Dean's Town Hall Meeting
Monday October 1, 2012
David Rosowsky, Ph.D., P.E., F.ASCE
Dean of Engineering
Today’s meeting

- Updates in the School (accolades, achievements, appointments)
- Faculty expansion initiative
- FY14 Performance Plan (highlights, key initiatives)
- ABET
- Advancement
- Closing remarks
- Open forum (Q&A)
“Faculty in the School of Engineering are deeply committed to teaching and scholarship, learning and discovery, and to inspiring the next generation of engineers, scientists, entrepreneurs, and leaders.”
School of Engineering

- PROMOTIONS

Dan Walczyk, Professor (MANE)
James Lu, Professor (ECSE)
Rena Huang, Associate Professor (ECSE)
Daniel Lewis, Associate Professor (MSE)
David Corr, Associate Professor (BME)
Xavier Intes, Associate Professor (BME)
Eric Ledet, Associate Professor (BME)
School of Engineering

**RENSSELAER AWARDS**

John Tichy, Jerome Fishbach ‘38 Faculty Travel Award

Thomas Sharkey, Class of ‘51 Outstanding Teacher Award

Burt Swersey, David M. Darrin ‘40 Counseling Award

Peter Tessier, James Tien ‘66 Early Career Award for Faculty

Tarek Abdoun, Board of Trustees Outstanding Teacher Award
NEW FACULTY (FALL 2012)

Ying Chen, Assistant Professor (MSE)
Juergen Hahn, Professor (BME)
Mariah Hahn, Associate Professor (BME)
Farhan Gandhi, Professor (MANE)
Jason Hicken, Assistant Professor (MANE)
Zahra Sotoudeh, Assistant Professor (MANE)
School of Engineering

■ CHAIRED PROFESSORSHIPS

Michael Amitay, MANE
  James L. Decker ‘45 Chair in Aerospace Engineering

Farhan Gandhi, MANE
  Rosalind and John J. Redfern Jr. ‘33 Professor of Engineering

Yuri Gorby, CEE
  Howard N. Blitman ‘50 P.E. Career Development Professorship

Nikhil Koratkar, MANE
  John A. Clark and Edward T. Crossan Professor of Engineering

Linda Schadler, MSE
  Russell Sage Professor of Engineering
School of Engineering

- **YOUNG INVESTIGATOR AWARDS**
  
  Ryan Gilbert (BME), NSF CAREER  
  Xavier Intes (BME), NSF CAREER  
  Jia Lian (MANE), NSF CAREER  
  Riccardo Bevilacqua (MANE), AFOSR YIA
School of Engineering

RESEARCH EXPENDITURES >$1M in FY12

Ravindra Kane (CBE)  Richard Siegel (MSE)
Jonathan Dordick (CBE)  Michael Amitay (MANE)
Tarek Abdoun (CEE)  Suvranu De (MANE)
Partha Dutta (ECSE)  Mark Shephard (MANE)
John Wen (ECSE)  Yaron Danon (MANE)
Robert Karlicek (ECSE)  TOTAL: 12 SoE Faculty
Jian Sun (ECSE)
“The School of Engineering has some of the most academically talented students in the nation. They are as impressive as they are committed to making an impact on their profession and on our world.”
Rankings

Latest rankings
What they tell us
What they don’t tell us
Responses
Messaging

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Rankings and Other Indicators

- SoE ranked #23 (Best Undergraduate Engineering Programs, Fall 2012) by US News
- 7 of 11 SoE graduate engineering programs were ranked in the Top 25 (Spring 2011) by US News
- SoE ranked #4 (World’s Best Engineering Schools, Fall 2012) by Business Insider
- Ranked in Top-5 (Wall Street’s Top Technology Schools, Fall 2012) by Wall Street & Technology
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- Research expenditures crossed the $50M level in FY12
- Annual research expenditures per faculty crossed $390K
- 6 of the last 12 faculty hired in SoE have been women
- 20 SWE scholarships (2012-13), highest of any university
Distinguished Visitors 2011-12

Andrew Jackson, NAE
Sir Harry Kroto, NAS
Nobel Prize Winner in Chemistry
Chris Hendrickson, NAE
Linda Abriola, NAE
Ahsan Kareem, NAE
Gordana Vunjak-Novakovic, NAE
Michael Corradini, NAE
Monica Olivera de la Cruz, NAE
Bruce Rittman, NAE
Kenneth Stokoe, NAE
Gerald Fuller, NAE
Chris Macosko, NAE
Zhigang Suo, NAE
Keith Johnston, NAE
K. Dane Wittrup, NAE
Frank Bates, NAE
Tresa Pollock, NAE
Frans Spaepen, NAE

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SoE Faculty

- We averaged 8-9 faculty departures in each of the last five years (high of 13 in 2007)
- As a result, the total number of T/TT faculty in SoE decreased (from a high of 146 in 2006) to about 135 and then stayed more or less stable through limited “faculty renewal”
- Last year we had only 3 departures
- We are now in a period of “faculty growth” operating under a School-wide Faculty Hiring Initiative (“cluster hiring” strategy)
- We have been hiring 10-12 new faculty per year since FY11.
SoE Faculty Searches

**FY12**  12 (+2 carried over from FY11)

  STATUS:  12 filled, 2 carried over into FY13 (Horton Chair and Hood Chair)

**FY13**  9 (+2 chairs carried over, +2 Constellation searches in SoE)

  STATUS:  1 filled, 8 currently interviewing candidates, 4 getting started

**SUMMARY:** Of 25 SoE positions (searches) approved, we have completed 13, 8 are on-track to be filled by Spring, and 4 (senior positions) are just getting started.

**NOTE:** This two-year period is important. It is the window President Jackson refers to when she announces the “48 new positions” at the Institute. (Therefore, SoE received 52% of these positions.)
What might we expect to see in FY14?

NOTE: The FY14 SoE Performance Plan will include requests for 15 new T/TT faculty and 5 new Lecturer/PoP faculty
FY14 Performance Plan Key Initiatives - 1

1. Undergraduate engineering education
   a. Common first year model
   b. Introduction to Engineering course
   c. Pedagogical innovation
   d. Evolution of the classroom/studio/laboratory

2. Graduate Education
   a. Selected co-terminal MS program expansion
   b. Blue-chip PhD recruiting (pre-acceptance visits, fellowships, value-added programs for faculty preparation)
   c. Streamlining graduate admissions, graduate student policies
   d. Final-year registration policy

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FY14 Performance Plan Key Initiatives - 2

3. Faculty
   a. Second year of strategic ("cluster") hiring initiative*
   b. Recruiting for diversity (Compact, Part A)
   c. Lecturer/Professor of Practice tracks, Research faculty

4. Research
   a. Focus on large center proposals
   b. Renew initiatives with (new) VPR on faculty support, cost-sharing, center support

5. Programs
   a. MILL
   b. Diversity and Outreach
   c. Archer Center for Student Leadership Development
   d. Undergraduate Advising

* SoE faculty expansion initiative launched in Fall 2011. Four strategic clusters: energy systems, infrastructure, materials and manufacturing, bio-engineering
6. Advancement
   a. Constituent model Year 1 assessment and Year 2 goal setting
   b. Framing priorities for the School and Departments
   c. Alumni engagement

7. Thematic Messaging
   a. Transformation Materials and Manufacturing (TMM)
   b. Human Health and Livability (HHL)
   c. Engineering at the core of the Institute, central to its expansion upward, forward, and outward
   d. We are in a period of faculty growth (not just renewal)
   e. ROI consistently ranked among the best, graduates highly recruited
ABET is a nonprofit, non-governmental organization that accredits college and university programs in the disciplines of applied science, computing, engineering, and engineering technology. ABET accredits over 3,100 programs at more than 660 colleges and universities in 23 countries. ABET provides specialized, programmatic accreditation that evaluates an individual program of study, rather than evaluating an institution as a whole.

ABET accreditation, which is voluntary and achieved through a peer review process, provides assurance that a college or university program meets the quality standards established by the profession for which the program prepares its students.
Rensselaer Engineering Magazine

FALL 2010

SUMMER 2011

FALL 2012

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Advancement

- Finishing first year under the new constituent-based advancement model
- SoE Senior Advancement Officer, Richard Graw
- Plus front-line DO’s and staff (IA)
- School priorities = Institute priorities
- Faculty role
SoE Fundraising Priorities

- FACULTY EXCELLENCE FUNDS (startup packages)
- STUDENT SUPPORT (scholarships and fellowships)
- FACULTY ENDOWED CHAIRS
- SUPPORT FOR CO-CURRICULAR ACTIVITIES (student chapters and teams, social entrepreneurship, service learning projects, travel, global experiences)
- PROGRAM SUPPORT (departments, centers, labs)
- DEPARTMENT EXCELLENCE FUNDS
2012 Dean’s Travel

- Boston, MA
- New York, NY
- Cleveland, OH
- Chicago, IL
- Fairfax, VA
- Baltimore, MD
- Washington, DC
- Phoenix, AZ
- Albuquerque, NM
- Houston, TX
- Austin, TX
- Dallas, TX
- Los Angeles, CA
- San Francisco, CA
- Seattle, WA
Closing remarks
My biggest challenges

1. Enabling target enrollments in SoE
2. Rate of faculty hiring
3. Faculty retention
4. Staff hiring freeze
5. Reduced operating budget
Our greatest opportunities

1. Large-scale, collaborative, highly interdisciplinary and highly visible centers

2. Recapturing reputation for innovation in engineering education

3. Faculty growth in strategic areas, at a time when the market is good

4. School-based development activities
Upcoming Events

Oct. 4-6, Reunion and Homecoming

Oct. 3, 9, 10, 11, Rensselaer Plan refresh campus listening sessions

Oct. 15, Dean’s Grant Proposal Deadline

Oct. 15, SoE Open Forum on the Rensselaer Plan refresh (1pm, JEC3117)

Oct. 15 - Nov. 15, Open comment period for the FY14 SoE Performance Plan

Oct. 19, Preliminary registration for Lemelson-Rensselaer Student Prize competition

Dec. 7, Complete applications due for Lemelson-Rensselaer Student Prize competition

All Fall, SoE Faculty Candidate Visits