

# RABIAH BADAR

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# EDUCATION

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- ✘ *COMSATS Institute of Information Technology, Islamabad.*
- ✘ MS            Computer Engineering    3.75 CGPA 2009
- ✘ *Quaid-I-Azam University, Islamabad.*
- ✘ M.Sc.        Electronics 70.1%            2005
- ✘ *Govt. Post Graduate College for Women, Rawalpindi.*
- ✘ B.Sc.        Math A, Math B, Physics        66.9%  
                  2002
- ✘ *Govt. Post Graduate College for Women, Chakwal.*
- ✘ F.Sc.        Pre-Engineering 74.9%            2000

# DISTINCTIONS

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- ✘ COMSATS IIT Research productivity award winner for the year 2013
- ✘  COMSATS IIT Research productivity award winner for the year 2012
- ✘  Research paper presentation in UPEC 2012 London by winning HEC travel grant.
- ✘  Top position in MS Computer Engineering.
- ✘  HEC indigenous scholarship for MS leading to PhD.
- ✘  3rd position in 1st semester of M.Sc. Electronics, Q.A.U. Islamabad.
- ✘  Merit scholarship on fifth position in Mathematics in Rawalpindi board.
- ✘  First position in F.Sc. Pre-Engineering group in college.
- ✘  Scholarship holder in higher secondary school and F.Sc.

# PUBLICATIONS

1. L. Khan, S. Anjum, and **R. Badar**, "Standard fuzzy model identification using gradient methods", *World Applied Sciences Journal*, vol. 8, no. 1, pp. 1-9, 2010. (ISI-Indexed)
2. L. Khan, M. Umair Khan, and **R. Badar**, "Soft computing techniques for system identification using Matlab/Simulink", *Australian Journal of Basic and Applied Sciences*, vol. 4, no. 6, pp. 1527-1541, 2010. (ISI-Indexed)
3. **R. Badar** and L. Khan, "Nonlinear adaptive NeuroFuzzy wavelet based damping control paradigm for SSSC," *Advances in Electrical and Computer Engineering (AECE)*, vol. 12, no. 3, pp. 97-104, 2012. (IF: 0.552)
4. **R. Badar** and L. Khan, "Hybrid Neuro-fuzzy Legendre-based adaptive control algorithm for Static Synchronous series Compensator," *Electric Power Components and Systems*, vol. 41, no. 9, pp. 845-867, 30 May 2013. (IF: 0.62)
5. L. Khan and **R. Badar**, "Hybrid adaptive NeuroFuzzy Bspline based SSSC damping control paradigm using online system identification," *Turkish Journal of Electrical Engineering & Computer Sciences* . (IF: 0.555)
6. **R. Badar** and L. Khan, "Power system oscillations damping using HABSW based FACTS-SSSC," *Journal of Intelligent and Fuzzy Systems: IOS press* (accepted) (IF: 0.78).
7. **R. Badar** and L. Khan, "Coordinated adaptive control of multiple FACTS using MIMO NeuroFuzzy damping control paradigms," *Electric Power Components and Systems* (accepted) (IF: 0.62).
8. **R. Badar** and L. Khan, "Fully adaptive control of multi-type FACTS using MIMO NeuroFuzzy Legendre wavelet based damping control," *Electric Power Components and Systems* (under review).
9. R. Badar and L. Khan, "Legendre Wavelet Embedded NeuroFuzzy Algorithms for multiple FACTS," *International Journal of Electrical Power and Energy Systems* (under review).
10. **R. Badar** and L. Khan, "Comparative evaluation of Lyapunov based fully adaptive MIMO hybrid soft computing damping control paradigms," (under preparation).

# RESEARCH INTERESTS

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- ✘ Power System Stability and Control,
- ✘ FACTS controllers,
- ✘ Nonlinear Adaptive Control,
- ✘ Hybrid Intelligent Systems,
- ✘ Channel Coding,
- ✘ FPGAs,
- ✘ Digital Logic Design,
- ✘ Digital Signal Processing.

# GENERAL EXPERTISE

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- × C/C++,
- × MATLAB/SIMULINK,
- × Verilog,
- × Xilinx/ModelSim,
- × Latex,
- × Pspice,
- × MS office,
- × MS Visio.

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Thank you