

RESUME

A.R.M. ALAMOUD, Ph.D.  
Professor  
Electrical Engineering Department  
College of Engineering  
King Saud University

Dec., 2006

## PERSONAL INFORMATION

Name : **ABDUL RAHMAN M. ALAMOUD**

Academic Rank : **Professor**

Highest Degree Earned: Ph.D. ; Electrical Engineering

Date Degree Earned : June 1984

Marital Status : Married; five children

Phone numbers : (9661) 467-6795 Office; Fax: 467-6757  
(966) 555-482-483 Mobile

Mailing Address : Department of Electrical Engineering  
College of Engineering, KSU  
P.O. Box 800  
Riyadh 11421, Saudi Arabia

Email Address : [alamoud@ksu.edu.sa](mailto:alamoud@ksu.edu.sa); amapv04@yahoo.com

## EMPLOYMENT

Nov.4, 2001- Present **Professor** of Electrical Engineering

Aug. 24, 99- June 05 **Vice Dean** for Administrative affairs, College of Engineering, KSU.  
Member, College Council.

Mar.9,97-Aug.22,97 Visiting Research Associate Professor, **VLSI Research Group**, Department of Electrical and Computer Engineering, University of Waterloo, Waterloo, ON, Canada.  
Worked on the design of VLSI circuits using Cadence.

July15,97-Dec.15,97 Visiting Research Associate Professor, **National Renewable Energy Laboratory**, a DOE entity, Golden, Colorado, USA.  
Worked on the development of thin films CdTe Solar Cells and its application in the areas of cathodic protection, communications and water pumping in remote locations.

Mar. 93 -Sept. 96 **Director**, Research Center, College of Engineering, KSU.

Oct. 91 - Oct. 92 **Director**, Special Projects  
Advanced Electronics Company (AEC), Ltd.  
An Economic Offset Program company,  
P.O. Box 90916, Riyadh 11623, Saudi Arabia.  
(On a one-year **leave of absence** from KSU).

Jan. 1989- Nov. 4, 01 Associate Professor, Electrical Engineering Department,

College of Engineering (COE), King Saud University (KSU), Riyadh,  
Saudi Arabia

- June 1984 - Jan. 1989      Assistant Professor, Electrical Engineering Department, COE, KSU.
- Aug. 1980 - May 1981      Teaching Fellow, Electrical Engineering Department, West Virginia  
University (WVU), Morgantown, West Virginia, U.S.A.
- Aug. 1968 - May 1970      Teaching Assistant, Electrical Engineering Department, College of  
Engineering, Riyadh University.

### OTHER ACTIVITIES

- Sept. 1988 - May 1990      participated actively in the development and establishment of Ph.D.  
curriculum through both the Graduate Studies Committee and the Electronics  
Group. Also participated in updating the electronic course curriculum for the  
new department plan.
- June 1984 - Present      Member, Department of Electrical Engineering, King Saud University.
- Jan. 1985 - Present      Review of research proposals, papers and abstracts submitted to:
- Saudi Technical Conference and Exhibit 2006 (STCEX 2006), General  
Organization for Technical and Vocational Training (STCEX).
  - STCEX 2005
  - King Abdulaziz City for Science and Technology (KACST).
  - Second Saudi Engineers Conference, King Fahad University for  
Petroleum and Minerals (KFUPM), Nov. 16-19, 1985.
  - First Symposium of Power Systems in Fast Developing Countries,  
KSU, Riyadh, Saudi Arabia, March 19-22, 1987.

### Membership in Scientific and Professional Societies

- Member, Institute of Electrical and Electronics Engineers, IEEE (1984- 2004)  
Member, International Solar Energy Society, ISES (1988- 1996)

### RESEARCH PROJECTS

- Sept.24, 06- present Co-Invistigator of a research project entitled, “**Design and Development of High Performance Digital IP Core for FPGA Designs**”, Sponsored by Research Center, COE, KSU, Riyadh, Saudi Arabia, **SR 35,000**.
- May 1, 04- Dec. 31, 05) Co-Invistigator of a research project entitled, “**A State - of - the - Art ASIC Design Center**”, Sponsored by the **Boeing** Company, USA, as a part of a \$600,000 donation to the COE by the Boeing Company as part of the **Economic Offset Program (SR 247,800)**.
- Apr. 20, 04 – Apr.9, 05) Co-Invistigator of a research project entitled, “**FPGA Based Design and Implementation of Precision Multi-Function Generators**”, Sponsored by Research Center, COE, KSU, Riyadh, Saudi Arabia, **SR 50,000**, (1.3.1425 H - 29.2.1426).
- Feb. 14, 01 – Jan.22. 03 Co-Invistigator of a research project entitled, “**Design and Prototyping of Digital Processors using Reconfigurable Logic**”, Sponsored by Research Center, College of Engg. (COE), KSU, Riyadh, Saudi Arabia, **SR 30,000**,.(20.11.1421 - 19.11.1423).
- Mar.25, 03 – Mar.13, 04) Co-Invistigator of a research project entitled, “**A State– of– the– Art VLSI Design Center**”, **Applied National Project** sponsored by KSU, Riyadh,. **SR 140,000**, (22.1.1424- 21.1.1425).
- June 85 - Dec. 96 Chairman (P.I.) of a research group and representative of KSU in the DM35 million, five year HYSOLAR (Hydrogen generation using PV Solar Energy) project with KACST. This is a joint Saudi-German Research, development and demonstration undertaking.
- The HYSOLAR project was extended **twice**: the **first** extension from Jan.90- Dec.91 and the **second** extension from Jan.92- Dec.95.
- Jan. 88 - Aug. 91 Established (solicited, **secured funds**, defined **equipment’s specs**, lab layout, etc) the following **laboratories**:
- **A Microelectronic Devices Characterization Laboratory (MDCL)** located at the Electrical Engineering Dept. The laboratory is equipped with a multi-process (AES, SIMS, XPS, etc) single-chamber Surface Analyzer (Lybold, MAX-100) and an Electron Microprobe (EMP) consisting of JEOL 840A SEM with EDS and WDS units.
  - **Semiconductor Devices laboratory** consisting of a Vacuum Evaporation Unit (Lybold, Univax 450), furnaces, ovens, thin film thickness measurement unit, etc.
- The above laboratories were funded by **KCST** through the **HYSOLAR** Project.
- Dec. 89 - Aug. 92 P.I. in the project, "Development of Integrated Circuit based Temperature Measurement Circuit using Thermistor and other Transducers," a four-year SR14000 project funded by the Research Center, College of Engineering, K.S.U.

Sept. 86 - Dec. 89 Co-investigator in the project, "Development of Integrated Circuit based Temperature Measurement Circuit using Thermistor and other Transducers".

### PROFESSIONAL EXPERIENCES

June 05 – June 07 **Member**, Board of Directors, KSU Faculty and Employees **COOP**

Sept. 01- Dec. 06 **Member**, Scientific Council, **General Organization for Technical and Vocational Training (STCEX)**

Aug. 24, 99- June 05 **Vice Dean** for Administrative affairs, COE, KSU, Riyadh, Saudi Arabia.  
Member, College Council, COE, KSU.

March 93 - Sept. 96 **Director**, Research Center, COE, KSU,

Oct. 91 - Oct. 92 **Director**, Special Projects (On a one-year **leave of absence** from KSU)  
Advanced Electronics Company, Ltd.  
An Economics Offset Program Company  
P.O. Box 90916, Riyadh 11623, Saudi Arabia.

Jan. 85 - Jan. 88 Part-time **Consultant** to the Photovoltaic Solar Energy Dept.,  
KACST, Riyadh.

July 86 - Mar. 87 Worked with the Municipality of Riyadh in an experimental assessment of the use of photovoltaic powered lighting systems in the secondary roads of the city of Riyadh.

Nov. 85 - Present Chaired many sessions in local conferences

## **PUBLICATIONS:**

1. ALAMOUD, A.R.M., "The Effect of a Thermal Oxide Layer on Short-Term Degradation of Silicon MIS Solar Cell Output", Proceedings of the Second Saudi Engineer Conference, KFUPM University, Dhahran, Saudi Arabia, 16-19, Nov., 1985.
2. Zakzouk, A.K.M., ALAMOUD, A.R.M., and Khoshaim, B.H., "Effects of Environmental Factors on the Performance of Concentrated Solar Cell Array Field", Proceedings of Solar Applications in Remote Locations Workshop, New Mexico, U.S.A., March, 1985.
3. ALAMOUD, A.R.M., "Photovoltaic Technology", Proceedings of Photovoltaic Technology: A Short Course, Sponsored by the Photovoltaic Solar Energy Dept. of KACST, Riyadh, Saudi Arabia, April 12-21, 1986.
4. Khan, A.A., Al-Turaigi, M.A. and ALAMOUD, A.R.M., "A Novel Wide Rang Linearization Approach for Thermistor Thermometer", IEEE Trans. on Instrum. Meas., Vol. Im-36, No. 3, pp. 763-769, Sept. 1987.
5. Zakzouk, A.K.M., ALAMOUD, A.R.M., and Khoshiam, B.H., "Factors Affecting the Performance of Photovoltaic Power System (PVPS)", Int. J. Solar Energy, 1987, Vol. 5, pp. 67-81.
6. ALAMOUD, A.R.M., "Photovoltaic Activities in Saudi Arabia: Application and Research", Proceedings of the ISES SOLAR World Congress 1987 Hamburg, West Germany, Sept. 13-18, 1987.
7. ALAMOUD, A.R.M. and Mujahid A.M., "Performance of Solar Cells Exposed to Diffuse, Direct Normal and Global Radiation", Presented at the ISES SOLAR World Congress 1987 Hamburg, West Germany, Sept. 13-18, 1987.
8. Khan. A.A., ALAMOUD, A.R.M. and Al-Turaigi, M.A., "Linearization of Platinum Resistance Thermometer", Proceedings of the IASTED Sixth International Symposium on Modelling, Identification and Control, Grindelwald, Switzerland, Feb. 17-20, 1987, pp. 44-47.
9. Khan, A.A., Al-Turaigi, M.A. and ALAMOUD, A.R.M., "Linearized Thermometer Using an Analog Multiplier", IEEE Trans. on Instrum. Meas., Vol. 37, No. 2, pp. 322-323, June, 1988.
10. Mujahid, A.M. and ALAMOUD, A.R.M., "An Early Designed and Constructed Photovoltaic Pyrheliometer", J. Solar and Wind Technology, Vol. 5, No. 2, pp. 127-130, 1988.
11. ALAMOUD, A.R.M., Huraib, F.S. and Salim, A.A., "Reliability Prediction of the 350 kW Concentrating Photovoltaic Field", Proceedings, the 8th European Photovoltaic Solar Energy Conference, Florence, Italy, May 9-13, 1988, pp. 299-303.
12. Ragiaie, H.F. and ALAMOUD, A.R.M., "Development of PC-Based Courseware in VLSI Technology", The 11th National Computer Conference and Exhibition: "Computers and Productivity", King Fahad University of Petroleum and Minerals (KFUPM); Dhahran, Saudi Arabia, Mar. 4-7, 1989.

13. ALAMOUD, A.R.M.(P.I.), et al, "HYSOLAR Progress Report No.1", HYSOLAR Research Group, College of Engineering, KSU, Submitted to the Directorship of Solar Energy Research Programs, KACST, Riyadh, Saudi Arabia, Mar. 1989.
14. Alhaider, M.A., Al-Shaalan, A., Elrazaz, Z.S., ALAMOUD, A.R.M., and Malik, N.M., "Evaluation of Graduate Studies Program at the Electrical Engineering Department", Second Symposium on Methods of Evaluations of Graduate Studies Programs at King Saud University(KSU), KSU, Riyadh, Saudi Arabia, Mar. 1989 (Arabic Language).
15. Ragiae, H.F. and ALAMOUD, A.R.M., "PC-Aided Characterization of Solar Cells", International Conference on Applications of Solar and Renewable Energy, ASRE89, Cairo, Egypt, Mar. 19-22, 1989.
16. Khan, A.A., ALAMOUD, A.R.M., and Al-Turaigi, M.A., "Linearization of a Nickel Resistance Temperature Detector and its Application in Temperature Measurement", Int. J. Electronics, Vol. 67, No. 6, pp. 931-936, 1989.
17. ALAMOUD, A.R.M.(P.I.), et al, "HYSOLAR Progress Report No.2", HYSOLAR Research Group, College of Engineering, KSU, Submitted to the Directorship of Solar Energy Research Programs, KACST, Riyadh, Saudi Arabia, June 1990.
18. El-Sulaiman, A.A., ALAMOUD, A.R.M., Ahmed, A.S. and Qureshi, M.I., "Effects of Sub-Atmospheric Pressure on the Conduction Current in Transformer Oil", 10th Int'l Conference on Conduction and Breakdown in dielectric Liquids, Grenoble, France, Sept. 10-14, 1990.
19. Specht, M., ALAMOUD, A.R.M., Philipps, F. and Schefold, J., "Preparation and Characterization of Hydrogen Evolving Platinum Coated P-Silicon Photoelectrodes", Proc. Intern. Soc. Electrochem. 42nd Meeting, Montreux, 7-058, 1991.
20. ALAMOUD, A.R.M., "VLSI Education in the Developing Countries", Invited paper presented at the International Conference on Microelectronics (ICM'91), Ain Shams University, Cairo, Egypt, Dec. 21-23, 1991.
21. El-Sulaiman, A.A., ALAMOUD, A.R.M., Ahmed A.S. and Qureshi, M.I., "DC Conduction and Discharge Activity in Hydrocarbon Oils Subjected to Reduced Pressure", Arab Gulf Journal of Scientific Research, Vol. 11, No. 3, pp. 339-349, 1993.
22. ALAMOUD, A.R.M.(P.I.), et al, "HYSOLAR Progress Report No.3", HYSOLAR Research Group, College of Engineering, KSU, Submitted to the Directorship of Solar Energy Research Programs, KACST, Riyadh, Saudi Arabia, May 1992.
23. ALAMOUD, A.R.M.(P.I.), Al-Turaigi, M.A. and Khan, A.A., "Development of Integrated-Circuit Based Temperature Measured Circuit Using Thermistor and other Transducers", Final Research Report No. EE-3/406, Research Center, College of Engineering, KSU, Aug. 1992.
24. ALAMOUD, A.R.M. and Zekry, A., "Static and small signal characterization of silicon photoelectrochemical cathodes for hydrogen production", Proceedings of SOLAR'93, The 1993 American Solar Energy Society Annual Conference, Washington, D.C., USA. pp. 385-390, April 25-28, 1993.

25. ALAMOUD, A.R.M. "Performance evaluation of various photovoltaic modules in hot and arid environment", Proceedings of the 28th Intersociety Energy Conversion Engineering Conference, Atlanta, Georgia, USA, Aug. 8-13, 1993.
26. ALAMOUD, A.R.M. and Zakry, A., "Modeling of the electrical behavior of metal electrolyte (M-E) junctions for water electrolysis", Proceedings of the 28th Intersociety Energy Conversion Engineering Conference, Atlanta, Georgia, USA, Aug. 8-13, 1993.
27. Al-Akhras, M.A., Khan, A.A. and ALAMOUD, A.R.M. , "Noise analysis and modeling of the MFET", Proceedings of the Fifth International Conference on Microelectronics, KFUPM, Dhahran, Saudi Arabia, Dec. 13-16, 1993.
28. Al-Akhras, M.A., Khan, A.A. and ALAMOUD, A.R.M. , "DC modeling of the modified field effect transistor", The Int. J. of Electronics, Vol. 76, No. 3, pp. 417-424, 1994.
29. Al-Akhras, M.A., Khan, A.A. and ALAMOUD, A.R.M. , "Analysis and modeling of the noise sources of the MFET", The Arabian Journal for Science and Engineering, KFUPM, Vol. 19, No. 4B, pp. 827-834, 1994.
30. ALAMOUD, A.R.M. and Zekry, A.A., "Modeling of the electrical behavior of metal-electrolyte (M-E) junctions for water electrolysis", Egyptian Journal of Solids, The Egyptian Society of Solid State Science and Applications, Vol. 17, No. 2, Cairo, Egypt, 1995.
31. ALAMOUD, A.R.M. and Zekry, A.A., "Static and small signal characterization of silicon photoelectrochemical cathodes for hydrogen production", Egyptian Journal of Solids, The Egyptian Society of Solid State Science and Applications, Vol. 17, No. 2, Cairo, Egypt, 1995.
32. ALAMOUD, A.R.M., "Characterization and Assessment of Spectral Irradiance in Saudi Arabia", Proceedings of the SOLAR'95 Conference, Minneapolis, Minnesota, USA., July 15-20, 1995.
33. ALAMOUD, A.R.M.(P.I.), et al, "HYSOLAR Progress Report No.4", HYSOLAR Res. Group, College of Engineering, KSU, Submitted to the Directorship of Solar Energy R Programs, KACST, Riyadh, Saudi Arabia, April 1996.
34. ALAMOUD, A.R.M. and Zekry, Abdel Halim, " Basic Structures of Photoelectrochemical Cathodes for Hydrogen Production by Water Analysis", Sci. Bull. Fac. Eng. Ain Shams Univ., Vol. 32, No. 4, Cairo, Egypt, Dec. 31, 1997.
35. ALAMOUD, A.R.M., "Performance evaluation of various photovoltaic modules in hot and arid environment", J. King Saud Univ., Eng. Sci., Vol.12, No.2, (2000), 235-243.
36. ALAMOUD, A.R.M., "Characterization and Assessment of Spectral Irradiance in Riyadh, Saudi Arabia", J. King Saud Univ., Eng. Sci., Vol.12, No.2, (2000), 245-255.
37. ALAMOUD, A.R.M., "A Small Signal Capacitance Model for a Metallic Electrochemical Electrode in the Charge Transfer Region", Egyptian J. Solids, Vol.23, No.2, (2001), 203-216.
38. ALAMOUD, A.R.M., "Substrate Temperature Options for CSS Grown CdTe Polycrystalline Film Structures", J. King Saud Univ., Eng. Sci., Vol.14, No.2, (2001).



39. Amin M. A. Bin Ateeq, Shuja A. Abbasi and A. R. M. ALAMOUD, 'Hardware Realization of Walsh Functions and Their Applications Using VHDL and Reconfigurable Logic', ICM – 2002, Beirut, Lebanon, pp 58 – 61, 2002.
40. Shuja A. Abbasi, and A. R. M. ALAMOUD, 'Generation of Digital Waves using Orthogonal Functions', Jl. of Engineering, Vol. 15, no. 3, pp 183–195, 2005.
41. Shuja A. Abbasi, A. R. M. ALAMOUD and Syed Manzoor Qasim, 'FPGA Based Digital Waveform Generation using Walsh Functions', Proceedings of the International Conf. on Computer & Communication Engineering (ICCCE '06), Kuala Lumpur, Malaysia, pp 1220 – 1225, 2006.
42. Abbasi, S. A., ALAMOUD, A. R. M., Qasim, S. M., 'Hardware Realization of Digital Waves using Orthogonal Functions', 5th International Conference on Electrical Engineering (ICEENG), Cairo, Egypt, 2006.