

Dr. Sanjeev Ranganathan

Experience

- Jan '11- current : Principal Engineer – Aura Semiconductor
Design consultant for ST-Ericsson for SI4902 family,
BTLE design for Cypress Semiconductors
Jan 2015 - Founder of Aura Auro Design in partnership with Aura Semiconductor
- Jun '04 – Jan '11 : Principal Engineer – Silicon Labs/NXP/ST-Ericsson
Worked on transceivers and single chip integration with basebands analog the RF -
design, layout, testing and production support (including derivatives and shrinks).
SI4212 family, SI4902 family products - have shipped over **a billion parts**
- Jun '00 - Aug '00 : Intern - Texas Instruments, New Jersey: High Frequency Data Converters.
- Jun. '98 - Aug. '99 : Intern - Texas Instruments, Bangalore:
High Frequency Sigma-Delta modulator for use in ADC in ADSL modems.
- Jun. '96 - Jun. '97 : Cadence Design Systems, Noida: Allegro & IBIS modeling group.
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Education

Ph.D, Columbia University, New York, NY (2004)
Master of Science, Indian Institute of Technology Madras, Chennai, India (1999)
Bachelor of Technology, Indian Institute of Technology Madras, Chennai, India (1996)

Awards

Lewis Winner Award for the best paper of ISSCC 2003.
Exceptional Teaching Assistant award Fall '99, Fall '00.

Papers

S. Ranganathan and Y. Tsvividis, "A MOS capacitor-based discrete-time parametric amplifier with 1.2 V output swing and 3 uW power dissipation", Digest of IEEE International Solid-State Circuits Conference, pp. 406-407 and 502, Feb. 2003.

S. Ranganathan and Y. Tsvividis, "Theory and Measurements of a MOS capacitor-based discrete-time parametric amplifier", Invited Paper, Journal of IEEE International Solid-State Circuits Conference, Dec. 2003.

Patents

"CMOS Folding Amplifier Having High Resolution and Low Power Consumption" – S. Ranganathan, R. Herrera. Pat#:6,480,065.

"Applications of the MOSFET parametric amplifier" – S. Ranganathan, Y. Tsvividis. Patent pending.

"Speaker coupling with integrated circuits" – S. Ranganathan, S. Somayajula, S. Sridharan, L. Cimaz, A. J. D'Souza, and R. Ganti, Patent pending

"Pop-up noise suppression in audio" – S. Ranganathan, S. Somayajula, S. Sridharan, and L. Cimaz, Patent pending

"Transmitter Architecture with RF Multiplexing of Balun and Mixers" – S.Ranganathan, S.Sridharan, R.Ganti, Patent Pending.

"A Method for Avoiding Interference of VCO" – S.Ranganathan, S.Sridharan, R.Ganti, Patent Pending.

Teaching Assistant

Columbia University - *Topics in electronic circuits microwave circuit design (EE6304, Fall '03), MOS Transistors (EE6302, Fall '02), Advanced Electronic Circuits (EE6304, Fall '00), VLSI Circuits (EE4321, Fall '99).*

Indian Institute of Technology Madras - *Electronic Circuits Lab (Spring '97), VLSI Design (Spring '97), CAD lab (Fall '97)*