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Date of Meeting:	April 4, 2014	Time:	10:00 AM
Meeting Facilitator:	Dr. Roger Dougal	Location:	Swearingen Center room 3A75

IAB member Attendees			
Name	Company	E-mail	Phone
Tracy Blackmon	Duke Energy	tracy.blackmon@duke-energy.com	704-607-1079 (M)
Bob Bush	Altron/System Research Group	bob.bush@ieee.org	843-224-1191 (W)
Jeff Cain	Cisco	jeffcain@cisco.com	
Al Emondi	SPAWAR Systems Center	al.emondi@navy.mil	(843) 218-5435
Tonia Morris	Intel Corporation	tonia.g.morris@intel.com	803-216-2712 (W)
Steve Tibrea	Savannah River National Lab	steven.tibrea@srs.gov	803-645-7432 (M)
Harry Weatherford ,Jr.	Nucor	harry.weatherford@nucor.com	843-3442497 (M)
Marty Wilson	Flextronics	marty.wilson@flextronics.com	803-413-2517 (M)
Peter Zmolek	Continental	peter.zmolek@conti-na.com	704-583-8770

Faculty and Staff Attendees		
Name	Title	E-mail
Dr. Roger Dougal	Professor and Chair	dougal@cec.sc.edu
Dr. Charles Brice	Associate Professor	brice@cec.sc.edu
Dr. MVS Chandrashekar	Assistant Professor	chandra@cec.sc.edu
Dr. Yinchao Chen	Associate Professor	chenyin@cec.sc.edu
Dr. Herbert Ginn	Associate Professor	ginnhl@cec.sc.edu
Dr. Enrico Santi	Associate Professor	santi@cec.sc.edu
Dr. T.S. Sudarshan	Professor	ts@cec.sc.edu
Dr. Guoan Wang	Assistant Professor	gwang@cec.sc.edu
Dr. Bin Zhang	Assistant Professor	binzhang@cec.sc.edu

Absent			
Name	Company	E-mail	Phone
Tom Abrams (Chair)	Santee Cooper	stabrams@santecooper.com	803-708-0300 (M)
Lee Xanthakos	SCANA	pxanthakos@scana.com	803-331-3271 (M)
Krista Marks	Nimbee	krista.marks@gmail.com	

Approval of Fall 2013 Meeting Minutes

The Fall 2013 Meeting minutes were approved as written.

State of the Department - Dr. Dougal

- New Faculty – Dr. Benigni was introduced
- New IAB Members – Jeff Cain (Cisco), Peter Zmolek (Continental), and Harry Weatherford, Jr. (Nucor) were introduced.
- Overview of the department status –
 - Undergraduate enrollment – number of students increased
 - Finance & Budget – the status improved from last year, with at least a minimally-sufficient level of University funding for base operations. Still continuing as a problem is the loss of all indirect cost returns to the department and to individual researchers (due to over-commitments for faculty startup costs at the College level). This is expected to continue for at least another 2-3 years and now presents a serious problem with respect to carryover of graduate students between grants, maintenance of research equipment and facilities, etc.
 - Donations, especially for scholarships and to support Senior Design projects, are always welcome and are urgently needed. The Department web site has a new link to “Giving” programs so that it is easier for prospective donors to donate.

Undergraduate Program –

- I. Career Plans – Dr. Simin, Presenter**
 - New Career Plans have been defined and highlighted on department web pages. These have two main purposes
 - Make the program more attractive to prospective students – show them the career opportunities that they will have
 - Assist our current students in selecting appropriate elective courses for their intended career path, so that they can be competitive in the job market
 - Sample Career Plans were shown and Dr. Simin explained how the list was created.
 - IAB members were asked to review the list and suggest improvements. Do the listed plans represent jobs that the IAB companies might have? Do the suggested courses look appropriate for the jobs?
- II. Student Advisory Board** -- IAB members met with undergraduate students to discuss various topics regarding the undergraduate program.
- III. Capstone Project** – 5 team showed and briefly described their Senior Design projects. IAB members were welcomed to provide feedback on their perceptions of the quality of the student work. Did the project outcomes represent appropriate skill levels for seniors in EE?

Graduate Program – Dr. Ginn -- Presenter

- I. External Review of the Graduate Program** – USC requires periodic external review of all graduate programs. Dr. Ginn presented the following data as an overview of the graduate programs and requested the IAB to act as an external reviewer (this is consistent with the policies of other departments in the college).
 - Graduate Student Population Data
 - Admissions

- Enrollment numbers
- Degrees Awarded
- Funding Sources
- Graduate Student Research Productivity
 - Numbers of publications
- Graduate Curriculum
 - Relevancy of course topics
 - Frequency of course offerings
- Graduate Faculty Qualifications

II. Graduate Student Session– As part of the review, the IAB met with graduate student representatives to receive input from the students.

III. The IAB is expected to provide a written statement of the review outcome.

IAB Internal Discussion

The Board met internally to prepare and then deliver feedback to Dr. Dougal and interested faculty members.

1. Undergraduate Student Advisory Board session –

A. Strengths

- Continuing evolution of lab courses is good. Relatively large number compared to other schools. Serve as integrating experience for concepts from other classes.
- Internships have been publicized and “Job Mate” was seen as working well and easy to use
- Good to see summer courses offered to permit students to “catch up” during the summer
- Good to see active Student Advisory Board. (IAB members were not aware that the student representatives that they met with during previous meetings were also members of the SAB.)

B. Weaknesses

- Website – can use some further improvements to attract new students.
- University change over from VIP to a MySC: students noted difficulty in moving back and forth from the Course catalog / course matrix to the registration page.
- Students have trouble with the registration process. What can EE do to ease troubles, or at least advocate for changes?
- Advisement for freshmen by EE faculty (rather than by Student Services staff) is important. Find a way to do this. Maybe during first semester, instead of waiting until just prior to sophomore year?
- Transfer students may need better advisement – not just from student services office, but also from faculty who better understand the EE curriculum.

C. Recommendations for Improvement

- EE department web page can provide linkage to make targeted donations to the EE department
- C is important programming language, and Python for scripting. Consider more emphasis on these (rather than Java as in first programming course).

2. Graduate student session

A. Strengths

- Apparently strong recruitment process based on number of admissions vs number of applicants

- Highest per capita PhDs per professor among engineering college.
- Good job on timely graduation of PhDs – get them out the door
- High scores in funding, publications, and citations
- APOGEE – good to hear it’s being rejuvenated. Continue this process as it is important to industry

B. Weaknesses

- Students reported difficulty in scheduling or planning their graduate classwork – not enough courses offered, and no published schedule of when courses will be offered.
- The need for partnership exchanges of students with other universities or labs indicates possible shortcoming in equipment or facilities at USC. (This may be due to lack of IDC return to the department and to the EE faculty.)
- Students expressed desire for instruction on use of research lab equipment. Lab managers for major research facilities could aid in this instruction and may have the further benefit of eliminating some (accidental) causes of equipment downtime.
- Insufficient interactions with other graduate students, or at least insufficient knowledge about what students in other labs are working on.

C. Recommendation for Improvement

- To make up for thin graduate course offerings, consider offering semi-independent study course, more-strongly guided by professor than independent study might be.
- Patents (Intellectual Property) should be included in metrics for the Graduate program
- Create a Graduate Student Day for EE department, where students present their work to other EE grad students.

Action Items		
Action	Assignee	Due Date?
Review and provide feedback on the Career Plan examples on web site	IAB Members	April 21, 2014
Send a first draft of the report for the Graduate Program		
Report of the Graduate Program External Review	IAB Members	May 12, 2014
Send draft Fall 2014 meeting agenda to Chair Tom Abrams one month (Sept 31) prior to next meeting (Oct 31) so Chair can solicit IAB member requests for topics or data to be presented by faculty at the meeting.	Dr. Dougal	Sept 31, 2014

Next Meetings		
Term	Date	Confirmation
Fall 2014	Friday October 31, 2014	Confirmed by EE dept. So far, also confirmed by IAB members Lee Xanthakos, Marty Wilson, Tonia Morris, Peter Zmolek, Tracy Blackmon, Steven Tibrea
Spring 2015	Friday April 3, 2015	Tentative – will confirm by May 30, 2014