Chairs' & Center Directors' Meeting Minutes

Date: January 31, 2011 (12:00 to 2:00 pm)
Location: EBU II – Room 443
Attendees: Abbaschian, Reza
Balandin, Alex
Barth, Matt
Bhuyan, Laxmi
Boretz, Mitch
Davidson, Don
Haddon, Robert
Hartney, Pat
Lake, Roger
Matsumoto, Mark
Najjar, Walid
Parker, Linda
Payne, Tom
Ravi
Schultz, Jerry
Stahovich, Tom
Xu, Daniel
Yan, Yushan

Absent: Bhanu, Bir

The agenda for the meeting is shown in Appendix 1.

1. Welcome and call for agenda items - Reza
Reza thanked the Chairs and Directors for attending last Monday's meeting with Winston Chung. Reza believes that this will be a long-term relationship with Winston. Further efforts with Winston include the installation of electric vehicle charging stations at CE-CERT.
Jerry added the topics of Health/Safety and Pillars of Excellence to the agenda. Alex added Space in the new MS&E Building and MS&E Moveable Equipment to the agenda.

2. Approval of Minutes - Pat
The revised minutes of the January 10th Chairs/Directors meeting were unanimously approved.

3. Research Ethics Training - Mitch
Mitch announced that UCR has initiated on-line tutorials for Responsible Conduct of Research (RCR) training. These on-line tutorials meet basic NSF requirements. Mitch will send the link to these tutorials to BCOE faculty and PIs. All grad students, undergrads, post-docs, visitors, etc. that are paid from NSF funds

will need this training. NetID's are needed in order to use UCR's on-line tutorials. All UCR employees have NetIDs but departments will have to request NetIDs for visitors and guests working on NSF projects. Mitch noted that recent guest speakers in Bioengineering and the MS&E program have discussed ethics in their presentations. Jerry asked how departments will keep track of who has completed these UCR on-line tutorials. Pat will find out the answer to this question and will send this information to Chairs and Directors.

4. NSF Science & Technology Centers – Mitch

Mitch distributed the attached Fact Sheet and Planning Guide for NSF Science and Technology Centers (STC). He noted that there will be a UCR meeting on 2/22/11 to discuss possible STC proposal topics. BCOE and CNAS researchers should work together to come up with topics that could be presented at the 2/22/11 meeting. UCR can propose up to three STC topics. Each STC receives about $5M per year for 5-10 years. Possible STC topics discussed at the Chairs/Directors meeting included Energy Storage, Computing Without Silicon and Computational Materials Science. STCs will be discussed again at the next Chairs/Directors meeting.

5. Fellows Program – Linda

Linda distributed the following four documents: Fellow of the Bourns College of Engineering Award, Fellow of the College Nomination Form, completed Fellow Nomination Form for Winston Chung and a biography of Winston Chung. Linda remarked that the first document is unchanged from the draft presented at the last Chairs/Directors meeting. The Fellows program is intended to honor distinguished friends and supporters of BCOE. In response to a question, it was noted that nominations are to remain confidential. Also, it was noted that Marlan and Rosemary Bourns may be nominated for future BCOE Fellows awards. After discussion, the BCOE Fellows Award Program and Winston Chung's nomination as a BCOE Fellow were unanimously approved. Winston's Fellows Award is contingent on completion of his $10M donation to BCOE. Reza noted that Winston will be asked to be a member of BCOE's Council of Advisors.

6. Graduate Education - Mark

Mark noted the 1/31/11 summary of grad student applications that is attached to the agenda. This summary indicates that BCOE grad student applications have increased by about 15% from last year. BCOE received more grad student applications this year that either CNAS or CHASS. Admissions offers to domestic grad student applicants have started to be processed.

7. Undergraduate Education - Ravi

Ravi distributed a summary of BCOE Undergraduate applications to date. According to this summary, BCOE freshmen applications increased about 10% from last year. Transfer applications increased by about 47% from last year. Ravi stated that BCOE's freshmen target is still 600. UCR has started admitting BCOE freshmen with AIS scores of 1,005 or greater. These admits total 1,936 to date. Reza expects that about 400 of these 1,936 will accept UCR's offer. In order to reach the 600 freshmen target, UCR will then start admitting wait-listed freshmen (with AIS scores less than 1,005). Also, UCR will start admitting transfer students in February. Ravi reminded participants that transfer students succeed in BCOE about twice the rate as incoming freshmen and that the Master Plan for UC still specifies the goal of a 60/40 split between upper division and lower division undergrads. As such, BCOE wants to increase its proportion of transfer students. Jerry commented that the quality of UCR's freshmen will continue to increase and that there is benefit to having a student for four years instead of just two years.

8. Faculty Recruitment
BIEN has identified 12 candidates to bring to campus

CEE has identified several MSE and CEE candidates.

EE reported that it has identified candidates for interviews.

CS has invited eight candidates for interviews. The first candidate's visit will be this Friday (2/4/11).

ME's advertisement period ends today (1/31/11). ME has received about 150 applications to date.

Pat asked Chairs to remind their Search Committees to try to conform to UCR Entertainment Expense policies and reimbursement limits for faculty candidate visits. It is particularly difficult to approve exception requests for meal costs above the max limits during this period of budgetary uncertainty. The Dean has recently approved exception requests for meal amounts over the limits for departmental guests (invited speakers, etc) but did not extend this approval to accompanying BCOE faculty members. It was noted that the Ciao Bella restaurant may be willing to offer free wine for faculty recruitment dinners. The Dean's Office will investigate this possibility.

9. Budget – Reza
Reza stated that UCR could be facing a $38M budget reduction for FY 11/12. If this happens, it will impact all academic and non-academic units. The size of BCOE's reduction could be 2½ times the size of the cut two years ago (which was $572K). Reza has recommended to the campus that they try to generate more revenue such as by putting PI academic year salaries on contracts/grants (thus saving University salary funds). This is standard practice at several major universities. Reza commented that faculty not actively engaged in research may have to teach more than the current four courses per year. Reza suggested to campus that they consider establishing an Undergraduate College that would be responsible for teaching general education courses. In response to a question, Reza noted that the campus may decide to freeze faculty recruitments this year or next year but no such notification has been given to date. Lastly, he commented that UCR will have great difficulty moving forward with its Strategic Plan at this time due to budgetary constraints.

10. Departmental Updates
There were no departmental updates provided.

11. Other Matters
Jerry stated that he is concerned that departments are now responsible for their own lab safety audits. He feels that these audits should be undertaken by persons outside departments (either at the College or campus level). Also, EH&S has provided input to BIEN about several safety related requirements (i.e., the max distance of safety showers and eyewashes to labs) that seem unrealistic. Lastly, he stated that each faculty member is now responsible for his/her lab's Chemical Hygiene Plan which could be burdensome. After discussion, Reza will ask Maggie to make a presentation at the next Chairs/Directors meeting on the responsibilities of Lab Safety Officers, BCOE's Safety and Facilities Manager and UCR's EH&S department.

Alex added the question of lab assignments in the MSE building for MSE faculty and distribution of "movable equipment funds". The discussion took place at the end of the meeting.
Alex indicated that due to the delay with the assignment of space, MSE faculty members are disadvantaged as compared to Bioengineering faculty. He also pointed out the non-equal distribution of "movable equipment" funds between Bioengineering and MSE faculty. Many individual labs of the Bioengineering faculty received

more than $21K in funds for things like incubators. The MSE faculty labs are equipped at the level of $2-3K. He stated that the situation has to be corrected. He also commented that the initial plan was to order only basic things like lab tables for everybody and that the more specialized equipment will be ordered later for the whole college. If needed, discussion of this topic will be continued at the next Chairs/Directors meeting.

UNIVERSITY OF CALIFORNIA
UC RIVERSIDE
BOURNS COLLEGE OF ENGINEERING

Chairs' & Center Directors' Meeting

January 31, 2011

Agenda

Engineering Building Unit II – Room 443

1.	Welcome - Request for Agenda Items from the Floor	Reza
2.	Approval of Minutes from January 10, 2011 Meeting	Pat
3.	Research Ethics Training	Mitch
4.	NSF Science & Technology Centers	Mitch
5.	Fellows Program	Linda
6.	Graduate Education	Mark
7.	Undergraduate Education	Ravi
8.	Faculty Recruitment	Chairs
9.	Budget	Reza
10.	Department Updates	Chairs/Directors
11.	Other Matters	

The next scheduled meeting will be

Monday – February 14, 2011

Please note: Meetings will be held in EBU II – Room 443

Fact Sheet and Planning Guide

Science and Technology Centers: Integrative Partnerships

Program Solicitation NSF 11-522,
http://www.nsf.gov/pubs/2011/nsf11522/nsf11522.htm

January 31, 2011

What NSF is looking for

The Science and Technology Centers (STC): Integrative Partnerships program supports innovative, potentially transformative, complex research and education projects that require large-scale, long-term awards. STCs conduct world-class research through partnerships among academic institutions, national laboratories, industrial organizations, and/or other public/private entities, and via international collaborations, as appropriate. They provide a means to undertake significant investigations at the interfaces of disciplines and/or fresh approaches within disciplines. STCs may involve any areas of science and engineering that NSF supports. STC investments support the NSF vision of advancing discovery, innovation and education beyond the frontiers of current knowledge, and empowering future generations in science and engineering.

Funding

Approximately $5 million per year for up to 10 years. Cost sharing is not allowed, but the proposal must "demonstrate institutional commitment to achieving strategic goals that are shared by the lead and partnering institutions."

Schedule

Campus decision process: now through late February. Department chairs/center directors meeting will be February 22. The campus will be looking for teams that involve both CNAS and BCOE faculty. Ideally, we should have some concepts pre-packaged for the February 22 meeting.

- Pre-proposals due to NSF May 30, 2011 (limit three per institution)
- Full proposal invitations: October-November 2011
- Full proposals due: February 3, 2012
- Site visits: September-October 2012-13
- Awards announced: Spring 2013
- New centers begin operations: June 2013

Other considerations

While the STC proposal is pending, we may not propose the same idea to any other NSF program. Thus, whatever we propose as an STC can't be proposed as an Engineering Research

Center or Center of Excellence in Materials Research and Innovation (CEMRI, formerly MRSEC).

Technical topic areas

Below are the research emphasis areas that BCOE settled on in our strategic planning exercise in November.

- Clean, Safe, and Sustainable Energy
- Computational Materials
- Cyber-Physical Systems
- Health Informatics
- High-Throughput Screening and Drug Design
- Institute for Environmental Research and Technology
- Medical Devices
- Next-Generation Electronics
- Safety and Security
- Sensing, Communications, and Imaging
- Sustainable Water Quality and Quantity

These are active NSF STCs created in 2010 (from http://www.nsf.gov/od/oia/programs/stc/active_centers/ACTIVE.jsp):

- BEACON: An NSF Center for the Study of Evolution in Action, www.beacon.msu.edu
- Center for Dark Energy Biosphere Investigations, www.darkenergybiosphere.org (USC)
- Center for Energy Efficient Electronics Science, www.e3s-center.org (UC Berkeley)
- Emergent Behaviors of Integrated Cellular Systems, www.ebics.net (MIT)
- Emerging Frontiers of Science of Information (Purdue)

These are the 2006 STCs (from http://www.nsf.gov/od/oia/programs/stc/active_centers/ACTIVE.jsp):

- Center for Coastal Margin Observation & Prediction, www.stccmop.org (Oregon Health Science University)
- Center for Layered Polymeric Systems, www.clips.case.edu (Case Western Reserve)
- Center for Microbial Oceanography, www.cmore.soest.hawaii.edu (University of Hawaii)
- Center for Multi-Scale Modeling of Atmospheric Processes, www.cmmap.colostate.edu (Colorado State)

These are the 2005 STCs (from http://www.nsf.gov/od/oia/programs/stc/active_centers/ACTIVE.jsp):

Center for Remote Sensing of Ice Sheets, www.cresis.ku.edu (University of Kansas)
Team for Research in Ubiquitous Secure Technology, www.trust.eecs.berkeley.edu (UC Berkeley)

These are the 2002 STCs (from http://www.nsf.gov/od/oia/programs/stc/active_centers/ACTIVE.jsp):

- Center of Advanced Materials for Water Purification, www.watercampws.uiuc.edu (University of Illinois)
- Center for Biophotonics Science & Technology, www.cbst.ucdavis.edu (UC Davis)
- National Center for Earth-surface Dynamics, www.nced.umn.edu (Minnesota)
- Center for Embedded Networked Sensing, www.cens.ucla.edu (UCLA)
- Center for Integrated Space Weather Modeling, www.bu.edu/cism (Boston University)
- Center for Materials and Devices for Information Technology Research, www.stc-mditr.org (University of Washington)

UNIVERSITY OF CALIFORNIA
RIVERSIDE
Bourns College of Engineering

Fellow of the Bourns College of Engineering Award

Purpose of the Fellow of the College Award

The purpose of awarding the title of Fellow of the College is to recognize exceptional contributions and/or outstanding service to the Bourns College of Engineering (BCOE) at UC Riverside resulting in significant progress, development or promotion of the College.

Definition and Scope of Award

BCOE may grant the title of Fellow of the College to deserving recipients whose work, achievement, or philanthropy has distinctly advanced the mission and values of the College and whose conduct or reputation has brought great distinction to the college or the field of engineering.

Title Presentation

- No more than two Fellows of the College shall be awarded in a year and none shall be awarded if there is no suitable recipient.
- Fellows of the College awards are conferred during the College's Commencement Ceremonies or in any other ceremonies deemed fit by the Dean of College.
- Recipients of Fellow of the College must attend the ceremonies to receive the honor.

Criteria for the Award

The recipients of the title Fellow of the College shall be individuals with high intellect who possess the highest moral and ethical standards. Recipients shall be:

- Distinguished engineers who have made significant contributions to the field of engineering.
- Distinguished persons whose work, outside engineering, has significantly impacted the field of engineering.
- Other distinguished persons whose activities have significantly benefited the engineering community and the College.

Benefits

- Recipients of Fellow of the College shall be entitled to use the title in all situations and for all correspondence. The title does not confer any entitlement or place any obligation upon the holder, beyond the usage of the title itself.

UNIVERSITY OF CALIFORNIA
RIVERSIDE
Bourns College of Engineering

Fellow of the College Nomination Form

1. Candidate's Name: _____
2. Position and Affiliation: _____

3. Candidate's address, email, telephone, and fax number:

4. Education: (list degrees earned, major fields, institutions, dates)

5. Citizen of: _____
6. Primary Specialty Area(s): _____

7. Record of Professional Experience: (list principal positions held and responsibilities)

8. Contributions of Record: (publications–number, & other–patents, software, philanthropy and volunteerism benefitting the college, etc.)

9. Professional Recognition: (honors, awards, prizes, etc.)

10. Nominated by: _____ *(please print)*

_____ _____
(Signature) (Date)

_____ _____
(Email Address) (Phone)

UNIVERSITY OF CALIFORNIA
RIVERSIDE
Bourns College of Engineering

Fellow of the College Nomination Form

1. Candidate's Name: Winston Chung (aka: Chung Hing Ka; Xingia Zhong; Xin Jia Zhong)

2. Position and Affiliation: Founder, Chairman and CEO, Winston Global Energy Company, Ltd., Major Donor to BCOE

3. Candidate's address, email, telephone, and fax number:
Thunder Sky Industrial Base, No. 3 Industrial Zone
Lisonglang Village
Gongming Town, Bao'an Dist, Shenzhen, 5181016
China

4. Education: **(list degrees earned, major fields, institutions, dates)**
NA

5. Citizen of CHINA *(country)*

6. Primary Specialty Area(s): Electric batteries, clean energy research, product development

7. Record of Professional Experience: **(list principal positions held and responsibilities)**
Founder, Chairman, CEO, Winston Global Energy Co., Ltd. (currently the company's total assets have reached RMB 31 billion (US $4.64 billion)
Majority Stockholder and chairman of the board of directors of MVP RV, a Riverside-based company
Chairman of the board of directors of Balqon Corporation

8. Contributions of Record: **(publications–number, & other–patents, software, philanthropy and volunteerism benefitting the college, etc.)**
$10 million gift to BCOE that will rename Engineering Building Unit II to Winston Chung Hall, create a new Global Energy Research Center through CE-CERT and name two endowed term professorships.
Published compilation of the Meridional Flow on Acupuncture and Moxibustion, 1974
Invented: 3-in-1 television system; maintenance-free lead-acid battery (1982); plastic lithium-ion rechargeable battery (1989); waterborne adhesive lithium-ion rechargeable battery (1995); rare earth element lithium yttrium rechargeable battery (2001); rare earth element lithium-sulfur rechargeable battery (2003).

9. Professional Recognition: **(honors, awards, prizes, etc.)**
Named as Member of the UN Committee on Power
Named as Director and Chief Scientist of the People's Republic of China's National Lithium Battery Research and Development Center

10. Nominated by: _____ **(print name)**
_____ **(Signature)** _____ **(Date)**
_____ **(Telephone)** _____ **(email address)**

Winston Chung

Founder, Chairman and CEO, Winston Global Energy Company, Ltd.

Winston Chung, inventor of the lithium iron phosphate battery, is the founder, Chairman and CEO of Winston Global Energy Co., Ltd. The company invests, manufactures and markets energy storage solutions and lithium batteries. Winston also serves as Director and Chief Scientist of the People's Republic of China's National 863 Lithium Battery Research and Development Center. As the major shareholder of a listed Company on the Hong Kong Stock Exchange, he leads an elite team expanding clean energy research and product development.

In 2010, Winston acquired the former Fleetwood Enterprises facility in Riverside, California. He is the majority stockholder and chairman of the board of directors of MVP RV, a manufacturer of recreation vehicles. Winston is investing $310 million in MVP RV to promote motorhome exports to China. In 2011, he invested $5 million in Balqon Corporation (BLQN.OB), a manufacturer of electric-powered vehicles and is the Chairman of the Board of Directors.

A child prodigy, Winston invented the Traditional Chinese Medical (TCM) pulse meter at age 12. At 13, he began to study TCM and Pharmacology. His compilation of the Meridional Flow on Acupuncture and Moxibustion was published when he was 16. At 17, he invented a 3-in-1 television system. He invented the maintenance-free lead-acid battery (1982); the plastic lithium-ion rechargeable battery (1989); the waterborne adhesive lithium-ion rechargeable battery (1995); the rare earth element lithium yttrium rechargeable battery (2001) and the rare earth element lithium-sulfur rechargeable battery (2003), which is the most advanced battery technology in the world.

Winston enjoys music, art and painting. He was born on August 10th, 1958 in Guangdong Province, China.

2011-12 BCOE GRADUATE RECRUITMENT TARGETS

Dept	M.S.	Ph.D.	Total	Accepts	% of Target
BIEN	20	15	35		
CEE	5	16	21		
CSE	15	20 25	35		
EE	13	32	45		
MSE	4	8	12		
ME	15	10	25		
Subtotal	72	101	~~173~~ 178		

Applicants - as of January 31, 2011

Program	International Students			Domestic Students			Total Students		
	2009	2010	2011	2009	2010	2011	2009	2010	2011
BIEN	24	25	34	20	61	49	44	86	83
CEE	110	129	123	22	56	65	132	185	188
CS	421	324	378	52	60	64	473	384	442
EE	412	329	410	32	55	38	444	384	448
MSE	NA	46	57	NA	7	30	0	53	87
ME	64	67	81	16	17	28	80	84	109
Total	1031	920	1083	142	256	274	1173	1176	1357

	Apps	
Unit	2010	2011
BCOE	1176	1357
CHASS	1057	1042
CNAS	1109	1238
DBS	50	51
AGSM	92	147
GSOE	82	102
Total	3566	3937

Admits - as of January 31, 2011

Program	International Students			Domestic Students			Total Students		
	2009	2010	2011	2009	2010	2011	2009	2010	2011
BIEN	0	0	0	2	6	0	2	6	0
CEE	0	0	0	3	3	4	3	3	4
CS	0	0	0	0	0	0	0	0	0
EE	0	0	0	0	0	0	0	0	0
MSE	NA	0	0	NA	0	0	0	0	0
ME	0	0	0	0	0	0	0	0	0
Total	0	0	0	5	9	4	5	9	4

	Admits	
Unit	2010	2011
BCOE	9	4
CHASS	0	1
CNAS	23	19
DBS	0	3
AGSM	0	4
GSOE	0	0
Total	32	31

BCoE FRESHMEN	Applied	Admits	Applied	Admits	% diff	
Major	1/31/2011		2/1/2010		(applics)	(admits)
Bioengineering	233	258	157	200	48.4%	29.0%
Bioengineering BS + MS	217	50	248	56	-12.5%	-10.7%
Business Informatics	98	33	70	31	40.0%	6.5%
Chemical Engineering	203	154	176	139	15.3%	10.8%
Chemical Engineering BS + MS	80	19	114	19	-29.8%	0.0%
Computer Engineering	343	239	488	182	-29.7%	31.3%
Computer Engineering BS + MS	290	34	304		-4.6%	
Computer Science	360	292	264	215	36.4%	35.8%
Computer Science BS + MS	229	33	212	31	8.0%	6.5%
Electrical Engineering	239	177	171	160	39.8%	10.6%
Electrical Engineering BS + MS	139	17	19	19	631.6%	-10.5%
Environmental Engineering	190	142	134	113	41.8%	25.7%
Environmental Engineering BS + MS	90	6	142	16	-36.6%	-62.5%
Materials Science and Engineering	54	27	46	24	17.4%	12.5%
Mechanical Engineering	608	426	440	351	38.2%	21.4%
Mechanical Engineering BS + MS	327	29	389	40	-15.9%	-27.5%
Refer to transcript	2	0				
TOTAL FRESHMEN	3702	1936	3374	1596	9.7%	21.3%

	Applied	Admits	Applied	Admits	Applied	Admits
Total BS + (BS+MS) Count	1/31/2011		2/1/2010		% diff	
Bioengineering	450	308	405	256	11.1%	20.3%
Business Informatics	98	33	70	31	40.0%	6.5%
Chemical Engineering	283	173	290	158	-2.4%	9.5%
Computer Engineering	633	273	792	182	-20.1%	50.0%
Computer Science	589	325	476	246	23.7%	32.1%
Electrical Engineering	378	194	190	179	98.9%	8.4%
Environmental Engineering	280	148	276	129	1.4%	14.7%
Materials Science and Engineering	54	27	46	24	17.4%	12.5%
Mechanical Engineering	935	455	829	391	12.8%	16.4%
	3700	1936		1596		21.3%

BCoE not accepting referrals in 2011

BCoE TRANSFERS	Applied		Admitted		% diff
	1/31/2011		2/1/2010		
Bioengineering	82	1	65	0	26.2%
Business Informatics	15	0	23	0	-34.8%
Chemical Engineering	106	1	81	0	30.9%
Computer Engineering	80	0	60	0	33.3%
Computer Science	180	4	120	0	50.0%
Electrical Engineering	169	4	96	0	76.0%
Environmental Engineering	38	0	36	0	5.6%
Materials Science and Engineering	20	1	10	0	100.0%
Mechanical Engineering	240	3	137	0	75.2%
TOTAL TRANSFER	930	14	630	0	47.6%

UC Applications					
	1/31/2011		2/1/2010		% diff
SoBA	1201		913		31.5%
BCoE	4537		3978		14.1%
CNAS	11198		9874		13.4%
CHASS	16665		15286		9.0%
Total	33602		30101		11.6%