

Rabia Bilal

Assistant Professor

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Ext.: 3004



Qualification

- MPhil (Electronic Engineering) ,University of Sussex, UK, 2012
- MS (Electronic Engineering specialization in Telecommunication ,CGPA 3.77), Sir Syed University of Engg& Tech., Pakistan 2006
- BS (Electronic Engineering CGPA 3.67) Sir Syed University of Engg& Tech., Pakistan 2002

Area of Specialization

- Electronic Engineering
- Telecommunication
- Medical Electronics

Work Experience

- Assistant Professor (Electrical Engg. Dept.)
Usman Institute of Technology, Karachi, Pakistan
Sep 2105-inview
- Visiting Research Officer (School of Engineering and Informatics)
University of Sussex, UK
Nov 2012-Oct 2013
- Associate Tutor
University of Sussex, UK
Jan2011 –April 2013
- Clinical Trial Assistant
University of Sussex, UK
Dec 2009 –Nov 2011
- Assistant Professor (Electronic Engg. Dept.)
Sir Syed University of Engineering and Technology, Karachi, Pakistan
April 2007 – October2012
- Lecturer (Electronic Engg. Dept.)
Sir Syed University of Engineering and Technology, Karachi, Pakistan
July 2004-April 2007
- Trainee Engineer
Alsons Industries (Pvt) Ltd, Karachi, Pakistan
Jan 2004-July 2004
- Visiting Lecturer (Computer Science Dept.)
SZABIST-Shaheed Zulfikar Ali Bhutto Institute of Science and Technology, Karachi, Pakistan
Jan 2003-June 2003
- Visiting Lecturer (Electronic Engg. Dept.)
Sir Syed University of Engineering and Technology, Karachi, Pakistan
Sep 2002- Dec 2002

Membership & Affiliation

- Life time member-Pakistan Engineering Council (PEC)

Research Interests

- Tomography for health care
- Electrical Impedance Tomography
- Breast cancer
- Body Area Networks(BAN)
- EEG,ECG
- Electrical Impedance Mammography
- Wireless Sensor Networks

Courses Taught

- | | |
|---|---------------------------|
| • Basic Electrical Engineering | Basic Electronics |
| • Network Analysis I-II | Digital Electronics |
| • Digital Logic Design | Feedback control systems |
| • Electronic Devices and Circuit Theory | Electronic I-II |
| • Telecommunication | Digital Signal Processing |

Publications & Conferences

Conferences

- R Bilal, W Wang, R Young, "Analysis and approach to reduce electrode contact artefacts in EIM" IEEE EMS 2011, Madrid-Spain, 16-18 Nov, 2011.
- R Bilal, N Beqo, B Khan, R Young, W Wang, "Analysis ,fast method of detection and approach to reduce electrode contact artefacts in EIM", IEEE SCORED 2011, Malaysia, 19-20 Dec, 2011.
- N Béqo, N Huber, R Bilal, W Zhang, G Qiao, and Wei Wang," Fast method for artefact detection and breast boundary definition", EIT 2011, Bath-UK, 4-6 May, 2011.

Journals

- R Bilal, R Young Chatwin, B Khan" An investigation of planar array system artefacts generated within an Electrical Impedance Mammography system developed for breast cancer detection.Vol 2; Advances in Biomedical Engineering Research; Oct 2014
- B Khan, R Bilal," Mobility adaptive improved backoff CSMA/CA MAC for wireless sensor networks", Journal of handheld computing research, Vol 4(2); 40-54; April –June 2013.

Books

- Quality of Service issues and challenges of Mobile Sensor Networks: Lambert Academic Publication; ISBN# 978-3-659-28704-6.
- Implementation of Speech Scrambling using DSP TMS320c6711 and Lab VIEW: Lambert Academic Publication; ISBN# 978-3-659-58688-0.

Book Chapters

- B Khan, R Bilal, "Quality of Service Medium Access Control Protocol for Wireless Sensor Networks," Book: Wireless Sensor Networks Current Status and Future Trends, CRC Press USA, Nov 2012.
- B Khan, R Bilal "High Quality of Service and Energy Efficient MAC protocols for Wireless Sensor Networks", Springer Book series of: Studies in computational Intelligence; series number 0792; 2013.