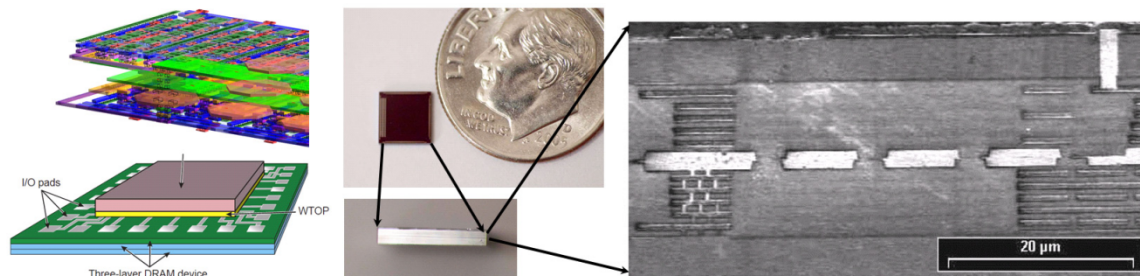


E5: Microelectronics

Microelectronics is a field in electronics that utilizes small components to manufacture electronic circuits. As demand for small and less-expensive devices grows, the field continues to expand. The main areas of focus generally are on pressing issues in high-performance VLSI circuit design and electronic design automation (EDA) in light of the aggressively scaled process geometries in modern MOS technologies. The research in this area includes VLSI circuit design, reconfigurable computing, emerging nanostructure devices, design for manufacturability, fault tolerance systems, three-dimensional integration and hardware security.



Layout and die photograph of the 3D CA-FPGA test chip designed at VLSI Design Lab at ECE@UNM and fabricated by Tezzaron Inc.

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Prof. Sanjay Krishna (<http://www.chtm.unm.edu/kind/>)

Prof. Jim Plusquellic (<http://www.ece.unm.edu/~jimp/>)

Major core courses:

ECE520 VLSI Design (Spring),

ECE523 Analog Electronics (Fall),

ECE576 Modern VLSI Devices (Spring).