



**University at Buffalo**

*The State University of New York*

*School of Engineering and Applied Sciences*

## UB Engineering and Applied Sciences Dean's Quarterly Report #16 April 1, 2010 to June 30, 2010

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### 1. Faculty Hiring and Impact of the VSIP

In the past quarter year the school completed searches resulting in the following fifteen hires.

Name	Rank	Department	PhD University
Chulhong Kim	Assistant	BME	Washington University
Debanjan Sarkar	Assistant	BME	University of Akron
Julian Lippman	Research Assistant	BME	Univ. of CA Berkley
Edward Furlani	Full	EE/CBE	University at Buffalo
Geoffrey Challen	Assistant	CSE	Harvard University
Tevfic Kosar	Assistant	CSE	University of Wisconsin
Dimitrio Koutsonikolas	Assistant	CSE	Purdue University
Salvatore Salamone	Assistant	CSEE	University of Palermo
Steven Durbin	Associate	EE/PHY	Purdue University
Gesualdo Scutari	Assistant	EE	University of Rome
Qiaoqiang Gan	Assistant	EE	Lehigh University
Alexander Nikolaev	Assistant	ISE	University of Illinois
Iman Borazjani	Assistant	MAE	University of Minnesota
David Salac	Assistant	MAE	University of Michigan
Michele Milano	Assistant	MAE	Swiss Fed. Inst. Tech.

More details on these new faculty members and a welcoming reception will occur when the fall semester begins. The quality of the scholars in this list is impressive, and the diligence and effectiveness of the departments conducting searches this year was outstanding.

Counting the two hires completed during 2008-09 (CSE: Raymond Fu, and CSE: Steven Ko) and the twelve faculty members who have left or retired during the past two years (CBE: Vladimir Hlavacek and Michael Mickittrick, CSEE: Larry Soong and Rowland Richards, CSE: Helene Kershner, EE: Aleksandr Verevkin, Gottfried Strasser, Raj Kaul, and YK Yoon, MAE: John Medige, Dale Taulbee, and David Forliti), our faculty count will increase from 147 in the fall of 2008 to 152 in the fall of 2010. Of the 147 faculty in 2008, 106 were tenured, 28 were tenure track and untenured, and 13 were in non-tenure track positions. Of the 152 faculty in the fall of 2010, 105 will be tenured, 34 will be tenure track and untenured, and 13 will be in non-tenure track positions.

**Impact of the VSIP:** The deadline for the Voluntary Separation Incentive Program was July 16, 2010, and we now know its full impact on SEAS. Eleven faculty members have chosen to take the VSIP offer and will effectively retire at the end of the 2010-11 academic year, taking a Title F-leave in the fall of 2011. The effective cost to the school will be one year of salary to the faculty member for their retirement incentive (the Title F-leave and a 1/2 year salary lump sum payment), plus the UB open-position fee of 1/3 of their academic year salary. These onetime costs will be approximately \$1.96M for the 11 faculty leaving. In addition, five members of our staff will be leaving in the VSIP, with a one-time cost of \$190K. These one-time costs of \$2.15M will significantly reduce our ability to support adjunct appointments and teaching assistants during the 2011-12 and 2012-13 academic years.

In addition, a worst-case-scenario impact of the faculty leaving in the VSIP program would be to assume no new faculty hires this coming year and no tenure cases processed. This would result in a faculty count of 141 in the fall of 2011, and our tenured faculty decreasing from 105 to 94 (approximately 11%). More likely, we will conduct several searches this year for assistant professors and 1 to 2 for associate or full professors and, in addition, 2 to 3 tenure cases will be processed. Therefore, when the fall of 2011 begins, I estimate our tenured faculty will be near 97 or 99, resulting in a loss of 6 to 8% of our tenured faculty member count. While this change is not as significant as the early response to the VSIP program indicated (10 to 15%), it is still a step change that we must manage carefully.

One possible way to navigate this period is for tenured faculty members to take on higher teaching loads than is currently the norm in their department. To encourage this, I will propose to the

department chairs an adjustment to the SEAS operational resource allocation model to benefit those departments who support a teaching load policy consistent with our needs.



## 2. Undergraduate Financial Aid Policy

A cornerstone of the UB 2020 legislation is to provide more financial aid for students with demonstrated need and, simultaneously, raise tuition predictably for those who can pay the full costs. Unfortunately, only a small number of scholarships (outside the State TAP and Federal Pell grants) are need based at UB. To help UB move toward these new policies, the School of Engineering and Applied Sciences will be distributing all of its unrestricted scholarship gifts to those students who rank at the top of the entering freshmen class but who also demonstrate financial need. This new policy will begin with students entering as freshmen in fall 2011. While our resources are modest, with approximately \$150,000 per year in unrestricted financial aid gifts, we will use them exclusively to meet the need of students. This policy will also now allow us to contribute need based aid to the top undergraduate students who earn a President or Provost scholarship. In the past these students were supported solely from a central pool of merit based aid. Our role, starting in 2011, will be to contribute the need based portion of the grants to these top students.



## 3. Revenue Opportunities

I get criticized by some that I am overly focused on the finances of the school. In response, I believe my highest priority is to seek and gather all the resources that I can, so that our faculty can do great things. Last year we were successful in initiating the graduate tuition incentive plan, which raised \$922,000. This allowed our 2010-11 financial resources to be relatively the same as in 2009-10 in spite of a large (\$900,000) SUNY imposed cut.

This year I am exploring two additional revenue incentive plans, with similar philosophy to the graduate tuition incentive plan. The first is out-of-state students and the second is indirect cost recovery.

**Out-of-State Students:** The Table below shows a geographic profile of our entering freshman class. Over the past 9 years our out-of-state freshman population averaged 48 students, and over the last four years it averaged 62. State funding to UB does not change with the total number of students; however, the tuition for an out-of-state student is significantly higher than that for a NY state resident (\$7,900 more). Thus, if we are able to attract more out-of-state students versus NY state residents, the

university would gain the difference in tuition for the four years the student is enrolled. For example, if SEAS were able to enroll 10 more (72 versus 62) out-of-state students every year, then in four years the annual tuition revenue to UB would increase by \$316,000. Increasing it by 38 students (100 versus 62) would increase the annual tuition revenue by \$1.2M. What would that be worth to UB, and what would UB return to SEAS? How much effort and cost would it take for us to achieve this increase? Can we do this and continue to have our freshman quality metrics increase? These questions will need to be answered as we pursue this new revenue opportunity.

<b>Resident vs. Non-Resident Geographic Profile of SEAS freshmen</b>									
Year	2001	2002	2003	2004	2005	2006	2007	2008	2009
In State	376	395	419	346	320	408	429	375	458
Out of State Domestic	7	9	7	10	11	16	17	22	21
Out of State International	22	29	28	36	29	39	47	49	37
Total Out of State	29	38	35	46	40	55	64	71	58
Total First year Students	405	433	454	392	360	463	493	446	516

**Indirect Cost Recovery:** The Table below shows the indirect cost recovery that the grants and contracts in SEAS have earned for the university over the past 9 years. As a result of our expanded research proposal submission during the past three years (see [dqr15April2010](#)), our indirect cost recovery has begun to increase. In the 2009-10 fiscal year, our research grants and contracts earned \$6,223,000 of ICR for UB, whereas our average return for the 8 prior years was \$5,178,000. This is an increase of \$1,045,000 (20%). Currently the return to SEAS (and other schools at UB) is 12% of the total ICR, but similar to graduate tuition or out-of-state students, growth that exceeds UB’s budget expectations could be rewarded at a higher rate. A higher rate of return on over-target ICR would be a strong incentive for schools to focus more energy on funded research and gain financial benefits for their school. Similar to the graduate tuition incentive program, the target setting and sharing ratio will be key components of an incentive plan.

<b>Indirect Cost Return</b>									
Year	2002	2003	2004	2005	2006	2007	2008	2009	2010
<b>SEAS ICR (in \$1000)</b>	\$4,369	\$4,566	\$5,747	\$5,812	\$5,256	\$4,794	\$5,433	\$5,452	\$6,223



#### **4. New Leadership**

This past quarter, CSEE’s Scott Weber was appointed Vice Provost for Undergraduate Education, and BME and EE’s Alexander Cartwright was appointed Interim Vice President for

Research (VPR). This left SEAS needing new chairpersons for Civil Structural and Environmental Engineering, and for Biomedical Engineering and Electrical Engineering. After conversations with the faculty and staff in CSEE, it was clear that Andrew Whittaker would be the logical successor to Scott Weber, and in early June Professor Whittaker began a three-year term as CSEE department chair.

For Biomedical Engineering, David Kofke and Albert Titus have accepted two-year appointments as co-chairs of BME, and in Electrical Engineering, Stella Batalama has accepted a one-year appointment as EE chair. The appointments of Professors Kofke, Titus, and Batalama are acting appointments while Professor Cartwright serves his appointment as interim VPR. Please welcome Andrew, David, Albert, and Stella to their new roles, and let's thank Scott Weber and Alex Cartwright for their service in SEAS as we wish them good luck in their new positions!



## 5. Our New Building

Some people have asked about the color of the exterior cladding. The color is copper (like a penny) and was chosen to connect with the importance of copper in the fields of electrical engineering and computer science and engineering.



Although it does look a bit odd with the blue vapor barrier clashing with the copper, it will continue to look like the original renderings each day. The installation of the windows in early fall will be the final exterior treatment and should make the structure look nearly complete. We are still on schedule for a fall 2011 opening, and we are still on budget. Please let me know if you have any questions, or if you would like a tour.



## 6. Major Gifts, Events, and Visits

Two important financial contributions were made to SEAS this past quarter. The first was a pledge by Paula Agrusa, '76 and Russ Agrusa, '76, to provide a \$750,000 naming gift for the Agrusa

Auditorium in our new building. Russ is the founder and CEO of Iconics Inc., which is an international provider of manufacturing and building control software and systems located in Foxboro, Massachusetts. Paula is the Vice President of Iconics. The second was a pledge by the Keller family, who own and operate Keller Technology in Tonawanda, NY. Their contribution of \$100,000 will go towards naming a Computer Science laboratory on the third floor of the new building. More formal announcements and press releases for these contributions will be issued in the coming months.

Below is a list of important external events and visits during the past quarter.

<b>Date</b>	<b>Visit or Event</b>
4/5/2010	Dell Computer Campus representatives to discuss support of new building infrastructure
4/6/2010	CSE Faculty Meeting
4/9/2010	Dean's Advisory Council Strategic planning session for SEAS
4/13/2010	National Grid CEO: Steve Holiday Discussed NG's support of BEAM and BME
4/14/2010	CSEE Faculty Meeting
4/15/2010	Winfried Heinzl of Darmstadt University Discussed exchange programs with UB and TUD
4/16/2010	Tau Beta Pi Induction Ceremony
4/20/2010	Faculty Meeting with CBE
4/20/2010	Faculty Meeting with MAE
4/26/2010	D.P. Singh of Banaras Hindu University Discussed possible programs
4/28/2010	Faculty Meeting with EE
4/30/2010	President of National Grid North America: Tom King Discussed power infrastructure needs of WNY
5/6/2010	I-90 Workshop on Information Technology Build collaborations with industrial partners
5/7/2010	Rector Sahin from Istanbul Technical University Discussed the ITU Dual Degree Program
5/8/2010	Commencement Ceremony

5/10/2010	Kitty Pilarz, DAC member and Fisher Price Executive
5/12/2010	Retired SEAS faculty luncheon
5/13/2010	Houston, TX Visit with several groups of SEAS alumni to discuss supporting UB
5/15/2010	Third Annual BEAM Trek Fundraiser for BEAM program
5/21/2010	Dr. Davy Belk, Director of Air Force Research Lab in Rome NY I-90 Consortium on Information Technology
6/8/2010	Service Recognition Reception
6/9/2010	UB Partners Day
6/16/2010	Alumni Reception in Washington DC
6/22/2010	Wendt Foundation Board Discuss BME proposal
6/23/2010	Sacha Noukhovitch, Editor-in-Chief, Canadian Young Scientist Journal
6/28/2010	IUCRC kick-off meeting with Virginia Tech, CMU, UCF, and UB
6/29/2010	Presentation on SEAS progress to UB Foundation Board
6/30/2010	Bitzer Scroll Compressor Company visit to discuss possible research collaborations.

If you would like more information on any of the topics in this quarterly report, please contact me.

Sincerely,  
*Harvey*