Project Funding

Total grants: $2,726,575 $863,329 (EDW credit)

Project Descriptions

- Low-energy intentional electromagnetic interference, a RAPCEval/NEWSTARS project administered by the *Air Force Research Laboratory* (2008-2009, $139,560, PI)

- Collaborative research with Missouri University of Science & Technology on NSF CCLI Phase II grant to integrate electromagnetic compatibility, signal integrity, and high-speed design into engineering education (2006-2010, $494,627, co-PI)

- With Azad Siahmakoun, Scott Kirkpatrick, Tom Adams, Elaine Kirkpatrick, and Dan Morris on DOE project to establish a center at Rose-Hulman for MEMS and nanotechnology ($855,000 Azad Siahmakoun PI)

- With Jianjian Song and Dave Voltmer on the *NSF CCLI A&I project DUE-0410845* to introduce electromagnetic compatibility and signal integrity into undergraduate education (2004 – 2006, $101,994, PI)

- With Cliff Grigg of the Rose-Hulman and Don Millard of Rensselaer Institute of Technology on an *NSF CCLI EMD project DUE-0088904* to bring effective practices to the engineering service course. (2000-2004, $218,194, PI)

- With several colleagues on a project funded by the Keck Foundation for an undergraduate course on micro-electromechanical system (MEMS) at Rose-Hulman. (2002, $400,000, Azad Siahmakoun PI)

- With Cliff Grigg on grant from Caterpillar to include data acquisition, measurement, and control systems in ECE 207. (2002, $100,000, PI)

- With Cliff Grigg and Zac Chambers on a supplemental grant from NSF's *Foundation Coalition*. (Summer 2001, $42,000, PI)

- Served as research consultant on *NSF research project DMR-9633107* investigating compensation mechanisms in wide bandgap semiconductors. We employed neutron transmutation to decouple doping and growth in ZnSe in order to probe doping processes in ZnSe far-from-equilibrium. (1996-2000, $340,000, Jack Boone PI)

- With colleagues in chemistry and electrical engineering in an investigation of applications for transparent, conductive films. This project involved the deposition of ZnO and ITO layers on a glass petri dish to allow adherent cells to be electrostatically removed in order to minimize cell damage. (1998-2000, $9,850, Co-PI)

- With colleagues in psychology at VMI investigating the treatment of ADHD via neuron-feedback. Extending previous work performed at the University of Tennessee-Knoxville, this project resulted in significant improvements in subject EEG beta/theta ratio. (1999-2001, $15,350,PI)