

# Dr. Ahmed Bilal Awan



## PERSONAL INFORMATION

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- **Date of Birth:** March 31, 1981
- **Sex:** Male
- **Marital Status:** Married
- **Contact Details:** College of Engineering, Majmaah University, Al-Majmaah, Kingdom of Saudi Arabia.  
**Phone:** 00966-553635304  
**Email:** a.awan@mu.edu.sa

## EDUCATION

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- **Degree:** **Doctor of Philosophy (Ph.D) (Electrical Engineering)**  
Laboratory: GREEN (INRIA-Lorraine)  
University: Institut National Polytechnique de Lorraine (National Polytechnic Institute of Lorraine)  
Duration: December 2007 – December 2011
- **Degree:** **Master of Science (Electrical Engineering)**  
**Medium of Instruction:** French  
Department: Department of Electrical Engineering  
University: SUPELEC (Ecole Superieur de Electricité) Gif Campus, Paris, France  
Duration: Sept 2006 – Sept 2007
- **Degree:** **Bachelor of Science (Electrical Engineering)**  
**Medium of Instruction:** English  
Department: Department of Electrical Engineering  
University: UET Lahore, Pakistan  
Duration: Jan 2001 – Dec 2004

## WORKING EXPERIENCE

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- **Organization:** **College of Engineering, Majmaah University**  
Place: Al-Majmaah, K.S.A  
Department: Department of Electrical Engineering  
Tenure: February 2012 – Present  
Designation: Assistant Professor  
Courses: Fundamentals of Electrical Power Systems  
Basic Electronics Devices and Circuits

- Organization:** **COMSATS Institute of Information Technology (CIIT)**

  - Place: Islamabad, Pakistan
  - Department: Department of Electrical Engineering
  - Tenure: March 2012 – February 2014
  - Designation: Assistant Professor
  - Courses:** Control Systems (Undergraduate Program)  
Advanced Power Electronics (Graduate Program)  
High Voltage Direct Current (HVDC) Transmission (Graduate Program)
  - MS students:** 8 MS students have completed their thesis under my supervision
  - PhD Students:** Currently, 2 PhD students are working under my supervision
  
- Organization:** **National University of Science and Technology (NUST)**

  - Place: Islamabad Pakistan
  - Department: Department of Electrical Engineering
  - Tenure: February 2012 – June 2012
  - Designation: Assistant Professor (Visiting Faculty)
  - Courses: Control Systems
  
- Organization:** **ENSEM (National School of Electrical and Mechanical Engineering)**

  - Place: Nancy France
  - Department: Department of Electrical Engineering
  - Tenure: Dec 2007 - Dec 2011
  - Designation: Research Scholar
  
- Organization:** **SUPELEC Gif Campus**

  - Place: Paris, France
  - Department: Department of Electrical Engineering
  - Tenure: Jan 2007 – June 2007
  - Designation: Research Fellow
  - Project:** Study of the dc-dc converters with input filter and proposition of a suitable method to remedy the problem of filter-converter interaction.
  
- Organization:** **The University of Faisalabad**

  - Place: Faisalabad, Pakistan
  - Department: Department of Electrical and Computer Sciences
  - Tenure: March 2005 – March 2006
  - Designation: Lecturer
  - Courses:** Control Systems, Electronics, Circuit Analysis, Machines

- **Organization:** **SIEMENS**  
Place: Lahore, Pakistan  
Department: Engineering  
Tenure: April 2004 – September 2004  
Designation: Trainee

## THESIS

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- **Doctor of Philosophy (Electrical Engineering)**

**Title:** **Stability investigation of Distributed Electrical System.**

**Description:** We worked on a project by AIRBUS (aircraft manufacturer company). We performed the stability investigation of electrical system constituted of an input filter connected to an actuator. We used both local and global stability study approaches. We have proposed linear and nonlinear control techniques to stabilize the electrical system. This allows reducing the dc-link capacitance value and size which is important in aerospace applications.

- **Master of Science (Electrical Engineering)**

**Title:** **Stability Analysis of Cascade DC-DC Converters with Input Filter.**

**Description:** We developed a control solution for the stability of dc-dc converters in the presence of input filter. We used the full state-feedback control pole-placement technique to stabilize the cascade dc-dc converters with LC input filter.

## PUBLICATIONS

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- Ahmed Bilal Awan, Zeeshan Ali Khan, "Recent progress in renewable energy – Remedy of energy crises in Pakistan" *Renewable and Sustainable Energy Reviews*, Volume 33, May 2014, pp. 236-253, ISSN 1364-0321.
- Kamran Hafeez, Ahmed Bilal Awan, "A modern business approach by using Geographic Information Systems as a decision tool for the Logistics of oranges to the Peshawar City markets in winter season" *J. Basic. Appl. Sci. Res.*, 3(9)445-449, 2013.
- Ahmed-Bilal Awan, Serge Pierfederici, Babak Nahid-Mobarakeh, Farid Meibody-Tabar, "Energetic impedances: Application to large signal stability analysis of DC power systems", *IEEE Transportation Electrification Conference*, June 18-20, 2012, pp. 1-6, Dearborn, USA.
- P. Liutanakul, Ahmed-Bilal Awan, Serge pierpederici, Babak Nahid-Mobarakeh, Farid Meibody-tabar, "Linear Stabilisation of DC-Bus supplying a Constant Power Load", *IEEE Trans. Power Electronics*, vol. 25, pp. 475 – 488, Feb. 2010.
- Ahmed-Bilal Awan, Babak Nahid-Mobarakeh, Serge Pierfederici, Farid Meibody-Tabar, "Nonlinear Stabilization of a DC-Bus Supplying a constant Power Load", *IEEE Industry Application Society (IAS)*, October 4-8, 2009, Houston, Texas, USA.

- Ahmed-Bilal Awan, Serge Pierfederici, Babak Nahid-Mobarakeh, Farid Meibody-Tabar, "Active Stabilization of a Poorly Damped Filter Supplying a Constant Power Load" , *IEEE Energy Conversion Congress and Exposition (ECCE)*, September 20-24, 2009, San Jose, California, USA.
- P. Liutanakul, Ahmed-Bilal Awan, S. Pierfederici, B. Nahid-Mobarakeh, F. Meibody-Tabar, "Stability Investigation of Inverter Motor Drive System with Input Filter – Optimisation of the DC-Link Capacitance Value" , *Power Electronics Specialist Conference (PESC)*, 2008, pp. 3728 – 3734, Rhodes, Greece.
- Iftikhar. M.U, Ahmed-Bilal Awan, Sadarnac D, Lefranc P, Karimi C, "Analysis of Input Filter Interactions in Cascade Buck Converters", *IEEE International Conference on Industrial Technology* 21 – 24 Avr 2008, pp. 1 – 6, Chengdu, China.

## **PRESENTATIONS**

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- Ahmed-Bilal AWAN, "Stability Analysis of Electrical System with Input LC Filter", Annual convention of Ecole Doctorale, Informatique Automatique Electronique Electrotechnique Mathématique (IAEM), June 15, 2009, Lorraine, France.
- Ahmed-Bilal AWAN, "Basic Stability Approach for a system with Input Filter", Poster presentation at Doctoriales de Lorraine, Nancy University, France, May 17, 2010.

## **TRAININGS AND SUMMER SCHOOLS**

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- Doctoriales de Lorraine, The Professional Doctoral Training, Nancy University, Saint-Dié-des-Vosges, France, May 16-22, 2010

## **LANGUAGES**

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- Fluent in English, Urdu and Punjabi
- Good in French

## **INTERESTS**

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Teaching and research in the field of Power, Power Electronics and Control.