# Dr Ahmed Zobaa Senior Lecturer

Howell Building 217

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* [Smart Power Networks](http://www.brunel.ac.uk/ief-spn)

**Summary**

Dr Zobaa received his B.Sc.(Hons), M.Sc., and Ph.D. degrees in Electrical Power & Machines from Cairo University, Egypt, in 1992, 1997, and 2002, respectively. Also, he received his Postgraduate Certificate in Academic Practice from the University of Exeter, UK in 2010. Also, he received the Doctoral of Science from Brunel University London, UK in 2017. He was an Instructor during 1992-1997, a Teaching Assistant during 1997-2002, and an Assistant Professor during 2002-2007 at Cairo University, Egypt. From 2007 to 2010, he was a Senior Lecturer in renewable energy at University of Exeter, UK. Currently, he is a Senior Lecturer in power systems, an MSc Course Director and a Full Member of the Institute of Energy Futures at Brunel University London, UK. His main areas of expertise include power quality, (marine) renewable energy, smart grids, energy efficiency, and lighting applications.

**Responsibility**

**Teaching, Learning and Student Experience**

* Delivering lectures and tutorials.
* Designing, preparing and developing undergraduate and postgraduate modules, and teaching materials.
* Developing and implementing new methods of teaching to reflect changes in research.
* Assessing students' coursework.
* Setting and marking examinations.
* Supervising final year undergraduate projects, Masters Dissertations or PhD theses.
* Supervising my own research group.
* Supporting students through a pastoral or advisory role.

**Research**

* Undertaking personal research projects and actively contributing to our research profile.
* Writing up research and prepare it for publication.
* Preparing bids to attract funding to our department and institute for a range of research projects.

**Leadership, Management and collegiality**

* Leading undergraduate and postgraduate modules.
* Organising and Managing MSc Sustainable Electrical Power.
* Carrying out administrative tasks related to the department.

**External Impact and Markers of Esteem**

* Contributing to professional conferences and seminars in my field of expertise.
* Establishing collaborative links with other institutions, industrial, commercial and public organisations.
* Engaging with the professional bodies activities.
* External examining at peer institutions.
* Developing and teaching power systems training courses in Bahrain, Egypt, Kuwait, Qatar, Saudi Arabia, and United Arab of Emirates.

**Fellowships**

* **Honorary Fellow of University**

University of Exeter Cornwall Campus

Penryn, United Kingdom

Date: 08/2010

**Editorial**

* **Computational Intelligence Applications in Smart Grids**

Publication type: Book

Date: 01/2014

**Topics**

* Analysis, design, and development of passive and active filters to solve power quality problems.
* Potential applications of probabilistic modeling of current and voltage harmonics in the power factor correction and harmonics mitigation techniques.
* Potential applications of different optimisation algorithms and methods for maximum energy utilization, system voltage stabilization, and loss reduction in distribution systems and automotive industries.
* Sustainable energy use and engineering sustainable supply while adapting to the demands of climate change, global population growth and the depletion of natural resources.
* Develop effective methods to improve the efficiency of small wind turbines.
* Enabling technologies for increasing the pervasion of renewable power generators in smart grids.
* Optimal allocation of Phase Measuring Units in power systems to achieve full network observability.
* Investigate the effectiveness of the HVDC link and FACTS in the grid with a view of system stability enhancement.