
Kevin L. Moore, Dean
College of Engineering & Computational Sciences

March 23, 2015

President of the United States
The White House
1600 Pennsylvania Avenue NW
Washington, DC 20500

Dear Mr. President,

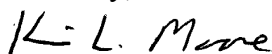
It is my pleasure to detail the efforts being undertaken at the Colorado School of Mines (Mines) to develop undergraduate engineering education programs that integrate the five key elements outlined in the U.S. Engineering Deans' response to the National Academy of Engineering's Grand Challenges program. These efforts include:

1. Revitalization of Mines' signature curricular minor in **Humanitarian Engineering** (HE).
Our program already includes the following components:
 - a. Project-based, hands-on *creative learning experiences* whereby students engage in co-creation of socially just solutions to the problems of sustainable community development.
 - b. *Experiential learning* with stakeholders and mentors that includes interdisciplinary experience in non-technical fields.
 - c. *Global and cross-cultural perspectives* gained through courses and projects promoting involvement in globally complex issues, especially inequality in access to basic human needs.
 - d. *Development of social consciousness* through critical thinking and community service to position engineers as agents of social change.

Missing from our HE program is experience with entrepreneurship and innovation. To address this, we recently sought and obtained designation as a Pathways to Innovation University Partner through Stanford's NSF-funded Epicenter Program. This effort will provide our HE students with the opportunity to pursue social entrepreneurship experience.

2. A curricular revision of our accredited **Bachelor of Science in Engineering** degree. This degree will provide students with the opportunity to study the fundamentals of engineering science and design while selecting a *focused secondary area of study*. One of these areas will be exclusively *devoted to the Grand Challenges* and it is our intention to apply to have this program designated as an NAE Grand Challenges Scholars Program.

Sincerely,


Kevin L Moore

