(Brief)

Part Time

### DR. ABDULLAH M. ABUSORRAH

Assistant Professor, Dept. of Electrical and Computer Eng., King Abdulaziz University

### **Education**

| Degree | Field of Study |                 |             | Institution                       | Year    |
|--------|----------------|-----------------|-------------|-----------------------------------|---------|
| PhD    | Electrical a   | nd Electronic E | ingineering | University of Nottingham, UK      | 2007    |
| MS     | Electrical     | Engineering     | (Power      | &King Abdulaziz University, Jedda | ah,2002 |
|        | Machines)      |                 |             | Saudi Arabia                      |         |
| BS     | Electrical     | Engineering     | (Power      | &King Abdulaziz University, Jedda | ah,1994 |
|        | Machines)      |                 |             | Saudi Arabia                      |         |

## **Academic Experience**

| From  | To     | Institution                   | Rank         | Title       | (Cha        | ir,Full   | or  |
|-------|--------|-------------------------------|--------------|-------------|-------------|-----------|-----|
|       |        |                               |              | Coordinate  | or, etc.)   | Part T    | ime |
| 1994  | 2002   | Jeddah College of Technology  | Lecturer     |             |             | Full Ti   | me  |
| 2007  | 2010   | Jeddah College of Technology  | Assistant.   | Head of the | he Electric | alFull Ti | me  |
|       |        |                               | Professor    | Technolog   | у           |           |     |
|       |        |                               |              | Departmen   | ıt          |           |     |
| 2011  | Date   | King Abdulaziz Univ.          | Assistant    |             |             | Full Ti   | me  |
|       |        |                               | Professor    |             |             |           |     |
|       |        |                               |              |             |             |           |     |
| Non A | Acaden | nic Experience (including Con | nsultations) |             |             |           |     |
| From  | To     | Company/Entity                | Title        | Position    | Description | onFull    | or  |

# Funded Research Projects and Patents from the Past Five Years

- 1. Next-Generation Electric Power System Expansion Planning (Funded By King Abdulaziz University)
- 2. Ensuring Low Current Ripple In Power Converters for Renewable Energy and High Performance Applications (Funded By King Abdulaziz University)
- 3. Computational Research on Design, Simulation and Optimization of a Solar Concentrating System (Funded By King Abdulaziz University)
- 4. EGTran: Integrated Model of Electric Power and Natural Gas Transmission Systems for Enhancing The Infrastructure Security In Saudi Arabia (Funded By King Abdulaziz City for Science and Technology (KACST))
- 5. Investigation Into The Stability of Complex Power Electronic Converters In Renewable Energy Applications (Funded By King Abdulaziz University)
- 6. A Genetic Based Fuzzy Controller for Optimal Power Flow (Funded By King Abdulaziz University)

# **Certifications and Professional Registrations**

## **Current Membership in Professional Societies and Organizations**

|    | Society/Organization                                | Rank   | Member Since |
|----|---|--------|--------------|
| 1. | IEEE  | Member | 2008         |
| 2. | World Scientific and Eng. Academy and Soc. (WSEAS). | Member | 2009         |

3. Saudi Council of Engineers, KSA

Member

2008

#### **Honors and Awards**

### **Institutional and Professional Services** (administration, committees, units, etc.)

- 1. Unit Manager of The Distinguished Scholars Projects At King Abdulaziz University
- 2. Manager of The Awards Unit In The Deanship of Scientific Research, King Abdulaziz University
- 3. Coordinator of The Renewable Energy Research Group At King Abdulaziz University

# **Principal Publications/Presentations from the Past Five Years**

- 1. Mark Sumner, Abdullah Abusorrah, David Thomas and Pericle Zanchetta, "Real Time Parameter Estimation for Power Quality Control and Intelligent Protection of Grid-Connected Power Electronic Converters," IEEE Transactions on Smart Grid, no. 99, Apr. 2014.
- 2. Abdullah Abusorrah, Mohammed Al-Hindawi, Yusuf Al-Turki, Kuntal Mandal, Damian Giaouris and Soumitro Banerjee, "Stability of the Boost Converter Fed From Photovoltaic Source," Solar Energy, Pergamon-Elsevier Science LTD, vol. 98, Part C, pp. 458–471, Dec. 2013.
- 3. Abdullah Abusorrah, "The Application of the Linear Adaptive Genetic Algorithm to Optimal Power Flow Problem" Accepted for Publication in the Arabian Journal for Science and Engineering, 2013.
- 4. K. Mandal, C. Chakraborty, A. Abusorrah, M. Al-Hindawi, Y. Al-Turki, S. Banerjee, "An Automated Algorithm for Stability Analysis of Hybrid Dynamical Systems," The European Physical Journal Special Topics 222 (3-4), pp. 757-768, 2013.
- 5. Abdullah Abusorrah, "Differential Evolution Algorithm for Voltage Stability Enhancement in Electric Power Systems," Life Science Journal, vol. 10, no. 3, Pp.2464-2469, Oct. 2013.
- 6. Damian Giaouris, Soumitro Banerjee, Fotis Stergiopoulos, Simira Papadopoulou, Spyros Voutetakis, Bashar Zahawi, Volker Picker, Abdullah Abusorrah, Mohammed Al Hindawi and Yusuf Al-Turki, "Foldings and Grazings of Tori in Current Controlled Interleaved Boost Converters," International Journal of Circuit Theory and Applications, Article ID:1906, 2013.
- 7. Abdullah Abusorrah, "Optimal Power Flow using Adaptive Fuzzy Logic Controllers," Mathematical Problems in Engineering, Hindawi Publishing Corporation, Article ID 975170, 2013.
- 8. Abdel-Fattah Attia, Yusuf A. Al-Turki and Abdullah M. Abusorrah, "Optimal Power Flow using Adapted Genetic Algorithm with Adjusting Population Size," Journal of Electric Power Components and Systems, vol. 40, no. 11, pp. 1285-1299, Aug. 2012.
- 9. Kuntal Mandal, Abdullah Abusorrah, Mohammed Al Hindawi, Yusuf Al Turk, Damian Giaourisy and Soumitro Banerjee, "Dynamical Analysis of Single-Inductor Dual-Output DC-DC Converters" International Symposium on Circuits & Systems (ISCAS) 2013 Beijing, China.

**Recent Professional Development Activities** (Workshops, training, etc.)