



**School of Engineering and Technology Industrial Advisory Board
Minutes for Spring Meeting at Precision Edge Surgical Instruments
Friday, November 7, 2014**

Members Present:

Ray Adams, Fred Berg, Tim Bennett, Nathan Callaghan, Lynnette Eding, Dan Goodrich, Steven Kars, James Kucher, Ralph Larsen, Jim Gibbs, Trevor Swenson, Brian Theriault and John Truckey.

LSSU personnel present:

Dr. David Baumann, Dr. Andrew Jones, David Leach, Dr. Joe Moening, Dr. David Finley, Eric Becks, Jim Depvasaad, Dr. Robert Hildebrand, Dr. Paul Weber and Jeanne Shibley.

Guests Present:

Jeff Johnson and Ted Clark

A very **BIG THANK YOU** to John Truckey and Precision Edge Surgical Instruments for hosting the fall IAB meeting and providing a fantastic breakfast buffet and a very interesting and exciting plant tour.

Business:

- Meeting Called to Order at 8:05am by Steven Kars, Chairman of IAB
- Steve reviewed the Meeting Agenda

Meeting Minutes – Minutes were emailed out prior to the meeting. Lynnette asked if there were any questions from the meeting minutes from the Spring meeting.

Motion to approve meeting minutes

Fred Berg – Moved

James Kucher – Second, Minutes approved

Chairman's Report

- Notes from Steve about changing jobs. Sold Underwater Hockey Company and now working on new adventures.
 - Mailbox company – simplemailboxes.com
 - Truck camper company – 4wheelcampers.com
- Reviewed New Member Candidate – James Kucher from Tenaris Algoma Tubes in Sault, Ontario
- Member Recognition to Nathan Callahan – 7 years on IAB (1 year Secretary and 2 year Chairman)
- Chair election will take place in Spring 2015 meeting

IAB Member Spotlight – Trevor Swanson


- Trevor reviewed his business that he is working on and how to get into it and where to get ideas

Recruitment Subcommittee Report – Trevor Swenson

Admissions Update Summary (on behalf of AI Case)

- Local area schools (both US/Canada) continue with LSSU onsite visits
- Fall 2014 HS Advisor meeting cancelled
- PrepTalk on Hold
- Engineering enrollment flat
- LSSU Freshman enrollment up 14%
- Participating in digital campaigns and increased social media activity
- Staff Turnover (a staff person is defined as having 1 year experience)

Engineering and Technology Admissions by the numbers

 LAKE SUPERIOR STATE UNIVERSITY	Fall 2015 Admit	Fall 2014 Admit	Percent Change	Numeric Change
Engineering and Technology	61	62	-1.6%	(1)
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Computer Engineering	6	9	-33.3%	(3)
Electrical Engineering	6	4	50.0%	2
Electrical Eng Technology	2	0	#DIV/0!	2
Engineering Management	0	1	-100.0%	(1)
Industrial Technology	1	0		1
Manufacturing Eng Technology	3	3	0.0%	0
Mechanical Engineering	25	35	-28.6%	(10)
General Engineering	16	9	77.8%	7
General Engineering Technology	2	1		1

Fall 2014 Final Freshman Enrollments

FTIAC											
Institution	Applications			Offers of Admissions			Enrollments			2014 Selectivity	2014 Yield
	2014	2013	%+/-	2014	2013	%+/-	2014	2013	%+/-	%	%
CMU		18,951	-100.0%		12,060	-100.0%	3,811	2,963	28.6%		
EMU	12,584	13,260	-5.1%	8,679	7,838	10.7%	2,557	2,871	-10.9%	69%	29%
FSU	10,983	10,718	2.5%	8,566	8,135	5.3%	2,580	2,644	-2.4%	78%	30%
GVSU	19,256	18,407	4.6%	13,577	12,932	5.0%	4,226	4,124	2.5%	71%	31%
LSSU	1,585	1,540	2.9%	1,447	1,382	4.7%	472	412	14.6%	91%	33%
MSU	33,216	31,479	5.5%	21,951	21,610	1.6%	7,843	7,842	0.0%	66%	36%
MTU	5,179	4,957	4.5%	4,017	3,935	2.1%	1,199	1,252	-4.2%	78%	30%
NMU	6,841	6,900	-0.9%	4,940	4,932	0.2%	1,579	1,661	-4.9%	72%	32%
OU	12,535	12,190	2.8%	8,478	8,017	5.8%	2,559	2,569	-0.4%	68%	30%
SVSU	6,275	6,004	4.5%	4,965	4,706	5.5%	1,507	1,594	-5.5%	79%	30%
UMAA	49,776	46,813	6.3%	16,047	15,571	3.1%	6,505	6,225	4.5%	32%	41%
UMD	5,084	4,905	3.6%	3,264	3,093	5.5%	965	969	-0.4%	64%	30%
UMF	3,160	3,003	5.2%	2,485	2,345	6.0%	662	724	-8.6%	79%	27%
WSU	15,873	14,946	6.2%	9,435	8,727	8.1%	2,200	2,167	1.5%	59%	23%
WMU	14,334	15,027	-4.6%	12,018	12,440	-3.4%	3,089	3,361	-8.1%	84%	26%
TOTAL	196,681	209,100	-5.9%	119,869	127,723	-6.1%	41,754	41,378	0.9%	61%	35%

Admissions Update Summary (on behalf of AI Case) continued

What's new:

- Website Redesign – by Mindscape, Inc
 - The new website will be a responsive design.
 - Planning for a January launch
- Expanded Digital and Marketing efforts – examples were shown – see presentation
- Target populations
 - Lifestyle based
 - Student Endemic
- Tracking Pixels
- Enhanced Analytics
- Mobile
- Expanded Social Media Presence – Twitter, Facebook, LinkedIn, Google+, YouTube, Instagram, Pinterest

Staff turnover remains problematic:

- Since May IAB meeting – 4 staff resignations, including 3 to other universities
- Compensation at LSSU remains lowest among public universities in Michigan



Spring Events:

- Laker Gold Scholarship Competition (Jan 24)
- Admitted Student Receptions (LSSU Spring Break)
- Continued Yield Efforts via Fire Engine Red (Broadcast E-mail Service)
- First Robotics Events (March & April)

MACRO:

- Target list of schools
- Feedback from IAB members
 - Bob Anderson, Stoney Creek H.S. Rochester Hills
- 3D printed robots?
- Follow up with leads from events?

In Progress:

- MACRAO event planning
- FLL event planning
 - Trevor's team coming to practice session
- FRC Event planning
 - Regional and District events
 - Michigan FRC State Championship

Future Thoughts:

- Senior Project Videos (Short 3-4 min each)
- Video Tour of Robotics lab
- Continental Development Center video
 - <http://www.youtube.com/watch?v=pz5da9xJenw>
- Get feedback from freshmen on Website content (why Engineering at LSSU?)
 - Treat like Sales Copy w/ Features/Benefits
 - Focus on increasing conversion rate

Subcommittee Help:

- More Members
 - Trevor, Dan, Paul, Jeanne
- Idea intake
 - Specificity and Priority
 - Measurement
 - Tracking and Accountability
 - Deadlines

Break and Group photo in the lobby at Precision Edge

School of Engineering & Technology Faculty & Staff

Mechanical Engineering – Dr Robert Hildebrand

• Curriculum Work

- No curriculum changes this semester, or in progress(all curricular work on hold)
- On our radar, or implementing w/o formal curriculum change, however...
 - Eliminate MathCAD, focus on MATLAB (Statics, EG140)
 - Disagm't: actual vs cataloged content (EG140, 340)
 - Ontario PE exam samples suggest some needed additional content (rel. to dynamics, strength of mat'ls)
 - Nothing meets threshold (esp. current such) to warrant a *formal* curriculum proposal, yet

• ME Searches Update

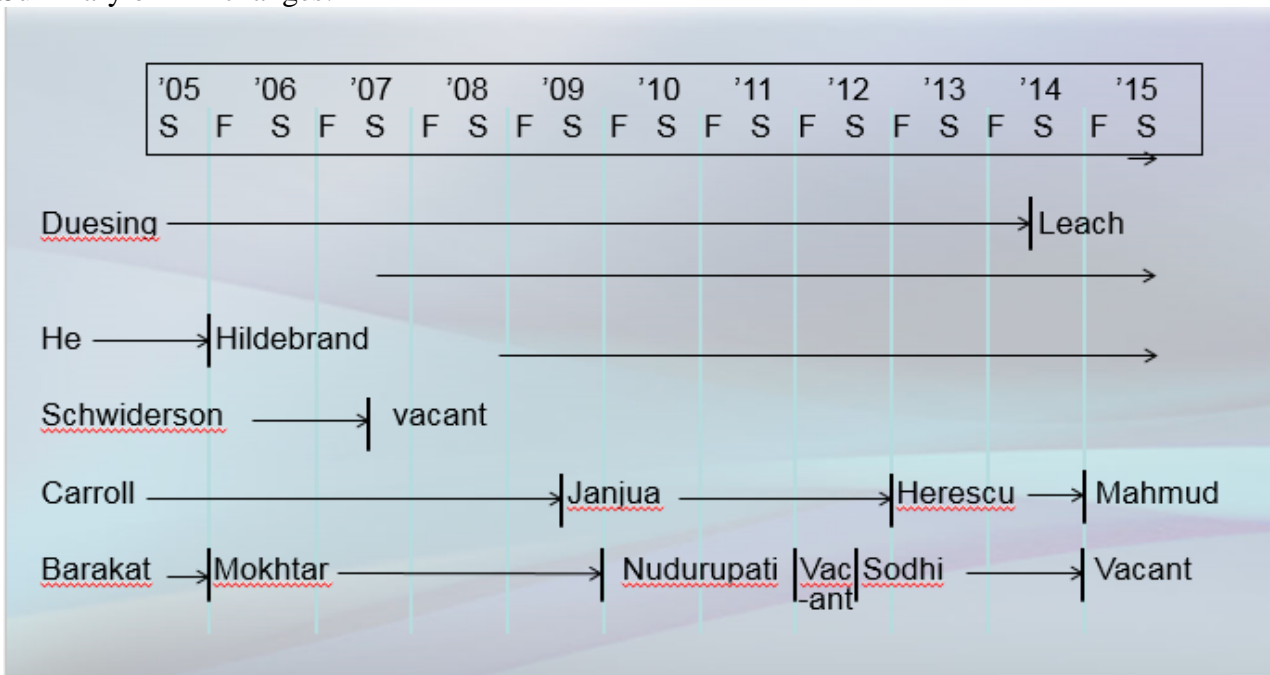
- F'14-A Search: Introducing **Zak Mahmud**
 - BS, BUET (Bangl.), Mechanical Engineering
 - MS, KTH (Swe.), Sustainable. Energy Engineering
 - PhD, Alabama, Engineering Science & Mechanical
 - 7 years faculty experience. at North Dakota State University
 - Experimental Fluid Mechanics/ Aerodynamics, Renewable Energy, Turbo Machinery, Scramjet Combustion, Laser Based Diagnostics, Active & Passive Flow Controls, CFD
- Replaces Alexandru Herescu



Introducing ***Zak Mahmud***

- Fall '14-B Search
 - Replacement for Jaskirat Sodhi
 - Failed search (offer made in Aug., but not accepted)
- Spring '15-A Search
 - Not subject-matter specific this time
 - Hopefully to start in January
 - Narrowed to 7 candidates for phone interviews (next wk), then further due to screening calls
- Our search methodology used by HR as University-wide model

Summary of ME changes:



ECE Curriculum Update - Dr. David Baumann, School Chair

- Sustainable Energy Concentration
 - This Fall, offered EGNR261
 - Energy Systems and Sustainability – Paul Weber
 - 6 students
 - In the spring, offering EGNR362
 - Vehicle Energy Systems - David McDonald
 - In future semesters:
 - EGNR361 (0,3) – lab for EGNR261
 - EGEE411 (3,0) Power Distribution and Transmission

Need some ECE Focus and Input:

- How to grow ECE enrollment?
- Recruit more students
 1. Promote Sustainable Energies Concentration
 2. Develop Podcasts of successful projects to post
 - Need your help – from IAB
 3. Create 2-2 with community colleges
- Build relationship with teachers/counselors
- Feedback

School of Engineering & Technology (SET) updates - Dr. David Baumann, School Chair

- New admission requirements starting Spring 2016
 - Engineering: College Algebra
 - Engineering Tech: Intermediate Algebra
- Admitted Students for Fall 2015
 - Number: 65 (same as last year at this time)
 - ACT Composite: 24.4 (little lower than last year)
- Needs
 - Volunteers for podcasts
 - Vehicle

College of Business & Engineering updates - David R. Finley, Ph.D., PE, Dean

- Placement of May 2014 Graduates
 - All (29) May 2014 engineering and engineering technology graduates placed in jobs/graduate school prior to Commencement--several with 3, 4, even 7 job offers
 - JR Automation (3), Gentex (3), Tenaris Algoma Tubes (2), Dematic (2), Patti Engineering (2), Ford, Proctor & Gamble, AMT, Pre-Tec, Oak River Tech, Cadillac Products, Innova-Tech Solutions, Cemsensor, Hydro Tech
 - UMich, Dunderque Hockey and grad school
- Fall 2014 Enrollment Status

School of Engineering and Technology Enrollment History 2010-2015 (BS)

			2010	2011	2012	2013	2014	2015
ECE	CENG	Computer Engineering	19	23	19	27	20	19
	EGEE	Electrical Engineering	31	41	38	39	30	26
	EGET	Electrical Eng Technology	1	3	7	6	14	14
ME	EGME	Mechanical Engineering	71	82	87	87	93	94
MfgEt	EGMT	Manufacturing Eng Technology	18	13	9	15	21	31
	EMGT	Engineering Management	9	9	4	4	1	3
	INDU	Industrial Technology	1	1		1	3	1
			150	172	164	179	182	188

College of business & engineering updates - David R. Finley, Ph.D., PE, Dean, continued

- List of “Good Things”
 - Thomas Pleger, Ph.D. selected as LSSU’s 8th President – see photo and info below
 - Engineering Prof. Dev./Summer Research Fund – Year 2
 - PLC trainers upgrade
 - Sustainable Energy Concentration approved
 - Attended Energy Opportunities Conference, SSM, Ontario
 - HAAS CNC acquisition--\$65K
 - Four Externally-Sponsored Senior Design Projects
 - SET Town Hall Meeting with students
 - Verrette Dinner to recognize design project students
 - New Faces (see above for initial introduction)
 - Dr. Zakaria Mahmud, Mark Rodriguez
 - Search for ME generalist
 - New LSSU Trustees



Mark Mercer

- Mark W. Mercer DDS, St. Ignace
- BS, biology and chemistry, LSSU 1973
- D.D.S., University of Detroit School of Dentistry



Sandi Frost Steensma

- Parrish Consulting, Grand Rapids
- president and founder
- BS, University of Colorado; MA in management, Aquinas College

- LSSU’s 8th President - **Thomas Pleger, Ph.D.**



Thomas Pleger, Ph.D.

Campus executive officer and dean of the University of Wisconsin-Baraboo/Sauk County

MA and Ph.D., anthropology/archaeology, UW-Madison;
BS, political science, UW-LaCrosse

Grew up on the shores of Lake Michigan in Marinette, WI



List of “Good Things”, continued

- Laker Proud –



Laker Proud

➤ LSSU graduated nearly 600 students on May 3, 2014

➤ Approximately 60 of those were Native American

- 2014 - Commencement Ceremony



Robert Considine

Trout Lake, MI
Honorary Doctorate of Engineering

John Hantz

Keynote Speaker

Hantz Group Inc.
Hantz Farms



List of “Good Things”, continued

- LSSU Head Hockey Coach – Damon Whitten



Damon Whitten

- Michigan Tech Asst.
- MSU Dir. of Hockey Operations
- Alaska Anchorage Asst.
- Wayne State U. Asst.



- New Additions to SET



Dr. Zakaria Mahmud



Mark Rodriguez

- 2014 – Michigan Engineering Deans Meeting held at LSSU



List of “Good Things”, continued

- Lambda Epsilon Eta Induction



- SWE National Conference



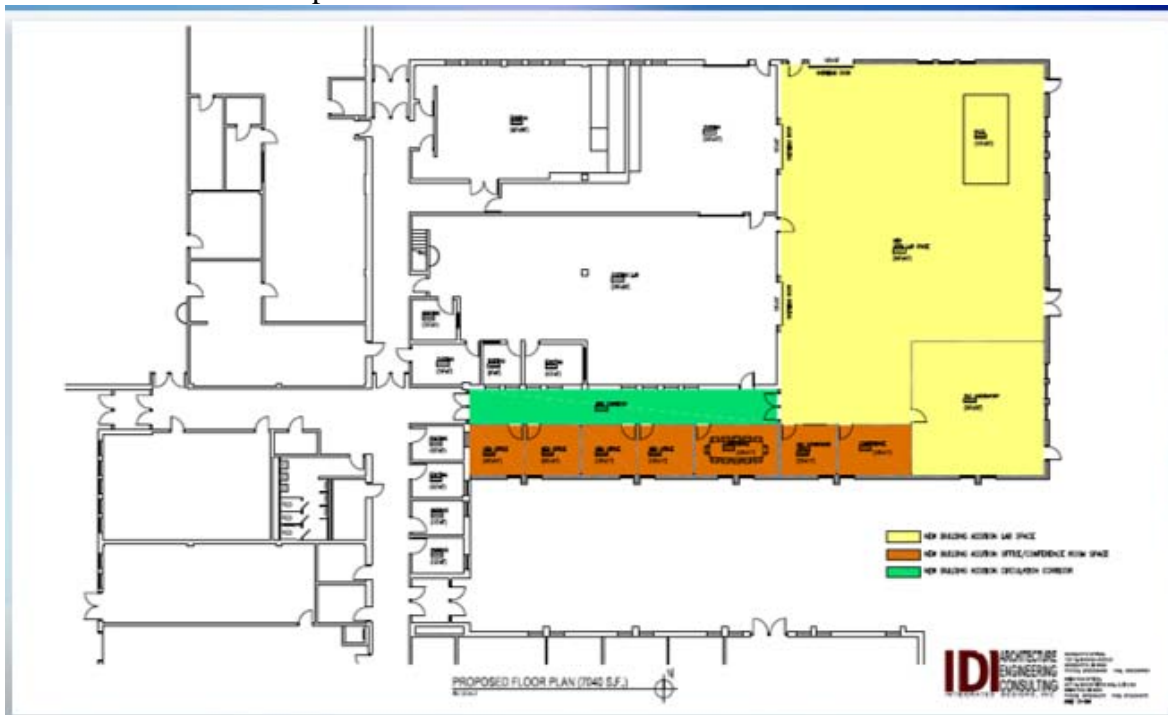
- Recent Industrial Outreach-
 - Engineered Machined Products
 - Moran Iron Works' Industrial Arts Institute
 - Great Lakes Tissue
 - Kalitta Air
 - ESI (Alpena)
 - Flakeboard

List of “Good Things”, continued

- South Hall Renovation Project



- Robotics Lab Expansion Plans



Additional Forward Focus Topics:

- Engineering Economics into curricula
- Outstanding SET Alumnus Award
- Proposed Civil Engineering major

School of Engineering & Technology – Senior Project Teams

Senior project scope presentations

The IAB was the receptive audience of the Scope Presentation for the 2014-2015 Senior Projects

- Team ASE – Automated Simulation Engineering – Hirotec America
- Team LSTE – Lake Superior Test Equipment – ZF – Lenksysteme
- Team LAPD – Laser Aligning Pipe Devices - Mactech
- Team RED – Robotics Educational Development – Qcomp

IAB Members and Senior Students – Faculty & Staff Department

Feedback session – Students spoke 1 on 1 with group of IAB members

Report out session –

SUMMARY of Feedback from Students

- Students love small class size
- Students need more access to the building – Public Safety is too slow to let them in during off hours
- Students hate the projects, but know it will help in the long run
- Love the ENG101 class
- Over all they are very happy with LSSU and choice of programs and want to see graduate programs
- Want to see a syllabus for each class for planning of their time schedule and a clear defined path for the class
- Many students chose Lake State due to the small class, hands on and affordable price
- There is a little bit of disorganization within the engineering school
- New professors, which the students feel are not able or qualified to teach some of the classes
- It takes Professors too long to answer emails when the students have urgent questions
- No feedback on some homework – therefore, students cannot learn from their mistakes
- There have been times where a dozen homework problems were given and only 2 checked – again, no feedback and cannot learn from mistakes.
- Sequence problem with class –homework is turned in and not corrected and given back before exam, so they don't get a chance to learn about mistakes before the exam is given.
- Math 308 – Professor with heavy accent and very difficult to understand
- Summary camp attendance is great, small class size is awesome, and job placement is great
- Communication with Sponsors for Senior projects is sometimes tough to get a hold of and puts a big delay in decisions
- Senior Projects – too many presentations in a semester and not enough time for execution in the 2nd semester
- Punctuality of some professors is an issue, then they keep you past the class end time
- Seems like professors are learning as they go, they don't "teach" the class
- Common area – there is a need for a larger common area to study – They take over labs to study, which is a good place, but wish they had a common area to study in

Advice for someone that is going to Lake State:

- If you are willing to give 110%, then go to Lake State

Report out session –

SUMMARY of Feedback from Students - continued**Recruiting input:**

- Recruit in small towns, Sault Ste Marie, MI will be a natural place for them to come to college
- For recruiting – bring in club members, academic related professors and fun things for students to do
- Grow up in a small town, go to college in a small town.

Likes:

- Loved the small class size
- 1:1 interaction with professors
- Quality of education
- Professors calling you by your name
- Professors push students to talk to them, they don't want students to fail.

Dislikes:

- Scheduling JR level class and SR level class only offered 1x/year. If you miss a class, you have to wait another entire year to take it.
- If you get out of cadence, there is no way to get back in line and graduate in 4 years.

Student questions:

- How much in touch with Industry are the professors?
- Some exams you are required to memorize concepts – why memorize concepts?
- Consistency among Engineering professors – 1 prof will allow cheat sheet, 1 will allow nothing, things should be similar

Action items from this meeting for follow up:

- More formal process needed for ideas and decision making at LSSU
- Present what they can do and then present a plan to implement it
- IAB needs to hear feedback on what is being done at LSSU and what changes and new things have been implemented.

Example of follow up for IAB -

Review of past:**Action Items – from Spring 2014:**

- We need to work on a process for when we meet students at events to get their Name, email and who will follow up with them.
- We need to bring awareness to available jobs for students and internally communicating this to them – There is a job board, but things are out of date and very manual and old technology.

Closing Remarks:

Next Meeting: May 1, 2015 at LSSU

Start time is 8:00 am

Respectively Submitted,

Lynnette Eding

LSSU IAB Secretary