

**Kingdom of Saudi Arabia
King Saud University
College of Engineering
Department of Electrical Engineering**

Resume (Curriculum Vitae)

Name: Saad Mobarak Alghuwainem
Date of Birth 13970 H.
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Current Academic Rank: Professor

Date of Promotion: **1418 H**

Academic Degrees:

Ph.D. in Electrical Engineering, 1406 H.

**The University of Michigan
College of Engineering
Department of Electrical Engineering
Ann Arbor, Michigan, USA.**

Title of Thesis:

**Limitations of Traveling-Wave Relaying for
Extra High Voltage Transmission Lines**

M.Sc. in Electrical Engineering, 1398 H.

**University of Colorado
College of Engineering
Department of Electrical Engineering
Boulder, Colorado, USA**

B.Sc. in Electrical Engineering, 1394 H

**King Saud University
College of Engineering
Department of Electrical Engineering
Riyadh, Saudi Arabia**

Employment History: (in Descending Order-Last Given First)

2/5/1413 H - present (27/10/1992 AD - present)	Associate Professor, Electrical Engineering Department, College of Engineering, King Saud University, Riyadh, Saudi Arabia.
12/11/1406 - 2/5/1413 H (19/7/1986-27/10/1993 AD)	Assistant Professor, Electrical Engineering Department, College of Engineering, King Saud University, Riyadh, Saudi Arabia.
23/5/1394 - 12/11/1406 H (7/6/1974-19/7/1986 AD)	Teaching Assistant, Electrical Engineering Department, College of Engineering, King Saud University, Riyadh, Saudi Arabia.

Publications:

- [1] S. M. Alghuwainem and P. J. McCleer, "Simulation of the Ground Mode Skin-Effect for Time Domain Transient Analysis", Proceedings of the Sixteenth *IEEE* Midwest Power Symposium, Drexel University, Philadelphia PA, USA, October 25-26 1984.
- [2] S. M. Alghuwainem and P. J. McCleer, "Limitations on Use of Standatd CCVT's in Traveling Wave Relaying", Proceedings of the Seventeenth *IEEE* Midwest Power Symposium, Michigan Technological University, Houghton, MI, USA, October 3-5 1985.
- [3] S. M. Alghuwainem, "Fault Induced Transients on Power Systems From Modal Networks", Proceedings of the Middle East Power Conference (MEPCON 89), Cairo, Egypt, January 9-13 1989.
- [4] S. M. Alghuwainem, "Time Domain Modeling of Frequency Dependent Three Phase Transmission Line Resistance", Electric Machines and Power Systems, Volume 19, Number 6, 1991.

- [5] S. M. Alghuwainem, "Application of a DC Chopper to Maximize Utilization of Solar-Cell Generators", *IEEE/PES Power Engineering Society 1991 Winter Meeting*, February 3-7 1991, New York, NY, USA.
- [6] S. M. Alghuwainem, "Steady State Performance of DC Motors Supplied From Photovoltaic Generators With Step-Up Converter", *IEEE Transaction on Energy Conversion*, Volume 4, June 1993.
- [7] S. M. Alghuwainem, "Matching of a DC Motors to a Photovoltaic Generator Using a Step-Up Converter With a Current Locked Loop", *IEEE Transaction on Energy Conversion*, Volume 3, March 1994.
- [8] S. M. Alghuwainem, "Performance Optimization Of Photovoltaic Generators", Proceedings of the First Maghribian Electrical Engineering Conference, Tunisia, May 28-31, 1994.
- [9] S. M. Alghuwainem, "Photovoltaic Generator Current Control for Maximum Utilization", The First International Conference on Electronics, Circuits, and Systems (ICECS'94) December 19-22, 1994, Cairo, Egypt.
- [10] S. M. Alghuwainem, "Maximizing Utilization of Photovoltaic Generators for DC Motor Drives", The Second Saudi Symposium on Energy Utilization and Conversion. King Fahd University of Petroleum and Minerals, Dahrán, Nov. 27-30, 1994.
- [11] S. M. Alghuwainem and A. M. Al-Fayez, "Directional Comparison Protection for E.H.V Transmission Lines Based on Fault Induced Transients", The Second Saudi Symposium on Energy Utilization and Conversion. King Fahd University of Petroleum and Minerals, Dahrán, Nov. 27-30, 1994.
- [12] S. M. Alghuwainem, "Simulation of Power Systems Fault-Induced Electromagnetic Transients Using Pspice" Middle East Power Conference (MEPCON) 3-5 January 1996. Cairo, Egypt.
- [13] S. M. Alghuwainem, "Performance Analysis of a PV Powered DC Motor Driving a Three-Phase Self-Excited Induction Generator", *IEEE Transaction on Energy Conversion*, Volume 11, March 1996.
- [14] S. M. Alghuwainem, "Speed Control of a PV Powered DC Motor Driving A Three-Phase Self-Excited Induction Generator for Maximum Utilization Efficiency", *IEEE Transaction on Energy Conversion*, Volume 11, December 1996.
- [15] S. M. Alghuwainem, "A Close-Form Solution for the Maximum Power Operating Point of a Solar Cell Array", *Solar Energy Materials and Solar Cells*, 46 (1997) 249-257.
- [16] S. M. Alghuwainem, "Steady-State Analysis of an Induction Generator Self-Excited by a Capacitor in Parallel with a Saturable Reactor", *Electric Machines and Power Systems*, Volume 26, Number 6, January 1998.
- [17] S. M. Alghuwainem, "Steady-State Analysis of a Self-Excited Induction Generator Self-Regulated by a Saturable Reactor", *International Electric Machines and Drives Conference IEMDC97* Milwaukee, Wisconsin May 18-21 1997.

- [18] S. M. Alghuwainem, "Steady-State Analysis of a Self-Excited Induction Generator Driven by Regulated and Unregulated Turbine", *IEEE-PES Winter Meeting* 1997, Tampa, Florida, Feb 2 –6 1997.
- [19] S. M. Alghuwainem, "Control of A Wind-Driven Self-Excited Induction Generator Water-Pumping System for Maximum Utilization Efficiency" 33rd Intersociety Energy Conversion Engineering Conference, Colorado Springs, Colorado, August 2-6 1998.

Co-authored Text Book:

Fundamentals of Electrical Power Engineering

Published by King Saud University Press.

Conferences:

- 1) **IEEE Power Engineering Society** Summer Meeting 1997, Tampa, Florida, Feb 2 –6 1997. (Presented a paper).
- 2) **IEEE Power Engineering Society** Summer Meeting, July 23-27, 1995, Portland, Oregon, U.S.A, (Presented a paper).
- 3) **IEEE Power Engineering Society** Summer Meeting, July 18-22, 1993, Vancouver, BC, Canada, (Presented a paper).
- 4) **Symposium on Industrial Pollution**, November, 1993, King Saud University, Riyadh, Saudi Arabia.
- 5) **IEEE Power Engineering Society** Winter Meeting, January 26-30, 1992, New York, New York, U.S.A, (Presented a paper).
- 6) **Third Saudi Engineering Conference**, November 1991, King Saud University, Riyadh, Saudi Arabia.
- 7) **First Symposium on Power Systems in Fast Developing Countries**, March 21-24, 1987, King Saud University, Riyadh, Saudi Arabia, (Chairman of the Conference Public Relations Committee).
- 8) **Seventeenth IEEE Midwest Power Symposium**, October 3-5, 1985, Michigan Technological University, Houghton, MI, USA.
- 9) **Sixteenth IEEE Midwest Power Symposium**, October 25-26, 1984, Drexel University, Philadelphia PA, USA.

Committees:

- 1) Chairman of the Electrical Engineering Department Power System Group Committee.
- 2) Chairman of a Technical Team Investigating Electrical Energy Conservation in Industry.
- 3) Chairman of Electrical Engineering Department Personal Computers Committee.
- 4) Supervisor of Power Systems Simulator Laboratory.
- 5) Supervisor of Electrical Engineering Department Library.
- 6) Supervisor of the Electrical Engineering Summer Training Program.
- 7) Member of of the Graduation Day Committee.
- 8) Member of the College of Engineering Annual Report Committee.
- 9) Member of The **IEEE** Power Engineering Society.
- 10) Member of The **IEEE** Industry Applications Society.
- 11) Member of The Saudi Arabian Computer Society.

University & Community Services:

Part-time Consultant to the Saudi Consulting House 1415-1420 H.