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**School of Engineering and Technology Industrial Advisory Board**

 **Minutes for Spring Meeting at Lake Superior State University**

 **Friday, April 29, 2011**

**Members Present:**

Bob Andersen, Fred Berg, Nathan Callaghan, Chris Conklin, Lynnette Eding, Jim Gibbs, Dan Goodrich, Steven Kars, Ralph Larsen, Charlie Litzner, John Truckey, and Brian Theriault

**LSSU personnel present:**

David Baumann, Eric Becks, Ron DeLap, Jim Devaprasad, Paul Duesing, Robert **Hildebrand**, Mansoor Janjua, Andrew Jones, David Leach, Dave McDonald, Joseph Moening, Sai **Nudurupati**, Cheri Skinner, Jeanne Shibley, and Paul Weber

**Review of November 2010 Action Items**:

1. Please Consider and Submit Projects for 2010-11.

**Status: Ongoing reminder**

**Responsible: All**

1. Call to the membership for new IAB members
* Need to add to the membership
* Asking all IAB members to solicit new candidates

**Status: Ongoing reminder**

**Responsible: All**

3) Input for IAB role statement – please provide to Fred or Nathan.

 **Status: Ongoing**

 **Responsible: All**

1. Keep a list of unemployed IAB members and forward the info to all members for potential opportunities.

**Status: Please forward to IAB secretary to update list.**

**Responsible: Nathan**

1. GD&T feedback from IAB. Need to follow-up with Paul on status. Robert was requesting it because of the lack of teaching materials and wanted to improve capability. Cost to purchase GD&T material – $$$ new, but LSSU could find material at auction for approximately $5k that could be updated to be useful.

**Status: IAB will continue to work on feedback. If anyone else has input, please provide.**

 **Responsible: Fred & John**

1. Making meetings available remotely – The University Center at Gaylord & LSSU have the capability, will actively pursue for next meeting.

 **Status: Discuss prior to Fall 2011 meeting.**

 **Responsible: Fred, Jeanne, & Nathan**

1. Continue MACRAO night recruiting (please contact Jeanne as materials are needed).

**Status: Closed**

**Responsible: All**

1. Support RIA Activities

**Status: Closed**

**Responsible: Darryl & Diane**

1. 1st Robotics & Lego competition schedules to be sent to Chris for distribution.

**Status: Closed**

**Responsible: Jeanne**

1. MACRAO Recruiting Message 1-pager

**Status: Closed**

**Responsible: Ron**

**Meeting Minutes**

Motion to approve meeting minutes

Chris Conklin – Moved

Brian Theriault – Second

**IAB Member Employment Status**

Dave Allison – Wayne Wire, dallison@waynewire.com

Steve Bryan – Akebono, slcdbryan@gmail.com

Adam Lyon – need contact info…

**Chairman / Secretary Election**

Chairman – Nathan Callaghan

Secretary – Steven Kars

**New / Potential IAB Candidates**

New Member – Adil Shafi (Advenovation, Inc.)

Dan Goodrich – Moved

Jim Gibbs – Second

Potential Members – John Tilletson (Honeywell) and Trevor Swenson (RIM)

**Role Statement**

Bob Andersen moved to approve IAB Role Statement and passed by IAB membership.

**Chairman’s Report**

IAB industry updates from Fred. Please see presentation on LSSU IAB website (<http://www.lssu.edu/eng/iab/>).

**Recruitment Subcommittee Report**

Chris, Dan, and Lynnette stated difficulty in filling positions – looking for very specific candidates.

Recruiting nights well attended.

Concern over checklists (stop to just “check the box” for high school counselors) per Chris – not so at Gaylord per Brian.

Ralph has had more success. Five to six prospective students per night in Charlevoix.

Admitted Student Reception in Midland (30) attended by Chris and LSSU President Dr. Tony McLain.

Admitted Student Reception in Grand Rapids (40) attended by Lynnette and Susan Camp – Both told prospective students about themselves and career experience.

Potential recruiting tool – scan (QR) codes that give you a link to a browser page via smartphone – concern over longevity.

Trevor suggested developing an app that could be put in AppWorld.

Jeanne suggested university webmaster could help in developing the app (scan code) – maybe PDC, senior project?

Propose scaling back press kit to a 1-pager. Too much information with little time to cover it all. Use Road Less Traveled from Ron?

Chris and Bob suggested developing a 3x5 card and talking to Susan in Admissions. Jeanne will help and produce cards over the summer (June / July).

Trevor suggested having iPads @ table with LSSU related info on them. People will line up, but budget an issue (suggested donations from IAB…).

LSSU does not have all the prestige that other universities in the area have – means we have to work that much harder.

Biggest problem is most people still do not know we have an engineering program…

**School Updates**

2011-12 Graduating Class (25) smallest in many years due to decline in enrollment (on the rise now).

70+ offers (salaries increasing) – very positive feedback from employers and IAB.

2011 freshmen class: 110 accepted, 32 committed (less than 40 will be a disappointment).

Enrollment: 91% overall retention, 87% freshmen retention.

Major selling point: No graduate program, so all undergrads are taught by professors (i.e. no student teachers).

Robotics program is the best known and held in high regard.

200 applicants for 64 spots in robotics summer camp – 16 students / group – will continue small class size and hands-on approach. That is our selling point. We have to maintain it.

Camp is good PR. High school teacher has to recommend candidates (well qualified). Think roughly 10% come to school here after participating.

Robotics graduates receiving 5-6 offers each this year, regardless of grades.

**PDC**

Product Development Center (PDC) developed between LSSU and Michigan Economic Center in 2007. Funding has expired, now looking for projects to keep it going. SmartZone (SSMART) developed in 2008.

Over the last 3.5 years, 115 projects have been completed. An additional 100 inquiries did not happen (mostly due to funding).

Quoting cost is the same whether it is 1 or 500 hours. 500 hour jobs are ideal. Currently have 298 potential customers – most do not have enough funding for even small jobs ($2k – 3k).

Lots of positive press – TV and print!!!

Shipping 1500 Skate Fenders / month and generating more and more interest.

Marble Arms Project – lots of positive press like Skate Fenders – Mfg ET graduate going to work for John Deere (very good offer, better than some engineering ones).

Working on FDA approval on a project for a local medical facility – Precision Edge to manufacture.

Michigan Initiative for Innovation and Entrepreneurship (MIIE) just awarded ($30k) to PDC.

Have 4 students working full time this summer on numerous projects.

Eric has been involved in lots of opportunities – always looking for more!

**Program Updates**

ME / MET Updates: Labs and credits in line with other schools per Robert (originally had thought they were higher). Benchmarking updates to be presented at fall IAB meeting.

ABET Visit / Accreditation for Mfg ET: A few low level findings (i.e. concerns) over some older equipment / texts and continuous improvement practices (not convincingly demonstrated).

Does University need to continue accreditation for engineering technology degrees (approx $6k per visit)? It is required for the engineering degrees. LSSU has the longest Mfg ET accreditation in the state.

IAB input requested on whether there are too many labs. Exit interviews say do not cut labs (or minimally if you do). Hands-on is one of our strengths, so need to exercise caution.

IAB input requested on whether to implement a Sustainable Energy Option in Electrical and Computer Engineering. Trendy right now, so creates buzz / interest to have it.

Reducing labs would be in line with University direction and allow Sustainable Energy Option. Still would have lab work, just done elsewhere (homework, etc.). Cannot change significantly as we are known for hands-on and excel at it!

MATLAB will still be taught elsewhere. PLC and Logic Control are very important in the field (control charts, etc.) – frequently asked for by potential employers.

Consider eliminating Vehicle Systems Option (never had a student) and Electrical / Mechanical Option (last student 5 years ago).

Effort on campus to decrease the number of courses and increase class size. Engineering will have to manage carefully. Do not want class sizes over 25 students.

**Senior Projects**

Seniors are much happier this year. Goal to have graded projects by the first week of April did not happen, but close! All projects completed on time!

Call for IAB sponsored projects – average senior project costs $2500 - $3000 + materials (estimate 5%).

**New Action Items**

1. New Recruitment Material(s) for MACRAO Nites
2. ABET Accreditation for Engineering Programs
3. Too Many Labs?
4. Implement Sustainable Energy Option?

**Closing Remarks**

Next Meeting: November 4, 2011 at The University Center at Gaylord.

Respectively Submitted,

Nathan Callaghan

LSSU IAB Secretary