karachi, Feb 27, 2004.
- 8. International Conference on Sindh, Past, Present and Future, Karachi, April 29 May 2, 2006.
- 9. Going Global 4 and Split-Site Ph.D Round Table Discussion, London, UK, March 29 30, 2010.
- 10. International Conference on New Growth Strategy, Islamabad, July 13, 2011.

PROFESSIONAL SOCIETY EXECUTIVE COMMITTEE

- 1. Vice Chairman, Industrial Pollution Control Committee, ASME Petroleum Division, 1983-1984.
- Member, IEEE Education Committee, DEIS, 1986-1991.
- 3. Representative, United States Activities Board, IEEE Committee on Man and Radiation (COMAR), 1989.
- 4. Member, Nominations Committee, Conference on Electrical Insulation and Dielectric Phenomena, 1991.
- 5. Member, Administrative Committee (ADCOM), IEEE Dielectric and Electrical Insulation Society, 1991-1994.
- 6. Chairman, IEEE Technical Standards Committee on Radiation Effects, S-32-4, 1991 1994 (Secretary, 1985-1991).

WORKSHOP TECHNICAL COMMITTEE MEMBER

- 1. Plasma Technology, NASA Workshop on Plasma Physics and Fusion Scientific Activity for the Space Station, Rogersville, AL, May 19-22, 1985.
- 2. Particle Beams, Workshop on Research Issues in Power Conditioning, Los Angeles, CA, December 3-4, 1985.
- 3. Sliding and Materials, Tamarron VI, Durango, CO, March 10-13, 1986.

RESEARCH GRANTS AND CONTRACTS

1. University Awards Program (SUNY), "Performance of Insulators Under Polluted Conditions," \$3,050, 3/1/81 to 2/28/83.

- National Science Foundation, "International Travel Support," \$1,500., 12/27/82 to 1/29/83.
- 3. North Atlantic Treaty Organization, "Fast Electrical and Optical Diagnostic Principles and Techniques," \$1,270., 7/10/83 to 7/24/83.
- 4. Southeastern Center for Electrical Engineering Education, "Laminate Insulation Structures," \$33,300., 5/30/82 to 3/31/83.
- 5. Air Force Office of Scientific Research, "Field-Induced Phenomena in Electrical Insulation," \$298,802., 10/1/83 to 11/30/86.
- 6. Exxon Chemical Company, "Electrical Capacitor Elements," \$30,000., 5/21/84 to 1/31/85.
- 7. Hughes Aircraft Company, "Characterization of Dielectric Materials Under the Influence of High Electric Field," \$40,000., 10/1/84 to 9/30/86.
- 8. Defense Nuclear Agency, "Space Power Institute for SDI," \$1,900,000., 1/3/85 to 2/28/90 (with W. J. Sarjeant as Principal Investigator).
- 9. Naval Surface Weapons Center, "Space Power Insulation Institute for SDI," \$200,000., 9/27/90 to 11/27/91 (with W. J. Sarjeant as Principal Investigator).
- 10. Office of Naval Research, "Material Research Institute for SDIO," \$108,044., 7/14/85 to 10/14/86.
- 11. Liquid Air Corporation, "Survey and Feasibility Studies of Breakdown in Pure Gases," \$23,950., 10/1/85 to 11/10/86.
- 12. Air Force Office of Scientific Research, "High Electric Field Phenomena in Insulation," \$186,922., 11/15/86 to 1/14/89.
- 13. Naval Research Laboratory, "Insulation Diagnostic Facility," Equipment Grant, \$70,914., 1988.
- 14. National Aeronautic Space Agency, "Electrical Insulation for the High Temperature Space Environment," \$39,000., 3/1/89 to 6/30/90.
- 15. Air Force Office of Scientific Research, "Multifactor Stress Aging of Electrical Insulation," \$87,714., 1/15/89 to 9/30/90.
- 16. National Aeronautic Space Agency, "Electrical Insulation for High Frequency and High Temperature Space Power Applications," \$199,910., 7/1/90 to 6/30/93.
- 17. National Aeronautic Space Agency, "Wiring Insulation for Space Power Application," \$155,014., 4/1/92 to 12/31/94.
- 18. Office of Naval Research, "Space Power Insulation Institute for SDI," \$988,298., 9/15/91 to 9/14/95.

CONSULTING IN US

-	Texas A&M University, College Station, TX	1983
•	Boone B. Owens, Inc., Minneapolis, MN	1988
•	Enercap Corporation, San Diego, CA	1988 - 1989
•	State University of New York, International	1989 - 1990

Javaid R. Laghari, Ph.D.

SOCIETY MEMBERSHIPS

- Institute of Electrical and Electronic Engineers (U.S.A.) Senior Member
- Association of Computing Machinery (USA) Senior Member
- Institute of Engineers (Pakistan)
- Society of Engineering Science (U.S.A.)
- New York Academy of Sciences
- Chairman of the ACM (Karachi Chapter)
- Member, Executive Committee, Federation of the University of Islamic World (FUIW)
- Member, Executive Committee Asia University Federation (AUF).

REVIEWER OF JOURNALS AND BOOKS IN US

- National Science Foundation
- National Research Council
- Am. Soc. Mech. Engr.
- IEEE International Symp. Elect. Insul.
- International Symp. High Voltage
- IEEE Trans. on Elect.
- NY State Science & Tech. Fdn.
- Chem. Engg. Comm.
- Pak. Journal of Sci. and Ind. Research
- Polymer Engineering and Science
- Chronicle Guidance Publication
- Prentice Hall
- Houghton Mifflin
- John Wiley

GRADUATE COMMITTEES

Ph.D Major Professor

- 1. Ahmad Hammoud, "Effect of High Energy Electron Radiation on Polypropylene Dielectric," (October 1987).
 - Present Employment: NASA Lewis Research Center, Cleveland, OH,
- 2. Stanley Cygan, "Effects of Multistress Aging (Electrical, Radiation, Thermal) on Polypropylene," (December 1989).

Present Employment: AVX Corporation, Olean Advanced Products, NY

3. Peter Cygan, "Accelerated Life Studies of High Temperature Polyimide Film Under Simultaneous Electrical and Thermal Multistresses," (July 1991).

Present Employment: Electronics Technology and Devices Laboratory (ETDL) U.S. Army, Fort Monmouth, NJ

4. Jayant Suthar, "An Investigation of High Temperature High Voltage Insulators for Aerospace Applications," (May 1992).

Present Employment: General Electric, NY

5. Wassim Khechen, "Breakdown Studies of Polypropylene Film Under High Voltage High Frequency and High Temperature for Aerospace Applications," (January 1993).

Present Employment: Space Power Institute, Buffalo, NY

6. Amany Stokes, "An Investigation of Aging Mechanisms and Statistical Life Models for Polypropylene Films," (November 1994).

Present Employment: University of Cairo, Egypt

7. Syed Zeeshan Arshad, "Technology Implementation in Developing Economies," (2014).

Present Employment: NICTA, Australia

8. Naheed Malbari, "Hero Tyrant Narcissist and Alexander the Great," (2014).

M.S. Major Professor

- 1. Ahmad Hammoud, "Partial Discharge Induced-Breakdown of Laminate Insulation Structures," Thesis, September 1984.
- 2. Stanley Cygan, "Field Grading of Multi-Layered Composite Insulation Structures," Thesis, March 1987.
- 3. Wassim Khechen, "Breakdown Studies in SF6-Argon Gas Mixtures," Thesis, September 1987.
- 4. Jayant Suthar, "A Study of High Temperature Dielectrics," December 1988.
- 5. Peter Cygan, "Electrical and Thermal Aging of Films Under ac and dc Stresses," Thesis, September 1989.
- 6. Thomas Saluzzo, "Use of PSPICE in the Design of High Voltage Circuits," Thesis, May 1992.

Ph.D. Committee

- 1. Ramesh Chandra, "An Investigation of the Vibrational Electronic Excitation Energy Exchange Between Nitrogen and Cesium" December 1983.
- 2. Milan Nikolich, "A Theoretical Development of the Experimental Operation of High Current Opening Switches," October 1985.
- 3. K. Kumar, "Effect of Isotatic Polypropylene Morphology on ac Breakdown," November 1986.
- 4. Dennis Dettman, "Anode Sheath Dynamics of Metal Plasma Arc Switches," March 1987.
- 5. Donal J. McDonald, "Development of a New Technique for High Frequency tressing and Multimegahertz Detection of Partial Discharges," June 1990.
- 6. Salem Akbar, "A Fully Automated Spectroscopic Set-Up for Plasma Studies," December 1991.

7. John P. Stopher, "A New and Novel High Frequency Stressing and Micro-Discharge Detection Technique," December 1993.

M.S. Committee

- 1. G. H. Liu, "A Computer-Aided Measurement of Aerosol Mass Concentration and Size Distribution," August 1981.
- 2. Irfan-ul-Haq, "Microprocessor Based Temperature Monitoring System," August 1981.
- 3. Michael Treanor, "The Effect of Pulse Shape on the Electrical Properties of Some Polymers," December 1984.
- 4. Thomas Bilodeau, "The Design and Development of an ac Partial Discharge Detection System," February 1985.
- 5. John Shea, "Breakdown Voltage Dependence of Polypropylene Laminates on Impulse Voltage Risetime," May 1985.
- 6. Michael Belling, "A Proposed Technique for the Determination of Instantaneous Energy Loss in a Magnetic Medium Due to Hysteresis," May 1987.
- 7. Donald J. McDonald, "Characterization Methods of High Energy Density Capacitors," November 1987.
- 8. Kenneth H. Ziemann, "General Analysis of Saturating Iron Cores as Fault Current Limiters on 145 kV Systems," December 1987.
- 9. Sherry J. Stanton, "Modeling of Linear and Nonlinear Pulse Forming Networks," December 1987.
- John P. Stopher, "The Development of a New Electric Field and Capacitor Analysis Program," February 1988.
- 11. Bruce R. Wallmann, "Model Relation of Barium Titanate for Application Towards Fault Current Limiter Investigations," May 1988.
- 12. Donald J. Enzinna, "Design Considerations for a Surface Potential Sensor," August 1990.
- 13. Christopher S. Nowak, "Design Improvement of a Partial Discharge Analyzer for Heightened Detection of Microdischarges," December 1993.

M.E. Committee

- 1. Michael J. Bernard, "Electromagnetic Acceleration of a Metallic Carrier Plate: Experiment and Computer Simulation," December 1987.
- 2. Vincent Conners, "Rep-Rate Modeling of a High Voltage Supply," December 1988.
- 3. Eugene I. Shkurko, "Safety Improvements for a Power Lab," December 1989.
- 4. Valerie J. Jaegge, "Ion Current Measurements from a Common Mode High Voltage Arc Source," December 1989.
- 5. Michael P. Valcourt, "A Linear High Voltage dc Power Supply for Simulating the Influence of Common Mode Voltage on Ion Generation in a Plasma Arc," December 1989.
- 6. Christine M. Bates, "Analog Fiberoptic Link," March 1990.
- 7. Jill A. Alberico, "Low Frequency Magnetic Flux Meter for Permanent Magnet do Motor Design," March 1990.

- 8. Mark Delucia, "In-Situ dc-Coupled Current Monitors," April 1990.
- 9. Julio Vasquez, "Non-Destructive Examination of an Impulse Generator During Swift Energy Transients," December 1990.
- 10. Kevin Stablewski, "Western New York Transmission Reinforcement Study," April 1991.
- Mark A. Phillips, "A Technique for Modeling Gapped Magnetic Core Characteristics for Conceptualizing Electromagnetic Mass Mover Systems," May 1991.
- 12. Joseph M. Muhitch, "Thin Magnetic Flux Density Meter for ac Harmonic Analysis in Electric Motors," May 1991.
- 13. Mehrdad Sahba, "Novel Design for an Isolation Transformer with Highly Visible Barrier Insulation," January 1992.
- 14. Glenn J. Wolf, "A Design for a 100 kJ Capacitor Bank with Passive Fault Current Limiting," January 1992.
- 15. Joseph P. Chau, "Factors to Consider for High Voltage Optoisolators," May 1992.
- 16. Patrick Connolly, "Computer Modeling of Stray Inductance," May 1992.
- 17. Sureindran Nedesan, "A Motor Technique for Remote Rotation," May 1992.
- 18. William Washington, "Modeling Induction Launchers Using Transformer Concepts," August 1993.
- 19. Joseph Steward, "Characteristics of Partial Discharge Detection," January 1994.

<u>UNIVERSITY COURSES TAUGHT (US AND PAKISTAN)</u>

EAS-103 Introduction to Engineering (1)

Orientation to Engineering, Ethics, Energy, Professionalism, Engineering in Industry, Private Practice and Government, Management, Organizational Relationship, Salaries, Creativity, Design and Development, Patents, Engineering Societies, Professional Registration, Engineers' Unions, Engineering Education, Branches of Engineering.

ECE-202 Circuit Analysis - I (4)

Fundamental Relationships in Circuit Theory, Resistive Networks, Source Conversion, Superposition Principle, Thevenin and Norton Theorems, Maximum Power Transfer, Power and Energy, Mesh and Node Analysis, Laplace Transforms,

Impedance and Admittance, Voltage and Current Divider Rules, Transfer Function, Frequency Domain Solutions, Poles and Stability, Partial Fraction Expansion, Inverse Transformation, Step Response, Sinusoidal Response, Phasers, Phase Lag and Phase Lead, Power Relationship, Root Mean Square.

ECE-495/595 High Voltage Engineering (3)

Introduction to High Voltage Technology, High Voltage ac and dc Transmission; Generation of High Voltages by Various Techniques (ac, dc, impulse, pulse), Measurement of High Voltages (electrostatic voltmeters, high impedance, voltage dividers, sphere gaps). Destructive and non-destructive Insulation Test Techniques, Types of Breakdowns, Partial Discharges, High Voltage Bridges, Term paper.

ECE-495/595L High Voltage Engineering Laboratory (1)

Safety in High Voltage Environment, Shielding and Grounding Techniques, Demonstration of Operation of High Voltage Equipment, Measurement of High Voltage by various Techniques, Calibration of Sphere-Sphere gap, Measurement of Capacitance and Loss Factor of high voltage capacitors, High Voltage Experiments with Tesla Coil, Van de Graaff generator and Wimhurst Electrostatic machine.

ECE-572 Electrical Insulation and Dielectrics (3)

Introduction to Electrical Insulation and Dielectrics, Classification of Materials, Breakdown in Gases, Liquids and Solids. Properties and Applications of Electrical Insulation, Diagnostics, Characterization, Evaluation and Testing of Dielectrics and Components. Term Paper.

ECE-596 Advanced Topics in High Voltage Engineering - I (3)

Introduction to High Voltage Insulation, Prebreakdown and Breakdown phenomena in Gases, Breakdown in SF6 and SF6-gas mixtures, Particle contaminated gas breakdown, Surface Flashover, Lightning Discharges, Breakdown in Solids, Liquids, and Vacuum, Composite Insulation, Insulation and Dielectrics for Energy-storage Devices, High Performance Insulators. Term paper.

MS-5210 Quality Information Systems (3)

This course introduces Quality in Individuals and Organizations. It also discusses examples of leaders who have contributed towards the advancement of quality era such as Deming, Juran, and Balridge. ISO 9000, other quality awards and Six Sigma is explained in the light of existing TQM models

MS-5211 Creative Leadership (3)

This course is about the art and adventure of leadership. Leadership today includes, among others, academic, corporate, social, performing, artistic,

scientific, technical, spiritual, bureaucratic, military and political. The course builds up the traits required to be an effective leader. From a discussion of personality development techniques to an overview of various leadership skills, leadership styles will be studied and discussed in the context of what it takes to be a creative and successful leader.

SPACE POWER INSTITUTE (EQUIPMENT WORTH OVER US\$ 4 MILLION ACQUIRED THROUGH SPONSORED FUNDING IN 1980-85)

High Voltage Generation

600 kV, 15 kJ Impulse Generator; 300 kV, 2 mA dc Generator; 250 kV, 32 J Pulser-Transformer; 200 kV Van de Graaf Generator; 200 kV, 200 J High Voltage Construction Kit; 100 kV, 20 kVA ac Transformer and controller; 100 kV Tesla Coil; 15 kV, 25 kVA ac Transformer and controller; 50 kV, 5 mA dc Generator; 50 kV, Electrostatic Generator; 35 kV, 1.5 mA dc Generator, 5 kV, 30 kHz, 1 kVA High Voltage Transformer and Amplifier.

High Voltage Measurements

600 kV, Mixed Voltage Divider; 200 kV Resistive voltage divider; 168 kV Gas-filled capacitive voltage divider; 50 kV Electrostatic voltmeter; 40 kV High voltage probes; Sphere-gaps.

High Voltage Testing

40 kV ac Partial Discharge Analyzer; 30 kV dc Partial Discharge Detector; Schering Bridge; Precision Capacitance Bridges, Ultrasonic Corona leak detector; 2 kV High Voltage capacitance bridge with solid and liquid test cells; Receptivity chamber.

Low Voltage Measurements and Diagnostics

Storage Oscilloscopes with camera; Peak reading voltmeter; Picoammeter; Multimeters; Personal computers; Graphic plotter; Chart recorder.

Other Support Facilities

RFI/EMI shielded room; Electrical and Thermal Aging facility; Vacuum oven and film impregnation facility; Vacuum chambers for material storage; Gas test cell with special electrodes; High pressure gas test cell, Liquids and solids test cell and electrodes; Polarized light microscope; Temperature circulator and controller; High voltage resistors, capacitors and cables.

US UNIVERSITY SERVICE

- Advisor, Fulbright Scholars, IELI Institute, SUNY at Buffalo, 1981.
- Senator-Alternate, University Senate, SUNY at Buffalo, 1982-1984.
- Faculty Advisor, Pakistan Students' Association, SUNY at Buffalo, 1980-1984.
- Judge, Engineering Student Project Night, SUNY at Buffalo, April 16, 1985.
- Participation in University Open Houses, 1985, 1986, 1987.
- Senator-Alternate, University Senate, SUNY at Buffalo, 1986-1989.
- Faculty Mentor, President's Honor Program, SUNY at Buffalo, 1987.
- Secretary, University at Buffalo Toastmasters, 1989.
- Member, Nuclear Reactor Advisory Committee, 1990-1991.
- Member, Personnel Committee, Graduate School, 1993-1994.
- Faculty Advisor, Safety and Ethics in Engineering Society, 1993
- Member, Graduate School Executive Committee, 1994

COMMUNITY SERVICE IN US

- Member, International Committee on Preservation of Moenjodaro (the 5000-year old Indus Valley Civilization), 1985-1986.
- General Secretary, Sindhi Association of North America, 1986-1990.

MISC. SERVICE IN PAKISTAN

- Board Member, Pakistan Council for Science & Technology, 1996.
- Board Member, Pakistan Software Export Board, 1996.
- Board Member, Sindh Information Technology Board, 2000.
- Board Member, Sindh Education Advisory Board, 2000.
- Member, Governor's Vice Chancellors of Sindh Universities Committee on Information Technology, Pakistan, 2000.
- Member, Ministry of Science and Technology Human Resource Development Committee, 2000.

HONORS AND AWARDS

- Distinguished Leadership Award, 1987.
- International Cultural Diploma of Honor, 1988.
- Best Paper Award, "Characterization of PBI Film at High Temperatures," IEEE International Symposium on Electrical Insulation, Toronto, Canada, June 1990. Authors J. L. Suthar (Graduate Student), A. N. Hammoud and J. R. Laghari.
- "Teacher of the Year" Award, 1990, Tau Beta Pi Association, National Engineering Honor Society.
- Dedicated Services Award, Chairman IEEE Technical Committee on Radiation Life, 1991-1994.
- IEEE Award for Leadership and Dedicated Services, 1994.
- Top Civilian National Award 'Tamgha-e-Imtiaz' conferred by the President of Pakistan, 1998.

LISTINGS

- American Men and Women of Science (1989 -
- Who's Who in Science and Engineering (1991 -
- Who's Who in the East (1987 -
- Who's Who in the World (1989 -

PERSONAL

• Date of Birth: June 25, 1950

- Married. Spouse. 2 Children. All US nationals
- Travelled to 4 continents, 38 countries, and 44 states in the US

Feb 24, 2014

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