

ECE Academy Meeting Minutes  
November 6, 2014  
New Mexico State University Golf Course

Attendees

- Members: John Ackerman, Vincent Boudreau, Benjamin Boykin, Jeff Carlson, Andrus Garay, William Garcia, Vicente Garcia, Rita Gonzales, Stephen Horan, Bill Kersting, Richard Kohlhaas, John Lopez, David Martinez, Don Merrill, Joseph Nevarez, John Scruggs, Rick Shumard, Edon Steelman, Robert Tausworthe, Javin Taylor, David Wiegandt, Robert Witter
- New Members: Anthony Baca, Gary DeShazo, Sheila Horan, Christopher Long, Randolph Rothschild
- Guests: Dean Ricardo Jacquez, Asst. Dean Juan Albert, Dr. Satish Ranade

1. Meeting was opened at 8:30 am by Stephen Horan, Chair, Board of Directors.
2. **Approval of the 2013 Meeting Minutes.** Corrections were suggested for spelling of names and clarification of the intent of John Ackerman's comments as recorded in the minutes. Robert Witter moved to accept the corrected minutes and Rick Shumard seconded the motion. The motion was approved by unanimous consent.
3. **Dean's Update.** Dean Ricardo Jacquez gave an update to the University and College from his perspective. He also answered questions from the audience. Highlights included:
  - a. State of the University
    - i. The Board of Regents approved new admission standards to be applied starting in Fall 2016. The entry GPA was raised from 2.5 to 2.75 or comparable ACT score, or top 25% high school class standing. All students must have four years of English including two years of writing and Algebra II. The College of Engineering requires all incoming students to be Math 190 eligible. Additionally, the College has worked out arrangements with the Community Colleges to have a general engineering associates degree program.
    - ii. The University's enrollment has dropped over the past five semesters. This produces a budget impact due to lower headcount. There has been a \$4.8M (2%) Instructional & General budget drop. The President instructed each unit to look at 1%, 3%, 5% budget cuts to reach the 2% cut level. The Administrative units reduced budgets to meet 62% of the 2% drop while the academic units reduced budgets to meet 38% of the 2% drop. Engineering contributed 1.7% of its budget to the academic reduction with these funds being taken from the open faculty lines.
  - b. State of the College of Engineering
    - i. The Master of Engineering degree is proceeding with the full approval process and it is expected to be approved by next summer. This is a 30-hour, coursework-only degree. This is seen as being a plus for attracting industry students.
    - ii. The College will put more of an emphasis on College-funded graduate assistants on PhD students than MS students. This is to help recruit and build research programs. This does not affect externally funded assistantships. Details are being worked out at all levels.

- iii. Degree product is up at all levels in the College: undergraduate, MS, and PhD. From 2009 to 2013 undergraduate degrees in Engineering have increased steadily from 208 to 395 degrees; +89.9%. From 2009 to 2013 MS degrees in Engineering have increased from 101 to 110 degrees (peak at 121); +8.9%. From 2009 to 2013 PhD degrees in Engineering have increased steadily from 12 to 19 degrees; +58.3%
- iv. Enrollment is down over the past few years. However, the College of Engineering enrollment is down the least of all of the colleges at the University. For the past two years, Fall 2012 and Fall 2013, Student Credit Hour enrollment in Engineering has demonstrated positive growth (+2.2% and +4.5%, respectively) while NMSU Las Cruces has experienced declining enrollment (-1.0% and -3.5%, respectively); Fall 2014 shows NMSU engineering student headcount at -1.1% (28 fewer students than Fall 2013) while NMSU Las Cruces is -5.6% (936 fewer students than Fall 2013). From 2009 to 2013 total enrollment in Engineering has grown steadily from 2,296 to 2,670 students; +16.3%. From 2009 to 2013 undergraduate enrollment in Engineering has grown steadily from 1,879 to 2,225 students; +18.4%. From 2009 to 2013 graduate enrollment in Engineering has grown steadily from 417 to 445 students; +6.7%
- v. Dean Jacquez attributes the relatively lower drop to the College's portfolio of outreach programs. In FY 2012-13 College of Engineering's outreach programs directly contacted 5,302 K-12 students, primarily on the Las Cruces campus, through outreach programs such as Project Lead the Way, PREP, BEST robotics, and other outreach-recruiting initiatives.
- vi. Bond C passed to provide infrastructure improvements in the College. Jett Hall will be the primary beneficiary to make safety improvements for Chemical Engineering. Funds are expected to be released by July 2015.
- vii. The Aggie Innovation space is being used by students and faculty members to assist with design incubation and development. It is in Foreman Hall.
- viii. A new NSF-funded Engineering Research Center was won. This is a consortium with several universities and it has a biological emphasis
- ix. The College's strategic plan is being updated including reaching the USN&WR top-75 national ranking. Core goals include
  1. Raising the 6-year graduation rate to 50% from the current 38%
  2. Move to a cohort model for incoming students based around Engineering 101, Math 190 or better, Chemistry 111, and English 190
  3. Maintain a robust, externally-funded research portfolio. Active research faculty would have a goal of \$150K -- \$200K/year/faculty member, minimum.
  4. Increase PhD productivity to 25/year by 2020 from the current 19 or 20/year. Also see the faculty be more productive in peer-reviewed journal and conference publications.
  5. Be the lead college of engineering in the state in outreach and service. Patricia Sullivan is now the Asst. Dean in charge of this activity.
    - a. A suggested program to look at was a "Science Saturday" for the whole family.

4. **Department Head's Update.** Dr. Satish Ranade gave an update on the state of the Klipsch School from the department head's perspective. Dr. Ranade's slides are attached to these minutes. He also answered questions from the audience. Highlights include:
  - a. The changes to the NM Lottery Scholarship will have an impact. The requirement for 15 credit hours is expected to impact incoming students making the transition from high school.
  - b. Dr. Ranade has on his "to do" list working with the ECEA to have the members become more formally involved with the students. He wants more informal sessions between the students and ECEA members when they are able to visit the campus.
  - c. The graduate program is still dominated by international students. The Master of Engineering program will require taking core EE classes as part of the overall quality control. Additionally, a graduate student's research methods class will start next year.
  - d. The budget covers current needs. If a 5% cut were imposed, that would wipe out the two current open faculty lines. Dr. Ranade is hoping that the Dean will return at least one of the two faculty lines that were absorbed from the four faculty who left. Currently, there are two searches under way.
5. **Membership Committee.** Joseph Nevarez presented the results of the new member process. New members Anthony Baca, Gary DeShazo, Sheila Horan, Christopher Long, and Randolph Rothschild were introduced by their sponsors. Don Merrill made the motion to accept the new members and the motion was seconded by Vince Boudreau. The motion was approved by unanimous consent.
6. **Industrial Advisory Group Report.** Jeff Carlson presented the IAG Report. That report is attached to these minutes.
7. **By-Laws Update.** Stephen Horan presented the proposed By-Laws changes that were sent via e-mail to the membership in September. Rita Gonzales made the motion to accept the By-Laws revisions and the motion was seconded by Joseph Nevarez. The motion was approved by unanimous consent. The revised By-Laws are attached to these minutes.
8. **Finance Committee.** Rita Gonzales presented the financial report. Contributions are averaging \$30K/year with our goal being \$50K/year. The guidance for the donations information needs to be resent periodically (a copy was sent at the conclusion of the meeting). The next "ask" letter needs information from the department on how the funds are making an impact.
9. **Elections.** Two open positions on the Board of Directors were filled. David Wiegandt and Christopher Long volunteered to fill the positions. The volunteers were accepted by acclamation. Their terms are for three years through the 2017 ECEA meeting.
10. **Special Committees**
  - a. Recruiting and Retention: the department is taking items from last year's report and still working with them. The early intervention and directed help ideas are being worked. The department is increasing the number of visits to high schools.
  - b. Computer Engineering: the department is taking this slowly while the faculty search process proceeds. Partnering with computer science is seen as being a key part of the process. William Garcia suggests that cloud computing be a key content area. Dr. Ranade reported that a top candidate for recruiting has that as their expertise area.
11. **Old Business.** No old business items were identified for discussion this year.
12. **New Business.** The following new business items were discussed.

- a. Mentorship Program: Vicente Garcia suggested that a program to help prepare students for the job market be started. **Action Item:** Joseph Nevarez, Randy Rothschild, and Anthony Baca are to work with Dr. Ranade and ECE to develop this concept.
  - b. Faculty Research Expertise: Chris Long would like access to a identifier of faculty research expertise areas for possible use in corporate activities. **Action Item:** Dr. Ranade will make Dr. Martha Mitchell's contact information available to anyone needing access to this information to help make research contacts.
  - c. IRAD Funds to the Faculty: Vicente Garcia would like to have ECEA members help faculty members identify partnerships in their companies that can lead to corporate IRAD investments with the faculty researchers. **Action Item:** If the ECEA members know of these possibilities, please forward them to Dr. Ranade.
  - d. Science of Sports: Joseph Nevarez has been introducing a "science of sports" STEM outreach program to the College leadership to see if there is an interest in making this part of the overall outreach portfolio. **Action Item:** Joseph Nevarez and Randy Rothschild will continue to work with the Dean on this and report to the membership of any activities that can be taken.
  - e. Scholarship and Fellowship Opportunities: Vicente Garcia asks that ECEA members bring all fellowship opportunities of interest to students to Dr. Ranade. **Action Item:** all ECEA members are asked to bring these opportunities to the department for relay to eligible students.
  - f. Help with Co-Op/internships: to provide opportunities for the students (with ECEA contacts/companies), or help provide information of where students can look/apply for Co-Ops and internships.
  - g. Provide Scholarships that include tuition, room & board, books and a stipend – scholarships like these would be a real carrot to dangle for students.
13. The meeting closed at 2:45 pm by Stephen Horan.
  14. The meeting minutes were electronically approved by 24 "Yes" votes and 0 "No" votes.