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Academic

Dec 2017	**Dalhousie University, Canada** Ph.D. Electrical Engineering **Thesis:** State Convergence Based Control of Teleoperation Systems **Supervisors:** Prof. Dr. Jason Gu, Prof. Dr. M. E. El-Hawary
March 2011	**University of Engineering & Technology, Lahore** M.Sc. Electrical Engineering **Thesis:** Design and Implementation of an Intelligent Controller for Wheeld Mobile Robots **Supervisor:** Prof. Dr. Khalid M. Hasan
Dec 2004	**University of Engineering & Technology, Lahore** B.Sc. Electrical Engineering **SYP:** Microcontroller Based Controlled Rectifiers Training Module for Power Electronics Laboratory **Supervisor:** Prof. Dr. Khalid M. Hasan

Area Of Interest

Fuzzy Logic, Neural Networks, Feedback Control Systems, Power Electronics, Power Systems, Brain Science

At work...

Jan 2005- **Dec 2005:**	**University of Engineering & Technology, Lahore** Worked as a **Research Associate** in Electrical Engineering Department. Duties include developing microcontroller and microprocessor based Training Modules for Control Systems, Power Electronics and Industrial Electronics Laboratories.
Jan 2006- **May 2006:**	**The University of Lahore** Worked as **Lecturer** in Electrical Engineering Department. **Subject Taught (Theory & Practical):** Basic Electrical Engineering
May 2006- **July 2011:**	**University of The Punjab Lahore** Worked as **Lecturer** in Electrical Engineering Department. **Subjects (Theory & Practical) Taught:** Electrical Circuits-I, Electrical Circuits-II, Electronic Devices & Circuits, Electromechanical Systems, Microprocessors & Computer Interfacing, Algorithms & Numerical Techniques, Introduction to Power Engg., Power Electronics, Embedded Systems, Radar & Navigation Systems
Jul 2008- **Jul 2009:**	**Incharge, Electronics & Telecom Engineering (ETE) Department, Punjab University Lahore** Prepared first-ever budget of ETE Department single-handedly, Prepared documentation for Zero-visit of Pakistan Engineering Council single-handedly, Founded Society of Engineering Excellence at ETE Department with the support of Prof. M. Kamran, Founded Research & Development Lab at ETE Department with the support of Prof. M. Kamran, Provided a high degree of support to students in software/hardware projects and actively trained them to participate in national as well international tech contest, Actively

searched for PhD faculty for the uplift of ETE Department by offering them incentives in consultation with Prof. M. Kamran

Aug 2011-
To Date: **University of The Punjab Lahore**
Working as **_Assistant Professor_** in Electrical Engineering Department.
Subjects (Theory & Practical) Taught: Computer Hardware & FPGAs, Advance Electronics (Physics Department)

Awards

1. DAL Faculty of Graduate Studies Award (2014)
2. DAL Faculty of Graduate Studies Award (2015)
3. DAL Faculty of Graduate Studies Award (2016)
4. DAL Faculty of Engineering Excellence Award (2017)
5. Nova Scotia Graduate Scholar Award (2016-17)
6. Nova Scotia Graduate Scholar Award (2017-18)

Professional Engagements

1. Technical Program Committee, since 2016, IEEE International Conference on Control, Robotics & Cybernatics (http://www.iccrc.org/com.html)
2. Reviewer IEEE Access
3. Reviewer IET Power Electronics
4. Reviewer IEEE Transactions on Industrial Informatics
5. Reviewer Engineering Applications of Artificial Intelligence
6. Reviewer IET Circuits, Devices and Systems
7. Reviewer International Journal of Robust and Nonlinear Control
8. Reviewer Sustainable Cities & Society

Publications

[1].   **Umar Farooq**, Jason Gu, Valentina E. Balas, Ghulam Abbas, M. Usman Asad, Marius Balas, "A Hybrid Time Series Forecasting Model for Disturbance Storm Time Index Using a Competitive Brain Emotional Neural Network & Neo-Fuzzy Neurons," ACTA Polytechnica Hungarica, vol. 16, no. 4, 2019.

[2].   M. Usman Asad, **Umar Farooq**, Jason Gu, Ghulam Abbas, Rong Liu, Valentina E. Balas, "A Composite State Convergence Scheme for Bilateral Teleoperation Systems," IEEE/CAA Journal of Automatica Sinica, Early access, 2019.

[3].   M. Usman Asad, **Umar Farooq**, Jason Gu, Valentina E. Balas, Marius Balas, "State Convergence Based Design of a Dual-Master Dual-Slave Teleoperation System," Proc. IEEE International Conference on Intelligent Systems, 2019.

[4].   Chaojiong Huang, **Umar Farooq**, Haiying Liu, Jason Gu, Jun Luo, "A PSO-Tuned Fuzzy Logic System for Position Tracking of Mobile Robot," International Journal of Robotics & Automation, vol. 34, no. 1, 2019.

[5].   Ali Raza, Ali Mustafa, K. Rouzbehi, Mohsin Jamil, Syed Omer Gillani, Ghulam Abbas, **Umar Farooq**, M. Naeem Shahzad, "Optimal Power Flow and Unified Control Strategy for Multi-terminal HVDC Systems," IEEE Access, vol. 7, 2019.

[6].   Ghulam Abbas, M. Nazeer, Valentina E. Balas, M. Usman Asad, Marius M. Balas, Tsung-Chih Lin, A. Raza, **Umar Farooq**, Jason Gu, "Derivative-Free Direct Search Optimization Method for Enhancing Performance of Analytical Design Approach-Based Digital Controller for Switching Regulator," Energies, 2019.

[7].   Naveed Ashraf, Tahir Izhar, Ghulam Abbas, Valentina E. Balas, Marius M. Balas, Tsung-Chih Lin, M. Usman Asad, **Umar Farooq**, Jason Gu, "A Single Phase Buck and Boost AC to AC Converter with Bipolar Voltage Gain: Analysis, Design and Implementation," Energies, 2019.

[8].   Ghulam Abbas, Jason Gu, **Umar Farooq**, M. I. Abid, A. Raza, "Optimized Digital Controllers for Switching-Mode Step Down DC-DC Converters," Electronics, vol. 7, 2018.

[9].   **Umar Farooq**, M. Usman Asad, Jason Gu, Ghulam Abbas, V. E. Balas, M. Balas, "Design of a Single-Master Multi-Slave Teleoperation System through State Convergence Under Time Varying Delays," ACTA Polytechnica Hungarica, vol. 8, 2018.

[10]. **Umar Farooq**, Jason Gu, M. El-Hawary, V. E. Balas, M. U. Asad, "State Convergence Based Control of a Multi-Master-Single-Slave Nonlinear Teleoperation System," ACTA Polytechnica Hungarica, vol. 15, no. 4, 2018, pp. 7-26.

[11]. M. Usman, **Umar Farooq**, Jason Gu, R. Liu, V. E. Balas, "A Single-Master Multi-Slave Teleoperation System through State Convergence," Proc. IEEE International Conference on Control & Automation, Alaska, 2018.

[12]. **Umar Farooq**, Jason Gu, M. E. El-Hawary, M. Usman Asad, Ghulam Abbas, Jun Luo, "A Time Delayed Multi-Master-Single-Slave Nonlinear Tele-robotic System through State Convergence," IEEE Access, vol. 6, 2018, pp. 5447-5459.

[13]. **Umar Farooq**, Jason Gu, M. E. El-Hawary, Valentina E. Balas, M. Usman Asad, "Fuzzy Model Based Transparent Controller for Time Delayed Bilateral Teleoperation System Through State Convergence," ACTA Polytechnica Hungarica, vol. 14, no. 8, 2017, pp. 7-26.

[14]. Ghulam Abbas, Jason Gu, **Umar Farooq**, M. Usman Asad, M. E. El-Hawary, "Solution of Economic Dispatch Problem Through Particle Swarm Optimization: A Detailed Survey-Part II," IEEE Access, vol. 5, 2017, pp.24426- 24445.

[15]. Ghulam Abbas, Jason Gu, **Umar Farooq**, M. Usman Asad, M. E. El-Hawary, "Solution of Economic Dispatch Problem Through Particle Swarm Optimization: A Detailed Survey-Part I," IEEE Access, vol. 5, 2017, pp. 15105-15141.

[16]. H. Milad, **Umar Farooq**, M. El-Hawary, M. Usman, V. E. Balas, "Fuzzy Logic Based Parameter Adjustment Model for ADBEL Network with Application to On-Line Time Series Prediction," Proc. IEEE International Conference on Electric Power Engineering, 2017.

[17]. M. Usman Asad**, Umar Farooq**, Jason Gu, Javeria Amin, Amna Sadaqat, M. E. El-Hawary, Jun Luo, "Neo-Fuzzy Supported Brain Emotional Learning Based Pattern Recognizer for Classification Problems," IEEE Access, vol. 5, 2017.

[18]. **Umar Farooq**, Jason Gu, M. E. El-Hawary, M. Usman Asad, J. Luo, "An Extended State Convergence Architecture for Multilateral Teleoperation Systems," IEEE Access, vol. 5, 2017.

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[21]. **Umar Farooq**, Jason Gu, M. E. El-Hawary, M. Usman Asad, Faiqa Rafiq, "Fuzzy State Convergence Based Bilateral Control of a Tele-robotic System in Unknown Environments," Proc. IEEE International Multi-topic Conference, Dec 2016.

[22]. **Umar Farooq**, Jason Gu, M. E. El-Hawary, M. Usman Asad, Ghulam Abbas, "Fuzzy Bilateral Control of Time Delayed Nonlinear Tele-robotic System in Unknown Environments through State Convergence," Proc. International Conference on Robotics and Artificial Intelligence, Nov 2016.

[23]. **Umar Farooq**, Jason Gu, M. E. El-Hawary, M. Usman Asad, Faiqa Rafiq "Transparent Fuzzy Bilateral Control of a Nonlinear Teleoperation System through State Convergence," Proc. IEEE International Conference on Emerging Technologies, Oct 2016.

[24]. Hassam Moazzam, **Umar Farooq**, Faiqa Rafiq, M. Usman Asad, Ghulam Abbas, "Design and Construction of Mobility Assistive Hybrid Automobile for Impaired Persons," Proc. International Conference on Innovative Computing Technology, Sep 2016.

[25]. Nauman Saleem, Hassam Muazzam, H. M. Tahir, **Umar Farooq**, "Automatic License Plate Recognition Using Extracted Features," Proc. IEEE International Symposium on Computational and Business Intelligence, Sep 2016.

[26]. **Umar Farooq**, Jason Gu, M. E. El-Hawary, M. Usman Asad, Ghulam Abbas, "Fuzzy Model Based Bilateral Control Design of Nonlinear Teleoperation System Using Method of State Convergence," IEEE Access, vol. 4, 2016.

[27]. **Umar Farooq**, Jason Gu, M. E. El-Hawary, Ghulam Abbas and M. Usman Asad, "State Convergence Based Bilateral Control of Nonlinear Teleoperation System Represented by TS Fuzzy Models," Proc. IEEE International Conference on Control and Automation, Jun 2016.

[28]. Ghulam Abbas, M. A. Samad, Jason Gu, M. Usman Asad, **Umar Farooq** "Set Point Tracking of a DC-DC Boost Converter Through Optimized PID Controller," Proc. IEEE Canadian Conference on Electrical and Computer Engineering, May 2016.

[29]. Ghulam Abbas, M. I. Abid, **Umar Farooq**, Jason Gu, M. Usman Asad, "Compensation of Nonlinearities Present in the Digital Control Loop," Proc. International Conference on Intelligent Systems Engineering, Jan 2016.

[30]. Ghulam Abbas, **Umar Farooq**, Jason Gu, M. Usman Asad, M. I. Abid, "Optimization of Discrete Time Controller Applied to DC-DC Step Down Converter," Proc. IEEE International Conference on Emerging Technologies, Dec 2015.

[31]. **Umar Farooq**, Jason Gu, M. E. El-Hawary, Valentina E. Balas, M. Usman Asad, "Experimental Study of Optimal Takagi-Sugeno Fuzzy Controller for Rotary Inverted Pendulum," Proc. IEEE International Conference on Fuzzy Systems, Aug 2-5, 2015.

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[35]. Ghulam Abbas, **Umar Farooq**, Jason Gu, M. Usman Asad, "Controller Design for Low Input Voltage Switching Converters having Non-minimum Phase Characteristics," Proc. IEEE Canadian Conference on Electrical and Computer Engineering, May 2015.

[36]. Hassam Moazzam, M. Usman Asad, Ghulam Abbas, **Umar Farooq**, Jason Gu, "Design and Implementation of a Robotic Car to Recognize Traffic Signs," Proc. IEEE Canadian Conference on Electrical and Computer Engineering, May 2015.

[37]. **Umar Farooq**, Jason Gu, Muhammad Usman Asad, Ghulam Abbas, "Robust Takagi-Sugeno Fuzzy Regulator for DC Series Motors," Proc. IEEE International Conference on Frontiers in Information Technology (FIT),Dec 2014.

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[39]. M. Usman Asad, Junaid Zafar, Athar Hanif, **Umar Farooq**, Jason Gu, "Fuzzy LMI Servo Controller for Uncertain Ball and Beam System," Proc. IEEE International Multi-Topic Conference (INMIC), Dec 2014.

[40]. Mahmood ul Hasan, K. M. Hasan, M. Usman Asad, **Umar Farooq,** Jason Gu, "Design and Experimental Evaluation of a State Feedback Controller for Two Wheeled Balancing Robot," Proc. IEEE International Multi-Topic Conference (INMIC), Dec 2014.

[41]. Ghulam Abbas, **Umar Farooq**, Jason Gu and M. Usman Asad, "Application of Robust Fuzzy Logic Controller with Smaller Rule Base for DC-DC Buck Converter," Proc. IEEE International Conference on Open Source System and Technologies, Dec 18-19, 2014.

[42]. **Umar Farooq**, Jason Gu, Jun Luo, M. Usman Asad, "Fuzzy LMI Integral Control of DC Series Motors," Proc. International Conference on Advanced Engineering Computing and Applications in Sciences, Aug 24-28, 2014.

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[44]. Ghulam Abbas, **Umar Farooq**, Jason Gu, M. Usman Asad, "Graphical User Interface Based Controller Design for Switching Converters," Proc. IEEE International Conference on Information and Automation, July 26-31, 2014.

[45]. Yi Pu, Jason Gu, **Umar Farooq**, Yang Xu, "Fuzzy Logic Based Control of Vibration Energy Harvesting Device for Automotive Suspension System," Proc. IEEE International Conference on Information and Automation, July 26-31, 2014.

[46]. **Umar Farooq**, K.M.Hasan, Athar Hanif, Muhammad Amar, Muhammad Usman Asad, "Fuzzy Logic Based Path Tracking Controller for Wheeled Mobile Robots," International Journal of Computer & Electrical Engineering, vol. 6, no. 2, 2014, pp. 145-150.

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Robot Navigation in Unknown Environments," International Journal of Computer & Electrical Engineering, vol. 6, no. 2, 2014, pp. 83-89.

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[53]. Naveed Asharf, Athar Hanif, **Umar Farooq**, Muhammad Usman Asad, Faiqa Rafiq, "Half Cycle pairs Method for Harmonic Analysis of Cycloconverter Voltage Waveform," Proc. IEEE International Conference on Open Source System and Technologies, Dec 18-19, 2013.

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[55]. **Umar Farooq**, Jason Gu, Jun Luo, "On the Interval Type-2 Fuzzy Logic Control of Ball and Plate System," Proc. IEEE International Conference on Robotics and Biomimetics, Dec 12-14, 2013.

[56]. **Umar Farooq**, Jason Gu, Jun Luo, "An Interval Type-2 Fuzzy LQR Positioning Controller for Wheeled Mobile Robots," Proc. IEEE International Conference on Robotics and Biomimetics, Dec 12-14, 2013.

[57]. **Umar Farooq**, Jason Gu, Mae Seto, "Design and Comparison of Type-1 and Interval Type-2 Fuzzy Logic Controllers for Posture Stabilization of Wheeled Mobile Robots," Proc. IEEE International Conference on Robotics and Biomimetics, Dec 12-14, 2013.

[58]. **Umar Farooq**, Jason Gu, Muhammad Amar, Muhammad Usman Asad, "A 2D Simulator for Vision Based Autonomous Road Following," Proc. IEEE International Conference on Robotics and Biomimetics, Dec 12-14, 2013.

[59]. **Umar Farooq**, Jason Gu, "Design and Comparison of Type-1 and Interval Type-2 Fuzzy Gain Scheduling Controllers for Ball and Beam System," Proc. IEEE International Conference on Information and Communication Technologies, Dec 14-15, 2013.

[60]. Ghulam Abbas**, Umar Farooq,** Jason Gu, Muhammad Usman Asad, "Constrained Model Based Predictive Controller for High Frequency Low Power DC-DC Buck Converter, International Journal of Electrical Engineering and Informatics, vol. 5, no. 3, 2013.

[61]. **Umar Farooq**, Jason Gu, Muhammad Amar, Muhammad Usman Asad, Faiqa Rafiq, "A Weighted Matrix Algorithm for Vision Based Lane Following in Autonomous Navigation," Proc. International Conference on Digital Information Management, Sep 10-13, 2013.

[62]. **Umar Farooq**, Muhammad Usman Asad, Faiqa Rafiq, Ghulam Abbas, Athar Hanif, "Application of Machine Vision for Performance Enhancement of Footing Machine Used in Leather Industry of Pakistan", Proc. International Conference on Digital Information Management, Sep 10-13, 2013.

[63]. **Umar Farooq**, Faiqa Rafiq, Muhammad Amar, Ghulam Abbas, Muhammad Usman Asad, "A Neural Network Controller for Cartesian Plotter," Proc. International Conference on Digital Information Management, Sep 10-13, 2013.

[64]. **Umar Farooq,** Jason Gu, Muhammad Usman Asad, "An Interval Type-2 Fuzzy PD Controller for Ball and Beam System," Proc. IEEE International Conference on Computer, Control and Communication, Sep 25-26, 2013.

[65]. Muhammad Tayyab, **Umar Farooq**, Zafar Ali, Muhammad Imran, Faisal Shehzad, "Design of a Blimp Based UAV for Surveillance," International Journal of Engineering & Technology," vol. 5, no. 1, pp.519-530, 2013.

[66]. **Umar Farooq**, K. M. Hasan, Muhammad Amar, Muhammad Usman Asad, "Design and Implementation of Fuzzy Logic Based Autonomous Car for Navigation in Unknown Enviornments," Proc. IEEE International Conference on Informatics, Electronics and Vision, May 2013.

[67]. Muhammad Amar, K. M. Hasan, **Umar Farooq**, "Vision Based Robot Navigation: Obstacle Avoidance and Road Following Behaviours," Lambert Academic Publishing Germany, Feb 26, 2013.

[68]. **Umar Farooq**, Syed Omar Saleh, Ghulam Abbas, M. Usman Asad, F. Rafiq, "A Two Loop Fuzzy Controller for Goal Directed Navigation of Mobile Robot," Proc. IEEE International Conference on Emerging Technologies, Islamabad Pakistan, Oct 8-9, 2012.

[69]. **Umar Farooq**, K. M. Hasan, Syed Omar Saleh, M. Usman Asad, "Fuzzy Logic Based Wall Tracking Controller for Mobile Robot Navigation," Proc. IEEE International Conference on Industrial Electronics and Applications, Singapore, July 18-20, 2012.

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[80]. Ghulam Abbas, **Umar Farooq**, M. Usman Asad, "Application of Neural Network Based Model Predictive Control to Power Switching Converter," Proc. International Conference and Workshop on Current Trends in Information Technology, Dubai UAE Oct 26-27, 2011.

[81]. **Umar Farooq**, K. M. Hasan, Ghulam Abbas, Syed Omar Saleh, M. Usman Asad, "Design, Low Cost Implementation and Comparison of MIMO Mamdani Fuzzy Logic Controllers for Wall Tracking Behaviour of Mobile Robot", Proc. International Conference on Information and Communication Technologies, Karachi Pakistan, July 23-24, 2011.

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[84]. **Umar Farooq**, Muhammad Amar, K.M.Hasan, Muhammad Usman Asad, Asim Iqbal, "Automatic Book Placement & Searching Technique for Performance Enhancement

of Library Management System," International Journal of Computer Theory and Engineering, vol. 2, no. 4, pp. 574-580, 2010.

[85]. **Umar Farooq**, Muhammad Amar, "Design and Low Cost Implementation of a Fuzzy Logic Based Controller for Wall Following Behavior of a Mobile Robot," Proc. 2nd International Conference on Signal Processing Systems, Dalian China, July 7-9, 2010.

[86]. **Umar Farooq**, Muhammad Amar, "Comparative Analysis of Fuzzy Logic and Neural network Based Controllers for Line Tracing Task in Mobile Robots," Proc. 2nd International Conference on Signal Processing Systems, Dalian China, July 7-9, 2010.

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[91]. **Umar Farooq**, M. Usman Asad, "Design and Development of an Image Processing Based Automatic Library Storage System," Proc. 2nd IEEE International Conference on Advance Computer Control, Shenyang, China, March 27-29, 2010.

[92]. Asim Iqbal, Tanveer ul Haq, **Umar Farooq**, M. Usman, "Effective Techniques to Reduce Cross Border Interference in Cellular Networks," Proc. International Conference on Telecom Technology and Applications, Bali, Indonesia, March 19-21, 2010.

[93]. **Umar Farooq**, Tanveer ul Haq, M. Amar, A. Iqbal, M. Usman, "GPS-GSM Integration for Enhancing Public Transportation Management Services," Proc. International Conference on Telecom Technology and Applications, Bali, Indonesia, March 19-21, 2010.

[94]. Asim Iqbal, **Umar Farooq**, H. Mahmood, "A Self Teaching Image Processing and Voice Recognition Based Intelligent and Interactive System to Educate Visually Impaired Children," Proc. 2nd SPIE International Conference on Digital Image Processing, Singapore, Feb 28-30, 2010.

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[96]. **Umar Farooq**, Muhammad Amar, K. M. Hasan, "A Low Cost Microcontroller Implementation of Neural Network Based Hurdle Avoidance Controller for a Car-like Robot," Proc. 2nd International Conference on Computer and Automation Engineering, Singapore, Feb 26-28, 2010.

[97]. **Umar Farooq**, K. M. Hasan, "Microcontroller Based Low Cost Controlled Rectifiers Training Module for Power Electronics Laboratory," Proc. International Conference on Signal Acquisition and Processing, Bangalore, India, Feb 9-10, 2010.

[98]. **Umar Farooq**, M. Amar, M. Usman, "An Integrated Library Management System for Book Search and Placement Tasks," Proc. International Conference on Signal Acquisition and Processing, Bangalore, India, Feb 9-10, 2010.

[99]. **Umar Farooq**, H. Atiq, M. Usman, Asim Iqbal, Z. Azmat, "Design and Development of an Image Processing Based Adaptive Traffic Control System with GSM Interface," Proc. International Conference on Machine Vision, Dubai, U.A.E., Dec 28-30, 2009.

[100]. Asim Iqbal, **Umar Farooq**, H. Mehmood, M. Usman Asad, "A Low Cost Artificial Vision System for Visually Impaired People," Proc. 2nd International Conference on Computer and Electrical Engineering, Dubai U.A.E., Dec 28, 2009.

Undergrad Senior Year Projects Supervised

[1]. Mahzaib Jamil, Mohd. Azeem Javed, Mohd. Abdul Basit, "Design and Implementation of Mobility Assistive Intelligent Hybrid Automobile for Impaired Persons," Session 2008-2012.

[2]. Muhammad Tayyab, Zafar Ali, Muhammad Imran, Faisal Shehzad, "Blimp Based Unmanned Aerial Vehicle for Surveillance," Session 2008-2012.

[3]. Sana Ullah, Adnan Yasin, H. M. Saleem, Kamran Rafiq, "Intelligent Street Light System," Session 2008-2012.

[4]. M. Farhan Fahim Khan, M. Arslan Toor, M. Yousuf Ali, M. Salman Gull, "Land Mark Navigation System," Session 2008-2012.

[5]. Muhammad Abrar Akram, Muhammad Bilal Sultan, Qaiser Abbas, Hassam Muazzam, "Autonomous Solar Powered Vehicle," Session 2008-2012.

[6]. Kashif Sohail, Ahsan Jehangir, Ali Babar Hussain, Zeeshan Arshad, "Design and Implementation of Hybrid Energy System," Session 2008-2012.

[7]. Omer Majeed, M. Naeem Anwar, Ali Raza, M.Rashid Zia, "Microcontroller Based Power Factor Improvement with Wireless Monitoring," Session 2008-2012.

[8]. Muhammad Amar Ali, Ammar Khalid, Muhammad Rehan Yousuf, Khurshid Imran, "Footing machine for Leather Industries," Session: 2007-2011.

[9]. Muhammad Waqas ,Muhammad Babar ,Nauman Saleem, Ahan Naeem, "Design of Micro strip Patch Antenna Array and Simulation On ANSOFT High Frequency Structure Simulation (HFSS)," Session:2007-2011.

[10]. Muhammad Umer, Nadeem Asghar, Muhammad Salman, Muhammad Arif Anwar, "Design and Implementation of Cascaded Multilevel Inverter Based Induction Motor Drive," Session: 2007-2011.

[11]. Maria Ashfaq, Dur-e-shehwar, "Design and Implementation of a Fire Extinguishing Robot," Session: 2007-2011.

[12]. Marzooq Ahmad, Muhammad Zeeshan, Muhammad Aleem Farooq, Maaz Tahir Malik, "Car Like Robot Navigation In Unstructured Environment," Session: 2007-2011.

[13]. Irzam Shaid, Muhammad Naeem Khan, Hafiz Muhammad Kashif, Hassan Shahid, "Design and Implementation of Hybrid Power Generation System Using Renewable Energy Sources," Session: 2007-2011.

[14]. Ali Samran, Muhammad Umar, Syed Umar Saleh, Usman Tariq, "Fuzzy Logic Based Controller for Goal Directed Navigation of Wheeled Mobile Robot," Session: 2007-2011.

[15]. Asif Jamil, Muhammad Ismail Khalid, Zain-ul-Abideen, Muhammad Adeel Khan, "Design and Implementation of PCB Drilling Machine by Using MATLAB," Session: 2007-2011.

[16]. Salman Tahir, Nauman Haider,Hafiz Ishtiaq, "Design of Low Cost Heliostat Mirror Assembly for Power Production Purposes," Session 2006-2010.

[17]. Usama Tahir, Fahad Raza, Iqra Bilal, Abdul Shakoor, "Sonar Based 2D Mapping and Indoor Navigation System for Unknown Environment," Session: 2006-2010.

[18]. Somair Anwar, Muhammad Asif, Abdul Wahid, Muhammad Usman Asad, "Design and Implementation of a Real Time Controller For Two Wheeled Self Balancing Robot," Session: 2006-2010.

[19]. Naveed Shahzad, Rabia Nisar, M.Asif Rao, Azmat Tanvir, "WIFI Robot Spybot," Session: 2006-2010.

[20]. Muhammad Khurram, Omer Farooq Alvi, "Microcontroller Based Control Circuit for Dual Three Phase Controlled Rectifier," Session: 2006-2010.

[21]. M. Tauseef Khalid, Haris Ahmad Khan, Mumtaz Waqar, M.Shuaib Akram, "Design and Implementation of PCB Drilling Machine," Session: 2006-2010.

[22]. Adnan, M. Waqas, Hafiz Kashif Mehmood, "Design and Low Cost Implementation Of Fuzzy Logic Controller for Wall Following Behavior of Mobile Robot," Session: 2006-2010.

[23]. Muhammad Adnan Akram, Usman Ali Shaukat, Syed Husnain Raza, Mudassar Ali, "Design and Implementation of Microcontroller Based PLC With Real Time Monitoring," Session: 2006-2010.

[24]. Sameen Javaid, Sabiha Khan, M.Asif Raza, "Fuzzy Logic Based Hurdle Avoidance Controller for a Mobile Robot," Session: 2006-2010.

[25]. Eitzaaaz ul haq, Arslan Majeed, Khalil Akhter, M.Amar, "Intelligent Autonomous Vehicle," Session: 2005-2009.

[26]. Asad Sohail, Nauman Rafiq, Muhammad Usman, Muhammad Najeeb, "Electromechanical Power Amplifier (EMPA)," Session: 2005-2009.

[27]. Hammad Khan, "Design and Implementation of Inverted Pendulum Using Fuzzy Logic," Session: 2005-2009.

[28]. Hafiz Muhammad Atiq, Muhammad Tanvir, "Adaptive Traffic Control System with GSM Interface," Session: 2005-2009.

Co-curricular Activities Supervised

I have actively supervised the students in many National and International Contests which are regularly organized by various Engineering Institutions in Pakistan including Circuit Design

Competition, Microcontroller Interfacing Competition, Hardware Project Exhibition, Mobile Robots Competition, Technical Paper Competition, Best Idea Design & Implementation Competition and students have won **76 (2008-2012)** awards in these contests under my supervision. Please see list (to be updated) as Appendix 'A'.

Referees

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King Fahad University of Petroleum and Minerals Dhahran Saudi Arabia

APPENDIX 'A'

List of Competitions Won by Students of Electrical Engineering Department, University of The Punjab Lahore

Sr. No.	Event	Contest	Supervisor	Participants	Position
01	All Pakistan Electrical Engineering Conference (APE²C), 2007 (GIKI Peshawar)	Conceive, Implement and Complete (CIC)	Umar Farooq	Khurram Shahzad Asim Iqbal Hassam Mehmood	1st
02	SOFTEC 2008 (Fast, Lahore)	Microcontroller Interfacing Competition	Umar Farooq	Khurram Shahzad Asim Iqbal Hassam Mehmood	2nd
03	All Pakistan Electrical Engineering Conference (APE²C), 2008 (GIKI Peshawar)	Technical Paper Contest	Umar Farooq	M.Usman Asad M.Amar Asif Raza Osama Thair Asim Iqbal	2nd
04	All Pakistan Electrical Engineering Conference (APE²C), 2008 (GIKI Peshawar)	Engineering Project Competition	Umar Farooq	Hafiz M. Atiq Sharaiz Aslam Ghulam Abbas	2nd
05	IEEEP Student's Seminar, 2009 (Bahria University, Karachi)	Research Paper Competition	Umar Farooq	M.Usman Asad M.Amar Asif Raza Osama Thair Asim Iqbal	Gold Medal
06	SOFTEC 2009 (Fast, Islamabad)	Microcontroller Interfacing Competition	Umar Farooq	Asim Iqbal Hassam Mehmood	1st
07	NASCON 2009 (Fast, Islamabad)	Hurdle Avoidance Robot	Umar Farooq	M.Usman Asad Asif Raza M.Amir	1st
08	NASCON 2009 (Fast, Islamabad)	Engineering Problem Solving	Umar Farooq	Asim Iqbal Hassam Mehmood	3rd
09	NASCON 2009 (Fast, Islamabad)	Hardware Competition	Umar Farooq	Hafiz M.Atiq Sharaiz Aslam Ghulam Abbas M. Tanveer	3rd
10	All Pakistan Engineering Exhibition (APEX)	Micro Mania	Umar Farooq	Asim Iqbal Hassam Mehmood	1st

	2009 (UET Lahore)			
11	All Pakistan Engineering Exhibition (APEX) 2009 (UET Lahore)	Micro Mania	Umar Farooq	Nauman Haider Salman Tahir Naveed Shazad	2nd
12	All Pakistan Engineering Exhibition (APEX) 2009 (UET Lahore)	Circuit Genie	Umar Farooq	Asim Iqbal Hassam Mehmood	2nd
13	All Pakistan Engineering Exhibition (APEX) 2009 (UET Lahore)	Circuit Genie	Umar Farooq	Khuram Shahzad M.Amar Abdul Shakoor	3rd
14	All Pakistan Engineering Exhibition (APEX) 2009 (UET Lahore)	Young Entrepreneur Competition	Umar Farooq	Hafsa Ch. Iqra Bilal Shehrish Farooq Zil-e-Humma	1st
15	All Pakistan Engineering Exhibition (APEX) 2009 (UET Lahore)	Young Entrepreneur Competition	Umar Farooq	Asim Iqbal Hassam Mehmood M.Amar M.Usman Asad	2nd
16	All Pakistan Engineering Exhibition (APEX) 2009 (UET Lahore)	Gaming Competition	Umar Farooq	Hassam Mehmood M.Amar Sharaiz Aslam	1st
17	Nust Olympaid,2009 (Nust Islamabad)	Speed Wiring	Umar Farooq	Salman Tahir Nauman Haider	1st
18	Nust Olympaid,2009 (Nust Islamabad)	Speed Wiring	Umar Farooq	Muhammad Amar Osama Tahir	3rd
19	Nust Olympaid,2009 (Nust Islamabad)	Circuit Design	Umar Farooq	Fahad Raza Abdual Shakoor	3rd
20	6th All Pakistan Electronics Exhibition& Competition (UET Lahore)	Circuit Genie	Umar Farooq	Naveed Shahzad Rabia Nisar Abdul Shakoor	3rd
21	6th All Pakistan Electronics Exhibition&	Gaming Competition	Umar Farooq	Azmat Tanveer Salman Tahir Nauman	1st

				Rafique	
22	6th All Pakistan Electronics Exhibition& Competition (UET Lahore)	Doodle Art	Umar Farooq	Sheezah Zafar	3rd
23	SEECOM 2010 (UET Lahore)	Circuit Design	Umar Farooq	Syed Omar Saleh Salman Tahir M.Amir	3rd
24	All Pakistan Electrical Engineering Conference (APE2C), 2010 (GIKI Peshawar)	Technical Paper Contest	Umar Farooq	Syed Omar Saleh Hafiz Kashif	1st
25	All Pakistan Electrical Engineering Conference (APE2C), 2010 (GIKI Peshawar)	Hardware Project Contest	Umar Farooq	Salman Tahir Nauman Haider Hafiz M. Ishtiaq Muzammil Janjua	1st
26	Digital Innovation International Conference & Exhibition (DICE)2010 (IST Islamabad)	Industrial Project Contest	Umar Farooq	Salman Tahir Nauman Haider Hafiz M. Ishtiaq Muzammil Janjua	1st
27	IEEE Week 2011 (Fast Lahore)	Circuit Schematics	Umar Farooq	M. Azeem Javed Mah Zaib Jamil	1st
28	IEEE Week 2011 (Fast Lahore)	Money Stacking	Umar Farooq	M. Azeem Javed	1st
29	IEEE Week 2011 (Fast Lahore)	Geek Wars (Programming contest)	Umar Farooq	M. Azeem Javed Mah Zaib Jamil M. Abdul Basit	1st
30	IEEE Week 2011 (Fast Lahore)	Microcontroller Programming	Umar Farooq	M. Azeem Javed Mah Zaib Jamil	2nd
31	IEEE Week 2011 (Fast Lahore)	Money Stacking (Technical Quiz Contest)	Umar Farooq	M. Abdul Basit	2nd

32	IEEEP Student's Seminar,2011 (PNEC NUST,Karachi)	Research Paper Competition	Umar Farooq	Syed Omar Saleh M. Usman Asad M. Azeem Javed Hassam Moazzam	Silver Medal
33	1st All Pakistan Technical Competition (APTEC) 2011 (CIIT Lahore)	Technical Paper Competition	Umar Farooq	M. Azeem Javed Mah Zaib Jamil M. Abdul Basit	3rd
34	Techno Fest 2011 (Uet Lahore)	MATLAB Programming Contest	Umar Farooq	Arslan Ahmad Asim Abbas	2nd
35	NAGS 2011 (GCU Lahore)	Best Idea Competition	Umar Farooq	Syed Omar Saleh Syed M.Hassan Gillani	1st
36	NAGS 2011 (GCU Lahore)	Circuit Design Competition	Umar Farooq	M. Azeem Javed Mah Zaib Jamil	2nd
37	NAGS 2011 (GCU Lahore)	Speed Wiring Competition	Umar Farooq	Mah Zaib Jamil Syed M.Hassan Gillani	2nd
38	NAGS 2011 (GCU Lahore)	Gaming Competition	Umar Farooq	Syed M. Hassan Gillani	2nd
39	TechFest 2011 (LUMS Lahore)	Robot Race Contest	Umar Farooq	Syed Omar Saleh M. Azeem Javed Mah Zaib Jamil Abdul Basit	3rd
40	INDUS 2011 (IIEE Karachi)	Robot Race Contest	Umar Farooq	Syed Omar Saleh M. Azeem Javed Mah Zaib Jamil Abdul Basit	2nd
41	All Pakistan Electrical Engineering Conference APEC 2011	Project Exhibition Competition	Umar Farooq	Rehan Yousaf Ammar Khalid M. Amar Khurshid	1st

				Imran	
42	All Pakistan Electrical Engineering Conference APEC 2011 (GIKI, Topi)	Project Exhibition Competition	Umar Farooq	Ali Raza Hafiz Hasan	2nd
43	All Pakistan Electrical Engineering Conference APEC 2011 (GIKI, Topi)	Research Paper Competition	Umar Farooq	Syed Omar Saleh M. Umar Ali Simran Usman Tariq	1st
44	All Pakistan Electrical Engineering Conference APEC 2011 (GIKI, Topi)	Research Paper Competition	Umar Farooq	Azeem Javed Mah Zaib Jamil Abdul Basit	2nd
45	All Pakistan Electrical Engineering Conference APEC 2011 (GIKI, Topi)	MATLAB Programming Competition	Umar Farooq	Azeem Javed Mah Zaib Jamil	2nd
46	All Pakistan Electrical Engineering Conference APEC 2011 (GIKI, Topi)	MATLAB Programming Competition	Umar Farooq	Asim Abbas	3rd
47	TechnoFest 2012 (UET Lahore)	Speed Wiring Competition	Umar Farooq	Azeem Javed Mah Zaib Jamil Abdul Basit	2nd
48	TechnoFest 2012 (UET Lahore)	Circuit Design Competition	Umar Farooq	Azeem Javed Mah Zaib Jamil Abdul Basit	2nd
49	Rachna Electrical and Electronic Competitions REEC 2012 (RCET GWT)	Project Exhibition	Umar Farooq	M. Zeeshan Aleem Farooq Maaz Tahir Marzooq Ahmad	1st
50	Rachna Electrical and Electronic Competitions REEC 2012 (RCET GWT)	Project Exhibition	Umar Farooq	Rehan Yousaf Azeem Javed Mah Zaib Jamil Abdul Basit	2nd
51	Rachna Electrical and Electronic Competitions REEC 2012 (RCET GWT)	Project Exhibition	Umar Farooq	Ali Raza Hassan Raza Hasan Gilani Junaid Ahmad	3rd

52	Rachna Electrical and Electronic Competitions REEC 2012 (RCET GWT)	Circuit Design Competition	Umar Farooq	Azeem Javed Mah Zaib Jamil	1st
53	Rachna Electrical and Electronic Competitions REEC 2012 (RCET GWT)	Circuit Design Competition	Umar Farooq	Ali Raza Hasan Raza	2nd
54	Rachna Electrical and Electronic Competitions REEC 2012 (RCET GWT)	Speed Wiring Competition	Umar Farooq	Ali Raza Hasan Raza	2nd
55	Rachna Electrical and Electronic Competitions REEC 2012 (RCET GWT)	Technical Crisis Expert	Umar Farooq	Azeem Javed Mah Zaib Jamil Hasan Gilani Imran Lodhi	1st
56	Rachna Electrical and Electronic Competitions REEC 2012 (RCET GWT)	Technical Crisis Expert	Umar Farooq	Ali Raza Hasan Raza Junaid Ahmad	2nd
57	Rachna Electrical and Electronic Competitions REEC 2012 (RCET GWT)	Riddle Logic	Umar Farooq	Mah Zaib Jamil Abdul Basit	3rd
58	Rachna Electrical and Electronic Competitions REEC 2012 (RCET GWT)	Rammagers Quest	Umar Farooq	Rida Jamil Faiqa Beensih Imran Lodhi	1st
59	Engineering Olympaid 2012 (UCP Lahore)	Technical Paper Competition	Umar Farooq	Omar Saleh Faiqa Rafiq Hasan Gilani	1st
60	Engineering Olympaid 2012 (UCP Lahore)	Technical Paper Competition	Umar Farooq	M. Zeeshan Aleem Farooq Maaz Tahir Marzooq Ahmad	2nd
61	Engineering Olympaid 2012 (UCP Lahore)	Technical Paper Competition	Umar Farooq	Azeem Javed Mah Zaib Jamil Abdul Basit	3rd
62	Engineering Olympaid 2012	Speed Wiring Competition	Umar Farooq	Azeem Javed Mah Zaib	1st

				Jamil	
63	Engineering Olympaid 2012 (UCP Lahore)	Speed Wiring Competition	Umar Farooq	Hasan Gilani Abdul Basit	2nd
64	Engineering Olympaid 2012 (UCP Lahore)	Techlamation	Umar Farooq	Imran Lodhi Abdul Basit	2nd
65	Engineering Olympaid 2012 (UCP Lahore)	Techlamation	Umar Farooq	Osama Butt Ozair Ahmad	3rd
66	Engineering Olympaid 2012 (UCP Lahore)	MATLAB Programming	Umar Farooq	Ali Raza Hasan Raza	2nd
67	Engineering Olympaid 2012 (UCP Lahore)	MATLAB Programming	Umar Farooq	Arslan Ahmad Asim Abbas	3rd
68	Rachna Annual Exhibition 2012 (Rachna College of Engineering)	Research Paper Competition	Umar Farooq	Muhammad Azeem Javed Mahzaib Jamil Rida Jamil	1st
69	Rachna Annual Exhibition 2012 (Rachna College of Engineering)	Research Paper Competition	Umar Farooq	Aleem Farooq M. Zeeshan Maaz Tahir	2nd

Detailed List of Individual Performances

Session 2005-2009

Sr. No.	Student Name	Event	Competition	Position
01	**Asim Iqbal (09)**	All Pakistan Electrical Engineering Conference (APE^{2}C), 2007 (GIKI Peshawar)	Conceive, Implement and Complete (CIC)	1st
		SOFTEC 2008 (Fast, Lahore)	Microcontroller Interfacing Competition	2nd
		All Pakistan Electrical Engineering Conference (APE^{2}C), 2008 (GIKI Peshawar)	Technical Paper Contest	2nd
		IEEEP Student's Research Seminar, 2009 (Bahria University, Karachi)	Research Paper Competition	Gold Medal
		SOFTEC 2009 (Fast, Lahore)	Microcontroller Interfacing Competition	1st
		NASCON 2009 (Fast, Islamabad)	Engineering Problem Solving	3rd

		All Pakistan Engineering Exhibition (APEX) 2009 (UET Lahore)	Micro Mania	1st
		All Pakistan Engineering Exhibition (APEX) 2009 (UET Lahore)	Circuit Genie	2nd
		All Pakistan Engineering Exhibition (APEX) 2009 (UET Lahore)	Young Entrepreneur Competition	2nd
02	**Hassam Mehmood (08)**	All Pakistan Electrical Engineering Conference (APE^{2}C), 2007 (GIKI Peshawar)	Conceive, Implement and Complete (CIC)	1st
		SOFTEC 2008 (Fast, Lahore)	Microcontroller Interfacing Competition	2nd
		SOFTEC 2009 (Fast, Lahore)	Microcontroller Interfacing Competition	1st
		NASCON 2009 (Fast, Islamabad)	Engineering Problem Solving	3rd
		All Pakistan Engineering Exhibition (APEX) 2009 (UET Lahore)	Micro Mania	1st
		All Pakistan Engineering Exhibition (APEX) 2009 (UET Lahore)	Circuit Genie	2nd
		All Pakistan Engineering Exhibition (APEX) 2009 (UET Lahore)	Young Entrepreneur Competition	2nd
		All Pakistan Engineering Exhibition (APEX) 2009	Gaming Competition	1st

		(UET Lahore)		
03	**Muhammad Amar (07)**	All Pakistan Electrical Engineering Conference (APE^{2}C), 2008 (GIKI Peshawar)	Technical Paper Contest	2nd
		IEEEP Student's Research Seminar, 2009 (Bahria University, Karachi)	Research Paper Competition	Gold Medal
		NASCON 2009 (Fast, Islamabad)	Hurdle Avoidance Robot	1st
		All Pakistan Engineering Exhibition (APEX) 2009 (UET Lahore)	Circuit Genie	3rd
		All Pakistan Engineering Exhibition (APEX) 2009 (UET Lahore)	Young Entrepreneur Competition	2nd
		All Pakistan Engineering Exhibition (APEX) 2009 (UET Lahore)	Gaming Competition	1st
		NUST Olympaid,2009 (NUST Islamabad)	Speed Wiring	3rd
		SEECOM 2010 (UET Lahore)	Circuit Design	3rd
04	**Khurram Shahzad (03)**	All Pakistan Electrical Engineering Conference (APE^{2}C), 2007 (GIKI Peshawar)	Conceive, Implement and Complete (CIC)	1st
		SOFTEC 2008 (Fast, Lahore)	Microcontroller Interfacing Competition	2nd
		All Pakistan Engineering Exhibition (APEX) 2009 (UET Lahore)	Circuit Genie	3rd
05	**Shahraiz Aslam**	All Pakistan	Engineering	2nd

Sr. No.	Student Name	Event	Competition	Position
	(03)	Electrical Engineering Conference (APE²C), 2008 (GIKI Peshawar)	Project Competition	
		NASCON 2009 (Fast, Islamabad)	Hardware Competition	3rd
		All Pakistan Engineering Exhibition (APEX) 2009 (UET Lahore)	Gaming Competition	1st
06	**Ghulam Abbas (02)**	All Pakistan Electrical Engineering Conference (APE²C), 2008 (GIKI Peshawar)	Engineering Project Competition	2nd
		NASCON 2009 (Fast, Islamabad)	Hardware Competition	3rd
07	**Hafiz M. Atiq (02)**	All Pakistan Electrical Engineering Conference (APE²C), 2008 (GIKI Peshawar)	Engineering Project Competition	2nd
		NASCON 2009 (Fast, Islamabad)	Hardware Competition	3rd
08	**M. Tanveer (02)**	All Pakistan Electrical Engineering Conference (APE²C), 2008 (GIKI Peshawar)	Engineering Project Competition	2nd
		NASCON 2009 (Fast, Islamabad)	Hardware Competition	3rd

Session 2006-2010

Sr. No.	Student Name	Event	Competition	Position
01	**Muhammad Usman Asad (05)**	All Pakistan Electrical Engineering Conference (APE²C), 2008	Technical Paper Contest	2nd

		(GIKI Peshawar)		
		IEEEP Student's Research Seminar, 2009 (Bahria University, Karachi)	Research Paper Competition	Gold Medal
		NASCON 2009 (Fast, Islamabad)	Hurdle Avoidance Robot	1st
		All Pakistan Engineering Exhibition (APEX) 2009 (UET Lahore)	Young Entrepreneur Competition	2nd
		IEEEP Student's Seminar,2011 (PNEC NUST, Karachi)	Research Paper Competition	Silver Medal
02	**Salman Tahir (05)**	All Pakistan Engineering Exhibition (APEX) 2009 (UET Lahore)	Micro Mania	2nd
		NUST Olympaid,2009 (NUST Islamabad)	Speed Wiring	1st
		SEECOM 2010 (UET Lahore)	Circuit Design	3rd
		All Pakistan Electrical Engineering Conference (APE^{2}C), 2010 (GIKI Peshawar)	Hardware Project Contest	1st
		Digital Innovation International Conference & Exhibition (DICE)2010 (IST Islamabad)	Industrial Project Contest	1st
03	**Nauman Haider (05)**	All Pakistan Engineering Exhibition (APEX) 2009 (UET Lahore)	Micro Mania	2nd
		NUST	Speed Wiring	1st

		Olympaid,2009 (NUST Islamabad)		
		SEECOM 2010 (UET Lahore)	Circuit Design	3rd
		All Pakistan Electrical Engineering Conference (APE^{2}C), 2010 (GIKI Peshawar)	Hardware Project Contest	1st
		Digital Innovation International Conference & Exhibition (DICE)2010 (IST Islamabad)	Industrial Project Contest	1st
04	Asif Raza (03)	All Pakistan Electrical Engineering Conference (APE^{2}C), 2008 (GIKI Peshawar)	Technical Paper Contest	2nd
		IEEEP Student's Research Seminar, 2009 (Bahria University, Karachi)	Research Paper Competition	Gold Medal
		NASCON 2009 (Fast, Islamabad)	Hurdle Avoidance Robot	1st
05	Osama Tahir (03)	All Pakistan Electrical Engineering Conference (APE^{2}C), 2008 (GIKI Peshawar)	Technical Paper Contest	2nd
		IEEEP Student's Research Seminar, 2009 (Bahria University, Karachi)	Research Paper Competition	Gold Medal
		NUST Olympaid,2009 (NUST Islamabad)	Speed Wiring	3rd
06	Abdul Shakoor (03)	All Pakistan Engineering Exhibition (APEX) 2009 (UET Lahore)	Circuit Genie	All Pakistan Engineering Exhibition (APEX) 2009 (UET Lahore)
		NUST	Circuit Design	3rd

		Olympaid,2009 (NUST Islamabad)		
		6th All Pakistan Electronics Exhibition& Competition 2010 (UET Lahore)	Circuit Genie	3rd
07	**Naveed Shahzad (02)**	All Pakistan Engineering Exhibition (APEX) 2009 (UET Lahore)	Micro Mania	2nd
		6th All Pakistan Electronics Exhibition& Competition 2010 (UET Lahore)	Circuit Genie	3rd
08	**Hafiz M. Ishtiaq (02)**	All Pakistan Electrical Engineering Conference (APE2C), 2010 (GIKI Peshawar)	Hardware Project Contest	1st
		Digital Innovation International Conference & Exhibition (DICE)2010 (IST Islamabad)	Industrial Project Contest	1st
09	**Muzammil Janjua (02)**	All Pakistan Electrical Engineering Conference (APE2C), 2010 (GIKI Peshawar)	Hardware Project Contest	1st
		Digital Innovation International Conference & Exhibition (DICE)2010 (IST Islamabad)	Industrial Project Contest	1st
10	**Fahad Raza (01)**	NUST Olympaid,2009 (NUST Islamabad)	Circuit Design	3rd
11	**Rabia Nisar (01)**	6th All Pakistan Electronics Exhibition& Competition 2010 (UET Lahore)	Circuit Genie	3rd

Sr. No.	Student Name	Event	Competition	Position
12	Hafsah Ch. (01)	All Pakistan Engineering Exhibition (APEX) 2009 (UET Lahore)	Young Entrepreneur Competition	1st
13	Iqra Bilal (01)	All Pakistan Engineering Exhibition (APEX) 2009 (UET Lahore)	Young Entrepreneur Competition	1st
14	Shehrish Farooq (01)	All Pakistan Engineering Exhibition (APEX) 2009 (UET Lahore)	Young Entrepreneur Competition	1st
15	Zil-e-Huma (01)	All Pakistan Engineering Exhibition (APEX) 2009 (UET Lahore)	Young Entrepreneur Competition	1st
16	Sheezah Zafar (01)	6th All Pakistan Electronics Exhibition& Competition (UET Lahore)	Doodle Art	3rd

Session 2007-2011

Sr. No.	Student Name	Event	Competition	Position
01	Syed Omar Saleh (09)	SEECOM 2010 (UET Lahore)	Circuit Design	3rd
		All Pakistan Electrical Engineering Conference (APE^{2}C), 2010 (GIKI Peshawar)	Technical Paper Contest	1st
		IEEEP Student's Seminar,2011 (PNEC NUST, Karachi)	Research Paper Competition	Silver Medal
		NAGS 2011 (GCU Lahore)	Best Idea Competition	1st
		TechFest 2011 (LUMS Lahore)	Robot Race Contest	3rd
		INDUS 2011	Robot Race	2nd

		(IIEE Karachi)	Contest	
		All Pakistan Electrical Engineering Conference APEC 2011 (GIKI, Topi)	Research Paper Competition	1st
		Rachna Electrical and Electronic Competitions REEC 2012 (RCET GWT)	Project Exhibition	3rd
		Engineering Olympaid 2012 (UCP Lahore)	Technical Paper Competition	1st
02	**Rehan Yousaf (02)**	All Pakistan Electrical Engineering Conference APEC 2011 (GIKI, Topi)	Project Exhibition	1st
		Rachna Electrical and Electronic Competitions REEC 2012 (RCET GWT)	Project Exhibition	2nd
03	**Ammar Khalid (02)**	All Pakistan Electrical Engineering Conference APEC 2011 (GIKI, Topi)	Project Exhibition	1st
		Rachna Electrical and Electronic Competitions REEC 2012 (RCET GWT)	Project Exhibition	2nd
04	**Muhammad Zeeshan (02)**	Rachna Electrical and Electronic Competitions REEC 2012 (RCET GWT)	Project Exhibition	1st
		Engineering Olympaid 2012 (UCP Lahore)	Technical Paper Competition	2nd
05	**Aleem Farooq (02)**	Rachna Electrical and Electronic Competitions REEC 2012	Project Exhibition	1st

		(RCET GWT)		
		Engineering Olympaid 2012 (UCP Lahore)	Technical Paper Competition	2nd
06	**Maaz Tahir (02)**	Rachna Electrical and Electronic Competitions REEC 2012 (RCET GWT)	Project Exhibition	1st
		Engineering Olympaid 2012 (UCP Lahore)	Technical Paper Competition	2nd
07	**Marzooq Ahmad (02)**	Rachna Electrical and Electronic Competitions REEC 2012 (RCET GWT)	Project Exhibition	1st
		Engineering Olympaid 2012 (UCP Lahore)	Technical Paper Competition	2nd
08	**M. Amir (01)**	All Pakistan Electrical Engineering Conference APEC 2011 (GIKI, Topi)	Project Exhibition	1st
09	**Imran Khurshid (01)**	All Pakistan Electrical Engineering Conference APEC 2011 (GIKI, Topi)	Project Exhibition	1st
10	**Hafiz Kashif (01)**	All Pakistan Electrical Engineering Conference (APE2C), 2010 (GIKI Peshawar)	Technical Paper Contest	1st
11	**Muhammad Umar (01)**	All Pakistan Electrical Engineering Conference APEC 2011 (GIKI, Topi)	Research Paper Competition	1st
12	**Ali Samran (01)**	All Pakistan Electrical Engineering Conference APEC 2011	Research Paper Competition	1st

Sr. No.	Student Name	Event	Competition	Position
		(GIKI, Topi)		
13	**Usman Tariq (01)**	All Pakistan Electrical Engineering Conference APEC 2011 (GIKI, Topi)	Research Paper Competition	1st

Session 2008-2012

Sr. No.	Student Name	Event	Competition	Position
01	**Muhammad Azeem Javed (18)**	IEEE Week 2011 (Fast Lahore)	Circuit Schematics	1st
			Money Stacking	1st
			Geek Wars (Programming contest)	1st
			Microcontroller Programming	2nd
		IEEEP Student's Seminar,2011 (PNEC NUST, Karachi)	Research Paper Competition	Silver Medal
		1st All Pakistan Technical Competition (APTEC) 2011 (CIIT Lahore)	Technical Paper Competition	3rd
		NAGS 2011 (GCU Lahore)	Circuit Design Competition	2nd
		TechFest 2011 (LUMS Lahore)	Robot Race Contest	3rd
		INDUS 2011 (IIEE Karachi)	Robot Race Contest	2nd
		All Pakistan Electrical Engineering Conference APEC 2011 (GIKI, Topi)	Research Paper Competition	2nd
		All Pakistan Electrical Engineering Conference APEC	MATLAB Programming Competition	2nd

		2011 (GIKI, Topi)		
		TechnoFest 2012 (UET Lahore)	Speed Wiring Competition	2nd
		TechnoFest 2012 (UET Lahore)	Circuit Design Competition	2nd
		Rachna Electrical and Electronic Competitions REEC 2012 (RCET GWT)	Project Exhibition	2nd
		Rachna Electrical and Electronic Competitions REEC 2012 (RCET GWT)	Circuit Design Competition	1st
		Rachna Electrical and Electronic Competitions REEC 2012 (RCET GWT)	Technical Crisis Expert	1st
		Engineering Olympaid 2012 (UCP Lahore)	Technical Paper Competition	3rd
		Engineering Olympaid 2012 (UCP Lahore)	Speed Wiring Competition	1st
02	**Mah Zaib Jamil (18)**	IEEE Week 2011 (Fast Lahore)	Circuit Schematics	1st
			Geek Wars (Programming contest)	1st
			Microcontroller Programming	2nd
		1st All Pakistan Technical Competition (APTEC) 2011 (CIIT Lahore)	Technical Paper Competition	3rd
		NAGS 2011 (GCU Lahore)	Circuit Design Competition	2nd
			Speed Wiring Competition	2nd
		TechFest 2011 (LUMS Lahore)	Robot Race Contest	3rd
		INDUS 2011 (IIEE Karachi)	Robot Race Contest	2nd
		All Pakistan Electrical	Research Paper Competition	2nd

		Engineering Conference APEC 2011 (GIKI, Topi)	MATLAB Programming Competition	2nd
		All Pakistan Electrical Engineering Conference APEC 2011 (GIKI, Topi)	MATLAB Programming Competition	2nd
		TechnoFest 2012 (UET Lahore)	Speed Wiring Competition	2nd
			Circuit Design Competition	2nd
		Rachna Electrical and Electronic Competitions REEC 2012 (RCET GWT)	Project Exhibition	2nd
			Circuit Design Competition	1st
			Technical Crisis Expert	1st
			Riddle Logic	3rd
		Engineering Olympaid 2012 (UCP Lahore)	Technical Paper Competition	3rd
			Speed Wiring Competition	1st
03	**Abdul Basit (13)**	IEEE Week 2011 (Fast Lahore)	Geek Wars (Programming contest)	1st
			Money Stacking (Technical Quiz Contest)	2nd
		1st All Pakistan Technical Competition (APTEC) 2011 (CIIT Lahore)	Technical Paper Competition	3rd
		TechFest 2011 (LUMS Lahore)	Robot Race Contest	3rd
		INDUS 2011 (IIEE Karachi)	Robot Race Contest	2nd
		All Pakistan Electrical Engineering Conference APEC 2011 (GIKI, Topi)	Research Paper Competition	2nd
		TechnoFest 2012 (UET Lahore)	Speed Wiring Competition	2nd
		TechnoFest 2012	Circuit Design	2nd

		(UET Lahore)	Competition	
		Rachna Electrical and Electronic Competitions REEC 2012 (RCET GWT)	Project Exhibition	2nd
			Riddle Logic	3rd
		Engineering Olympaid 2012 (UCP Lahore)	Technical Paper Competition	3rd
			Speed Wiring Competition	2nd
			Techlamation	2nd

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Sr. No.	Student Name	Event	Competition	Position
01	**Ali Raza (06)**	All Pakistan Electrical Engineering Conference APEC 2011 (GIKI, Topi)	Project Exhibition Competition	2nd
		Rachna Electrical and Electronic Competitions REEC 2012 (RCET GWT)	Circuit Design Competition	2nd
		Rachna Electrical and Electronic Competitions REEC 2012 (RCET GWT)	Speed Wiring Competition	2nd
		Rachna Electrical and Electronic Competitions REEC 2012 (RCET GWT)	Technical Crisis Expert	2nd
		Rachna Electrical and Electronic Competitions REEC 2012 (RCET GWT)	Project Competition	3rd
		Engineering Olympaid 2012 (UCP Lahore)	MATLAB Programming Competition	2nd

02	**Hafiz Hasan Raza (06)**	All Pakistan Electrical Engineering Conference APEC 2011 (GIKI, Topi)	Project Exhibition Competition	2nd
		Rachna Electrical and Electronic Competitions REEC 2012 (RCET GWT)	Circuit Design Competition	2nd
		Rachna Electrical and Electronic Competitions REEC 2012 (RCET GWT)	Speed Wiring Competition	2nd
		Rachna Electrical and Electronic Competitions REEC 2012 (RCET GWT)	Technical Crisis Expert	2nd
		Rachna Electrical and Electronic Competitions REEC 2012 (RCET GWT)	Project Competition	3rd
		Engineering Olympaid 2012 (UCP Lahore)	MATLAB Programming Competition	2nd
03	**Asim Abbas (03)**	TechnoFest 2011 (UET Lahore)	MATLAB Programming Competition	2nd
		All Pakistan Electrical Engineering Conference APEC 2011 (GIKI, Topi)	MATLAB Programming Competition	3rd
		Engineering Olympaid 2012 (UCP Lahore)	MATLAB Programming Competition	3rd
04	**Arslan Ahmad (02)**	TechnoFest 2011 (UET Lahore)	MATLAB Programming Competition	2nd
		Engineering Olympaid 2012 (UCP Lahore)	MATLAB Programming Competition	3rd

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Sr. No.	Student Name	Event	Competition	Position
01	**Syed Hasan Gilani (07)**	NAGS 2011 (GCU Lahore)	Speed Wiring Competition	2nd
			Best Idea Competition	1st
			Gaming Competition	1st
		Rachna Electrical and Electronic Competitions REEC 2012 (RCET GWT)	Project Competition	3rd
			Technical Crisis Expert	1st
		Engineering Olympaid 2012 (UCP Lahore)	Speed Wiring Competition	2nd
			Technical Paper Competition	1st
02	**Imran Saeed Lodhi (03)**	Rachna Electrical and Electronic Competitions REEC 2012 (RCET GWT)	Technical Crisis Expert	1st
		Rachna Electrical and Electronic Competitions REEC 2012 (RCET GWT)	Ramagers Quest	1st
		Engineering Olympaid 2012 (UCP Lahore)	Techlamation	2nd
03	**Junaid Ahmad (02)**	Rachna Electrical and Electronic Competitions REEC 2012 (RCET GWT)	Project Exhibition	2nd
		Rachna Electrical and Electronic Competitions REEC 2012 (RCET GWT)	Technical Crisis Expert	2nd
04	**Rida Jamil (02)**	Rachna Electrical and Electronic Competitions REEC 2012 (RCET GWT)	Ramagers Quest	1st

Sr. No.	Student Name	Event	Competition	Position
		Engineering Olympaid 2012 (UCP Lahore)	Technical Paper Competition	3rd
05	**Syeda Faiqa Beensih (01)**	Rachna Electrical and Electronic Competitions REEC 2012 (RCET GWT)	Ramagers Quest	1st
06	**Osama Butt (01)**	Engineering Olympaid 2012 (UCP Lahore)	Techlamation	3rd
07	**Ozair Ahmad (01)**	Engineering Olympaid 2012 (UCP Lahore)	Techlamation	3rd

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Sr. No.	Student Name	Event	Competition	Position
01	**Faiqa Rafiq (01)**	Engineering Olympaid 2012 (UCP Lahore)	Technical Paper Competition	1st