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

LSSU personnel present:
Dr. David Baumann, Dr. Andrew Jones, David Leach, Joe Moening, Dr. David Finley, Eric Becks, Jim Depvasaad, Dr. Robert Hildebrand, Professor Weber and Jeanne Shibley.

Guest: Jerry Timm from Michigan Scientific

Business:
- Meeting Called to Order at 8:35am by Steven Kars, Chairman of IAB
- Steve reviewed the Meeting Agenda
- The meeting started out with a prayer and a moment of silence for LSSU IAB board member, Adil Shafi, who recently passed away.
- Welcome the new addition of Sierra Avery Rosalie Kars to the Steven Kars family.

Meeting Minutes – Lynnette reviewed the minutes from the Fall meeting
Motion to approve meeting minutes
Fred Berg – Moved
Trevor Swenson – Second, Minutes approved

Secretary Election
Steve Kars nominated Lynnette Eding
Ray Adams – Second, Approved

Congratulations to Lynnette Eding for being the new, continued, secretary for the LSSU IAB.

Recruitment Subcommittee Report – Trevor Swenson

Local Events:
- National Engineering Month (March) - Station Mall, Ontario
- Student Competitions
- Handouts / Buttons to hand out
- Sault College partnership
  - Dr. Finley has been working with Sault College on building relationships and meeting with our and their professors.
  - Specifically working with the EET program to fit into LSSU’s programs.
There was further discussion on how Sault College fits into Lake State and what classes the students need to take to fit in seamlessly.

- White Pines –
  - VEX – current program at many schools
  - Engineering high school of Sault, Ontario

**First Robotics Event Participation:**
- Michigan FRC State Championship
- Event held April 10-12, 2013 in Ypsilanti, Mich. (Eastern Michigan University)
- Lack of IAB presence again this year
- LSSU staff Jim Devaprasad volunteered to support the event.

**Local FIRST Robotics Teams:**
- FIRST US Team 1596: The Instigators - Sault Michigan
- FIRST Canada Team 1535: The Knights of Alloy
  - No longer has a FRC team
  - VEX Robotics
- Great Potential to be Future LSSU students
- Ideas to help and contribute, looking for equipment/sponsors and mentors

**At FIRST robotics there is more freedom than at MACRO events to hand out “stuff” and there is a captured audience of potential engineers.**

**MACRAO Highlights**
- Targeted list of “tech” schools
- Lower than normal representation from IAB this Spring
- Follow up with interested students from Engineering department?
- Al (admissions) to provide further update

**Ideas for Future Improvements**
- 5 minute short videos summarizing each Senior Project?
- Improve process to follow up with students at MACRAO events
- 3D printed robots from Engineering House?
- Webinars / Prep Talk?
- Regional Centers (Dearborn, Escanaba, Gaylord, Petoskey, others??)

**Action Items:**
- 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.
**Admissions Update** – with Al Case from the admissions office

Al showed that that high school graduates are down, so our admission numbers are down as well.

- Orientation 2013 – 377
- Orientation 2014 – 430
- Engineering 2013 – 40
- Engineering 2014 - 39

He went over some of the new things coming to the admissions group:

- Create Your Personalized Laker Website
- Rapid Isight program – used for predictions in enrollment and prospects
- Mentioned about the high turnaround for Admissions staff and how new everyone was

He talked about other ways to help:

- Continued Event Participation
- Stationary Notes - to prospective and admitted students
- Phone Calls - to prospective and admitted students

**College of Business and Engineering Updates**

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**Placement of May 2014 Graduates**

- 26 of 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, Dunkerque Hockey and grad school

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School of Engineering & Technology Enrollment History 2006-2013
### Fall 2014 Recruiting Status

- SET Admits as of April 2014
  - Last year: 171
  - This year: 146 (21-YES, 29-Maybe, 7-no)
- ME 75, MfgET 8
- EE 17, EET 4, CPE 16
- GEN 20, GENT 4, INDT 1, EGMT 1

### List of “Good Things”

- Thomas Pleger, Ph.D. selected as LSSU’s 8th President
- Engineering Prof. Dev./Summer Research Fund established
- Gift for PLC trainers upgrade--$10K
- Gift for Robotics Summer Camp/FR Scholarships--$10K
- Hosted First Robotics Competition Kickoff
- Michigan Works Training again this year
- Sustainable Energy Concentration approved
- HAAS CNC acquisition pending--$65K
- Seven Externally-Sponsored Senior Design Projects

### Summer Orientation Registrants

<table>
<thead>
<tr>
<th>Tracking May</th>
<th>16-May</th>
<th>17-May</th>
<th>19-Jun</th>
<th>27-Jun</th>
<th>17-Jul</th>
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<td>19</td>
<td>10</td>
<td>3</td>
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</table>
We were introduced to LSSU’s 8th President as of July 1, 2014

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, Wisc.

Review of the 2013 and 2014 Senior Design Projects and locations

2013-14 Engineering Senior Design Projects

- ABI: Automated Braking Innovations, Continental, Auburn Hills, MI
- A-VIS: Adexobot-Vision Integration Solution, Advenovation, Rochester Hills, MI
- LCS: Laser Control Solutions, Mactech, Red Wing, MN
- LOCI: Locomotive Onsite Communication Initiative, Essar, Sault Ste Marie, Ontario
- MRC: Marine Refueling Concepts, Moran Iron Works, Onaway, MI
- RAS: Railway Automation Solutions, Pre-tec (Willamette Valley), Eugene, OR
- SFI: Solar Film Innovations, 3M, Maplewood, MN
We reviewed the South Hall renovations:

The Robotics Lab expansion plans:
Additional Focus Forward Topics
- LSSU Presidential Search status
- Engineering Economics into curricula
- Proposed Sustainable Energy concentration
- LEH Engineering Honorary launch
- Outstanding SET Alumnus Award
- Proposed Civil Engineering major

School Updates

Engineering and Technology Enrollment:

Proposed Admission Standards:
**Electrical and Computer Engineering Updates**

Sustainable Energy Concentration Approved!

- 10-12 credit hours:
  - Energy Systems and Sustainability (new)
    - EGNR261 (3,0) – open to all majors!
    - EGNR361 (0,3) – lab focus on engineering
  - Power Distribution and Transmission (new) – EGEE411
  - Vehicle Energy Systems (revise current) – EGNR362
  - Contains other classes Thermodynamics, Electro-Mechanical systems, Power
- Concentration for EE or CE (future MD)
Concentrations

- Four course (13-15 credit hours) model
  - One class is a Technical Elective
  - Three classes satisfy the specific concentration
    EE: Digital, Robotics, Sustainable Energy
    CE: Robotics, Sustainable Energy
    Provides flexibility for scheduling and student interests

Changes in progress

- CE specific Curriculum changes
  - Computer science merged two classes
  - Reduced credit hours in degree (126)
- ECE common
  - Electric Motors lab repaired
  - Added 1 hour to Electronic Circuit Laboratory
    - Provide additional debugging and soldering topics

ECE Focus
How to grow ECE enrollment?

- Recruit more students
  - Promote Sustainable Energies Concentration
    - Need your help
  - Offer mobile robot courses
  - Develop Podcasts of successful projects to post
  - Create 2-2 with community colleges
- Build relationship with teachers/counselors

Mechanical Engineering Update

ME Search for Spring 2014 – David Leach

- David will be teaching CNC/CAM, solid modeling, Statics/Strength of Materials, manufacturing processes, eventually Quality, and other things.

ME Search for Fall 2014 Latest info: Dr. Zakaria “Zak” Mahmud

- Faculty member for Thermal-Fluids courses (mainly)
- 3 candidates to visit in May: seem to have good lab credentials, especially
  - well-spoken
  - balanced w.r.t. lab, theory, simulation (CFD)

Updates

- Curriculum Work
  - Fluid Mechanics
    - combined 2 partial semester courses into 1 for full semester
    - Statics and full Math prereqs: differential equations, Calc III
    - Incorporate some of new energy courses as electives
- Haas CNC Mill
  - 4-axis mill
  - several times the horsepower, larger table than current
  - modern control, training & support included
  - arrives May, for use in Fall instruction
South Hall Renovation Ground Breaking & Reception
- IAB Members participated in the ground breaking ceremony for the new South hall.

### 2013-2014 Senior Project Evaluations

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<th>Year</th>
<th>EG495 Projects (Total)</th>
<th>EG495 Projects (IAB)</th>
<th>EG461 Projects</th>
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<td>11 projects $364,645</td>
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<td>3 projects $32,000</td>
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<td>2005-2006</td>
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<td>2010-2011</td>
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<td>2011-2012</td>
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<td>2013-2014</td>
<td>7 Projects $48,200</td>
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<td>TOTAL</td>
<td>79 ~$1,276,000</td>
<td>32 ~$701,000</td>
<td>9 $79,000</td>
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</tbody>
</table>

### 2013-2014 Senior Year Projects
- Total 7 Team Projects – 33 Students
- Industry Sponsored Projects (7)
- 1 Co-op Student and 1 Industrial Tech Student

### 2014-2015 Senior Project Proposals
- 18 Students Expected For EGNR491 (Fall 2014)
  - ~ 2 CE, 2 EE, 3 EET, 7 ME, and 4 MfgET
- Looking for Project Proposals
- Invitation from IAB to Submit Projects

### Request for 2014-2015 Projects – Sponsor’s Commitment
- Past Project Fee: $2500 + 5% of Budget ($3500 maximum)
- Provide Industrial Contact
- Responsibilities
  - Sponsor to provide funding and special supplies
  - LSSU to provide facilities and faculty advisor
  - Students to design, construct, and manufacture (or research and prototype)
  - Sponsor owns product & intellectual rights
Project Selection Criteria

- Match Between Students and Projects
- Match Between LSSU Resources and Projects
- Project Scope and Timeframe
- Clarity in Project Definition and Outcomes
- Evidence of Engineering and Financial Support

Senior Projects Fee

- Proposal to Make Fee = $4,000 Cumbersome to calculate current Project Fee
- 25% of Faculty Load Per Project
- Software and Equipment Costs
- Less Than Other Engineering Schools

Closing Remarks - Nathan

Next Meeting: November 7, 2013 at LSSU maybe?

Latest info: Location at Precision Edge in Sault Ste. Marie
Start time is 8:00 am with breakfast included.

We ran over on our time, so we ended quickly and moved to lunch at the Anchor Room in the Cisler Center

Respectively Submitted,

Lynnette Eding
LSSU IAB Secretary