

## RESUME OF ALI T. AL-AWAMI

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### EDUCATION

- Master of Science degree in Electrical Engineering from KFUPM, Dhahran: June 2004
- GPA of 3.81 on 4.0 scale
- **Thesis Title:** "Design of Robust PSS And FACTS-Based Controllers for Stability Enhancement of Power Systems"
- Bachelor of Science degree in Electrical Engineering from KFUPM, Dhahran: June 2000
- First honor with GPA of 3.96 on 4.0 scale, the highest GPA in Electrical Engineering Department in 2000
- Selected B.S. and M.S. courses include:
  - Applied Control Engineering, Digital Control Engineering, Optimal Control, Linear Control Theory
  - Neural Networks
  - Programmable Logic Controllers (PLC's) - Siemens Lab
  - Power System Transient Analysis, Power System Steady-State Analysis, Power System Protection, Power System Operation & Planning, Electrical Installation,
- Participated in several Annual IEEE Technical Exchange Meetings: Dhahran 2000-2004
- Completed two courses in Optimum Techniques in Power System Operation: 2000 & 2001
- Completed two courses in MATLAB and PSPICE: 1999

### AWARDS

- 2000* **KFUPM:** Received certificate from Advanced Electronics Co., (AEC) in association with IEEE-Saudi Arabia in recognition for academic achievement.
- 1995-2000* **KFUPM:** Appeared on the Dean's List of Honors ten times, eight as First Honors and two as Second Honors.
- 1989&1995* **School:** Received Prince Mohammed bin Fahd Award for academic achievement for both elementary and secondary schools.

### WORK EXPERIENCE

- 2004-now* **KFUPM:** Lecturer, Department of electrical Engineering.
- 2002-2004* **KFUPM:** Graduate Assistant, Department of electrical Engineering.
- Lab instructor and coordinator of the following courses:
    - EE446 Programmable Logic Controllers (PLC)
    - EE432 Digital Control Engineering
    - EE380 Control Engineering I
    - EE201 Electric Circuits I
  - Participated in the development of new EE380 (Control Eng. I) Lab Manual.

- Current Research interests include: Robotics, optimization techniques, artificial intelligence techniques, application of control theory to power systems, power system control and stability,

2000-2002 **Saudi Electricity Co.:**

Worked with System Operations Dept., Power Dispatch Div., as System Control Engineer.

- Gained great deal of experience with Saudi Power System, in terms of system operation and maintenance and different generation and transmission equipment. Particularly, got experience in automatic generation control, power system stability, SCADA systems, switching and restoration procedures, short-term load forecast, automatic and manual load shedding, and voltage profile enhancement.
- Attended commissioning of the largest steam power plant in Saudi Arabia (Ghazlan Power Plant, 625 MW/ generating unit) for two months. Got experience in variety of control aspects including distributed control system (DCS), instrumentation, boiler and turbine governor control loops, online monitoring, and computer applications in power plant.

1999 **Saudi Electricity Co.:** Completed summer training period in Ghazlan Power Plant. Got familiar with a variety of control aspects, as described above.

1999 **KFUPM:** Led team of four students to accomplish senior project designing fiber optics microphone. Gained experience in leading group of engineers to achieve specific target within specified period of time with highest possible efficiency.

## MEMBERSHIPS

- IEEE member since 1999, and IEEE Control Systems Society member for two years
- Member of Saudi Scientific Society of Electrical Engineers (SSSEE)
- Member of Saudi Society for Technology Transfer

## PERSONAL BACKGROUND

- Saudi citizen, 27 years old, married
- Computer skills include MS Office, MATLAB, FORTRAN, PSPICE, Multisim Electronic Workbench
- Interests: self-learning, computer, internet browsing, reading, and football

## REFERENCES

References are available upon request

## LIST OF PUBLICATIONS

- **Ali T. Al-Awami**, Youssef. L. Abdel-Magid, M. A. Abido, 'Particle-Swarm-Based Robust Coordinated Design of PSS and SVC-Based Stabilizer,' Accepted for publication in The 2<sup>nd</sup> IEEE-GCC Conference and Exhibition, Manama, Bahrain, 23-25 Nov, 2004.
- **Ali Al-Awami**, 'Design of Robust PSS and FACTS-Based Controllers for Stability Enhancement of Power Systems,' M.S. Thesis, May 2004.
- A. H. Mantawy, **Ali Al-Awami**, M. H. Shwehdi, 'A New Particle Swarm Algorithm for the Economic Dispatch Problem,' 12<sup>th</sup> Iranian Conference in Electrical Engineering, Mashhad, Iran, 12-14 May 2004
- **Ali T. Al-Awami**, Y. L. Abdel-Magid, M. A. Abido, 'A Particle-Swarm-Based Approach of Power System Stability Enhancement with Unified Power Flow Controller,' submitted for publication in the International Journal of Electrical Power & Energy Systems.
- **Ali T. Al-Awami**, Y. L. Abdel-Magid, M. A. Abido, 'Simultaneous Stabilization of Power Systems Equipped with Unified Power Flow Controller Using Particle Swarm,' submitted for publication in the 15<sup>th</sup> Power Systems Computation Conference, PSCC'05, Liège, Belgium, August 22-26, 2005
- **Ali T. Al-Awami**, Y. L. Abdel-Magid, M. A. Abido, 'Simultaneous Stabilization of Power System Using Particle-Swarm-Based Robust Coordinated Design of PSS and SVC ,' submitted for publication in the IEE Transactions in Generation, Transmission, and Distribution