MINUTES OF THE FORMAL SESSION OF THE BOARD OF TRUSTEES OF MICHIGAN TECHNOLOGICAL UNIVERSITY held pursuant to due call Ballroom B of the Memorial Union Building on the campus of Michigan Technological University in the City of Houghton, Michigan at nine o'clock on the morning of December 16, 2016.

The Board of Trustees of Michigan Technological University met in formal session at the University's campus at Michigan Technological University in the City of Houghton, State of Michigan, at 9:00 a.m., on the 16th day of December, in Ballroom B of the Memorial Union Building. The place, hour, and date duly established and duly published for the holding of such a meeting.

The meeting was called to order by the Chair, T. Woychowski, and a quorum was declared present.

The following members of the Board of Trustees were present:

T. J. Woychowski, Chair
L. D. Kennedy, Vice Chair (via conference phone)
T. L. Baldini
J. A. Fream (via conference phone)
R. J. Jacquart
B. L. Johnson
P. G. Ollila
B. R. Ryan
G. D. Mroz, ex officio

Also present during part or all of the session were: Roberta Dessellier, Secretary of the Board; Julie Seppala, Treasurer; Jackie Huntoon, Provost and Vice President for Academic Affairs; David D. Reed, Vice President for Research; Ellen Horsch, Vice President for Administration; Les Cook, Vice President for Student Affairs and Advancement, and various members of the faculty, administrative staff, student body, press and public.

The meeting opened with the Pledge of Allegiance.

Where item numbers are used, they refer to corresponding item numbers in the agenda, in the hands of the Board members.
I. APPROVAL OF AGENDA

Chair Woychowski recommended that the agenda be amended to add item V-D. Board of Trustees February Meeting Date Change.

It was moved by P. Ollila, supported by R. Jacquart, and passed by voice vote without dissent, that the agenda of the formal session of December 16, 2016, as distributed to the Board, be approved as amended.

II. OPENING REMARKS

Chair’s Comments

I would like to welcome everyone to Commencement Weekend and I would also like to express my gratitude to my fellow Board members for making every effort to travel and to participate in the meetings and Commencement.

Commencement is a time of reflection and celebration. Proudly walking across our stage tomorrow will be 290 undergraduates, 47 masters and 9 PhD students, all eager to begin their new careers.

Here are just a couple of examples of the fantastic things in which our students participate:

- The Department of Electrical and Computer Engineering's Blue Marble Security (BMS) Enterprise team CAT/SWE took first place in the WE16 Team Tech Competition (sponsored by Boeing) in Philadelphia.

  The team’s project, “Wheel Tractor Scraper Bowl Optimization System,” a joint venture between BMS (ECE) and Consumer Products Enterprise (Chemical Engineering), was sponsored by Caterpillar, Inc.

  Members of the Blue Marble Security team are: Ester Buhl, Sandra Cvetanovic, Cody Kovar, Johnathan Boik, Andrew Tallman, Alex Gall, Alexis Dani, and Eman Jazayeri.

  The Consumer Product Manufacturing team members include: Anna Marchesano, Brianne Anderson, Johnathan Quinn, Jennifer Dzurka and Harley Colburn.

  Blue Marble Security is a virtual company of undergraduate students focused on securing the future through thoughtful use of technology. The student-led company combines a rich educational experience in engineering design, team building, project management and original product development.
Blue Marble Security's win wasn't the only good news for Tech at the conference. Elizabeth (Cloos) Dreyer, BSEE 2011, was selected as the Society of Women Engineer’s Outstanding Collegiate Member for outstanding contribution to SWE, the engineering community and their campus. Elizabeth is an electrical engineering PhD candidate at the University of Michigan.

WE16 is the world’s largest conference and career fair for women in engineering and technology. Hosted by the Society of Women Engineers (SWE) and a number of corporate sponsors, WE16 provides inspiring and invaluable ways to connect, discover career opportunities and pursue professional development.

A number of recent activities that continue to bring distinction to Michigan Tech include:

- Michigan Tech was named as a Military Friendly school by Victory Media, publisher of G.I. Jobs, STEM Jobs and Military Spouse. We are one of 1,160 schools to receive this designation.
- A team led by John Jaszczak, a physicist from Michigan Tech, discovered a new mineral, merelaniite, found in a region in Tanzania. He also had a new mineral named after him, Jaszczakite which was discovered in Pest County, Hungary.
- Victor Busov, Professor, in the School of Forest Resources and Environmental Sciences, received just under $500,000 from the National Institute of Food and Agriculture for a 3-year project. The project’s purpose is to address the concern of unintended long-term impacts caused by transgenic crops, specifically that the crop itself may become invasive in nature. Professor Busov and his team will utilize gene study of the poplar to develop a sterility transgenic containment technology to use as a tool to mitigate, or even prevent, the transgenic spread.
- Michigan Tech has received $2.8 million from the U.S. Department of Energy (DOE) to develop next-generation control systems for light-duty hybrid electric vehicles. Tech is one of three Michigan recipients of a total of $8.5 million in new grants from DOE’s Advanced Research Projects Agency-Energy (ARPA-E).
- The Michigan Tech team, in partnership with General Motors, will work to reduce the energy consumption by 20 percent in automotive electrified vehicles, including hybrid electric, plug-in hybrid, extended range and fully electric powertrain architectures. The project is titled “Connected and Automated Control for Vehicle Dynamics and Powertrain Operation on a Light-Duty Multi-Mode Plug-in Hybrid Electric Vehicle”.
- The principal investigator on the project is Dr. Jeff Naber, the Ronald and Elaine Starr Professor of Energy Systems in Tech’s Department of Mechanical Engineering-Engineering Mechanics. Also contributing to the
Michigan Tech project are Bo Chen, Chris Morgan, Chris Pinnow, Darrell Robinette, Mahdi Shahbakhti, Jeremy Worm and Kuilin Zhang; also Marlene Lappeus and Jennifer Bukovich participated in the proposal development and submission.

In a recently released *US News & World Report* global university rankings, Michigan Tech ranked 136th out of 1,000 universities around the world in international collaboration.

- Tech’s College of Engineering and Department of Materials Science & Engineering also ranked well. MSE placed in the top one-third at 273rd and engineering overall was 356th of the 1,000 universities ranked.
- As a whole, Michigan Tech ranked 676th out of the top 1,000 research universities worldwide, tied with Chongqing University in China and the University of Sofia in Bulgaria.
- Another ranking to make note of is Michigan Tech’s BS in Marketing which has been ranked one of the best bachelor’s degrees in marketing in the U.S.; ranked at 27th among the top 50 in the country according to College Choice.
- In this week’s Crain’s, they had a section entitled, “Blue-Sky Ideas in the Upper Peninsula” which included a story on Dr. Adrienne Minerick’s company, MicroDevice Engineering and a story on StabiLux, a company started by Dr. Yoke Khin Yap. These two companies started out of the University’s Michigan Tech Entrepreneurial Support Corporation (MTESC) (non-profit) and Superior Innovations (for-profit subsidiary).

Before I conclude, I would like to pause and thank Tom Baldini and Paul Ollila for their service to the Board; their appointments concluding at the end of the month.

Tom and Paul have both faithfully served 8 year terms and have been instrumental in guiding MTU through both white water and becalmed times these many years. They have both left their indelible thumbprint on our beloved campus.

Thank you, again, and would you all join me in thanking these gentlemen for their service.

**President’s Comments**

Thank you Mr Chair, Trustees, and amazing students, faculty and staff. I too wish to express my thanks to both Tom and Paul for their years of service to the University.

With the election in the rear view mirror, we now work with the opportunities and challenges that come with making sure that higher education in general, and Michigan Tech in particular are positioned to continue to offer value to the people of the state, the nation and the world.

At a national meeting of public university presidents a few weeks ago, there was much discussion of what lies ahead and I’ll just comment on a few items this morning that relate to
research and access to higher education. And in turn, the business world’s access to graduates of university programs, particularly those who can develop, understand, apply manage and communicate science and technology.

This is critical in an economy where talent is already in short supply, and in an economy where overall figures show the U.S. at or near full employment already. One employer, the VP of Amazon Marketplace (Peter Fairacy) reported in his remarks at the meeting that Amazon currently has 20,000 positions that they could not find skilled people to fill. But it’s also an economy where 85% of the kids from families in the upper quintile of household income get higher education degrees, while only 10% of kids from the lowest quintile of household income get degrees.

One of the issues of concern nationally is DACA – short for the Deferred Action for Childhood Arrivals or the people we sometimes refer to as the 'Dreamers'. These are students who were brought to this country when they were young by immigrant parents who are not documented citizens. These kids had no choice – their parents brought them here. Currently, there are many DACA students in the Nation. Students in the program willingly gave personal information to the federal government and went through background checks. They are here legally and we applaud the bi-partisan legislative efforts of Republican and Democratic Senators (Lindsey Graham SC, Jeff Flake AZ and Lisa Murkowski AK, and Democratic Senators Dick Durbin IL, Chuck Schumer NY and Dianne Feinstein CA) to pass the BRIDGE Act to extend the program offering a provisional protected status from deportation and work authorization (Bar Removals of Individuals who Dream and Grow our Economy). They, and hopefully many of their colleagues will agree that as a nation, we are much better off if these young people are educated than not educated.

A second issue relates to the number of H1B visas for highly skilled workers. The program is not without its drawbacks, but for many international students who come to our country legally for education, these visas can be the light at the end of the educational tunnel for graduates who would like to work in the U.S. They also give our Michigan employers, many of which have multinational operations, the access they need to world-class talent for their world class operations. As a state and a nation, we must be careful to retain access to the world’s talent with whatever changes are made in immigration programs.

At Michigan Tech, we have a large representation of international students and almost always have - there was a Chinese Student Association at Tech in the 1920’s – almost 100 years ago. We are not unique in this regard. International enrollment in the U.S. has eclipsed 1MM students who not only have brought international culture to our campuses and communities, it has also given a significant boost to the economies of the nation and certainly many college towns. The National Association of International Educators estimates that economic impact at $32.8B (that’s with a B) supporting 400,812 jobs at universities, in stores, banks, insurance companies, health care, housing, auto dealers, landlords … the list goes on. In our first congressional district alone, the financial contribution is estimated by this group at $43MM supporting an estimated 552 jobs, with just over $35MM (35.2) and 505 of those jobs here in our Keweenaw community.

AND … we have a large contingent of international colleagues and their families at the university and in the community as well. And we are not unique in that regard either. U.S.
dependence on foreign born talent is fairly absolute. For example, 14% of the doctors and 10% of the technical and business school professors in the U.S. are of Indian origin. As one alum has pointed out, the U.S. has benefited immensely by, in many cases, getting trained talent without having to invest in them for almost 20 years. If that seems to be a foreign thought, think back to the impact that people like Einstein, Tesla, Fermi or Marconi have had on the United States and the world.

Access to student loans is also an issue of concern among presidents. When many of us were in school, these were National Defense Student Loans. This clearly, or at a minimum semantically, linked the health and security of our nation to education and in particular, higher education. Over the years, that link in the minds of many simply doesn’t exist, making a program for basic pull-yourself-up-by-the-bootstraps for upward mobility, at great risk. There are similar concerns for Pell grants for those in that bottom quintile of family income. At the same time, states have backed away from support for both universities and students. We have no option but to double down on our efforts to raise scholarship funds now and in the coming years to ensure that talented young people can enjoy the opportunities that a Michigan Tech education presents.

So these are some of the issues that keep me up at night. But……

Given that it’s the holiday season, and commencement, its only fitting to end on a very positive and very high note for higher education, and for Michigan Tech.

First off, last week, our Governor signed legislation and took what he called “the next step in solidifying our place as the leader in the mobility industry” when he signed bills that will provide greater opportunities to test, manufacture and operate autonomous vehicles in our state. Michigan will be the first state to allow testing of vehicles on state roads. This is good news for Michigan Tech given the high degree of interest our faculty, staff and students have in the mobility industry of the future.

At the Federal level - last week, the Senate passed and this week, the President signed the 21st Century Cures Act into law.

The nation’s research universities through our organizations like (APLU) has focused on the provisions in the bill related to the National Institutes of Health (NIH). The Cures bill will provide $4.8 billion to support specific initiatives at the NIH over the next 10 years, including the Precision Medicine Initiative, BRAIN Initiative and cancer moonshot.

The legislation also reauthorizes the NIH for three years, providing an NIH authorization of $36.47 billion by FY2020, an increase of $4.4 billion over current funding levels. Additionally, the bill includes language to promote opportunities for the next generation of scientists and to reduce regulatory burdens on researchers.

With this Board’s action at the last meeting, to approve a state capital request for the H-STEM Engineering and Health Technologies Complex, I want to again thank the Board for their endorsement of the project. To paraphrase the words of the noted philosopher Wayne Gretzky, this project will ensure that our faculty, staff and students will have a great shot at success by being where the puck is going to be for many years to come.
Best wishes to all for the holidays.

III. COMMITTEE REPORTS

A. Academic Affairs Committee Report

Mr. Paul Ollila, Vice Chair of Academic Affairs Committee, reported that the Committee reviewed the nominations for Emeritus rank for Dr. Gopal Jayaraman, Dr. Madhukar Vable, and Dr. Carl Vilmann and will recommend Board approval. They also reviewed an Honorary Degree proposal for Paula Wittbrodt who will be the Spring Commencement speaker and are recommending approval to the full Board.

The Committee discussed AAC Strategic Question #2: “Are the University’s Strategic Plan and Academic Plan Congruent?”; heard reports from Ms. Heather Deering on the IESL Program; a report from Ms. Carrie Richards on the Dual Career Program and a research update from Dr. Dave Reed. The meeting ended with discussion with the University Senate, USG and GSG Presidents.

Provost Report

Dr. Jackie Huntoon provided the Board with the following report.
Comparing Michigan Tech to other Michigan publics and peers institutions.

Vertical axis values are based on enrollment by major.
Office of Partner Engagement

Current initiatives to address dual career needs at Michigan Tech

- **Recruitment Improvements**
  - Collective advertising
  - Invite a guest to on-campus interviews

- **Efforts to Improve Retention**
  - Community Interest Survey
  - Customized Recruitment Support meeting

- **Improvements to Current Efforts**
  - Cost-Share Agreement to support Academic Partner hires
  - Creative solutions such as split, shared or reduced FTE positions
  - Improved communication to the Michigan Tech community

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**Michigan Tech Research Forum**

- Tarun Dam (Chem)
- Ye Sarah Sun (MEEM)
- Lynn Mazzoleni (Chem)
- Hector Moncada-Hernandez (Biomed)
- Nabaneeta Sarkar (Physics)
- Kazuya Tajiri (MEEM)
- Loredana Valenzano (Chem)
- Laura Kasson Fiss (HU)
- Steffka Hristova (HU)
- Andrew Fiss (HU)

Richelle Winkler gave the inaugural Michigan Tech Research Forum Distinguished Lecture: Making Research Matter: Democratizing Science and Other Witty Goals

- David Flashpohler (SPRES)
- Latsha Poonsamarn (SBE)
- Beth Weinott (CLS)
- Trisha Gain (MEEM)
- Darrell Robinette (MEEM)
- Chad Deering (GMEES)
- Feng Zhao (Biomed)
- Michael Kulisits (ChemEng)
- Laiko Gupta (MEEM)
- Jeff Huber (MEEM)
Research and Sponsored Programs Report

Dr. Dave Reed provided the Board with the following report.

Sponsored Program Summary
1st Quarter FY17
December, 2016

David Reed
Vice President for Research
Outline

- Sponsored Awards, 1st Quarter FY17
- Research Expenditures, 1st Quarter FY17
- Intellectual Property/Commercialization, 1st Quarter FY17
- Corporate Sponsorship, 1st Quarter FY17
- Federal Funding Trends
- MTRI 10th Anniversary

Sponsored Awards, Unaudited FY16

Sponsored Awards, 1st Quarter FY17
Sponsored Awards, 1st Quarter FY17

![Graph showing sponsored awards by FY]

Research Expenditures, 1st Quarter FY17

<table>
<thead>
<tr>
<th>College/School/Division</th>
<th>FY2017</th>
<th>FY2016</th>
<th>Volume</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration</td>
<td>1,298,069</td>
<td>2,580,343</td>
<td>-44.4%</td>
<td></td>
</tr>
<tr>
<td>College of Engineering</td>
<td>6,103,135</td>
<td>6,730,049</td>
<td>-9.3%</td>
<td></td>
</tr>
<tr>
<td>College of Science &amp; Arts</td>
<td>2,133,330</td>
<td>2,742,818</td>
<td>-21.9%</td>
<td></td>
</tr>
<tr>
<td>Great Lakes Research Center</td>
<td>10,500</td>
<td>28,482</td>
<td>-63.1%</td>
<td></td>
</tr>
<tr>
<td>Phase III Centers</td>
<td>48,513</td>
<td>49,282</td>
<td>-1.4%</td>
<td></td>
</tr>
<tr>
<td>Kavli Nanoscience Research Center (KREC)</td>
<td>1,592,843</td>
<td>1,980,771</td>
<td>-19.2%</td>
<td></td>
</tr>
<tr>
<td>Michigan Tech Research Institute (MTRI)</td>
<td>1,857,065</td>
<td>1,836,144</td>
<td>1.1%</td>
<td></td>
</tr>
<tr>
<td>School of Business &amp; Economics</td>
<td>246,943</td>
<td>173,151</td>
<td>42.8%</td>
<td></td>
</tr>
<tr>
<td>School of Forest Resources &amp; Environmental Science</td>
<td>1,235,145</td>
<td>996,915</td>
<td>24.1%</td>
<td></td>
</tr>
<tr>
<td>School of Technology</td>
<td>1,423,160</td>
<td>1,298,442</td>
<td>9.0%</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>14,462,329</td>
<td>16,334,855</td>
<td>-11.3%</td>
<td></td>
</tr>
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</table>

*Includes the Vice President for Research, ERC, and other institutional expenses.*

Intellectual Property, 1st Quarter FY17

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2016</th>
<th>+/- %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disclosures Received</td>
<td>5</td>
<td>4</td>
<td>25%</td>
</tr>
<tr>
<td>Non-disclosure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agreements</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patents Filed or Issued</td>
<td>2</td>
<td>2</td>
<td>0%</td>
</tr>
<tr>
<td>License Agreements</td>
<td>5</td>
<td>4</td>
<td>25%</td>
</tr>
<tr>
<td>Gross Royalties</td>
<td>143,342</td>
<td>95,481</td>
<td>50%</td>
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</table>

*Includes the Vice President for Research, ERC, and other institutional expenses.*
Corporate Sponsorship, 1st Quarter FY17

National R&D Expenditures
(Source: National Science Foundation)

- Federal funding dropped from 62.5% of total higher ed R&D in FY11 to 55.2% in FY15
- Only 3 federal agencies reported increases – Defense, NASA, and USDA; all others reported decreases.
- Medical science ($21.3 B), biological science ($11.7 B), and engineering ($11.1 B) together account for 64.3% of total higher ed R&D
National Research Rankings FY15

- FY16 was an all time high for research expenditures at $72.5 MM and our total research expenditures increased to $69.6 MM in FY15 from $68.5 MM in FY14, with an overall ranking of 164\textsuperscript{th} among all institutions and 116\textsuperscript{th} among public institutions.
- NSF reports research expenditures by discipline, so MTRI, KRC, and GLRC are combined with appropriate academic units for reporting purposes, and some academic units are split depending on disciplinary nature of the work.

National Research Rankings FY15

- One highlight – Michigan Tech is the number 1 ranked Environmental Science research institution in the state with a national ranking of 53\textsuperscript{rd}, followed by UMich at 57\textsuperscript{th}, GVSU at 135\textsuperscript{th}, and MSU at 146\textsuperscript{th}
- Michigan Tech is number 1 in the state in both Atmospheric Science (39\textsuperscript{th} nationally) and Oceanography (53\textsuperscript{rd} nationally)
MTRI 10\textsuperscript{th} Anniversary

- MTRI joined Michigan Tech on October 1, 2006
- At that time they had 24 regular employees; today there are 60
- Cumulatively, over the 10 years MTRI has had over $80 million in research expenditures
Enrollment Report

Dr. Les Cook provided the Board with the following report.
Planned Giving Registry Historical Total
1985 to 2017

Dispatch Location: Homestead Trail

Michigan Tech
B. Audit and Finance Committee Report

Mr. Bob Jacquart reported that the Audit and Finance Committee has met twice since the last board meeting.

The Committee reviewed the Financial Position and outlook for Fiscal Year ‘17 which include the first quarter financial results and projections for the general fund and current fund and the cash position for the University. At this time the results are positive for both the general fund and the current fund. Julie Seppala, the Treasurer to the Board of Trustees, will present a high level review of the first quarter financial results.

The committee discussed the Fiscal Year ‘18 preliminary budget planning parameters which included Enrollment Projections and Long-Term Planning Targets. They also reviewed the action item: Fiscal Year ‘18 Room and Board and Apartment Rental Rates.

The Audit and Finance Committee formally included the Undergraduate Student Government and Graduate Student Government Presidents as part of the Committee’s meeting to promote discussion between the groups.

Other items reviewed by the Audit & Finance Committee:

- Debt ratios
- Capital Projects Update
- History of Fund Balances
- Internal Audit Open Audit Observations
- Fiscal Year 2016 Original Projection vs Actual
- Quarterly Report on Continuous Improvement Using Lean Principles
Treasurer’s Report

Ms. Julie Seppala provided the Board with the following report.

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Financial Report
Board of Trustees Meeting
December 16, 2016

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Overview

- Condensed Statement of Net Position
- Condensed Statement of Revenues, Expenses & Changes in Net Position
- Current Fund Projected Revenues & Expenses
- Cash Balances Chart

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Balance Sheet
Condensed Statement of Net Position
as of September 30, 2016

<table>
<thead>
<tr>
<th></th>
<th>University</th>
<th>Tech Fund</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assets</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current Assets</td>
<td>$535,742</td>
<td>$3,290</td>
<td>$544,037</td>
</tr>
<tr>
<td>Noncurrent Assets</td>
<td>$239,989</td>
<td></td>
<td>$239,989</td>
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<tr>
<td>Capital Assets, net</td>
<td>$108,910</td>
<td>$11,946</td>
<td>$120,856</td>
</tr>
<tr>
<td>Total Assets</td>
<td>$382,641</td>
<td>$15,236</td>
<td>$397,877</td>
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<tr>
<td>Deferred Inflows of Resources</td>
<td>$4,943</td>
<td>-</td>
<td>$4,943</td>
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<tr>
<td>Total Deferred Inflows of Resources</td>
<td>$4,943</td>
<td>-</td>
<td>$4,943</td>
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<tr>
<td>Liabilities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current Liabilities</td>
<td>$29,962</td>
<td>$318</td>
<td>$30,280</td>
</tr>
<tr>
<td>Noncurrent Liabilities</td>
<td>$191,439</td>
<td>$0.00</td>
<td>$191,439</td>
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<tr>
<td>Total Liabilities</td>
<td>$122,430</td>
<td>$318</td>
<td>$122,748</td>
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<tr>
<td>Deferred Outflows of Resources</td>
<td>$396</td>
<td>-</td>
<td>$396</td>
</tr>
<tr>
<td>Total Deferred Outflows of Resources</td>
<td>$396</td>
<td>-</td>
<td>$396</td>
</tr>
<tr>
<td>Net Position</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investment in capital assets, net of related debt</td>
<td>$155,450</td>
<td>-</td>
<td>$155,450</td>
</tr>
<tr>
<td>Other net position, restricted and unrestricted</td>
<td>$31,367</td>
<td>$132,500</td>
<td>$163,867</td>
</tr>
<tr>
<td>Total net Position</td>
<td>$187,817</td>
<td>$132,500</td>
<td>$320,317</td>
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</tbody>
</table>
C. Leadership Committee

Mr. Bill Johnson reported that the Leadership Committee has reviewed and discussed the annual evaluation of President Mroz. This will be further discussed during the closed session for the periodic personnel evaluation of President Mroz.

IV. CONSENT AGENDA

It was moved by R. Jacquart, supported by B. Johnson, and passed by voice vote without dissent, that the Board of Trustees approve and adopt the items contained in the Consent Agenda.
IV-A. Approval of Minutes

It was moved by R. Jacquart, supported by B. Johnson, and passed by voice vote without dissent, that the minutes of the formal session of October 14, 2016, as distributed to the Board, be approved.

IV-B. Gifts

It was moved by R. Jacquart, supported by B. Johnson, and passed by voice vote without dissent, that the Board of Trustees acknowledges the gifts to Michigan Technological University.

IV-C. Resignations, Retirements and Off Payroll

It was moved by R. Jacquart, supported by B. Johnson, and passed by voice vote without dissent, that the Board of Trustees accepts the resignations and confirms the off payroll determinations.
# BOARD OF TRUSTEES OFF-PAYROLL REPORT
(Sepetember 18, 2016 – November 26, 2016)

## RETIRED

<table>
<thead>
<tr>
<th>Name</th>
<th>Class</th>
<th>Department</th>
<th>Title</th>
<th>Hire Date</th>
<th>Term Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eggerding, Philip J.</td>
<td>Staff</td>
<td>Geological &amp; Mining Engineering &amp; Sciences</td>
<td>Mine Safety Trainer</td>
<td>10/04/16</td>
<td>11/04/16</td>
</tr>
<tr>
<td>Hiss, Judy A.</td>
<td>Staff</td>
<td>Cognitive &amp; Learning Sciences</td>
<td>Certification Officer</td>
<td>07/01/16</td>
<td>09/28/16</td>
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## OFF-PAYROLL

<table>
<thead>
<tr>
<th>Name</th>
<th>Class</th>
<th>Department</th>
<th>Title</th>
<th>Hire Date</th>
<th>Term Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amari, Sara</td>
<td>Faculty</td>
<td>Provost and VP for Academic Affairs</td>
<td>Lecturer</td>
<td>08/16/14</td>
<td>10/09/16</td>
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<tr>
<td>Ahnun, Megan F.</td>
<td>Staff</td>
<td>Facilities Management</td>
<td>Asst. Cad Tech Train.</td>
<td>05/23/16</td>
<td>11/10/16</td>
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<td>Barnett, Audrey B.</td>
<td>Staff</td>
<td>Geological &amp; Mining Engineering &amp; Sciences</td>
<td>Research Associate</td>
<td>04/22/13</td>
<td>12/22/16</td>
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<td>Bokowitz, Steven M.</td>
<td>Staff</td>
<td>Dining Services</td>
<td>Catering Manager</td>
<td>09/09/16</td>
<td>10/04/16</td>
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<td>Hagendebach, Kate A.</td>
<td>Staff</td>
<td>General Athletics</td>
<td>Director, NCAA Compliance, Student-Athlete Services/SAW</td>
<td>02/10/16</td>
<td>12/08/16</td>
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<td>Hendrick, Evan R.</td>
<td>Staff</td>
<td>Information Technology</td>
<td>System Admin.</td>
<td>01/09/09</td>
<td>11/25/16</td>
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<td>Kent, Sandra J.</td>
<td>Staff</td>
<td>Office of Advancement</td>
<td>Office Assistant</td>
<td>09/09/08</td>
<td>10/07/16</td>
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<td>Lucchesi, Seraf</td>
<td>Staff</td>
<td>Van Pelt and Opie Library</td>
<td>Assoc. Director of Education &amp; Research</td>
<td>08/06/12</td>
<td>10/26/16</td>
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<td>Pachotta, Brian M.</td>
<td>Staff</td>
<td>Facilities Management</td>
<td>Equipment Operator</td>
<td>01/04/16</td>
<td>09/19/16</td>
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<td>Servis, Ashley J.</td>
<td>Staff</td>
<td>Van Pelt and Opie Library</td>
<td>Library Assistant</td>
<td>09/19/15</td>
<td>12/28/16</td>
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<td>Stander, Anne C.</td>
<td>Faculty</td>
<td>Provost and VP for Academic Affairs</td>
<td>Instructor</td>
<td>08/15/16</td>
<td>10/26/16</td>
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<td>Teiber, Todd M.</td>
<td>Staff</td>
<td>Dining Services</td>
<td>Food Service Helper</td>
<td>09/01/16</td>
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V. ACTION/DISCUSSION ITEMS

V-A. Emeritus Rank

It was moved by B. Johnson, supported by B. Ryan, and passed by voice vote without dissent that the Board of Trustees the following emeritus appointments:

Dr. Gopal Jayaraman, Professor Emeritus, Department of Mechanical Engineering-Engineering Mechanics

Dr. Madhukar Vable, Professor Emeritus, Department of Mechanical Engineering-Engineering Mechanics

Dr. Carl Vilmann, Professor Emeritus, Department of Mechanical Engineering-Engineering Mechanics

V-B. Honorary Degree

The Administration is recommending the Ms. Paula Wittbrodt be awarded an Honorary Doctorate of Philosophy degree.

Paula Wittbrodt is Vice President for Global Packaging and Global Supplier Relations for the Estee Lauder Companies Inc. Ms. Wittbrodt began her career as a process development engineer with Amway; from there she became a manager of the Consumer Products & Retail Practice division for AT Kearney in New York. Before becoming a Vice President with Estee Lauder Companies, she was Director, New Product Engineering and Development - Asia Pacific for Avon Products in Shanghai, China.

Paula Wittbrodt has a bachelor of science degree in chemical engineering from Michigan Tech and an MBA from Columbia Business School in New York. She has been an active Alumni Volunteer and serves on the Presidential Council of Alumnae.

Ms. Wittbrodt will be the Spring Commencement speaker.

It was moved by T. Baldini, supported by B. Johnson, and passed by voice vote without dissent, that the Board of Trustees approves the awarding of an Honorary Doctorate of Philosophy degree to Ms. Paula Wittbrodt.

V-C. 2017-18 Room and Board and Apartment Rental Rates

It was moved by R. Jacquart, supported by B. Ryan, and passed by voice vote without dissent, that the Board of Trustees approves the recommended residence hall housing and meal, as well as apartment rental rates for 2017-2018.
V-D. Board of Trustees February Meeting Date Change

Due to a scheduling conflict, it is being recommended to move the February 24, 2017 Board of Trustees meeting to March 3, 2017.
It was moved by B. Ryan, supported by B. Johnson, and passed by voice vote without dissent, that the Board of Trustees approves the moving of the February 24, 2017 Board meeting to March 3, 2017.

VI. REPORTS

A. University Senate Report

University Senate Report
Presented to the Board of Trustees
December 16, 2016

Marty Thompson, President
University Senate

Results of University Senate Evaluation

- Senate Effectiveness
  - Staff average 4.0 – 4.25; Faculty average ~4.0 (out of 5)

- Senate oversees academic programs
  - Program development
    - Ensuring quality, Assessment requirements are met

- Staff and Faculty diverge in some areas of concern...
  - Staff more worried about pay and healthcare issues.
  - Faculty are concerned about the (lack of) shared governance

- ...and converge on others
  - Use of University Resources*
  - Both faculty and staff sought priority in this area

Fringe Benefits Survey

1. Parental Leave Policy/Senate Proposal
2. Summary of Results of Benefits Survey of Employees
   a. “~70% of employees are [very] concerned about the progressive and persistent erosion of benefits
   b. “~55% of employees are [very] concerned about salaries
   c. Employees do not hold a benefits vs. salary mindset
   d. “~55% of employees say they have delayed healthcare due to costs
   e. “~50% of employees have considered/actively sought positions elsewhere due to dissatisfaction with salary and benefits
3. Analysis of the past 10+ years of fringe benefits
Actions

1. Revised processes for evaluation, reappointment and other features associated with reviewing department chairs and school deans (Proposals 1-17, 2-17, 3-17, 4-17 and 5-17) Administrative Policy Committee

2. Established Assessment Liaisons to Units Participating in the Assessment Process (Proposal 29-16) General Education and Assessment Committee

Projects in Development

3. Dual Career Program
   Professional Staff Policy Committee

4. Research Computing Facilities
   IT Committee, Research Policy Committee

5. Journal and textbook costs
   Research Policy Committee, Library

6. SARA (National Council for State Authorization Reciprocity Agreements) for online/distance education programs. Academic and Instructional Policy Committee, Center for Teaching and Learning

Thanks to Judi Smigowski
Assistant to the University Senate of Michigan Tech
2007-2016
B. Undergraduate Student Government Report

USG Update

December 16, 2016
Samuel Casey, USG President

Agenda

- Campus Improvement Initiative
- Tuition Discussion
- Strategic Goal Feedback
- Board of Trustees Representation
- Student Activity Fee Research

Campus Improvement Initiative

- Goal: Empower students to improve campus
- Pilot project
  - Now accepting submissions until January 9th
- Will pursue expansion if pilot is successful
- Examples of student led projects:
  - Maker’s Space
  - MUB 106 Renovation
  - MUB Basement Renovation
Tuition Discussion Requests

- Availability of tuition data
- Written explanation of tuition structure
- Strategic plan outlining end goals
- Solution for AP & dual-enrollment credits
- Student representative to Audit and Finance Committee

Strategic Goal Feedback

Student recommendations:
1. Link all strategic goals and plans in a central location
   a. See Stanford Engineering's example
   b. This will create a cohesive story and improve understanding
2. Create an implementation plan for Strategic Plan/Portrait 2045
   a. See University of Michigan's example (p. 71)
   b. Shows that goals are more than just words
   c. Creates transparency
   d. Lays out specific actions
3. Address specific goals with Portrait 2045
   a. Examples provided

Recommended Additions to Portrait 2045

- Environmental sustainability
  - Utilize X% renewable energy on campus
  - Send X% less material to landfill
  - Utilize recycling in all buildings on campus
  - Reduce emissions on campus by X%
- Tuition Structure/Cost of Attendance
  - Use innovative methods to make a University education more affordable for students
- Diversity (See Stanford's example)
  - Increase underrepresented student retention by X%
  - Increase the enrollment of underrepresented students by X%
  - Or as recommended by Diversity Council
Recommended Additions to Portrait 2045

- **Infrastructure**
  - Have an on-campus housing capacity of X beds
  - Increase public transportation capacity by X%
  - Add non-campus parking spots

- **Student involvement in the University**
  - Promote and expand shared governance of the University with students

- **Educate for the Future (See Stanford’s)**
  - Develop innovative teaching methods for the future
  - Cultivate world-class instructor development

- **Student Life**
  - This is where we can really paint a picture (See Georgetown’s example)

- **Athletics**
  - Recruit top athletic talent to be nationally competitive

Student Association of Michigan

- **SAM is pursuing initiative to change state constitution**

- **Would require voting student representatives to boards across the state**

- **Campaign has been initiated**

- **The goal is to introduce a bill in the spring**

Statistics

- **11 states have no student representation**

- **78% of states have boards with student representation**

- **61% of states have boards with student vote**

- **Michigan has no boards with student representation**

*Includes public higher education boards (system, coordinating, & institution) in states and D.C. (Source: Association of Governing Boards)*
Rationale

- Students are a customer of the University
  - We are a large shareholder
  - We want to be equal partners
  - We want to be empowered to improve our University
- There are few options after starting
  - Transferring after the first year leads to significant setbacks
  - We would rather improve Tech than leave it
- This is an opportunity to strengthen the team
  - Current BOT members have strong qualifications and excellent experience
  - Students offer alternative perspective
  - Michigan Tech could be a leader in the state

Resolution

USG Resolution 2016-2017 #1

“The Undergraduate Student Government fully supports amending Section 390.352 to add voting student members to the Board of Trustees.”
Student Activity Fee

- Research on the SAF is being performed
- USG plans to request an increase
  - Portion to go to student organizations
    - Would account for inflation and increase in organizations
  - Portion for a new initiative
- Recommend performing reassessment every 3 years
  - ETF uses a similar cycle
  - This would help account for inflation and increase in organizations
  - Would prevent long spans without an increase

SAF Increase Based on Inflation

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<th>Year</th>
<th>SAF</th>
<th>CPI</th>
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<td>2012</td>
<td>$60</td>
<td>229.6</td>
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<tr>
<td>2016</td>
<td>$62.65*</td>
<td>239.7**</td>
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<tr>
<td>2017</td>
<td>$63***</td>
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*Scaled from 2012 based on CPI
**Estimated based on January-October
***Potential increase for 2017-18 school year

Other Initiatives

- Campus Improvement Initiative
- Student Union
- Waterfront Reclamation
- Emergency Loan Program
- Other
C. Graduate Student Government Report

Graduate Student Government of Michigan Tech

Presented by
William Lyttle

December, 2016

Board of Trustees
Michigan Technological University

GSG Initiatives

- Increased program attendance
- Social committee has requested to double its budget

Student Financial Relief
- Emergency student loan
- Auxiliary service areas
- Alternative textbook strategies
- Compensation for Dining Service Employees
Graduate Student Concerns

- Housing
  - Private Developers
- Transportation
  - Graduate School, LWV
- Sustainability
  - Student Sustainability Council

Graduate Student Concerns

Proposed Amendment to GSG Bylaws:

The Graduate Student Government is apolitical—meaning that we will not take a political stance. GSG and the E-board members welcome individual discussions and anonymous feedback from graduate students on any topic that concerns them. Information on events that take place on campus, with a political bias, may be distributed through GSG's network. However, GSG will not host or sponsor such events. GSG will represent every graduate student regardless of their affiliations. (Reference University Policies)

Residential Project

Douglas Houghton Hall

Goals
- Serve communication needs of community
- Build ESL program
- Diversity and Inclusion
- Optimize DIIH

Partners
- Parks
- Honors College
- ESL
- Alumni Relations
- Administration
- GSG and CSG

Activities
- Learning communities
- Language, research, and service
- Cultural events
- Culinary representation

Outputs
- Improved student experience
- Affinity groups
- Professional, academic, and social development
- Engaged alumni
Residential Project

Global Scholars Community

Pilot program:
- Offering 14 students housing
- In MTU owned residence
- Undergraduate and Graduate
- International and Domestic
- Language, culture, research and service opportunities
- As soon as Fall 2017

3MT

The winner of MTU’s 3MT Competition:
Divya Kamath
Will advance to the regional competition in Indiana.

- Predicting the fate of Organic Compounds in water treatment by Aqueous Phase Advanced Oxidation Processes
VII. INFORMATIONAL ITEMS
A. Analysis of Investments
B. University Issued Bond Balances Report
C. Research and Sponsored Programs Report
D. Advancement and Alumni Relations Report
E. Recent Media Coverage
F. Employee Safety Statistics

VIII. OTHER BUSINESS

There was no other business at this time.

IX. PUBLIC COMMENTS

Josh Marshall, computer science graduate student, spoke about the hockey coach salary and graduate students teaching freshman classes.

X. INFORMAL CLOSED SESSION FOR REVIEW OF PENDING LITIGATION AND A PERIODIC PERSONNEL EVALUATION OF PRESIDENT MROZ

It was moved by T. Baldini, supported by B. Johnson, and passed by voice vote without dissent, that the Board of Trustees proceed into an informal closed session for review of pending litigation and a periodic personnel evaluation of President Mroz. (A closed session for such a purpose is provided for in Section 8 (a, e) of P.A. 267 of 1976). (A roll call vote is required).

Roll Call Vote:

Baldini – Yes   Kennedy – Yes
Fream – Yes     Ollila - Yes
Jacquart – Yes  Ryan - Yes
Johnson - Yes   Woychowski - Yes

The motion passed.

The Board of Trustees reconvened in open session with a quorum present.

President’s Performance Evaluation

The Leadership Committee is extremely pleased with President Mroz’s performance over the course of the year. He has successfully:

- Engaged the students, student groups, faculty and staff as well as the Alumni
• Supported the growth of undergraduate and graduate programs
• Supported facilities, capital investments, and a safe work environment
• Managed the budget effectively
• Promoted diversity
• Promoted a culture of continuous improvement
• Increased student recruitment/retention
• Promoted research funding and research activities
• Developed positive relations with community, industry, state and federal governments
• Communicated policies and procedures

Overall, Glenn has demonstrated strong leadership in his role as President.

In 2014, the Board retained the services of a consulting firm, Aon, to aid us in establishing a strategy of moving the President’s base salary and compensation in line with his peer groups. In light of the very favorable performance appraisal, and in light of the strategic plan, the committee has recommended an 11.7% increase in Glenn’s base pay for his 2016 performance.

It was moved by B. Johnson, supported by J. Fream, and passed by voice vote without dissent, that the Board of Trustees grants President Mroz an 11.7% increase to his base salary for his 2016 performance, effective November 20, 2016.

XI. ADJOURNMENT

It was moved by B. Johnson, supported by R. Jacquart, and passed by voice vote without dissent, that the meeting be adjourned.

_______________________________________
Secretary of the Board of Trustees

_______________________________________
Chair, Board of Trustees