Minutes from the CEAS Industry Advisory Board Meeting

October 11, 2018

The Parkview Room, D132 Floyd Hall Parkview Campus, Kalamazoo, MI

Attendees: Jeff Krusinga, Jennifer Lentner, Mike Preston, Nicole Remily, Bob Lynch, James Castellano, Alan Smaka, Houssam Toutanji, Andy Kline, Steve Butt, Kecheng Li, Brad Bazuin, Koorosh Naghshineh, Osama Abudayyeh, Matt Cavalli

IAB Meeting convened at 11:10 AM by IAB Chair Lynch. Introduction given by each person present.

Agenda topics as shown in Appendix A.

Dean Toutanji gave a Power Point presentation on the State of the College. Update on student enrollment and credit hours generated, which are holding steady. Research expenditures increased to $4.7 MM in 2017-18. Discussion on program capacity and infrastructure support, and is there a university mechanism for physical growth of facilities due to increasing enrollment. Discussion of building extension plans drawn up by an architect about two years ago for student project space. Some underused space due to changes in faculty and research space needs is underutilized and can be repurposed. Discussion on transition to a new RCM budget model for WMU, and how that should benefit the college as it continues to grow.

New BS in Biomedical Engineering expected to be started in Fall 2019. Discussion on fits of students to be hired by industry; what skills does industry look for in this college major. Suggested: Health care systems as an area to be considered, especially if it aligns with a business track. Not just medical devices.

Bob Lynch, Industry Outreach Office (IOO)

Verbal commitments of Platinum Partner support from Kellogg’s, Stryker, and Eaton at this time. Kline working on paper work to accept the funding at WMU. Toutanji says there is a cap of 15 participating companies for the IOO. Discussion on how will we get to that number.

Lynch: looking for the IAB members to make a commitment sooner rather than later.

Castellanos: Moving to Hitachi, but can assist with Tier II supplier contacts,
Other routes: Southwest Michigan First connections through University Advancement. Companies that regularly recruit at Engineering Expo each fall, others in BTR Park. **Kline will work with WMU Career Services to see what internal information on student placements is available.** Possible examples: graduating student surveys; Does WMU company feedback on internship placement success, etc. Remily may have internship feedback available from Kellogg’s.

**WMU to better define:** vetting process of students; research topic areas of faculty; faculty research ideas looking for industry support; list of equipment capabilities.

Preston: one goal would be to re-engage Eaton with the Hybrids Lab

WMU can do research contracts with IP protection for companies.

WMU IOO may need to build a mechanism to solicit feedback from companies on how interns and alumni have done; student feedback on their internship, or other company feedback. Could be used to set metrics for the IOO.

Lentner: “Branding of IOO” will be important to build its activities. Use of company logos, website information, and interaction with new Product Design Group at WMU are all important.

**IOO Action Items from Discussion**

**Action Item:** WMU to do a company questionnaire or work with IAB members to build a list of qualities in interns and future employees that industry needs. Goal is to begin building the vetting process for the IOO that can be individualized to each IOO industry partner.

**Action Item:** Kline to work with WMU Career Services to see what internal information is already available through WMU on placements, internship feedback, etc.

**Action Item:** WMU will assemble information on faculty research topics, the contract mechanism for company-sponsored research at WMU CEAS, and equipment capabilities. WMU will better define what is the scope of undergraduate research and what is graduate research (MS and PhD).

**Action Item:** Current IAB members need to decide if their company will become an IOO partner.

**12:50 PM, move to Systems Engineering topic.** Discussion lead by Brad Bazuin, Chair of the Department of Electrical and Computer Engineering.

Discussion on “Systems Centric” across various disciplines, not “Domain Centric” which leads to certificates or degrees in a specific topical area.

What does industry want?
Preston: Engineers branched beyond their major after 5, 7, or 9 years to larger projects or areas; need an MS level degree or certificate due to industry experience needed in systems. Skeptical of BS degree program for the same.

Castellano: Technology degree not looked upon favorably in some industry; applicants will not get tracked into a company’s employment structure unless the degree says engineering.

Other traits desired:

Communication skills, interpersonal relationships, presentations, teamwork skills, leadership, logistics, marketing to end user, engagement skills with customers, project management, business perspective; bridge between engineer and lay person or non-technical person, ability to convert technology component to $$$

Smaka and Castellano: Branding of technology degrees to include “systems” or “practical engineering” on resumes. Many senior design projects at WMU are “systems.”

Systems = multidisciplinary approach

**Suggested:** MS degree or Certificate level program (9, 12, or 15 credit hours that show up on a transcript). Minor at undergraduate level that shows up on the transcript.

Some sort of degree or certification opens up new roles or opportunities or jobs in a company.

WMU Integrated Supply Management (ISM) has graduate level certificate that covers some of this same territory.

Other discussion: How to incorporate societal trends and economics into the product design process; connection to risk management; business model or business perspective mindset as part of engineering jobs. How will CEAS be working with new Product Design Program at WMU in College of Fine Arts?

**IAB meeting adjourned at 1:50 PM.**

**Next IAB meeting in March 2019, date to be determined.**

Draft minutes distributed by Kline, December 18, 2018. Finalized minutes posted to website, January 29, 2019.
Attachment A. Meeting Agenda

October 11, 2018

Formal IAB Meeting

The Parkview Room, D132 Floyd Hall Parkview Campus, Kalamazoo, MI

11:00 AM Welcome and Introductions  - Bob Lynch, IAB Chair

11:15 AM Update on CEAS Activities  - Dean Houssam Toutanji

11:40 AM Discussion Topic: Industry Outreach Office (IOO)
- Bob Lynch, IAB Chair, Mike Preston, IAB Vice-chair, Andy Kline, Associate Dean

  Fundraising needs and mechanisms

  Next steps to move forward

Noon Lunch and Continuing Discussions

12:40 PM Systems Engineering  - Brad Bazuin, Chair of ECE department

  What training is available for generic systems engineering, as opposed to discipline
  specific systems engineering?

  What training is desired from an industry perspective?

  Potential program structure: Certificate or MS program, not a separate
  undergraduate degree program.

Discussion of Other Topics from IAB members

Adjournment by 3 PM