Center for Innovation in Engineering and Science Education

The Center for Innovation in Engineering and Science Education (CIESE) at Stevens Institute of Technology aims to increase the pool and capabilities of students who will pursue education and careers in engineering, science, technology and mathematics by engaging in educational research, conducting teacher professional development programs and developing innovative curricula in these fields. As our nation’s economic vitality is increasingly tied to a skilled science and technology workforce and to technological innovation, CIESE is addressing a vital national concern. CIESE teacher training programs have impacted more than 25,000 teachers in New Jersey and several other states and in Latin America. Its free, online classroom projects that use cyber-infrastructure and real time data resources have been recognized by numerous national science and education organizations, including the White House Office of Science and Technology Policy. Currently, more than 100,000 students from 35 countries participate annually in these projects (www.stevens.edu/ciese/curriculum.html). CIESE is also leading an effort, Engineering Our Future NJ, which aims to ensure that all students in elementary through high school experience engineering as an integral part of their K-12 education. More than 1,750 teachers from all 21 of New Jersey’s counties have participated in these programs. CIESE is leading several major statewide programs to infuse engineering into the K-12 curriculum, including a current National Science Foundation grant featuring underwater robotics using LEGO and Mindstorms programming devices; a New Jersey Department of Education Math-Science Partnership grant to strengthen teacher content knowledge and pedagogy in science and engineering in Grades 3-5; and several corporate-sponsored initiatives to bolster teachers’ content knowledge in science and engineering and providing innovative lessons to engage students. For more information about CIESE, please visit www.stevens.edu/ciese.