

MUHAMMAD SAEED

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EDUCATION:

PhD Engineering Management, Beijing University of Posts and Telecommunications 2008-2012

Area of expertise:

- Policy regulation
- Project management
- Performance audit of technical projects
- Coaching in the fields of Engineering Management, Project Management, Communications Skills, Policy Regulation, Entrepreneurship, Telecommunication Transmission and Switching, Telecommunication Systems

Research Interests:

Telecommunication convergence, digital ID, ICT ecosystem, radio spectrum regulation, energy engineering, and project management

2008-2012 PhD Engineering Management, Beijing University of Posts and Telecommunications

Thesis Title: Regulating Radio Spectrum in a Digitally Converging Wireless World -A case study of Digital Switchover in Pakistan

2004-2005 MS Telecommunication Engineering, NWFP UET Peshawar/ICT Islamabad

Thesis Title: Security Analysis of IEEE 802.11i Wireless Networks

1992-1997 BSc (Honors) Electrical Engineering, NWFP UET Peshawar

1989-1990 FSc Pre-Engineering, Tameer-i-Nau Public College Quetta
With distinction

PROFESSIONAL EXPERIENCE

FAST-NATIONAL UNIVERSITY OF COMPUTER & EMERGING SCIENCES, PAKISTAN

02-2008 to Date

Assistant Professor

Designed and taught courses of Telecommunications System, Telecommunications Transmission and Switching, Engineering Management, Engineering Economics, Entrepreneurship. Coordinated with various telecommunication organizations for industrial trips, internships and placements for graduating students.

PAKISTAN TELECOMMUNICATION COMPANY LIMITED (PTCL) 2001-2008

Project Manager

Actively participated in the following projects through Strategic Planning, Technology Planning, Quality Assurance, liaison with vendors, supervising the timely installation and commissioning of the networks comprising Switching and Transmission systems, OSP, various data and telecom technologies including IP/MPLS, OSPF, E1/T1, X.25, SS7, ISDN BRI/ PRI,)

- Establishment of Intelligent Network (IN) Platform, Next Generation Networks
- Establishment of Multimedia & Broadband Triple Play Network
- Network Management Centre
- Replacement of Power Plant in Exchanges
- Testing & commissioning of HUAWEI WLL MSC-M800 & BSC-6600 at Quetta

MULTAN ELECTRIC POWER COMPANY LIMITED (PEPCO-WAPDA) PAKISTAN 01-2000 to 10-2000

Sub Divisional Officer

Responsibilities included smooth operation of 11KV/400V electric power feeders, line loss control, customer care, resource management

SIEMENS ECS Pakistan Limited 03-1998 to 06-1998

Planning QA/QC Engineer

Responsibilities included planning for execution of the contracted work at Habibullah-Coastal Power Plant Quetta. Testing and commissioning of instruments including PTs, CTs, TTs etc

SKILLS

General skills in project management; specific skills and interests include:

Computing Skills:

- Platforms: Windows, Linux
- Networking: WLAN (802.11 b/g/n)
- Programming languages: Visual Basic (5.0/6.0), SQL
- Tools: Ethereal, Microsoft Office Suite, Internet Explorer, Google Chrome, Several e-mail packages

Teaching Skills:

- Taught courses at undergraduate levels and arranged seminars in telecom engineering department for undergraduate students

- Supervised Final Year Projects at undergraduate level

Other Skills:

- Knowledge of research methodologies, data and information collection
- Team player with strong interpersonal and communication skills (English, Urdu, Pashto, Hindko)
- Ability to take responsibility as a challenge and meet the targets in time
- Writing and presenting reports

PROFESSIONAL DEVELOPMENT/CERTIFICATIONS

- 02-weeks course on NGN STP/MNP Technologies at ICT Islamabad; by ZTE (2006)
- 06-weeks course on CDMA MSC-61 Engineer, HLR36 System Administrator, M2000 System Administrator at RTTS Lahore; by HUAWEI (2004)
- 04-weeks Civil Defense Camouflage Course at Civil Defense Academy Lahore (2003)
- week Telecom Traffic Fundamentals & Forecasting course, at ICT Islamabad (2003)
- 04-week course on Digital Switching Alcatel (E-10B) Technologies, at RTTS Quetta (2002)
- 32-weeks Telecom Fundamental Course for Engineers at TSC Haripur (2001-02)
- 06-weeks Induction course of Management for Engineers, at WAPDA Staff College, Islamabad
- 06-weeks Induction course on Power Distribution and Operations 11KV/400V system, at WAPDA Engineering Academy, Faisalabad

AWARDS, FELLOWSHIPS AND GRANTS

- Merit scholarship by Govt. of Balochistan 1992-1997
- CSC bursary for PhD 2008-2012

PROFESSIONAL MEMBERSHIP

Registered Professional Engineer (ELECT/14082) Pakistan Engineering Council

INTERESTS

I enjoy cricket and captained department cricket team at UET Peshawar and participated in inter-university cricket tournament. Snooker, hiking, trekking and travelling are also my favorites.

REFERENCES

Available on request

APPENDIX

DETAILED SYNOPSIS OF PhD

The research examines the prospects of regulatory reforms for meeting the challenges relevant to wireless communications. Traditional structure of radio frequency (RF) regulation models revolve around the single technical issue of *interference*. This work emphasizes the liberty provided by the advancements in wireless communication technologies. The advanced wireless circuitry is intelligent enough to cope for the intelligence and different services offered can share the spectrum without interfering with other transmitters using the same frequency, cognitive radio (CR) is an example.

The other key area covered under this work is digital migration or digital switchover (DSO) from analogue to digital terrestrial television that will spare substantial amount of radio spectrum (digital dividend) in UHF range. The digital dividend realization through mobile broadband will bring phenomenal direct and indirect economic and social benefits for the society. Therefore, it is advocated that careful deliberations be made to realize this life time opportunity in best possible manner.

The digital switchover (DSO) analysis in the target country, Pakistan has been the third major issue covered in this work. Pakistan is a country that relies heavily on cable network and satellite network (CabSat) for television provisioning. A cost benefit analysis for DSO is carried out in this work and it is concluded that digital migration through a CabSat way (cable television and satellite television) is the best option being far more economical and rapid in terms of deployment as compared to the tri-Net way (cable television, satellite television and terrestrial broadcast television).

PUBLICATIONS/CONFERENCE PAPERS

- Radio spectrum management in a wireless world; A flexible market-based futuristic approach; Proceedings - 2011 4th IEEE International Conference on Broadband Network and Multimedia Technology, IC-BNMT 2011, p 196-200; Corresponding author, EI Compendex
- Realizing digital dividend in a wireless world challenges and opportunities; Proceedings - 5th International Conference on New Trends in Information Science and Service Science, NISS 2011, v 2, p 255-259, 2011, Corresponding author, EI Compendex
- Cloud computing economics opportunities and challenges; Proceedings - 2011 4th IEEE International Conference on Broadband Network and Multimedia Technology, IC-BNMT 2011, p 401-406, Co-author, EI Compendex
- Net neutrality paradox: Regulator's dilemma; 7th International Conference on Wireless Communications, Networking and Mobile Computing, WiCOM 2011, 2011, Co-author, EI Compendex
- Next generation broadband access-harmonizing technology with economics; Proceedings - 2011 4th IEEE International Conference on Broadband Network and Multimedia Technology, IC-BNMT 2011, p 101-105, 2011, Co-author, EI Compendex
- Tensor-Based Channel Estimation for Cooperative Diversity Scheme in the Presence of Timing and Frequency Offsets; Journal of Networks, Vol 8, No 9 (2013), 2057-2062, Sep 2013; Yinghui Zhang, Muhammad Saeed, Tiankui Zhang, Zhimin Zeng

- Determinants of farmers' choice of coping and adaptation measures to the drought hazard in North-West Balochistan, Pakistan; Journal of Natural Hazards; accepted for publication
- Faizullah Khan, Surat Khan, Abdul Wahid Tareen, Muhammad Saeed, "Addressing the Challenges of E-government in Developing Countries through Public-Private Partnership Model Based on Cloud Computing", Journal of Applied and Emerging Sciences BUTEMS Quetta, Vol 5, Issue 1, p 59-65, July 2014.
- Ubaid-ur-Rehman, Faizullah Khan, Surat Khan, Muhammad Saeed, Rehmatullah, Akbar Khan, Ali Madad, "Post National Grid Reinforcement Analysis of QESCO Network for Reliable and Optimal Operation", Journal of Applied and Emerging Sciences BUTEMS Quetta, Vol-7, Issue-II (July-Dec), p 129-138, 2017
- Akbar khan, Faizullah Khan, Surat Khan, Ishtiaq Ahmed Khan and Muhammad Saeed, "Cost Sensitive Learning and SMOTE Methods for Imbalanced Data", , Journal of Applied and Emerging Sciences, BUTEMS, Quetta, Vol-8, Issue-I, p-32-38, 2018
- Ishtiaq Ahmad, Faizullah Khan, Surat Khan, Akbar Khan, Abdul Wahid Tareen, Muhammad Saeed, "Blackout Avoidance Through Intelligent Load Shedding in Modern Electrical Power Utility Network", Journal of Applied and Emerging Sciences, BUTEMS, Quetta, Vol-8, Issue-II, p-48-57, 2018
- Muhammad Siraj, Yousaf Khan, Faizullah Khan, Abdul Wahid Tareen, Surat Khan, Muhammad Saeed, Farman Ali, "Analysis of High Data Rate (Beyond 100Gbps) Long Haul Optical Network Using Duo Binary Differential Quadrature Phase Shift Keying Modulation Technique", Journal of Applied and Emerging Sciences, BUTEMS, Quetta, Vol-8, Issue-II p-124-131, 2018
- Najeeb Ullah, Faizullah Khan, Abdul Ali Khan, Surat Khan, Abdul Latif, Abdul Wahid Tareen, Muhammad Saeed, Akbar Khan, "Optimal Real-Time Static and Dynamic Air Quality Monitoring System", accepted in Indian Journal of Science and Technology, 2019.
- Irshad Hussain, Faizullah Khan, Ishtiaq Ahmad, Surat Khan, Muhammad Saeed, "Power Loss Reduction via Distributed Generation System Injected in a Radial Feeder", submitted to Mehran University Research Journal of Engineering & Technology, 2019
- Muhammad Noman Khan, Yousaf Khan, Faizullah Khan, Surat Khan, Muhammad Saeed, Muhammad Ashraf, Abdul Wahid Tareen, Muhammad Tariq, Nasir Saleem, "A Novel Cross Phase Modulation Technique for Long Haul Fiber Optic Communication Systems", submitted to Journal of Applied and Emerging Sciences, BUTEMS, Quetta
- Muhammad Saddam Khan, Faizullah Khan Kakar, Muhammad Saeed, Akbar Khan, Babar Ali, Muhammad Ashraf, Surat Khan, Abdul Wahid Tareen, "Economic Analysis of DC Power Sources Used in Impressed Current Cathodic Protection of Underground Pipelines", Indian Journal of Science and Technology, Volume-14, Issue-11, p-897-904, April-2021.
- "Applying environmental Kuznets curve framework to assess the nexus of industry, globalization, and CO2 emission" Bilal Aslam a,* , Jinsong Hu a,* , Muhammad Hafeez b , Deqing Ma a , Tahani Saad AlGarni c , Muhammad Saeed d , Muhammad Arslan Abdullah a , Shahid Hussain ; Environmental Technology & Innovation Volume 21, February 2021, 101377
- "The nexus of sectoral-based CO2 emissions and fiscal policy instruments in the light of Belt and Road Initiative", Muhammad Waqas Akbar1 & Peng Yuelan1 & Adnan Maqbool2 & Zeenat Zia1 & Muhammad Saeed, Environmental Science and Pollution Research <https://doi.org/10.1007/s11356-021-13040-3>, Published online 24-Feb 2021