

RESUME

Engr. Muhammad Junaid

Contact Details

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Objective

I am interested to conduct research during my M.Sc/PhD program in Electrical Engineering at a university of international standard for utilizing my abilities of teaching and practical knowledge in research and development.

Academic Details

- ***M.Sc. Electrical Engineering (In progress)***
University of Engineering and Technology Lahore, Pakistan
- ***B.Sc. Electrical Engineering (Honours)*** **83.3 %**
University of Engineering and Technology Lahore, Pakistan
- ***Diploma of Associate Engineering (D.A.E)*** **70 %**
Punjab Board of Technical Education, Lahore, Pakistan
- ***Secondary School Certificate (S.S.C)*** **78 %**
Board of Intermediate and Secondary Education, Gujranwala

Areas of Research

- Electrical Power System Quality
- Power System Analyses and Simulation
- Distributed Generation
- Artificial Intelligence

Journal of Electrical Engineering (Springer), 2010

- [1]. R. A. J Khan, M. Al Dabbagh, A. Mohamed, Muhammad Junaid, Adnan Bashir, M. Asghar and M.A. Masood, “*Analyses of 132 kV Grid using Electrical Transient Analyzer Program (ETAP)*” Springer Electrical Engineering Journal, ISSN: 0948-7921, Journal No. 202. (Upgraded from PCO 2010 for Springer Journal)

IEEE Power and Energy Society (PES), 2008

- [2]. R. A. Jabbar, M. Akmal, M. Ali Masood, **Muhammad Junaid** and Fiaz Akram, “*Voltage Waveform Distortion Measurement Caused by the current drawn by Modern Induction Furnace*”, *IEEE PES*, International Conference on Harmonics and Quality of Power (ICHQP 2008), ISBN: 978-1-4244-1771-1, Digital Object Identifier: 10.1109/ ICHQP 2008.4668764, INSPEC Accession Number: 10393363, Current Version Published: 2008-11-07, Publication Date: Sept. 28 2008-Oct.1 2008, Wollongong, Australia.

Internationally Refereed Conference Research Papers, 2008, 2009, 2010

- [3]. Rana A. Jabbar, **Muhammad Junaid**, M. Ali Masood, M. Mansoor and Adil Iftkhar, “*LabVIEW based Induction Machines Laboratory for Engineering Education*”, The 7th WSEAS International Conference on Engineering Education (Education '10), Corfu Island, Greece, July, 22-24, 2010. (Under Review)
- [4]. R. A. J. Khan, Azah Mohamed, M.A. Hannan, **Muhammad Junaid**, M. Mansoor, A. Latif and H. Noor , “*Simulation of Electrical Machines Laboratory using LabVIEW*”, International Conference on Computer, Electrical, and Systems Science, and Engineering (ICCESSE-2010), Cape Town, South Africa January 29-31, 2010.
- [5]. Adnan Bashir, Rana A. Jabbar, **Muhammad Junaid** and M. Masoor Asgher, “*ETAP Software based Transient, Ground Grid and Short Circuit Analyses of 132 kV Grid*”, Third Global Conference on Power Control and Optimization (PCO 2010), ISBN: 978-983-44483-1-8, 2 - 4 February 2010, Gold Coast, Australia.
- [6]. Rana A. Jabbar, **Muhammad Junaid** and M. Masoor Asgher, “*Analyses and Monitoring of 132 kV Grid using ETAP Software*”, 6th International Conference on Electrical and Electronics Engineering (ELECO 2009), *IEEE*, 5 - 8 November 2009, Bursa, Turkey. (Accepted for Publication)
- [7]. Rana A. Jabbar, Azah Mohamed, **Muhammad Junaid**, Muhammad Ashraf and Ihsan Ullah, “*Modelling and Simulation of Microgrid Application at RCET*”, The Third *IASTED* (International Association of Science and Technology for Development) Asian Conference on Power and Energy Systems (*AsiaPES 2009*), October 12 – 14, 2009, Beijing, China.
- [8]. Rana A. Jabbar, Azah Mohamed, M. Shoab, M. Ali Masood, **Muhammad Junaid** and Bilal Ahmad, “*Analysis of Harmonics on Transformer Windings Eddy Current Losses using Comsol Multiphysics*”, The Third *IASTED* (International Association of Science and Technology for Development) Asian Conference on Power and Energy Systems (*AsiaPES 2009*), October 12 – 14, 2009, Beijing, China.

- [9]. R. A. Jabbar, **Muhammad Junaid**, M. Ali Masood and Khalid Saeed, “*Impacts of harmonics caused by Personal Computers on Distribution Transformers*”, Third International Conference on Electrical Engineering (ICEE 2009), *IEEE* CFP0996B, ISBN 978-1-4244-4361-1, Library of Congress 2009902542, University of Engineering & Technology, Lahore, Pakistan, April 9 to 11 2009.
- [10]. R.A Jabbar, M. Akmal, **Muhammad Junaid** and M. Ali Masood, “*Operational and Economic Impacts of Distorted Current drawn by Modern Induction Furnaces*”, AUPEC’08, *IEEE*, ISBN: 978-0-7334-2715-2, INSPEC Accession Number: 10571882, Current Version Published: 2009-04-10, University of New South Wales, Australia, December 17 to 21, 2008.

International Book Chapter Writing, 2009, 2010

- [11]. Innovation in Power, Control and Optimization (PCO) Book Chapter, Under Chapter title, “*Analyses and Monitoring of Power Grid*”, Authors: Rana A. Jabbar, **Engr. Muhammad Junaid**, Adnan Bashir, M. Asghar and M.A. Masood, IGI Global <http://www.igi-global.com/Books.aspx>, 2010. (In progress)
- [12]. IN-TECH Book Chapter, in a recently published Book entitled “ADVANCED TECHNOLOGIES”, Under Chapter “*Harmonics Modelling and Simulation*”, Authors: Dr. Rana A. Jabbar and **Engr. Muhammad Junaid**, ISBN: 978-953-7619-X-X, worlds first advanced technologies open access platform, Austria, Vienna, 2009.

Recent Research Topics, 2010

- Industrial Survey regarding Power Quality Issues in Pakistan
- Unbalanced Load Flow Analysis, Motor Acceleration Analysis and Relay Coordination Analysis of 132 kV Grid using Electrical Transient Analyzer Program
- DSM for Gujranwala Electric Power Company (GEPCO) using MATLAB
- Application of FACTS devices in Power Transmission System
- Impacts and Remedial measures of UPS during charging on power distribution system

Practical Experience

Lecturer/Lab Engineer

- Presently serving as **Lecturer** in Electrical Engineering Department at Rachna College of Engineering & Technology Gujranwala (A Constituent College of University of Engineering & Technology, Lahore, Pakistan) since July 2008.

Teaching Experience

- Power System Analysis (EE 470)
- Power System Operation & Control (EE 474)
- Power System Protection (EE 482)
- Power Distribution & Utilization (EE 351)
- Power Transmission System (EE 212)
- Electrical Machines (EE 241)
- Control Systems Engineering (EE 340)
- Network Analysis (EE 210)
- Basic Engineering Circuit Analysis (EE 101)

Final Year Project Supervised

- Modelling of 220 kV Sub-Station and Relay Coordination using ETAP
- Power System Simulation Analysis Comparison using MATLAB and ETAP
- Demand Side Management using Fuzzy Logic
- Application of Smart Grid using MATLAB
- Microgrid Modeling based upon Renewable Energy Resources
- Application of FACTS devices in Pakistan
- Implementation of Electric Machines Lab in LABVIEW
- Analysis and Optimization of 132KV Grid Station using ETAP
- Design and Simulation of Biomass Power Plant

Designing of Lab Manuals

- Power System Protection (EE 482)
- Control Systems Engineering (EE 340)
- Power Distribution & Utilization (EE 351)
- Power System Analysis (EE 470)
- Power System Operation & Control (EE 474)

Industrial Experience in Gujranwala Electric Power Company (GEPCO)

- I worked as **Line Superintendent-I** from 2001 - 2008 at following places:
 - Surveillance Team incharge for controlling electricity theft
 - 11 kV Feeder in-charge in B.B.Pura Sub-Division GEPCO
 - Customer Services Centre GEPCO H/Q
 - Technical Assistant (TA) to Executive Engineer in City Division GEPCO
 - Planning & Engineering (P&E) GEPCO H/Q

Technical Training Courses

- Technical Training (**T-500**) from Regional Training Center GEPCO Gujranwala
- Technical Training from **WAPDA Engineering Academy** Faisalabad

Final Year Project (B.Sc. Electrical Engineering), 2008

- **Voltage Waveform Distortion Measurement Caused by the Current drawn by Modern Induction Furnaces.**

From this project couple of **Research Paper** have been extracted, which also have already been published in **ICHQP 2008** and **AUPEC 2008** respectively.

Term Projects (B.Sc. Electrical Engineering), 2005, 2006, 2007, 2008

- **Distribution System** Planning and Optimization including economic aspects
- Design of **630 kVA** Distribution Transformer
- Industrial Survey regarding **Power Quality** Issues in Pakistan
- Practical Power system Analysis (Load flow, Harmonic, Transient, Fault, Optimal power flow, Motor starting) using **ETAP** Simulink
- A Study report of Demand Side Management (**DSM**) in Pakistan
- Segregation of Technical and Non-Technical **Losses** of 11kV Feeder

Extra-Curricular Activities

- Captain of Cricket Team
- Listening Music and Watching Movies
- Reading Books and News Papers
- Politics and Current Affairs

Language Proficiency

- English
- Urdu
- Punjabi
- Arabic

Achievements

- More than Ten International **Research** Publications
- Author in Two Internationally Published **Book Chapter**
- Certificate of **Performance** for conducting **Research** at Rachna College of Engineering & Technology (RCET) Gujranwala (Year 2008)
- Two international **Research Papers** in **IEEE** at under graduate level from Final Year Project of B.Sc Electrical Engineering
- Electrical Engineering, Specialization in **Power** with Honours (Grade **A+**)
- Got over all **2nd** position in 2003(F) session in the university
- **1st** position in **6th term** of Electrical Engineering
- **Best Line Superintendent** Award for the year of **2002-2003** of GEPCO H/Q (WAPDA) Gujranwala
- **1st** position during technical training from **WAPDA** Engineering Academy Faisalabad
- **1st** position during all three years of **D.A.E** (Electronics) in the Institute

Operational Knowledge of Engineering Software

- MATLAB
- ETAP (Electrical Transient Analyzer Program)
- FDR-ANA (Feeder Analysis)
- LabVIEW
- Electronic Workbench
- Comsol Multi-Physics

Developed Computer Skills

- Microsoft Operating System (98, 2000, XP, Crystal)
- Microsoft Office (2003, 2007)
- Java Language
- E-mail/Internet

References

- [1]. **Prof. Dr. Rana Abdul Jabbar Khan**, Principal Rachna College of Engineering & Technology, Gujranwala. Email: principal@rcet.edu.pk, engranajabbar@hotmail.com. Cell No: +92 300 6462313, Off No: +92 55 6770168, Fax No: +92 55 6773214
- [2]. **Dr. Riffat Hasan Khawaja**, Head of Electrical Engineering Department, Rachna College of Engineering & Technology, Gujranwala. Email: riffathassan@hotmail.com, Cell No: +92 300 4467390, Off No: +92 55 6770168, Fax No: +92 55 6773214

Signed