

## **Robert Kenneth Lewis, Ph.D.**

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### **Objectives**

Position in electrical/computer engineering (hardware or software), web development, or teaching at the college/university level.  
Will accept full-time/part-time, permanent or contract/consulting position.

### **Technical Education**

Ph.D. 1995, University of California, Santa Barbara.  
Subject Area: Electrical and Computer Engineering.

M.S. 1981, California Institute of Technology.  
Subject Area: Computer Science.

B.S. 1972, California Institute of Technology  
Subject Area: Mathematics

### **Other Degrees**

M.A. 2005, University of California, Santa Barbara.  
Subject Area: Religious Studies.

### **Special Skills**

- Mathematical and physical modeling of mechanical and electronic systems, including VLSI circuits and MEMS.
- General analytics engineering, numerical analysis and algorithm development, including numerical analysis of ordinary and partial differential equations.
- Finite Element Analysis and simulation using ANSYS; electrical simulation of integrated circuits using SPICE; working knowledge of theory and internal model development, input parsing, output formatting, storage management, set-up and initialization, equation solution and post-processing, material and device models.
- 3D graphics and animation algorithms.

- Editing and Production: Canon XL series cameras, Final Cut Pro film and video editing software, DVD Studio Pro DVD authoring software,

### **Selected Professional Experience**

President and Chief Scientist, Crossroads Electronics Studios, Inc., Santa Barbara, California, December 1996-March 2004.

MEMS Modeling and Simulation Consultant, Calient Networks, Inc., Goleta, CA, July 1999-July 2000.

Member of Technical Staff/Consultant, Computer Motion Incorporated, Goleta, California. April 1992-August 1992.

In addition, I have held a number of academic positions, including but not limited to:

Postgraduate Researcher, Department of Mechanical and Environmental Engineering, University of California, Santa Barbara, January-June 2000.

Various teaching positions in the Department of Electrical and Computer Engineering, University of California, Santa Barbara. July 1987-July 1989.

Visiting Lecturer, College of Creative Studies, University of California, Santa Barbara. November 1972-June 1979.

### **Publications**

1) *Switching Dynamics*, Computer Science Department, California Institute of Technology, Technical Report No. 4675, October, 1981 (master's thesis).

2) *Electrical Simulation of Large Digital Systems: Theory and Practice*, Department of Electrical and Computer Engineering, University of California, Santa Barbara, Technical Report No. 95-15, 1995 (doctoral dissertation).

### **Patents**

*Shaped Electrodes for Micro-Electro-Mechanical-System (MEMS) Devices to Improve Actuator Performance and Methods for Fabricating the Same*. Co-Inventors Chong, John; Lee, Sueng Bok; MacDonald, Noel; Lewis, Robert; Hunt, Peter. Assignee: Calient Networks, Inc. United States Patent Application Attorney Docket No. 004341.P014, patent pending filed 29 September 2000.

**References available on request.**