

Kurt V. Smith

Work:

(858) 534-0021

Fax: (858) 534-2486

E-mail: kvsmith@ucsd.edu

<http://poe.ucsd.edu/~kvs/index.html>

Home:

9334 Redwood Dr. Apt. F

La Jolla, CA 92037

(858) 642-0801

Objective- Career in semiconductor process design, process control or industrial research involving semiconductors and/or scanning probe techniques.

Education:

- Ph.D., Electrical Engineering Univ. of California, San Diego projected 6/00
- M.S., Electrical Engineering, Univ. of California, San Diego 1997
- B.S., Engineering Physics, Univ. of California, San Diego 1995
- Engineering Laboratory Technician, United States Navy, 1986
- Naval Nuclear Prototype, United States Navy 1985
- Naval Nuclear Power School, Orlando, United States Navy, 1985

Technical Skills:

- Scanning probe techniques: atomic force microscopy (AFM), scanning capacitance microscopy (SCM), electrostatic force microscopy (EFM), scanning Kelvin probe microscopy (SKPM) and magnetic force microscopy (MFM).
- Device and material simulations: Avanti and Silvaco 2D and 3D simulators, Sedan, Supreme and Pspice.
- Semiconductor processing techniques

Communication Skills:

- Ability to work as a member or coordinator of a team
- Practical instruction and training of co-workers
- Ability to adjust to new working conditions
- Formal instruction of groups of people including lectures and problem solving

Experience:

- Graduate Researcher: characterization, simulation and processing of semiconductor devices specializing in scanning probe techniques. Univ. of California, San Diego, Sept. 1995 to present:

- Graduate Teaching Assistant: instruct, consult and grade students' materials. Univ. of California, San Diego, Sept. 1995 to present.
- Health Physics Technician: designed, prepared, implemented, monitored and removal of radiation and contamination controls. Bartlett Nuclear Inc., 1990 to 1994. Specific sites and responsibilities:
 - Sequoyah Nuclear Power Plant (6/94 - 8/94): Senior Health Physics Technician
 - San Onofre Nuclear Power Plant (5/93 - 12/93): Senior Health Physics Technician
 - Sequoyah Nuclear Power Plant (3/93 - 5/93): Senior Health Physics Technician
 - San Onofre Nuclear Power Plant (12/92 - 3/93): Senior Health Physics Technician
 - Diablo Canyon Nuclear Power Plant (8/92 - 10/92): Senior Health Physics Technician
 - Sequoyah Nuclear Power Plant (3/92 -5-92): Senior Health Physics Technician
 - Sequoyah Nuclear Power Plant (9/91 -12/91): Senior Health Physics Technician
 - Idaho National Engineering Laboratory (8/90 - 9/90): Senior Health Physics Technician
 - Sequoyah Nuclear Power Plant (4/90 - 5/90): Health Physics Technician
- Machinist Mate First Class (Submarine Qualified)/Engineering Laboratory Technician: maintenance, repair and operation of mechanical systems used in propulsion and nuclear plant control. Also, implementation, control and documentation of radioactive controls and water chemistry in primary and secondary plant systems. United States Navy, 1984 to1990.

Publications (partial list)

- K. V. Smith, E. T. Yu, J. M. Redwing, and K. S. Boutros, "Scanning capacitance microscopy of AlGa_N/Ga_N heterostructure field-effect transistor epitaxial layer structures," Appl. Phys. Lett. 75, 2250 (1999).
- .K. V. Smith, E. T. Yu, J. M. Redwing, and K. S. Boutros, "Local electronic properties of AlGa_N/Ga_N heterostructures probed by scanning capacitance microscopy," to appear in J. Elec. Mater. (2000).
- K. V. Smith, X. Z. Dang, E. T. Yu, and J. M. Redwing, "Charging effects in AlGa_N/Ga_N heterostructures probed using scanning capacitance microscopy," submitted to J. Vac. Sci. Technol. B (2000).

References available upon request.