Alabama Microelectronic Science and Technology Center

Faculty

Bogdan Wilamowski (Professor of Electrical and Computer Engineering & Center Director) 334-844-1629, wilambm@auburn.edu
Nanotechnology, computational intelligence and soft computing, CAD development, solid-state electronics, mixed signal and analog signal processing, and network programming, neural networks.

W. Robert Ashurst (Associate Professor of Chemical Engineering) 334-844-2559, ashurwr@auburn.edu
Micro-and nano-electromechanical systems design, fabrication and reliability; micro-and nano-tribology; molecularly thin film synthesis and design; novel thin film processing; surface science; and semiconductor materials processing.

Sushil Bhavnani (Burt Professor of Mechanical Engineering), 334-844-3303, bhavnsh@auburn.edu
Thermal management of electronics, phase-change heat transfer in microchannels pool boiling, heat transfer enhancement, lost foam casting, gas turbines, solar energy, refrigeration, non-Newtonian fluid mechanics, bio-energy, hybrid vehicles.

Fa Foster Dai (Professor of Electrical and Computer Engineering), 334-844-1863, daifa01@auburn.edu
VLSI circuits for digital, analog and mixed-signal applications, high-speed RFIC designs for wireless and broadband communications, frequency synthesizer IC designs, automatic built-in self-test for analog and mixed signal systems, wireless and fiber communication theory.

Virginia Davis (Sanders Associate Professor of Chemical Engineering), 334-844-2060, davisva@auburn.edu
Nanorod liquid crystals, macroscopic applications of single-walled carbon nanotubes (SWNTs), structure-processing-property relationships in polymer nanocomposites, and rheological characterization of nanomaterials, antimicrobial coatings, nanorods and nanowires, cellulose nanowhiskers.

Robert Dean (Associate Professor of Electrical and Computer Engineering), 334-844-1838, deanron@auburn.edu
MEMS, sensors, microfabrication, packaging, harsh environmental testing.

Thomas Baginski (Professor of Electrical and Computer Engineering), 334-844-1819, baginta@auburn.edu
Applications of microelectronics to energetic materials, electro-explosive device.

John Evans (Technology Management Professor of Industrial and Systems Engineering) 334-844-1418, evansjl@auburn.edu
Automotive engineering and manufacturing, next generation electronic packaging.

Daniel Harris (Associate Professor of Mechanical Engineering), 334-844-3337, harridk@auburn.edu
   Thermal Management of ground based radars, space-based assets, and advanced propulsion systems, waste heat recovery and use strategies, heat pipe technology, metal felt porous media as conformal wick structures for heat pipes, MEMS cooling technologies and micro-channel heat pipes.

John Hung (Professor of Electrical and Computer Engineering), 334-844-1813, hungjoh@auburn.edu
   Nonlinear systems and control, control and guidance, robotics.

David Irwin (Professor and Williams Eminent Scholar of Electrical and Computer Engineering) 334-844-1810, irwinjd@auburn.edu
   Large multidisciplinary programs, circuit analysis and design, network security.

Hulya Kirkici (Professor of Electrical and Computer Engineering), 334-844-1822, kirkihu@auburn.edu
   Dielectric breakdown, electrical insulation, power conditioning, and surface flashover in space environment, Lasers and high power/efficiency light sources (for pollution control and industrial use), optical spectroscopic measurement techniques, pulsed power for material processing and for biological/agricultural applications.

Guofu Niu (Alumni Professor of Electrical and Computer Engineering), 334-844-1856, niuguof@auburn.edu
   SiGe technology, RF CMOS devices and circuits, radiation effects in microelectronics, device model technology, noise and linearity in RF devices and circuits, TCAD.

Minseo Park (JT Walter Professor of Physics), 334-844-4270, parkmi2@auburn.edu
   Raman spectroscopy, power electronics, photovoltaics, and biosensing based on wide band gap semiconductors (GaN/ZnO).

Charles Stroud (Professor of Electrical and Computer Engineering), 334-844-1806, strouce@auburn.edu
   Built-In self-test (BIST) and design for testability (DFT) for digital and mixed-signal systems, VLSI design and testing including system-on-chips (SoCs), Field Programmable Gate Arrays (FPGAs), and Complex Programmable Logic Devices (CPLDs).

Jeffrey Suhling (Quina Professor and Dept Chair of Mechanical Engineering), 334-844-3332, suhljic@auburn.edu
   Experimental mechanics, solid mechanics, advanced and composite Materials, finite element analysis and computational mechanics, continuum modeling, electronic packaging, silicon sensors, solder joint reliability, mechanics of paper and other wood-based materials.
Chwan-Hwa “John” Wu (Professor of Electrical and Computer Engineering) 334-844-1851, wuchwan@auburn.edu

Cyber security, Network security, wireless security, computer networks.