September 19, 2012 (Wednesday), 10:00 AM – 11:15 AM

SCIE 5020

**Speaker:** Beata Zaluska

**Title:** Performance Prediction Technique for the PHY 4G LTE Benchmark

**Abstract:** The cellular and mobile broadband market has increased tremendously over the last decade and the number of subscribers has almost doubly exploded in recent years. The 4G LTE (Fourth Generation Long Term Evolution) networks have become the new standard in the mobile industry. Many new DSP (Digital Signal Processing) processors and software for 4G LTE networks have come up. As a result, performance evaluation and prediction of new DSP processors have become an important issue.

Modern embedded devices are increasingly using multicores to support large number of applications. Due to the vast number of possible combinations of these diverse applications, performance prediction becomes a challenge. This project proposal, in collaboration with faculty advisors, will evaluate the performance of a multicore DSP processor from Texas Instrument. The main contribution of this study is to predict the performance of the PHY 4G LTE benchmark program. The approach will be based on linear regression technique.

**Short Biography:** Beata is a senior in Computer Science. She has a master degree at Warsaw University in Poland on statistics, probability, and affine geometry on abstract manifolds; in particular the theory of homogeneous affine connections and affine manifolds.

All are welcome.

For further information, please contact Dr. Bogong Su (ext. 2979), sub@wpunj.edu, or Dr. Cyril S. Ku (ext. 2960), kuc@wpunj.edu