This program will provide 20 middle and high school teachers with an opportunity to engage in hands-on engineering design in an intensive two-week residential workshop.

Participants will learn to enable their students to satisfy Standard 5 in the NYS Learning Standards in Mathematics, Science and Technology: “to apply technical knowledge and skills to design, construct, use, and evaluate products and systems.” Teachers will also learn to develop sensor-based science & math curricula and prepare their students to enter science and engineering careers.

By the end of the program, participants will have completed 70 hours of in-class professional development and an additional 15 hours of supplemental activities in the evenings and the mid-point weekend.

For over 150 years, Polytechnic has had a tradition of creating knowledge and educating engineers and scientists. We have a vested interest in the quality of K-12 school programs from which we draw our students. Consequently, for the past decade Polytechnic has actively provided assistance to scores of middle and high schools, with a focus on discovery learning.

Eligible teachers must be employed in one of the following school districts:
- Bellmore-Merrick CHSD
- East Meadow SD
- New Rochelle SD
- Sewanhaka SD
- White Plains SD
Today’s students are attracted to gadgets, such as iPods, video games, and cell phones. This trend can be leveraged through the informed use of sensors to motivate students to excel in science and math. Participants will be introduced to foundational elements of engineering through the use of sensors and computerized data acquisition. The WISE program will make extensive use of team-based, real-world engineering design projects based on the components of our acclaimed National Science Foundation-funded Project RAISE (Revitalizing Achievement using Instrumentation in Science Education).

Objective
To introduce teachers to engineering and the use of sensors in science and math education.

Eligibility
Applicants need not have expertise in engineering but should be teaching in a science or math area and be willing to implement modern sensing in their classes.

Why a Residential Program?
WISE is an intensive program, with supporting activities in the evenings and weekend. Participants are encouraged to take advantage of the free residential program on Polytechnic’s campus.

Stipend
Each teacher who successfully completes the full program will receive a stipend of $4,000.

Instrumentation Kits
Each participant will receive a comprehensive sensors and instrumentation kit to use during the program and to take back for use in his/her school.

Funding
Funding is provided by New York State Education Department Engineers of The Future Program

Application Deadline
June 1, 2007

FOR MORE INFORMATION, OR TO SUBMIT APPLICATION
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