

**University of California at Berkeley**

**MEETING OF THE FACULTY OF THE COLLEGE OF ENGINEERING**

**December 10, 2007, 11:30AM**

**290 Hearst Memorial Mining Building**

I. Minutes of the Meeting of April 12, 2007

<http://www.coe.berkeley.edu/faculty/faculty-meetings-college-committees>

A motion was made to approve the minutes. The motion was seconded and passed.

II. Announcements of the Chairperson

Chairperson Righter announced that effective October 2007, Arun Majumdar became division director of the engineering energy technology division at LBNL. Kathy Yelick is now division director for the national energy superconducting center at LBNL.

III. Announcements of other Executive Officers of the Faculty - none

Chair Righter introduced LBNL Director Steve Chu who was invited by Dean Sastry to present some remarks to the Faculty.

Director Chu addressed the faculty about various opportunities for joint collaborations between LBNL and COE on energy research.

IV. Special Orders

Dean Sastry thanked LBNL Director Steve Chu for attending the meeting and for taking time out of his schedule to talk to the Faculty about partnering with the College on certain areas of common interest, especially in synthetic and nano and bio science as well as designing “smart”, energy efficient “green” buildings.

Dean Sastry gave a PowerPoint overview of the College of Engineering. The overview detailed the COE rankings in comparison to other leading engineering schools in the USA. His presentation also addressed enrollment trends, faculty recruitment costs and budget allocations. All enrollment indicators are positive overall.

Summarizing achievements in the past year, Dean Sastry commented on the progress made on the new CITRIS Headquarters. Dean Sastry also highlighted advancements in personalized health care, through development of better therapy techniques.

Dean Sastry then turned the focus of his remarks on faculty work load. On Berkeley campus, the COE faculty rank in the middle of the scale in terms of Av. student credit hours. Law and L&S rank near the top of the scale.

The Dean encouraged faculty to think “big” in terms of pursuing industry gifts and grants. He outlined some of the financial issues facing the College, in particular the \$4 million shortfall per year impacting Faculty salaries. Start up / Retention expenses are running \$12-15 M per year. And at the same time, the Dean believes that the College is not giving students as strong an experience as they deserve.

The Dean described how he has challenged the EAB, and other benefactors to help with increasing donations to help the Faculty raise the bar.

The Dean also talked about pursuing the possibility of imposing a new “supplemental” graduate student fees to help address the faculty salary shortfall. He outlined the expected benefits of fee revenue assessed on graduate students only. The overall advantage being that the revenue stream from the fee is unrestricted and the impact of the fees charged to students could be mitigated by applying the costs of the fees through in research grants. The fee increase contemplated is between \$5-7K per year per graduate student.

Professor Liepmann gave a PowerPoint presentation on behalf of the Bio Health taskforce. The brief-out presented the direction the college intends to take in Bio Health as the result of discussions at the Fall COE retreat. The report focuses on establishing a strong Bio-Health program presence and identity on campus.

Professor Paul Wright gave a PowerPoint presentation on Energy/Environment strategic initiatives. Creation of an Energy Council is one of the primary goals. The Council would oversee development of engineering solutions and research in reducing mankind’s overall carbon footprint. The efforts being undertaken represent the combined activities at LBNL, BP & Helios; at the College of Chemistry and Chemical Engineering through SynBERC (Synthetic Biology, ERC); at the Energy Resources Group (ERG) and Architecture Department; at the College of Natural Resources; at the Berkeley Institute for the Environment; Nuclear Engineering and the Goldman School; and finally at CITRIS. Professor Wright called for focusing and further developing COE branding in – MEMS/NEMS, developing advanced materials at the new CITRIS nanolab and further innovation in the area of intelligent automatic control (EECS and ME).

Professor Patterson spoke on efforts in research support strategic initiatives. The overall focus of the College will be to concentrate more heavily in the future on industrial funding.

Professor Dornfeld reported to the group on Distance Learning and International relationships. Using PowerPoint, he detailed steps taken to advance GLOBE, searching for funding opportunities, potential for offering advanced degrees on the web, broadcasting courses through UTube. Advancing a Master of Advanced Study, adding lower division courses for credit, offering a five years Master’s program.

Assist. Dean Nidever addressed the faculty regarding the capital campaign and specifically the faculty endowment. The goal is \$150 M. The conclusion of the campaign is 2012. The Hewlett Foundation Challenge is a great opportunity to make giant strides. Each Department now has a major gift officer working with the Chair.

All of these presentations are available on the College website.

Exec. Associate Dean Doyle reported that freshman admission standards historically and at present have not completely uniform in order to assure a core number of students according to discipline. The transition to a common first year curriculum, and the conclusion reached further analysis is required to making any changes to the freshman admission standards at this time.

Professor Conolly reported on the Biology in the College Taskforce co-chaired by Jitendra Malik and Steve Conolly. The proposed program below was presented for review by the full faculty. The intention will be to vote on the curriculum proposal at the Spring 2008 Faculty meeting. It was decided by the taskforce to allow each Department to decide what its specific requirements would be in order to provide latitude among respective disciplines. The recommendation of the taskforce is that undergraduate level healthcare courses be offered on biological research modeled after those offered at MIT:

1. MCB, Genetics; cell & molec. Bio
2. Microorganisms as geochemical agents
3. Computational and genetic biology

Professor Ramesh gave a brief overview of the taskforce's view on how to best introduce the concept of nano into the curriculum at the undergraduate level. The new course offering would likely be conducted in a new lab to be built either in Stanley, Hearst Mining or the new CITRIS building.

Speaking on behalf of the ABET committee, Professor Peterson gave a brief update on corrective actions being taken in response to the ABET review conducted earlier this year. A report will be submitted by COE to ABET during July describing the corrective measures taken in response to the ABET evaluation. Assuming the report is accepted by ABET. Professor Peterson says the next ABET review will not have to occur again for another five years.

#### V. Reports of Special Committees

##### 1. Reports of Ad Hoc Administrative Committees

A motion was made to accept the reports of the committees and the motion carried.

##### 2. Reports of Interdisciplinary Studies Committees

A motion was made to accept the reports of the committees and the motion carried.

- VI. Reports of Standing Committees  
A motion was made to accept the reports of the committees and the motion carried.
- VII. Consent Calendar  
Consent calendar was approved by majority vote.
- VIII. Petitions of Students  
There was no petition of students.
- IX. Unfinished Business  
There was no unfinished business.
- X. New Business

There being no further business, Chair Rhonda Righter adjourned the meeting at 2:05pm.

Respectfully submitted by Bill Oman.

**Attendees:**

Bill Oman	Dean's Office
David Attwood	Electrical Engineering & Computer Sciences
Connie Chang-Hasnain	Electrical Engineering & Computer Sciences
J. George	
Shanthikumar	Industrial Engineering & Operations Research
Michael Gastpar	Electrical Engineering & Computer Sciences
Avideh Zakhor	Electrical Engineering & Computer Sciences
Roger Glassey	Industrial Engineering & Operations Research
Jack Moehle	Civil & Environmental Engineering
Ken Goldberg	Industrial Engineering & Operations Research
Kevin E. Healy	Materials Science & Engineering
David	
Messerschmitt	Electrical Engineering & Computer Sciences
Dorit Hochbaum	Industrial Engineering & Operations Research
Steven Glaser	Civil & Environmental Engineering
Per Peterson	Nuclear Engineering
Karl Pister	Civil & Environmental Engineering
Carlo Sequin	Electrical Engineering & Computer Sciences
Fiona Doyle	Materials Science & Engineering
Jean Walrand	Electrical Engineering & Computer Sciences
Krste Asanovic	Electrical Engineering & Computer Sciences
Brian A. Barsky	Electrical Engineering & Computer Sciences

Stuart Russell	Electrical Engineering & Computer Sciences
James O'Brien	Electrical Engineering & Computer Sciences
Ivan Kaminow	Electrical Engineering & Computer Sciences
Dave Patterson	Electrical Engineering & Computer Sciences
Stuart Russell	Electrical Engineering & Computer Sciences
T. Ken. Gustafson	Electrical Engineering & Computer Sciences
Ruzena Bajcsy	Electrical Engineering & Computer Sciences
Charles K (Ned) Birdsall	Electrical Engineering & Computer Sciences
Phil Kaminsky	Industrial Engineering & Operations Research
Ned Birdsall	Electrical Engineering & Computer Sciences
Venkat Anantharam	Electrical Engineering & Computer Sciences
David Hodges	Electrical Engineering & Computer Sciences
Lisa Alvarez-Cohen	Civil & Environmental Engineering
Ali Niknejad	Electrical Engineering & Computer Sciences
Teresa Moore	Dean's Office
Prof. W. Kahan	Electrical Engineering & Computer Sciences
Rhonda Righter	Industrial Engineering & Operations Research
Beverly Skinner	Other
Martin Graham	Electrical Engineering & Computer Sciences
Steve Chu	LBNL
Paul K. Wright	Mechanical Engineering
Jeffrey Bokor	Electrical Engineering & Computer Sciences
Paul Wright	Mechanical Engineering
George Leitmann	Mechanical Engineering
Darrell Erickson	ERSO
Borivoje Nikolic	Electrical Engineering & Computer Sciences
Brian Harvey	Electrical Engineering & Computer Sciences
Ramamoorthy Ramesh	Materials Science & Engineering
Ilan Adler	Industrial Engineering & Operations Research
Scott Shackleton	Other
Z. Max Shen	Industrial Engineering & Operations Research
David Steigmann	Mechanical Engineering
Miquel Salmeron	Materials Science & Engineering
Michele de Coteau	Other
Ali Javey	Electrical Engineering & Computer Sciences
Rastislav Bodik	Electrical Engineering & Computer Sciences
Gary Baldwin	Other
Jasmina Vujic	Nuclear Engineering
Jose Carmena	Electrical Engineering & Computer Sciences
Bernhard Boser	Electrical Engineering & Computer Sciences
Sara McMains	Mechanical Engineering
Valerie Ventre-Hutton	Other
Armen Der	Civil & Environmental Engineering

Kiureghian	
Edward A. Lee	Electrical Engineering & Computer Sciences
David Dornfeld	Mechanical Engineering
David Attwood	Electrical Engineering & Computer Sciences
Xin Guo	Industrial Engineering & Operations Research
Bob Giomi	Other
Michael Frenklach	Mechanical Engineering
Melissa Nidever	Other
Barbara Blackford	Other
Jeff Rhode	Other
Liwei Lin	Mechanical Engineering
Randy Sweringen	Other
Susan L Graham	Electrical Engineering & Computer Sciences
Patti Meagher	Other
Mary Byrnes	Electrical Engineering & Computer Sciences
Dina Michail	Industrial Engineering & Operations Research
Lisa Zemelman	Nuclear Engineering
Tester Tester	Bioengineering
Alan Smith	Electrical Engineering & Computer Sciences
Dorian Liepmann	Bioengineering
Irina Conboy	Bioengineering
Robert Dibble	Mechanical Engineering
Kimmen Sjolander	Bioengineering
Anthony D. Joseph	Electrical Engineering & Computer Sciences
Lydia Sohn	Mechanical Engineering
Kannan	
Ramchandran	Electrical Engineering & Computer Sciences
John Verboncoeur	Nuclear Engineering
Joan Chamberlain	Civil & Environmental Engineering
Joonhong Ahn	Nuclear Engineering
David Bogy	Mechanical Engineering
Rebecca Pauling	Bioengineering
Catalina Estrada	Materials Science & Engineering
Amy Herr	Bioengineering
Alice Agogino	Mechanical Engineering
Babak Ayazifar	Electrical Engineering & Computer Sciences