DURHAM, N.H. — Process Instrumentation, Inc., of Hampton is the recipient of a $40,000 grant recently awarded from the New Hampshire Industrial Research Center at the University of New Hampshire.

The start-up company with six employees plans to develop a wireless system for instrumentation interfaces. The project will include the development of a central unit to control the wireless network, poll units, log data and present data for analysis in a user-friendly format.

"The Department of Energy says about 20 percent of the energy factories use is spent on routine operations like providing compressed air or other things," says John McHugh, associate professor of mechanical engineering and principal investigator with this project. "The idea is to keep track of this and monitor the system so it can be controlled in more efficient ways."

"Process Instrumentation is developing a new technology that will marry industrial sensors with wireless communications," says Paul Richards, company president. Previously, industrial sensors used in factory settings have been wired with hard wires. This technology aims to eliminate the wiring using radio waves.

The one-year project is being developed at UNH’s Kingsbury Hall with assistance from Tim Upton, research scientist. The cost is $80,000, with Process Instrumentation, Inc. providing 50 percent. The technology will be targeted toward Fortune 500 companies such as General Electric and Dow, according to Richards.

Industrial manufacturing operations face prohibitive costs to install and wire monitoring sensors; the ultimate goal of the project is to reduce the cost to deploy the sensors so manufacturers can afford to monitor and control energy savings. The initial plan is to develop instrumentation interfaces to the system and then test it by performing power monitoring at UNH.

Process Instrumentation serves New England with products ranging from pressure, temperature, flow, level and analytical to data acquisition, recorders, calibration and calibration start-up service. Current companies they represent include Thermo Brandt, General Monitors and Magnitrol Calve Corporation.

Since its creation in 1991, the NHIRC has had an estimated $500 million impact on the state’s economy and created 3,000 jobs, according to Henry Mullaney, the center’s director. The NHIRC was created by the state legislature and is funded through the Department of Economic Development (DRED). The goal of the NHIRC is to promote applied and basic scientific, engineering and associated marketing research and technological transfer and to support the New Hampshire industrial and business community. Mullaney estimates the NHIRC contributes $8.7 million a year in additional tax revenue to the state.

"The NHIRC is a wise investment for the people of New Hampshire," says Mullaney. "We help small companies like Process Instrumentation to develop new technologies and to stay at the cutting edge of innovation, enabling them to grow and remain competitive in world markets."

For more information on the IRC program, contact Mullaney at 862-0123.