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FRANCIS COLLEGE OF ENGINEERING *Joseph C. Hartman, Dean* 

March 23, 2015

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

Dear Mr. President,

The Francis College of Engineering at the University of Massachusetts Lowell (UMass Lowell) is proactively responding to the call to educate a generation of engineers expressly equipped to meet a variety of identified societal challenges. Specifically, UMass Lowell has established, or has committed to establishing, an Engineering program that integrates the following key elements:

- Design projects in our "Introduction to Engineering" and "Senior Capstone Design" courses allow students to solve problems posed by the Grand Challenges.
- Engineering students are working with Business students to ensure that their senior design projects have an entrepreneurial bend. Plans are in place to include those from other Colleges, such as Health Sciences.
- Multidisciplinary senior design projects are being defined with external mentors, including business and non-profit leaders.
- Working with our DifferenceMaker program, students in the College can pitch their ideas and receive funding for implementing their start-up. Furthermore, an annual prototyping competition allows students to take their ideas through the design stage.
- With agreements at over 100 universities abroad, our students may explore a number of cultures around the world. Specific programs for Engineers are being designed in the Czech Republic, Germany, Kuwait, and Taiwan, among others.
- A vibrant service-learning program allows students to work on community projects in over 20 different courses while new chapters of Engineers for a Sustainable World and Engineers for Change will extend this reach beyond America to places like Haiti.

Our faculty's commitment to this challenge ensures that our graduates, numbering well over 300 annually, will be empowered to become leaders in addressing societal challenges in the U.S. and abroad. We are also committed to the development and sharing of open educational resources that will inspire and empower more students to address the Grand Challenges.

Sincerely,

Joseph C. Hartman, Ph.D., P.E.

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