

Curriculum Vitae

Dr. Krishan L. Khatri

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P.E., Member IEEE / EMBS / PES

Member Executive Committee, IEEE Karachi Section

Member ISOC, Member Pak-US Alumni Assoc.

Member Pak-US Alumni Assoc. Special Interest Group in Energy and Environment

Former Fulbright PhD Scholar

Former Member BoD Sami Foundation

PROFILE SUMMARY

Dr. Krishan L. Khatri, a former Fulbright Scholar, received his Doctor of Philosophy (Ph.D) degree in Electrical Engineering from The University of Texas at Dallas, Richardson, Texas, United States in August 2017, and has over 20 years' experience in industry and academia that also includes formal teaching and research.

Mr. Khatri received his Bachelor of Engineering (Electrical) from Mehran University of Engineering and Technology Jamshoro, Sindh, Pakistan, in 1999, with 1st Class, 1st Position, and Master of Science in Electronic Engineering from Sir Syed University of Engineering and Technology, Karachi, Sindh, Pakistan in 2008, with CCGPA of 4.0 out of 4.0.

He worked as Lecturer in Electrical Engineering at NED University of Engineering and Technology, Karachi, Sindh, Pakistan from 2001 to 2002, and then worked as Engineer and later as Senior Engineer / Manager with Pakistan Telecommunication Company Limited from 2002 to 2010. He again started working as Assistant Professor in Electrical Engineering at NED University of Engineering and Technology in 2011. In 2012, he joined Quality of Life Technology Laboratory at University of Texas at Dallas as Ph.D student researcher. His research interests are machine learning, artificial intelligence, health informatics, data mining and analytics, smart grid, grid stability using artificial intelligence, renewable technologies and their impact, communication systems, and automated systems in disease prediction, diagnosis, prevention, and management. He has authored a number of research articles in communication systems, electrical engineering energy systems, and machine learning techniques for Q1, Q2, Q3 Journals and journals listed in Calvairate Analytics JCR with Impact Factor. He has also presented at two IEEE conferences in the United States and several national conferences in Pakistan.

Mr. Khatri is recipient of Foreign Fulbright Scholarship for Ph. D in United States, Gold Medal from Siemens Pakistan Engineering Company Limited, Silver Medal from Mehran University, and Quaid-e-Azam Aligarh Scholarship for undergraduate studies.

ACADEMIC QUALIFICATION

- The University of Texas at Dallas, Richardson, Texas, USA** August 2017
Doctor of Philosophy in Electrical Engineering
PhD Dissertation: Machine Learning Techniques for Forecasting of Emergency Department Peak Load due to Respiratory Diseases Patients
- Sir Syed University of Engineering and Technology Karachi, Sindh, Pakistan** March 2009
Master of Science Electronic Engg. (Telecommunication), CGPA 4 / 4; Completed 2008
- Pakistan Institute of Management, Karachi, Sindh, Pakistan** August 2008
Postgraduate Diploma in Project Management
- Mehran University of Engineering and Technology Jamshoro, Sindh, Pakistan** August 1999
Bachelor of Engineering (Electrical), CCGPA 3.89/4, 1st Class 1st Position Position

EMPLOYMENT HISTORY

- NED University of Engineering and Technology-Karachi** 2010 - Present
Electrical Engineering Department
Assistant Professor
- Teaching graduate and under-graduate courses in Electrical and Telecom Engineering
 - Research in Digital Health, Health Informatics, AI, and Machine Learning
 - Supervising Independent Study Projects (ISPs) and Theses of Postgraduate Students
 - Examine and evaluate undergraduate and postgraduate students examinations and Theses
- The University of Texas at Dallas, Richardson, Texas, USA** 2012-2017
Electrical Engineering / Quality of Life Technology Laboratory
- Research under Prof. Lakshman Tamil in health analytics, intelligent systems for diagnosis, analysis, and decision support systems
- Pakistan Telecommunication Company Limited** 2001-2010
Dev IP & MMBB South, Etisalat Sharjah, UAE, Transmission Network Region Karachi, Switching and Transmission Karachi
Senior Engineer, Engineer, Engineer, Assistant Divisional Engineer
Worked at various technical management positions, mostly in Karachi, and for about six months at Etisalat Sharjah, UAE under secondment/deputation. Started my career in PTCL as Assistant Divisional Engineer (Proby) in June 2001, and after 6-months training at Haripur, Hazara, Pakistan, posted in Switching and Transmission at Karachi. Re-designated as Engineer in 2006 and posted in Transmission Region Karachi.

ITIM Associates (Pvt) Limited, Karachi

Mar-Jun 2001

Quality Assurance

Software Quality Assurance Engineer

- Testing and technical writing for locally developed software

**NED University of Engineering and Technology, Karachi,
Sindh, Pakistan**

2000-2001

Department of Electrical Engineering

Lecturer

- Taught undergraduate engineering classes in Electrical and Electronic Engg. departments in subjects Communication Systems, Computer Architecture
- Lab training in Electronics Engg. Lab for undergraduate students

StartTech Computer Academy, Hyderabad, Pakistan

1999-2000

Training Manager

- Designed organized and taught Computer and IT Short Courses.

OTHER EXPERIENCE

United States Education Foundation Pakistan (Fulbright Pakistan)

Evaluated of Master and PhD applications for Fulbright Scholarship of Pakistan in 2018, 2020 and 2021

Interviewed a number of evaluated candidates for Fulbright scholarship in Pakistan in 2021

**Mehran University of Engineering and Technology, Jamshoro, Pakistan and
Sukkur IBA University, Sukkur, Pakistan**

Evaluated Masters and PhD students Theses, Research proposals as External Expert / Examiner during 2018 to Present

RESEARCH PUBLICATIONS (Journals)

1. M. A. Raza, **K. L. Khatri**, M. I. U Haque, M. Shahid, K. Rafique, and T. A. Waseer, "Holistic and scientific approach to the development of sustainable energy policy framework for energy security in Pakistan", *Energy Reports*, Vol. 8, pp. 4282-4302, 2022 (**JCR IF 6.870**)
2. M. A. Raza, **K. L. Khatri**, and A. Hussain, "Transition from fossilized to defossilized energy system in Pakistan" *Renewable Energy*, Vol. 190, pp. 19-29, 2022 (**JCR, IF 8.001**)
3. M. A. Raza, **K. L. Khatri**, M. A. Memon, K. Rafique, M. I. U. Haque and N. H. Mirjat, "Exploitation of Thar coal field for power generation in Pakistan: A way forward to sustainable energy future", *Energy Exploration & Exploitation*, p. 014459872210821, 2022 (**JCR IF 2.139**)

4. M. A. Raza, **K. L. Khatri**, A. Israr, M. I. U Haque, M. Ahmed, K. Rafique, and A.S. Saand "Energy demand and production forecasting in Pakistan", *Energy Strategy Reviews*, vol. 39, p. 100788, 2022 (**JCR IF 6.42**)
5. A. Tariq, **K. L. Khatri**, M. I. U. Haque, M. A. Raza, S. Ahmed, and M. Muzammil, "Investigation of the Effects of Distributed Generation on Protection Coordination in a Power System", *Eng. Technol. Appl. Sci. Res.*, vol. 11, no. 5, pp. 7628–7634, Oct. 2021. (**ISI Master List Journal**)
6. M. A. Raza, **K. L. Khatri**, K. Rafique and A. S. Saand, "Harnessing Electrical Power from Hybrid Biomass-Solid Waste Energy Resources for Microgrids in Underdeveloped and Developing Countries", *Engineering, Technology & Applied Science Research*, vol. 11, no. 3, pp. 7257-7261, 2021 (**ISI Master List Journal**)
7. **K. L. Khatri**, M. A. Raza, S. A. Soomro, N. A. Tunio and M. M. Ali, "Investigation of possible solid waste power potential for distributed generation development to overcome the power crises of Karachi city", *Renewable and Sustainable Energy Reviews*, vol. 143, p. 110882, 2021 (**JCR Journal, I.F. 12.11**)
8. M. A. Raza, **K. L. Khatri**, S. Akbar, and M. I. U. Haque, "Towards Improving Technical Performance of a 747 MW Thermal Power Plant", *QRJ*, vol. 19, no. 1, pp. 104-111, Jun. 2021. (**HEC Recognized Y-Category Journal**)
9. **K. L. Khatri** and L. S. Tamil, "Early Detection of Peak Demand Days of Chronic Respiratory Diseases Emergency Department Visits Using Artificial Neural Networks," *IEEE Journal of Biomedical and Health Informatics*, Vol. 22, Issue.1, pp. 285-290, 2018 (**JCR IF 5.772**)
10. A. S. Saand, **K. L. Khatri**, F. Memon, V. Jeoti, and R. N. Memon, "Source and Relay Precoding Design for Dual-hop Multiuser Network", *International Journal of Computer Science and Information Security*, Vol 14, No. 8, August 2016
11. A. Shah and **K. L. Khatri** "Digital Interpolation Advantage of Statistical Time Division Multiplexer" *Pakistan Journal of Engineering, Technology and Sciences (PJETS)*, Vol. 1, No. 1, 2011

MASTERS THESES SUPERVISED

1. A. Tariq, "Analysis of Distributed Generation Effects on Protection Coordination in Power System," M.Engg. (Electrical Engineering), Department of Electrical Engineering, NED University of Engineering and Technology, Karachi, Sindh, Pakistan, 2020
2. M. A. Raza, "Electrical power generation potential of natural resources in Baluchistan for Pakistan's electricity demand forecast for 2030, Master of Energy Management (Electrical Engineering), Department of Electrical Engineering, NED University of Engineering and Technology, Karachi, Sindh, Pakistan, 2020
3. H. H. Hameed, "Power Quality Analysis of Ffcel's 50 Mw Wind Power Plant at Jhimpir, Sindh In 132kv Grid", M.Engg. (Electrical Engineering), Department of Electrical Engineering, NED University of Engineering and Technology, Karachi, Sindh, Pakistan, 2020

4. N. Saeed, “Decentralized Smart Grid Control and Stability Using Machine Learning Techniques”, M.Engg. (Electrical Engineering), Department of Electrical Engineering, NED University of Engineering and Technology, Karachi, Sindh, Pakistan, 2020

CONFERENCE PRESENTATIONS/POSTER PRESENTATIONS

1. **K. L. Khatri** and L. S. Tamil, “Predicting Peak Emergency Department Admission Days for Asthma in Dallas County using Random Forests Classification” in *BHI2017 International Conference on Biomedical and Health Informatics*, Orlando, FL, February 2017
2. **K. L. Khatri** and L. S. Tamil, “Forecasting Peak Hospital Admission Events for Respiratory Diseases Based on Weather and Environmental Pollution Data” in *38th Annual International Conference of IEEE’s Engineering in Medicine and Biology Society*, Orlando, FL, August 2016

TRAININGS / WORKSHOPS / INSPECTIONS

- 15-days course in **New Technologies in Broadcasting** by **Voice of America** through United States Telecommunication Training Institute, **Washington, DC, USA**, May 2010
- 5-days Configuration of Alcatel ISAM (DSL Services) at **KTC Karachi**
- 3-weeks orientation of **Etisalat’s Integrated Service Network** at Sharjah, Nov-Dec 2007
- Attended SANOG Conference and Workshops/Tutorials on Routing, Security, Data Centers, VoIP and Next Generation Telecom Technologies, 27-Aug to 04-Sep 2006
- Automation of Telecommunication Operations in PTCL at **Karachi Telecom College Karachi Pakistan**, May-2007
- CDMA BSS Engineer’s Training by M/s Huawei Technologies Pakistan @ ICT Islamabad Pakistan, 1-Aug to 2-Sept 2005
- Wireless Communication Technology and Policy by DGF-KTC, **Korea Information Strategy Development Institute @ Seoul Republic of Korea**, 6-Jul to 16-July 2005
- Next Generation Networks at Telecommunication Staff College@ Haripur, Pakistan, 4-Apr to 8-apr 2005
- Wireless Rural Telecommunication Systems Planning and Infrastructure Development by **Telemobile Inc. at Torrance, CA, United States of America**, 4-Oct to 8-Oct 2004
- Satellite Communication Systems and Services by **Intelsat Global Services Corp. at Washington, DC, United States of America**, 27-Sep to 1-Oct 2004

- Online Training in Next Generation Networks by **DGF-KTC Republic of Korea**, 5-Jul to 29-Aug 2004
- Traffic Fundamentals and Forecasting (PSTN) at **ICT Islamabad, Pakistan**, 26-Dec to 30-Dec 2003
- Huawei TELLIN/FIN by **M/s Huawei Technologies Pakistan @ ICT Islamabad Pakistan**, 26-May to 30-May 2003
- MBA Level Courses (Principles of Management, Financial Accounting, Managerial Communication) at **Iqra University Karachi**, Pakistan, Jun to Sep 2002

OTHER SKILLS AND EXPERIENCE

- Served on various committees and lead teams at NED University for Curriculum Design and Improvement, Objective Based Education (OBE), Strategic Planning for Department's expansion, etc.
- Freelance Writer and Researcher
- Strong analytical abilities and problem-solving skills
- Excellent written and verbal communication and report writing skills

COURSES TAUGHT

- Advanced Digital Signal Processing (Postgraduate)
- Synchro Phasor Technology (Postgraduate)
- Project Evaluation and Feasibility Analysis (Postgraduate)
- Embedded Generation / Distributed Generation (Postgraduate)
- Wireless / Mobile Communication (Postgraduate)
- Signals and Systems (Undergraduate)
- Digital Signal Processing (Undergraduate)
- Basic Electrical Engineering (Undergraduate)