



# Keyue Smedley

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Professor

Electrical Engineering and Computer Science

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**Education:**

B.S., Zhejiang University, China, Electrical Engineering, 1982

M.S., Zhejiang University, China, Electrical Engineering, 1985

M.S., California Institute of Technology, Electrical Engineering, 1987

Ph.D., California Institute of Technology, Electrical Engineering, 1991

**Research:**

Dr. Smedley is interested in power electronics, alternative energy power generation, and motion control.

Dr. Smedley's research involves the modeling, control, and topologies of switching converters and inverters with applications such as class-D power amplifiers, power factor corrections, active power filters, grid-connected inverters, soft-switching, and motion control.

Her research involves power and signal processing with the use of energy-efficient electronics circuits. She has developed one-cycle controlled high-fidelity class-D power amplifiers, which has led to a spin-off company in Orange County. She is currently developing a new generation of power factor corrected rectifiers and grid-connected inverters for alternative energy power generation. The softswitching methods evolved from her lab are widely used in industry.

Her research can be applied to computer power supplies, communication equipment, wireless communications, class-D amplifiers for homes and theatres, aviation electronics, space electronics, motor drive, alternative energy converters, and space power.

Dr. Smedley is director of the Power Electronics Lab at UCI.

**Links:**

[Power Electronics Laboratory](#)

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