Drexel University is a Leader in VLSI Education

- Eight (8) Professors
- More courses than peer-institutions
- Job placement and internships

Drexel UNIVERSITY

Professors

1. Surya Basavaiah, Teaching Professor
   - 33 years experience at IBM T. J. Watson Research Center
   - Semiconductor devices, VLSI technology

2. Anup Kumar Das (joining Fall 2017!), Assistant Professor
   - Neuromorphic Computing, Multi-processor system-on-chip (MPSoC) design
   - Previous positions at IMEC, ST Micro, LSI systems

3. Afshin Daryoush, Professor
   - RF IC circuits, microware photonics, satellite communications, biomedical engineering applications
   - IEEE Fellow
   - Director of RF and Microwave Research Lab

4. Lunal Khuon, Associate Clinical Professor and Director of Research in Engineering Technology
   - Radio frequency IC and Bio-inspired IC, neural interfaces
   - Previous positions at TI, IBM T. J. Watson Research Center, Motorola, Hughes Electronics

5. Prawat Nagvajara, Associate Professor
   - FPGA design, VHDL, Reconfigurable computing

6. Ioannis Savidis, Assistant Professor
   - 3-D IC circuits, Hardware Security, digital and mixed-signal design
   - Previous positions at Freescale, IBM T. J. Watson Research Center
   - Director of Integrated Circuit and Electronics Design and Analysis Lab

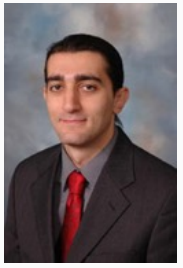
7. Baris Taskin, Professor
   - Electronic Design Automation (EDA), Networks-on-Chip (NoC) design, ASIC design
   - Director of Computer Engineering Program at Drexel ECE
   - Director of Drexel VLSI and Architecture Lab

8. Lazar Trachtenberg, Professor
   - Fault-tolerant and secure computing machines









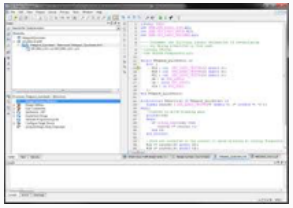

Courses- Core VLSI/ASIC/FPGA

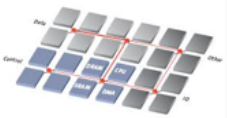
- Custom VLSI Design (including layout, simulation, system design with Cadence):
  - ECE-C571 Introduction to VLSI Design (Savidis)
  - ECE-C572 Custom VLSI Design I (Savidis)
  - ECE-C573 Custom VLSI Design II (Savidis)

- ASIC Design (including physical design tools with Synopsys and Cadence):
  - ECE-C574 ASIC Design I (Taskin)
  - ECE-C575 ASIC Design II (Taskin)

- Hardware Design and FPGA (including Altera, Xilinx, Mentor Graphics):
  - ECE-C661 Digital System Design (Nagvajara)
  - ECE-C662 Design with FGPA (Nagvajara)

- Electronic Design Automation (building CAD tools with programming)
  - ECE-C671 EDA for VLSI I (Taskin)
  - ECE-C672 EDA for VLSI II (Taskin)
  - ECE-C673 Deep Sub-Micron Design (Taskin)
  - ECE-C513 Design for Testability (Trachtenberg)

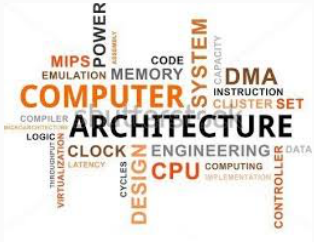




- Specialized VLSI/ASIC courses:
  - ECE-C690 Hardware Security and Trust (Savidis – new in 2017!)
  - ECE-C690 Networks-on-Chip (Taskin)
  - ECE-C690 Neuromorphic Computing (Das – upcoming in 2018)

Courses- RFIC, Architecture, and More

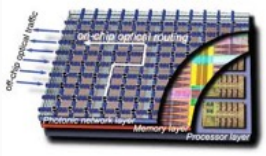
- Computer Architecture
  - ECE-C621 High Performance Computer Architecture (Das)
  - ECE-C623 Advanced Topics in Computer Architecture (Das)

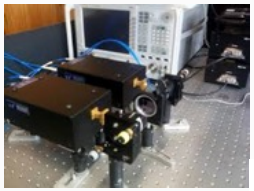


- Parallel Computer Architecture (including CUDA for GPU programming)
  - ECE-C622 Parallel Computer Architecture (Kandasamy)

- Dependable Computing
  - ECE-C520 Dependable Computing (Kandasamy)
  - CS575 Dependable Software Systems
  - CS 642 Advanced Operating Systems

- Radio Frequency IC and Analog Design
  - ECE-E619 Radio Frequency Integrated Circuit Design (Daryoush)
  - ECE-E622 Microfabrication Technology (Daryoush)
  - ECE-E520 Solid-State Electronics (Basavaiah, Nabet)
  - ECE-E522 Photonic Devices (Nabet)
  - ET 690 Analog and Mixed Signal Design (Khuon)

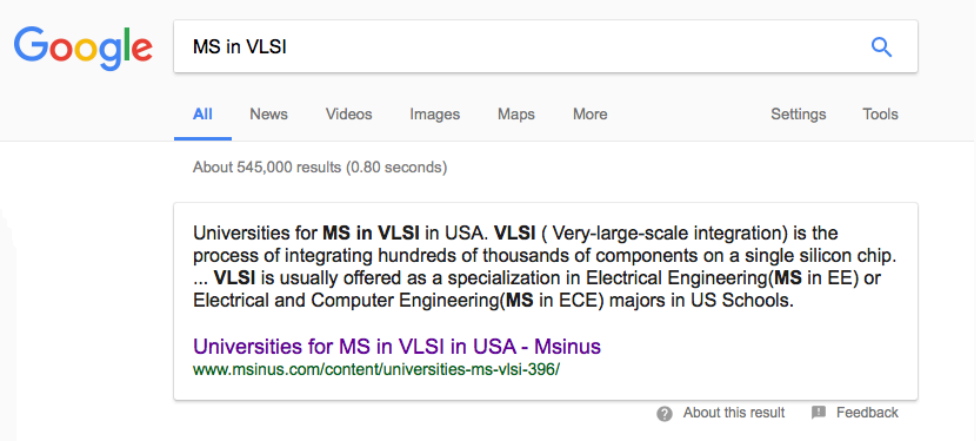




- THz electronics and Nano-electronics
  - ECE-E821 Nanoelectronics (Nabet, Daryoush)
  - ECE-E811 Microware and THz Photonics I (Daryoush)
  - ECE-E812 Microware and THz Photonics II (Daryoush)
  - ECE-E813 Microware and THz Photonics III (Daryoush)

- Data Structures and Programming
  - CS620 Advanced Data Structure and Algorithms
  - CS571 Advanced Programming Techniques

Internet Search Results



Top link on Google for “MS in VLSI” search lists

Drexel University

In the list[1] for top universities for M.S. in VLSI in USA

[1] Although not comprehensive, list provides an indication of Drexel’s strength in VLSI

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Sample Job Placement

	Student, degree, position	Placement
	Josh L., BS, full-time	AMD
	Eric M., BS, full-time	IBM
international	Adrisha C., MS, full-time	Mentor Graphics
international	Sneha N., MS, full-time	Intel
international	Sharat S., MS, internship, full-time	Agilent, Samsung
international	Divya P., PhD, internship	IBM (2)
	Kyle J., PhD, internship	Synopsys
international	Ahmet S., MS, internship	Synopsys
international	Xioami, M., MS, full-time	Sun/Oracle
international	Swetha G., MS, internship	IBM
international	Ying T., PhD, full-time	Apple
international	Vinayak H., PhD, full-time	Intel
international	Ankit M., PhD, internship, full-time	Intel, Intel
international	Rizwana B., PhD, full-time	Intel
international	Jianchao L., PhD, full-time	LinkedIn
international	Isuru D., MS, internship, full-time	Nvidia, Nvidia
	Karthik S., PhD, internship	ARM
	George S., BS, full-time	Nvidia

Sample MS VLSI Program Study

Fall 2017	Winter 2018	Spring 2018	Summer 2018
Intro to VLSI	Custom VLSI I	Custom VLSI II	Internship
Data Structures and Algs	ASIC Design I	ASIC Design II	
Computer Architecture I	Computer Architecture II	Computer Architecture III	

Fall 2018	Winter 2019	Spring 2019	Summer 2019
Internship	EDA I	EDA II	MS degree
	Hardware Security	Network-On-Chip	
	Design with FPGA	Parallel Computer Architecture	