



University at Buffalo

The State University of New York

School of Engineering and Applied Sciences

UB Engineering and Applied Sciences Dean's Quarterly Report #6 October 1, 2007 to December 31, 2007

TOPICS

<p>1. Hires, Searches and Counting Faculty</p> 	<p>2. Dean's Advisory Council Focus Group</p> 	<p>3. Events and Visits</p> 
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1. Hires, Searches, and Counting Faculty

During the past quarter, the ten ongoing searches (shown in Table below) continued to build their applicant pool. Interviews will begin during January for several of them, with the rest beginning in February.

Table 1: Faculty Searches

Strategic Strength	Topic	Search Chair	Rank	Department
INS	Multi-functional Materials – Energy Conversion	Gary Dargush	Assistant	MAE
ExEv	Wind, Blast, Fluid Modeling	Paul DesJardin	Assistant	MAE
ExEv	Intelligent Transportation Systems	Joe Atkinson	Assistant	CSEE
ExEv	Risk Analysis Information Infrastructure	Rajan Batta	Assistant	ISE
ICT	Smart Environments	Venu Govindaraju	Assistant	CSE
ICT	Smart Environments (candidate identified)	Aidong Zhang	Full	CSE
ICT	Smart Environments	Mark Karwan	Assistant	ISE
ICT	Smart Environments or Enabling Discovery	Venu Govindaraju	Assistant	CSE
Other				
SSE	Service Systems Engineering	Li Lin	Associate	ISE
Chair	MAE Chair	Scott Weber	Full	MAE

Counting faculty is complicated by the various titles used at UB for faculty and staff, so I thought it would be useful to show the count here more explicitly. As of the beginning of the fall 2007 semester, counting all administratively appointed faculty (this would include Mike Ryan, Alex Cartwright, myself, John Van Benschoten, Rajan Batta, Provost Tripathi, and Satish Mohan), we had 130 Full-Time Tenure-Track faculty. We also had 16 full-time non-tenure-track Lecturers and 29 part-time faculty members of various titles, which had an equivalent FTE of

approximately 9.5 people. Thus, the total FTE number for fall 2007 was 155.5. These numbers are slightly higher than I reported in my last progress report; mostly due to changing how we calculate the FTE of a part-time faculty member.



2. Dean’s Advisory Council Focus Groups

The Dean’s Advisory Council met this quarter and, as an outcome, has organized themselves into four focus groups (shown in Table below) that will interface on a more regular schedule with several faculty and staff committees. The focus groups were each given three one-year goals as part of their charge.

Focus Area	Membership - UB	Membership – DAC	Goals
Student Quality, Quantity and Representation <i>Chair:</i> John Van Benschoten	Ann Bisantz Drexel Gidney Al Hammonds Bill Wild	Mike Cadigan Doug Hillman Kitty Pilarz Lee Runk Scott Stevens Edward Watts Ann Wegrzyn	1. Add 20 SAT points to the 2008 freshman class over that for the freshman class in 2007 2. Increase underrepresented enrollment in freshman class by 30% 3. Undergraduate enrollment growth of 5% through better retention
New Markets for Education and Research <i>Chair:</i> Rajan Batta	Wayne Anderson Marge Hewlett Andres Soom	Dennis Elsenbeck Ramji Gupta Nirup Krishnamurthy Steve Lerner Tom Stewart	4. Launch a plan to double PhD productivity 5. Graduate enrollment over 1100 headcount 6. Biomedical Engineering launched successfully and Service Systems Engineering MS program at 50 students
Advancing Reputation and Resources <i>Chair:</i> Bob Barnes	Kerry Collins-Gross Bharat Jayaraman Jim Michalowski Vladimir Mitin Diane Porter Tim Siderakis	Russ Agrusa Ravi Bansal Tim Klein Maria Lehman Hormoz Mansouri	7. Improve peer/employer rankings in <i>US News</i> survey from 2.8 to 3.0 8. Philanthropic commitments of \$10,000,000 9. Increase national visibility – awards, publicity, innovations
Productivity, Excellence and Growth <i>Chair:</i> Harvey Stenger	Dave Kofke Rakesh Nagi Nancy Recuperero Scott Weber	Ephraim Garcia Lester Gerhardt Tom Lynch John Stopher	10. Increase our full-time tenure-track faculty by 7 11. Twenty percent increase in research proposals 12. Develop workload policies to optimize faculty efficiency

Some highlights of the activities of these groups:

Goal 1: Add 20 SAT points to the 2008 freshman class versus 2007

An analysis of our admissions results from last year showed that if we had used a minimum SAT score as part of our admissions requirements, the average SAT score could have been raised by

20 points with a decrease in enrollment of only about 30 students (6%). In coordination with UB Admissions, we will implement a minimum SAT score for the next incoming engineering class (Fall 2008).

Goal 2: Increase underrepresented enrollment in freshman class by 30%

The focus group continues to review diversity enrollment with the goal of developing an overall strategy to increase enrollment of women and minorities. One new initiative toward this goal is that in November the School sent Al Hammonds, who works for TCIE and has volunteered to help us with minority recruitment, to NYC to visit several high schools to meet with students of color and their guidance counselors. Al also has been helpful in engaging NSBE to assist us with student recruitment. The School also will be conducting more tours and programs for local schools with significant minority enrollment.

Goal 3: Undergraduate enrollment growth of 5% through better retention

- The Dean's Scholar Program was launched last year with an inaugural class of 25 freshmen. By attracting outstanding students, we expect retention to increase. At the end of their first semester, our Dean's Scholars had an average GPA of 3.8.

- Under the direction of Bill Wild, an Impact on Society Program has been started to engage (primarily) freshman and sophomore engineering students in real-world projects in the University (through Facilities) and surrounding communities. This project is aimed at increasing interest, achievement, and retention in engineering by providing a window for students to see their future impact on society.

- The School is also launching a Career Development Curriculum that provides a roadmap of suggested activities that will better prepare students for the job market. In addition to job placement for graduates, this effort should also help with retention by providing a career focus throughout the curriculum.

Goal 4: Launch a plan to double PhD productivity

TA/Fellow allocations are now tied to PhD enrollment, and this emphasis is scheduled to gradually increase over the next five years. Increasing the number of PhD students will also require an increase in the research expenditures, and is thus closely tied to the goal of increasing research proposal submissions.

Goal 5: Graduate enrollment over 1100 headcount

A number of simultaneous actions are being taken to meet the 1100 headcount goal. These include:

- A renewed emphasis on timely processing of I-20s for international students who are supporting themselves financially
- Improvement in yield through a continuation of the student ambassador program, whereby accepted students are contacted individually
- Launching and maturation of special graduate programs, e.g. SSE and BME

Goal 6: BME launched successfully and SSE at 50 students

BME degree program will be pursued shortly. Extensive marketing is being done for the SSE Program. This includes soliciting interest from local companies, multinationals in India, and continued solicitation and timely processing of applications through the normal process. The hope is that through these efforts we will be close to the 50-student target very soon. Also, a faculty member is being recruited to champion the SSE Program.

Goal 7: Improve peer and employer rankings in US News survey from 2.8 to 3.0

The discussions of the focus group have coalesced on a multi-part strategy that addresses the audiences identified as: persons we identify to rank us, our corporate colleagues (those with whom we do research and those that recruit our students), our academic and corporate alumni, and our colleague faculty in professional societies.

Goal 8: Philanthropic investment commitments of \$10,000,000

A PowerPoint presentation focusing on the campaign and the new building was designed, field tested and adopted ([click here for the presentation](#)). Our progress on the building is good on the design side; however, fundraising has hit a slow point. The recent addition of our new development officer (Jenine Trzewieczynski) has greatly increased our ability to reach more of our alumni and friends. One point of progress is a 25.5% increase in our Delta Society (donations of \$1000 or more) membership during 2007 versus 2006 (138 in 2007 versus 110 in 2006).

Goal 9: Increase national visibility – awards, publicity, innovations

The focus group identified a need to increase our visibility. We are recruiting a full-time Communications Specialist to replace our former half-time editor in order to reach our target groups more often.

Goal 10: Increasing our full time faculty by 7 members

We are anticipating an attrition of three faculty members. Ten searches are underway. We expect excellent candidates for each position. Salary lines are aligned with UB and SUNY funding opportunities such as Strategic Strengths, Empire Innovations, High Needs, and expected retirements. Startup funding is always a challenge, but we will do our best to find the resources needed to give our new hires the startup they need to be successful. Space for offices, laboratories, and graduate students will be our biggest challenge. Our new building is still three years away, and this next increase in our full-time faculty will greatly strain our already tight space resources. Thus, space allocation during the next three years will be done with diligence to provide research and laboratory space to senior faculty who have a track record of funded research, and to those junior faculty members who are working towards that goal.

Goal 11: Increasing our research proposals by 20%

Using the central data of the Sponsored Programs Office, we have developed a quick method of generating a proposal report for given periods. These reports will be included as links in our quarterly reports and will be posted on our website. For the first two quarters of the Academic Year 2007-08, the School submitted 173 proposals for a total sponsorship request of \$70,465,000. Eighty-two faculty from the School were PI's or Co-PI's on these proposals. Links to these reports are here: <http://www.eng.buffalo.edu/proposals/Proposals1Q0708.xls>; <http://www.eng.buffalo.edu/proposals/Proposals2Q0708.xls>

Goal 12: Develop workload policies to optimize faculty efficiency

Workload metrics for faculty activity are filled with questions that have poor answers. Such as: What is a course? What is research? What is service? We have had some lively discussions about this issue with our colleagues at Cornell and RPI, where policies are - in one case more rigid - and in one case more fluid. One idea is to celebrate our faculty's work by showcasing their successes. An annual report of faculty activity could be used to catalog and highlight all of our faculty's great work.



3. Events and Visits

a. Events

Date	Event	Location	Discussion Topics
10/2	Concept Design Presentation, Perkins+Will	Albany, NY	New building concept designs
10/2	Tau Beta Pi Honors Employment Dinner	Amherst, NY	Meet with employers and students

10/3	UB Tech Fair Employers' Lunch	UB Campus	Gave keynote address
10/5	Concept Design Presentation to UB Engineering faculty and staff by Perkins+Will	UB Campus	New building concept designs
10/8	Extreme Events Forum	UB Campus	Strategic implementation meeting of interested broader UB community
10/9	Impact on Society Venture Dinner	UB Campus	Launching of initiative
10/12	Dean's Advisory Council (DAC) Meeting	UB Campus	State of the School, Review Charge and Organization, Focus Area Discussions, Review of Bylaws, Selection of New Members, Focus Team Reports, Recommendations
10/13	Tailgate and UB Bulls Football Game for Dean's Scholars & their families, and for Dean's Advisory Council members	UB Campus	Provide an opportunity for Dean's Scholars and their families to interact with the dean and DAC members and to provide an opportunity for DAC members to interact with our Dean's Scholars; visit to President's Box
10/20	UB Open House	UB Campus	Presentations to prospective students and their parents
10/25	UB Engineering Emeritus Faculty	UB Campus	Marketing UB Engineering
10/31	Presentation to UB Foundation Board	UB Campus	Biomedical Engineering Department
11/1	General Motors Powertrain Facility	Tonawanda, NY	Plant tour for Dean's Scholars and Engineering student club leaders
11/8	New Building Concept Review - UB, SUNY, Perkins+Will	UB Campus	Program verification/concept design overview; building/site design; engineered systems; SD Phase schedule, tasks and work plan
11/8	Dinner for Prospects/Donors hosted by Raj Boveja and his wife	Washington, DC	Support for UB Engineering/new building
11/9	New York Nu Tau Beta Pi Dinner	Amherst, NY	New member induction dinner with parents and 40th anniversary of chapter with alumni; presentation on UB Engineering
11/10	UB Scholarship Gala	UB Campus	Fundraiser for UB scholarships
11/14	BEAM Senior Student Dinner	Buffalo, NY	Minority recruitment; presentation on UB Engineering
11/15	IGERT Media Event	Buffalo, NY	Announcement of \$3.1M IGERT grant for Ecosystem Restoration
11/16	UB Engineering Faculty Meeting	UB Campus	New Faculty and Major Awards, Undergraduate Program, Graduate Program, State of the School
12/7	UB Engineering Junior Faculty Mentoring Meeting	UB Campus	Discussion of topics of interest to junior faculty (promotion/tenure, etc.) with chairs and Assistant Professors & their mentors
12/11	Reception honoring Mr. Herbert Wendling '49ME	UB Campus	Reception in honor and memory of Mr. Wendling
12/19	Legislative Briefing Session (President Simpson and UB Council Chair Jacobs)	Buffalo, NY	Legislative briefing to learn about UB's plans to grow and develop the regional economy, and to hear its specific budget requests for 2008-09

12/19	New Building Site Preparation - Perkins+Will	UB Campus	Discussion of schematic site development
12/20	New Building Discussions - Perkins+Will	UB Campus	Discussion of lounge, lecture hall, lobby, and atrium for new building

b. Visits (For alumni, degree title and date of graduation)

Date	Name and Title	Location	Discussion Topics
10/3	Reichert, Inc. (Timothy Levindofske, President & CEO, and Robert Carey, GM-Analytical Instruments)	Depew, NY	Support for Biomedical Engineering Department
10/4	Cognigen (Ted Grasela, President & CEO)	Williamsville, NY	Support for Biomedical Engineering Department
10/5	Northrup Grumman Corporation (John Stanfill, President, and Greg Collins)	Amherst, NY	Promoting UB Engineering
10/10	Moog Inc. (Marty Berardi, Corporate VP & President-Medical Devices Group, and Ramji Gupta MS '72 ME; Ph.D. '74, Director- Technology Development)	UB Campus	Tour of Professor Kesavadas' haptics research lab
10/10	James Wei, former Dean and Professor of Chemical Engineering, Princeton University	UB Campus	Overview of UB Engineering
10/15	CTG (Mike Colson, Senior VP-Solutions Development)	Buffalo, NY	SSE Program
10/15	General Mills (Dave Tincher, Site Manager-Community Representative, and Daniel McDonnell, HR Manager)	Buffalo, NY	Promoting UB Engineering
10/16	University Call Center Open House	UB Campus	UB Engineering
10/17	Invitrogen Corporation (Robert Burrier, VP-R&D, and Ken Low, Division Partner for Global Product Life Cycle Management for Cell Culture)	Amherst, NY	Support for Biomedical Engineering Department
10/18	Hayes Group (potential benefactors)	UB Campus	Tour of Professor Buckley's lab
10/18	Wilson Greatbatch EE MS '57, Founder-GentCorp and Jeffrey Deal, Chief Engineer	UB Campus	Alternatives to conventional diesel fuel
10/22	Mark Allen, Senior Vice Provost for Research & Innovation, at Georgia Tech	UB Campus	Overview of UB Engineering
10/26	Applied Sciences Group (Paul Buckley, President)	Cheektowaga, NY	Support for Biomedical Engineering Department
10/30	Phil Wilcox and Ray Long, Director, Northeast Region (NRG Energy)	Getzville, NY	Project update from NRG on IGCC Huntley
11/1	AirSep Corporation (Ravi Bansal, Chairman & CEO, and Norm McCombs, BS '68 Engineering Science, Senior VP)	Amherst, NY	Support for Biomedical Engineering Department
11/1	Professor Hasan Boduroglu, Civil Engineering, Istanbul Technical University	UB Campus	Our dual degree program with ITU
11/2	Michelle Cunningham, International Programs Manager, Darmstadt Technical University	UB Campus	Study abroad program

11/5	SUNY Chancellor John Clark, Provost Risa Palm, and Senior Vice Provost Harold Silverman	Albany, NY	Meeting of SUNY Engineering Deans to discuss SPIR and BEE programs
11/7	Maria Lehman, BS '81 Civil (Bergmann Associates) and Bob Cresse (Wendt Foundation)	UB Campus	Support for Biomedical Engineering Department
11/19	Carleton Technologies (Ken Kota, BS '93 ME, General Manager; Tim Sopko, BS '92 ME, Director-Engineering & Programs; Jim Talty, ME '89 ME, Asst. Director-Engineering; Tama Gresco-Sauers, Director-HR)	Orchard Park, NY	Promoting UB Engineering
11/21	Moog Inc., Medical Devices Group (Martin Berardi, President)	East Aurora, NY	Support for Biomedical Engineering Department
11/26	Professors Masaki Nakagawa (Director-Center for Innovation & IP and Computer Science Prof.) and Kazuhiro Chiba (Vice Director-CIIP and Vice Dean-United Graduate School of Agricultural Science), Tokyo University of Agriculture and Technology	UB Campus	Our exchange agreement with TUAT, and collaborations
12/3	Yi Hong, President & Professor Southeast U., Nanjing, China; Cui Yiping, Deputy Dean-School of Electronic Science & Engng.; Zhou Youyong, Dean-School of Law, SEU; Huang Dawei, Director-Office of the President, SEU; Shi Lanxin, Director-Office for International Cooperation, SEU; Ding Jie, Secretary-Office for International Cooperation, SEU	UB Campus	Cooperation between UB and Southeast University
12/5	Mark Glauser, BS '82, ME, Ph.D. '87, Professor of Aerospace and Mechanical Engineering, Syracuse University	Syracuse, NY	Review and support of biomedical engineering program; initial discussion of Syracuse's CAT Center, headed by Mark's wife and UB grad Gina Lee Glauser
12/5	Med Tech (Heather Erickson, President)	Syracuse, NY	Support for Biomedical Engineering Department

If you would like more information on any of the topics, please contact me. Please accept my best wishes for a healthy and prosperous 2008!

Sincerely,

Harvey