VIVEK SRIDHARAN

511 Lynch Ave NW ▪ Atlanta GA 30318 ▪ 404-702-9964 ▪ svivek@gatech.edu

OBJECTIVE

Seeking an Internship in a challenging environment that provides the opportunity to utilize my technical aptitude in **RF Design, MEMS Packaging, Semiconductor & Package Design and Microsystems Packaging.**

EDUCATION

- **Georgia Institute of Technology**, Atlanta, GA.
  Ph.D., Electrical and Computer Engineering, **GPA- 3.87/4.0** Expected - Fall 2013
- **Anna University**, **TCE,** INDIA.
  Bachelor of Engineering, Electronics and Communication Engineering**, GPA- 8.7/10**. May 2008

EXPERIENCE

Graduate Research Assistant, Georgia Institute of Technology, Packaging Research Center. August 2008- Present
Advisor: Prof. Rao R Tummala Mentors: Dr. Venky Sundaram and Dr. Sunghwan Min

- **RF System-on-Package Design**
  - Modeling, designing, fabrication and testing of RF Passives, Filters on RF Packages based on Organic and Inorganic substrates. Modeling using EM field solvers SONNET and CST Microwave Studio. Fabrication in class 1000 cleanroom. Standard RF Testing and Reliability using network/spectrum analyzers.

- **MEMS Packaging**
  - Working on novel 2D/3D System-on-Package integration schemes for low-cost wafer level packaging of MEMS devices including accelerometers, digital micro mirror devices (DMD) and microphones.

- **EMAP**- Industry Sponsored Project-
  - Working on next-generation IC substrate fabrication technology using low-cost processes and reliability testing of next generation substrates (IPC/JEDEC standards).

COURSEWORK PROJECTS

- Designed a highly-linear dual band (2.6 GHz and 3.5 GHz) Power amplifier module for WiMAX applications, based on a 0.35um CMOS process based device.
- Designed a RF system and front end for DVB-H applications in the frequency band 470 – 702 MHz using 0.18µm CMOS process based device – This involves selection of a receiver architecture and design of LNA, Mixer and VGA components for the receiver.
- Designed and Prototyped a 5.8 GHz ISM Band RF transmitter capable of FCC part-15 compliant frequency hopping.
- Designed and assembled a one-stage power amplifier based on GaN HFET operating across the 5.725- 5.850 GHz band.
- Designed and Prototyped an energy harvesting microwave charge pump for converting a 5.8 GHz continuous wave signal to a DC power supply.

TECHNICAL SKILLS

- **Simulation Packages**: SONNET, CST Microwave Studio, Allegro Package Designer, CAM350, Agilent ADS, Matlab.
- **Test and Measurement**: Network Analyzer, Spectrum Analyzer, Signal Generator, Oscilloscope.

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- **Fabrication-** Next-generation Semiconductor Package substrate fabrication processes and equipment
- **Reliability-** Testing and Evaluation of Package Reliability based on Industrial Standards (JEDEC/MIL)
- **Programming Languages**: Java, C and C++.

INVENTION DISCLOSURES

- **V. Sridharan,** V.Sundaram, R. Chatterjee, Rao R. Tummala, "**A Novel Inductor Structure to achieve High Inductance Density and High Q Factor**", Invention Disclosure, Jan 2009.

PUBLICATIONS

- Tummala, R.R, Sundaram, V, Chatterjee, R, Raj, P.M, Kumbhat, N, Sukumaran, V, **Sridharan, V**, Choudury, A, Qiao Chen, Bandyopadhyay, T, "**Trend from ICs to 3D ICs to 3D Systems**," IEEE Custom Integrated Circuits Conference (CICC), 2009.
- S. Min, S. Hwang, **V. Sridharan**, M. Swaminathan, V. Sundaram, H. Chan, R.R. Tummala et al, "**Filter integration in ultra thin organic substrate via 3D stitched capacitor**", IEEE Electrical Design of Advanced Packaging and Systems Symposium, EDAPS, 2009.
- **Vivek Sridharan**, Sunghwan Min, Venky Sundaram, Vijay Sukumaran, Hunter Chan, Fuhan Liu and Rao Tummala, "**High Quality Bandpass Filter Design and Fabrication in 3D-Glass Interposer with Through Package Via (TPV)**", accepted for presentation at the 60th Electronic Components and Technology Conference (ECTC) to be held in Las Vegas, Nevada, USA.