RICE

EDWIN L. "NED" THOMAS
WILLIAM AND STEPHANIE SICK DEAN OF ENGINEERING
PROFESSOR, MATERIALS SCIENCE AND NANOENGINEERING
PROFESSOR, CHEMICAL AND BIOMOLECULAR ENGINEERING

March 23, 2015

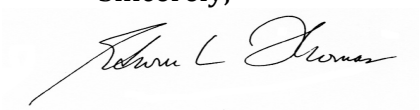
President of the United States
The White House
1600 Pennsylvania Avenue NW
Washington DC 20500

Dear Mr. President:

Rice University has its engineers traveling on 3 ships: L-ship, I-ship and E-ship to educate and produce engineers that want to impact society. L-ship = Leadership. I-ship = Internship and E-ship = Entrepreneurship. Every Rice engineering student (and there are 1400 of them), gets involved in multiple "ship" activities over the course of their bachelors degree. To charge over $40K/year tuition, there needs to be A LOT of very good reasons to be either on campus doing some team-based project or off-campus on a team-centered action. Rice developed ENGI 120, a ***freshman*** design lab, with each 4 person team tackling a unique client-funded project –from "design a giraffe feeder" (Houston Zoo), to "build a robotic arm for person confined to a wheelchair" (Shriner's Hospital). Lots more hard work (and a ton more fun) than simply everyone doing the same olde problem (with the answer in the back of the book). Rice has revamped Senior Capstone Design so that the teams are a mix of students from *different* departments, again each team funded by a real client, seeking answers to their real problem. A teamwork, communication, passion, hands-on, can-do, deliver on the mission no matter what centric experience. Rice created RCEL = Rice Center for Engineering Leadership with its 4 year *Certificiate in Engineering Leadership*. Of course, classes and the scholarship of leadership, but importantly – vitally: leadership labs – hands on, learn to lead by doing it. We are building a LRC/Ropes course for team, leader and follower building. We will be continuing to promote Engineers Without Borders (Rice has the 2nd oldest chapter and one of the most ambitious).

The USA needs innovators, leaders and engineering is a great platform for launching successful careers in those directions. From neuroengineering, to data science, cyber security, maker spaces, the energy-water-food nexus…all of these grand challenges require people who can look at big problems, analyze them, break them down into manageable bits and then solve them and build systems that work reliably and efficiently, providing prosperity and security.

Sincerely,



Edwin L. "Ned" Thomas, NAE
Dean of Engineering

E-MAIL ELT@RICE.EDU | OFFICE 713-348-4009 | FAX 713-348-5300 | GEORGE R. BROWN SCHOOL OF ENGINEERING
RICE UNIVERSITY-MS 364 | 6100 MAIN ST | HOUSTON, TX 77005 | WWW.ENGR.RICE.EDU