

Summer Research Team Poster

to be presented at the

*IEEE International Conference for High-Performance Computing,
Networking, Storage and Analysis (Supercomputer 2009)*

November 14-20, Portland, Oregon



Ryan Suleski (South Plainfield, NJ; CS '10), Brian Sinnicke (Garwood, NJ; CS '10) and Frank Kendall (Clark, NJ; Math '10, CS minor) work together, above.

A **Students Partnering with Faculty (SpF) 2009** research project poster has been selected for presentation at the *IEEE International Conference for High-Performance Computing, Networking, Storage and Analysis (Supercomputer 2009)* (<http://sc09.supercomputing.org/>) which will be held November 14-20, Portland, Oregon

During the summer of 2009, three undergraduate students at Kean University worked on a project in wireless sensor networking which has resulted in a peer-reviewed poster of their work being presented at SC '09, the premier high-performance computing conference in the world. Their poster "Knowledge Discovery from Sensor Data for Environmental Information" illustrates their research work. Wireless sensors were used to gather a range of data from environmental monitoring, including temperature, humidity, and barometric pressure. This information was recorded in a relational database, and data mining techniques were used to identify significant data points. The resulting information was visually presented by a web-based application, with the appropriate time, date, and surrounding geographic details. With their faculty mentor, **Dr. Patricia Morreale** of the Computer Science Department at Kean, the students expect to use the gathered data to build a predictive model, hoping to spot data trends which might lead to poor air quality, extreme heat, or flash flooding before the environmental disaster occurs.