AGENDA
Formal Session of the Board of Trustees
Michigan Technological University
9:00 a.m. – December 14, 2018
Ballroom B - Memorial Union Building

I. Approval of Agenda

II. Opening Remarks
   A. Chair’s Comments
   B. President’s Comments

III. Committee Reports
   A. Academic Affairs Committee – Linda Kennedy
   B. Audit and Finance Committee – Steve Tomaszewski
   C. Leadership Committee – Bill Johnson

IV. Reports
   A. Mackinac Straits Tunnel Presentation – Michael Prast
   B. Undergraduate Student Government Report – Max Sexauer, President
   C. Graduate Student Government Report – Apurva Baruah, President
   D. Research and Sponsored Programs Report - Dr. Dave Reed, V.P. Research
   E. University Senate Report – Dr. Mike Mullins, President

V. Consent Agenda
   A. Approval of Minutes
   B. Gifts
   C. Resignations, Retirements and Off Payroll

VI. Action/Discussion Items
   A. Emerita/Emeritus Rank
   B. Board of Trustees Emerita/Emeritus Rank
   C. 2019-2020 Room and Board and Apartment Rental Rates

VII. Informational Items
   A. Analysis of Investments
   B. University Issued Bond Balances
   C. Research and Sponsored Programs Report
   D. Advancement and Alumni Engagement Report
   E. Recent Media Coverage
   F. Employee Safety Statistics

VIII. Other Business

IX. Public Comments

X. Adjournment
I. APPROVAL OF AGENDA

RECOMMENDATION: That the Board of Trustees approves the agenda of the formal session of December 14, 2018 as distributed to the Board.
II. OPENING REMARKS

A. Chair’s Comments

B. President’s Comments
III. COMMITTEE REPORTS

A. ACADEMIC AFFAIRS COMMITTEE – Linda Kennedy

B. AUDIT AND FINANCE COMMITTEE – Steve Tomaszewski

C. LEADERSHIP COMMITTEE – Bill Johnson
IV. REPORTS

A. Mackinac Straits Tunnel Presentation – Michael Prast
B. Undergraduate Student Government Report –
   Max Sexauer, President
C. Graduate Student Government Report – Apurva Baruah, President
D. Research and Sponsored Programs Report –
   Dr. Dave Reed, Vice President for Research
E. University Senate Report – Dr. Mike Mullins, President
CEE4905 Senior Design Project-Spring 2018

Mackinac Straits Underground Utility Corridor

Michigan Technological University

Michael Prast
Why a Mackinac Straits Utility Corridor?

1. Environmental Protection
   - Addresses ALL underwater Utilities
   - Protects the Waters of the Great Lakes
   - Protects the Straits Bottom Lands

2. Economic Development
   - Provides improved Utility Connection between LP and UP
   - Reduces Utility Cost in the UP
   - Promotes Economic Development of the UP

3. Improved Utility Performance
   - Controlled Environment
   - Visual inspection
   - Longer Life, Better Maintenance

4. Potential Emergency Access Corridor
CE 4905 – OUR MISSION

“Design a single, dedicated utility corridor tunnel to accommodate ALL utilities crossing the Straits of Mackinac”
Existing Utilities

- Enbridge Energy (oil pipeline 1953)
- Cloverland Electric Cooperative (high voltage electric lines 1956)
- TransCanada’s Great Lakes Transmission Company (natural gas pipeline 1968)
- American Transmission Company (high voltage electric lines 1975)
Proposed Tunnel Alignment
Proposed Tunnel Profile

- Tunnel Length: 21,723 ft. (4.1 miles)
- Typical grade: 4%
- Estimate 25% to 44% of alignment will require pre-grouting for ground improvement.
- Regional average dip of 55 ft./mi. to the south
Geology and TBM Selection

• Geologic Risks:
  o Mackinaw City Side:
    − Fractured Bois Blanc dolomite
    − High potential for water inflow, significant grouting required
    − Intermittent clay seams
  o St Ignace Side:
    − More competent rock
  o General Risks
    − “Megabreccia” formations — slickensided faults
    − Soft shale — potential for squeezing
    − Unknown depth of scour channel

• Proposed Tunnel Boring Machine:
  o XSE Crossover Series (EPB/Slurry Hybrid)
    − Designed for complex geology
    − Customizable
    − Muck removal and cutterhead adaptability while mining
  o 25 ft. Cutting diameter
  o Advance Rate 35-40 ft. per day
Site Visit March 26, 2018
Risk Mitigation

- Risk register and risk matrix used to identify hazards and corresponding severity
- Contingency
- Squeezing: Overcut & Bentonite Lubrication injection
- Probe drilling
- Water inflow & fracturing: Grouting Program
- Optimized TBM design to plan
- Identified risks are common for tunneling projects
Proposed Design

- 21 foot inside diameter
- Tunnel Features:
  - Maintenance and Emergency Vehicle Space
  - Rail and rubber tire access
  - Allows for Utility Expansion
  - Provision for emergency spill control and collection
  - Ventilation and fire suppression
- Cross Section Considerations:
  - Large pipelines on rack supports
  - Electrical in hangers
  - Embedded rails
  - Spill control and storm drainage in invert
  - Life support utilities
    - Lighting
    - Ventilation
    - Communication system
Design Details

- **Utility Racks:**
  - 10ft tall x 9ft depth
  - Length accommodates calculated thermal expansion in pipeline
  - Max load induced is 46kips

- **Utility Hangers:**
  - Trapeze Uni-strut system
    - Threaded rod connector
  - Custom hanger supports design to eliminate wall curvature
  - Lateral support
    - Uni-strut seismic product

- **Transportation:**
  - Rail Cars
    - Battery powered
    - Standard metal wheels with hill assist systems
    - Construction cars slightly different than final
  - Rail infrastructure
    - Narrow gauge
    - Embedded rail
    - Groove Girder Rails
    - Construction rail system for construction requirements
Portal Configuration

- Portal provides
  - Enough width for TBM assembly and disassembly
  - Sufficient rock depth over TBM to avoid stability problems during initial boring
  - Location for maintenance building
Maintenance Building
## Concept Construction Cost Estimate

### Mackinac Straits Utility Tunnel

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Portal Construction</td>
<td>$35,849,000</td>
</tr>
<tr>
<td>Tunnel Construction</td>
<td>$380,145,000</td>
</tr>
<tr>
<td>Headhouse and Systems Construction</td>
<td>$5,889,000</td>
</tr>
<tr>
<td>Overall Contingency - 35%</td>
<td>$147,659,000</td>
</tr>
</tbody>
</table>

**Grand Total:** $569,542,000

**Note:** Does not include: -Preconstruction Engineering & Planning  
- Owner Management  
- Overhead & Profit
Concept Schedule

• Preconstruction Engineering & Planning: 792 Days
  → Preliminary Engineering and Land acquisition: 200 days
  → Geotechnical investigation: 130 days (concurrent)
  → Engineering and design: 322 days
  → Contract procurement: 270 days

• Portal Construction: 265 Days
  → Dewatering, site preparation: 65 days
  → Earth support and excavation: 200 days

• Tunnel Construction: 1345 Days
  → TBM procurement: 270 days
  → Tunnel mining: 550 days
  → Interior and systems installation: 525 days

• Surface Headhouse & Site Civil: 208 Days
  → Prefabricated building: 102 days each

Total: 7 Years
What’s Happening Now?

• Enbridge set to pay for construction
  – 7-10 years
  – $350 - $500 million
  – 1‘ thick walls
  – 2 years to bore
  – 23‘ diameter

• Mackinac Bridge Authority is considered for managing

Next Steps

1. Develop Comprehensive Utility Management Strategy for the Straits

2. Geotechnical Investigation in the Straits – *(This Defines Cost)*

3. Advance Conceptual Design
   - Develop Tunnel Safety Features and Spill Prevention Plan
   - Develop utility implementation plan

4. Business Model – Public or Private?

5. Contracting Model
They Made This Happen

Faculty Advisor
Michael Drewyor PE PS

Industry Advisor
James A. Morrison PE – President, ILF Consultants, Inc., Traverse City MI
morrison3@cox.net
(231) 944-9732

Students
Michael Prast, Jessica Fredericks, Jeremy Dziewit, Michael Frahm, Patrick Weaver, Gavin Bodnar, Karrah Schneiderwent, Aaron Kostrzewa, Daniel Bast, Emma Beachy, Matthew Wray, Isaac MacMillan, Taylor Garbe, Alex Kuehn, Chad Brown, Aaron Crapsey
Thank you

Questions?
USG Update

December 14, 2018
Max Sexauer, USG President
Agenda

- Student Affairs Initiatives
- JED Campus Update
- Winter Break Buses
Student Affairs

- Class Recess during Career Fair
  - Drafting a proposal of recommendation from USG
  - Working with Career Services and Registrar's office to create a plan
  - Goal: Bring to the Senate before Semester’s end
Student Affairs

- Student Textbook Initiatives
  - “How can we get textbooks to students on a more timely basis?”
  - Met with Campus Bookstore Operations/Textbook Managers
  - Collaborating with the Senate
Student Affairs

- Variety of Smaller Pursuits
  - Security camera coverage on campus
  - Trail & Walkway maintenance
  - Cleanliness within dorm halls
  - Hand dryers in buildings on campus
JED Campus Update

- Our JED Campus Committee submitted our self assessment last Month
- Campus Visit - End of March
- Two problem areas we identified:
  - Medical Center
  - Health History
Break Buses

- Due to Demand - Potentially chartering multiple buses for the future
  - Give students options for ride sharing
  - Void left by absence of Barkboard
Questions?
Graduate Student Government of Michigan Tech

Apurva Baruah

December 14 2018

Board of Trustees
Michigan Technological University
Enrichment & Collaboration

Winners - Niranjan Migankalu (MEEM) - Judges’ [L]
Stephania Vaglica (MEEM) - People’s  [R]
Judges - Lucasz Weselinski (Chemistry)
Danny Jacobs (Humanities)
David Shonnard (ChemE)

14 participants (5 Masters, 9 PhD)
6 departments represented
Enrichment & Collaboration

Professional Development Workshops

Fall 2018

- Publishing Your Research
  September 12, 2018

- Managing the Job Search as an International Student
  September 26, 2018

- Enhance and Broaden Your Communication & Interview Skills
  October 17, 2018

→ Info-session on Visa & other legal topics by IPS for International students
Enrichment & Collaboration

Travel Grant Program

- Fall 2018: 69 grants awarded totaling $16,550
  - 62 Presenting (47 PhD, 15 MS)
  - 7 Attending (2 PhD, 5 MS)
New Programs

Graduate Student Conference Award

- Crowd-funding program on Superior Ideas
- https://www.superiorideas.org/project/grad-student-conference

Donate Now!!

Donate Now!!
New Programs

Husky Col-Lab:
Graduate Research Collaboration Initiative

● Campus-wide initiative to include ALL research students - MS & PhD

● Foster collaborative research and help each other

● Both parties benefit - work gets done, co-authorship/credit in papers/dissertation etc

● More interactions ➔ Better ideas ➔ Better Innovation!!!
New Programs

Emergency/Healthcare Resources Document

- Envisioned to be a 1st-look, easy access resource for Grad students
- Information on essential emergency resources
- Medical and financial help available within the university and locally
- Live document, constantly monitored and updated

Emergency/Healthcare Resources for Graduate Students

**DISCLAIMER**

This document is for informational purposes only and is meant to be an informal guideline to help you consider a few options. Although every reasonable effort is made to present current and accurate information, the Graduate Student Government, the Graduate School and Michigan Technological University make no guarantees of any kind, and this information may be subject to change without notice.

Any links to external websites and/or non-Michigan Tech information provided in this document are provided as a courtesy. They should not be construed as an endorsement by the Graduate Student Government, the Graduate School and Michigan Technological University of the content or views of the linked materials.

This is not an exhaustive list of resources available in and around Michigan Tech and as such should not be treated as one.
Community

Fall Colors Trip - Lake of the Clouds

- 50 students
- Oct 13 - perfect weekend, vibrant colors!
Community Laser Tag
Advocacy

➔ Transportation
  ○ Support sustainable solutions for Parking and Shuttles

➔ Insurance
  ○ Increase subsidy to 100% for grad students insurance cost.
  ○ Subsidy for spouses and families
Sponsored Program Summary
Unaudited FY18 and 1st Quarter
FY19 Activities

David Reed
Vice President for Research
December 14, 2018
Outline

• Unaudited Results FY18
  – Sponsored Awards
  – Research Expenditures
  – Intellectual Property/Commercialization
  – Corporate Sponsorship
• 1st Quarter FY19
  – Sponsored Awards
  – Research Expenditures
• Benchmarking
Sponsored Awards, Unaudited FY18
Sponsored Awards, Unaudited FY18

Sponsored Awards
Fiscal Year 2018
4th Quarter
Ended June 30, 2018
TOTAL: $50,891,645

Pre-Proposals Submitted
(excluded from Proposals Submitted figures below)
FYTD 2017: 56
FYTD 2018: 52

National Science Foundation
8,748,635
NASA
4,283,806
US Department of Agriculture
2,161,755
US Department of Energy
1,477,511
US Department of HHS
2,211,217
US Department of Transportation
1,495,825
Other Federal Agencies*
4,161,237
State of Michigan
2,400,845
Industrial
6,401,825
Foreign
1,094,523
All Other Sponsors
1,461,840
### Sponsored Awards, Unaudited FY18

<table>
<thead>
<tr>
<th>Sponsor</th>
<th>Proposals Submitted</th>
<th>Awards Received</th>
<th>Awards Received ($)</th>
<th>Variance</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FY '18 as of 6/30</td>
<td>FY '17 as of 6/30</td>
<td>FY '18 as of 6/30</td>
<td>FY '17 as of 6/30</td>
<td>FY '18 as of 6/30</td>
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<tr>
<td>NASA</td>
<td>55</td>
<td>58</td>
<td>21</td>
<td>35</td>
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<td>178</td>
<td>168</td>
<td>54</td>
<td>60</td>
<td>8,748,635</td>
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<tr>
<td>US Department of Agriculture</td>
<td>51</td>
<td>69</td>
<td>59</td>
<td>43</td>
<td>2,161,755</td>
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<td>US Department of Defense</td>
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<td>90</td>
<td>89</td>
<td>100</td>
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<td>3</td>
<td>2</td>
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<td>3</td>
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<td>16</td>
<td>17</td>
<td>1,477,511</td>
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<td>US Department of HHS</td>
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<td>10</td>
<td>10</td>
<td>2,211,217</td>
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<tr>
<td>US Department of Transportation</td>
<td>14</td>
<td>15</td>
<td>9</td>
<td>22</td>
<td>1,495,825</td>
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<tr>
<td>Other Federal Agencies*</td>
<td>45</td>
<td>52</td>
<td>35</td>
<td>35</td>
<td>4,161,237</td>
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<tr>
<td>Federal Agency Total</td>
<td>555</td>
<td>531</td>
<td>295</td>
<td>325</td>
<td>36,039,057</td>
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<tr>
<td>State of Michigan</td>
<td>47</td>
<td>31</td>
<td>30</td>
<td>20</td>
<td>2,400,845</td>
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<tr>
<td>Industrial</td>
<td>168</td>
<td>200</td>
<td>148</td>
<td>190</td>
<td>6,401,825</td>
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<tr>
<td>Foreign</td>
<td>30</td>
<td>17</td>
<td>20</td>
<td>17</td>
<td>1,094,523</td>
</tr>
<tr>
<td>All Other Sponsors</td>
<td>82</td>
<td>93</td>
<td>43</td>
<td>40</td>
<td>1,461,840</td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal</strong></td>
<td>882</td>
<td>872</td>
<td>536</td>
<td>592</td>
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<tr>
<td>Gifts**</td>
<td>N/A</td>
<td>N/A</td>
<td>281</td>
<td>305</td>
<td>3,468,475</td>
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<tr>
<td>Crowd Funding</td>
<td>N/A</td>
<td>N/A</td>
<td>9</td>
<td>17</td>
<td>25,080</td>
</tr>
<tr>
<td></td>
<td><strong>Grand Total</strong></td>
<td>882</td>
<td>872</td>
<td>826</td>
<td>914</td>
</tr>
</tbody>
</table>


**Gifts represent non-contractual funding from corporations, foundations, associations and societies in support of academic programs, scholarships/fellowships, student design & enterprise, research, youth programs and special programs.
## Research Expenditures, Unaudited

### FY18

<table>
<thead>
<tr>
<th>College/School/Division</th>
<th>Preliminary FY2018</th>
<th>Preliminary FY2017</th>
<th>Variance</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration*</td>
<td>3,916,930</td>
<td>5,090,250</td>
<td>(1,173,320)</td>
<td>-23.1%</td>
</tr>
<tr>
<td>College of Engineering</td>
<td>30,848,486</td>
<td>25,217,506</td>
<td>5,630,980</td>
<td>22.3%</td>
</tr>
<tr>
<td>College of Science &amp; Arts</td>
<td>17,149,933</td>
<td>16,643,420</td>
<td>506,513</td>
<td>3.0%</td>
</tr>
<tr>
<td>Great Lakes Research Center**</td>
<td>471,791</td>
<td>232,583</td>
<td>239,208</td>
<td>102.8%</td>
</tr>
<tr>
<td>Pavlis Honors College</td>
<td>385,246</td>
<td>298,791</td>
<td>86,455</td>
<td>28.9%</td>
</tr>
<tr>
<td>Keweenaw Research Center (KRC)</td>
<td>9,167,620</td>
<td>7,928,461</td>
<td>1,239,159</td>
<td>15.6%</td>
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<tr>
<td>Michigan Tech Research Institute (MTRI)</td>
<td>9,047,027</td>
<td>8,412,594</td>
<td>634,433</td>
<td>7.5%</td>
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<tr>
<td>School of Business &amp; Economics</td>
<td>1,411,668</td>
<td>1,353,978</td>
<td>57,690</td>
<td>4.3%</td>
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<tr>
<td>School of Forest Resources &amp; Environmental Science</td>
<td>5,787,261</td>
<td>5,894,354</td>
<td>(107,093)</td>
<td>-1.8%</td>
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<tr>
<td>School of Technology</td>
<td>492,435</td>
<td>557,241</td>
<td>(64,806)</td>
<td>-11.6%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>78,678,397</td>
<td>71,629,178</td>
<td>7,049,219</td>
<td>9.8%</td>
</tr>
</tbody>
</table>

*Includes the Vice Presidents, Provost, and others who report to a VP, Provost or the President. Except for the research institutes that report to the VPR.

**Includes GLRC department (non-academic researchers) expenditures only. All other GLRC center expenditures are shown in the researchers' respective colleges.
Research Expenditure Utilization

- Compensation: 28%
- Tuition and Fees: 45%
- Capital Expenditures: 2%
- Contracted Services: 5%
- Internal Services: 3%
- Supplies and Materials: 1%
- Travel: 2%
- Other: 28%
- F&A Reimbursement: 4%
Research Expenditures, Unaudited
FY18

Expenditures (Millions)

Fiscal year


$ 78.7 MM
+ 9.8 %
### Sponsored Awards and Research Expenditures, FY13-18

<table>
<thead>
<tr>
<th>FY</th>
<th>Awards</th>
<th>Expenditures</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>48,003,542</td>
<td>70,689,000</td>
</tr>
<tr>
<td>2014</td>
<td>48,162,964</td>
<td>68,525,000</td>
</tr>
<tr>
<td>2015</td>
<td>58,680,019</td>
<td>69,607,000</td>
</tr>
<tr>
<td>2016</td>
<td>51,661,818</td>
<td>72,536,000</td>
</tr>
<tr>
<td>2017</td>
<td>59,714,383</td>
<td>71,629,000</td>
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<tr>
<td>2018</td>
<td>50,891,645</td>
<td>78,678,000</td>
</tr>
<tr>
<td>2019</td>
<td>?</td>
<td>?</td>
</tr>
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</table>
## Intellectual Property, Unaudited FY18

<table>
<thead>
<tr>
<th>Category</th>
<th>2018</th>
<th>2017</th>
<th>+/- %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disclosures Received</td>
<td>25</td>
<td>38</td>
<td>-34%</td>
</tr>
<tr>
<td>Nondisclosure Agreements</td>
<td>105</td>
<td>105</td>
<td>0%</td>
</tr>
<tr>
<td>Patents Filed or Issued</td>
<td>27</td>
<td>17</td>
<td>59%</td>
</tr>
<tr>
<td>License Agreements</td>
<td>14</td>
<td>18</td>
<td>-22%</td>
</tr>
<tr>
<td>Gross Royalties</td>
<td>354,545</td>
<td>326,169</td>
<td>9%</td>
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</tbody>
</table>
Corporate Sponsorship, Unaudited
FY18

Sponsored Awards
- Industry-
COMBINED
Fiscal Year 2018
4th Quarter
Ended June 30, 2018
TOTAL: $13,498,188

- Defense & Space
  2,236,347
- Energy
  507,897
- Environmental
  194,894
- Health
  923,406
- Industrial Engineering
  209,673
- IT Services
  238,100
- Mining & Metals
  450,953
- Other
  308,911
- Technology
  907,730
- Automotive
  5,626,598
- Chemical
  68,159
- Consumer Products
  1,274,164
- Civil
  68,159
- Business & Economics
  282,861

Michigan Technological University
### Sponsored Awards – 1st Quarter FY19

<table>
<thead>
<tr>
<th>Sponsor</th>
<th>FY '19 Proposals</th>
<th>FY '18 Proposals</th>
<th>FY '19 Awards</th>
<th>FY '18 Awards</th>
<th>FY '19 Awards ($)</th>
<th>FY '18 Awards ($)</th>
<th>Variance ($)</th>
<th>Variance %</th>
</tr>
</thead>
<tbody>
<tr>
<td>NASA</td>
<td>12</td>
<td>4</td>
<td>30</td>
<td>9</td>
<td>3,657,650</td>
<td>1,865,823</td>
<td>1,791,827</td>
<td>96.0%</td>
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<tr>
<td>National Science Foundation</td>
<td>43</td>
<td>42</td>
<td>29</td>
<td>22</td>
<td>6,197,468</td>
<td>3,708,586</td>
<td>2,488,882</td>
<td>67.1%</td>
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<tr>
<td>US Department of Agriculture</td>
<td>16</td>
<td>9</td>
<td>25</td>
<td>15</td>
<td>761,633</td>
<td>905,923</td>
<td>-144,290</td>
<td>-15.9%</td>
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<tr>
<td>US Department of Defense</td>
<td>34</td>
<td>20</td>
<td>32</td>
<td>24</td>
<td>4,273,161</td>
<td>2,953,136</td>
<td>1,320,025</td>
<td>44.7%</td>
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<td>US Department of Education</td>
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<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<td>8</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>426,094</td>
<td>200,761</td>
<td>225,333</td>
<td>112.2%</td>
</tr>
<tr>
<td>US Department of HHS</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>814,721</td>
<td>883,318</td>
<td>-68,597</td>
<td>-7.8%</td>
</tr>
<tr>
<td>US Department of Transportation</td>
<td>7</td>
<td>5</td>
<td>2</td>
<td>2</td>
<td>47,999</td>
<td>62,411</td>
<td>-14,412</td>
<td>-23.1%</td>
</tr>
<tr>
<td>Other Federal Agencies*</td>
<td>9</td>
<td>14</td>
<td>17</td>
<td>10</td>
<td>1,926,660</td>
<td>1,431,445</td>
<td>495,215</td>
<td>34.6%</td>
</tr>
<tr>
<td><strong>Federal Agency Total</strong></td>
<td>134</td>
<td>102</td>
<td>141</td>
<td>90</td>
<td>18,105,386</td>
<td>12,011,403</td>
<td>6,093,983</td>
<td>50.7%</td>
</tr>
<tr>
<td>NLHEI</td>
<td>10</td>
<td>11</td>
<td>9</td>
<td>6</td>
<td>609,081</td>
<td>540,581</td>
<td>68,500</td>
<td>12.7%</td>
</tr>
<tr>
<td>Industrial</td>
<td>80</td>
<td>72</td>
<td>46</td>
<td>34</td>
<td>1,470,245</td>
<td>553,553</td>
<td>916,692</td>
<td>165.6%</td>
</tr>
<tr>
<td>Foreign</td>
<td>5</td>
<td>8</td>
<td>5</td>
<td>4</td>
<td>116,287</td>
<td>375,290</td>
<td>-259,003</td>
<td>-69.0%</td>
</tr>
<tr>
<td>All Other Sponsors</td>
<td>22</td>
<td>24</td>
<td>18</td>
<td>20</td>
<td>333,410</td>
<td>461,582</td>
<td>-148,172</td>
<td>-30.8%</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>251</td>
<td>217</td>
<td>219</td>
<td>154</td>
<td>20,634,409</td>
<td>13,962,409</td>
<td>6,672,000</td>
<td>47.8%</td>
</tr>
<tr>
<td>Gifts**</td>
<td>N/A</td>
<td>N/A</td>
<td>47</td>
<td>72</td>
<td>543,230</td>
<td>889,828</td>
<td>-346,598</td>
<td>-39.0%</td>
</tr>
<tr>
<td>Crowd Funding</td>
<td>N/A</td>
<td>N/A</td>
<td>4</td>
<td>1</td>
<td>7,844</td>
<td>93</td>
<td>7,751</td>
<td>833.4%</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td>251</td>
<td>217</td>
<td>270</td>
<td>227</td>
<td>21,185,483</td>
<td>14,852,330</td>
<td>$6,333,153</td>
<td>42.6%</td>
</tr>
</tbody>
</table>


**Gifts represent non-contractual funding from corporations, foundations, associations and societies in support of academic programs, scholarships/fellowships, student design & enterprise, research, youth programs and special programs.
# Research Expenditures – 1st Quarter FY19

<table>
<thead>
<tr>
<th>College/School/Division</th>
<th>FY2019</th>
<th>FY2018</th>
<th>Variance</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration*</td>
<td>1,734,428</td>
<td>1,459,336</td>
<td>275,092</td>
<td>18.9%</td>
</tr>
<tr>
<td>College of Engineering</td>
<td>6,427,621</td>
<td>6,008,224</td>
<td>419,397</td>
<td>7.0%</td>
</tr>
<tr>
<td>College of Science &amp; Arts</td>
<td>2,854,628</td>
<td>3,285,365</td>
<td>(430,737)</td>
<td>-13.1%</td>
</tr>
<tr>
<td>Great Lakes Research Center**</td>
<td>87,840</td>
<td>52,536</td>
<td>35,304</td>
<td>67.2%</td>
</tr>
<tr>
<td>Pavlis Honors College</td>
<td>91,594</td>
<td>73,743</td>
<td>17,851</td>
<td>24.2%</td>
</tr>
<tr>
<td>Keweenaw Research Center (KRC)</td>
<td>1,723,948</td>
<td>1,907,754</td>
<td>(183,806)</td>
<td>-9.6%</td>
</tr>
<tr>
<td>Michigan Tech Research Institute (MTRI)</td>
<td>1,940,095</td>
<td>1,909,480</td>
<td>30,615</td>
<td>1.6%</td>
</tr>
<tr>
<td>School of Business &amp; Economics</td>
<td>251,509</td>
<td>220,507</td>
<td>31,002</td>
<td>14.1%</td>
</tr>
<tr>
<td>School of Forest Resources &amp; Environmental Science</td>
<td>1,157,429</td>
<td>1,163,564</td>
<td>(6,135)</td>
<td>-0.5%</td>
</tr>
<tr>
<td>School of Technology</td>
<td>167,019</td>
<td>151,079</td>
<td>15,940</td>
<td>10.6%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>16,436,111</strong></td>
<td><strong>16,231,588</strong></td>
<td><strong>204,523</strong></td>
<td><strong>1.3%</strong></td>
</tr>
</tbody>
</table>

*Includes the Vice Presidents, Provost, and others who report to a VP, Provost or the President. Except for the research institutes that report to the VPR.

**Includes GLRC department (non-academic researchers) expenditures only. All other GLRC center expenditures are shown in the researchers’ respective colleges.
Benchmarking

• Proportion of Faculty on Active Awards During FY17
Benchmarking

• Number of Submitted Proposals per Faculty Submitting Proposals

Institution

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>Mich Tech</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Submitted Proposals</td>
<td>2.00</td>
<td>3.00</td>
<td>3.00</td>
<td>4.00</td>
<td>5.00</td>
<td>6.00</td>
<td>7.00</td>
<td>8.00</td>
</tr>
</tbody>
</table>

Formal Session of the Board of Trustees - IV. Reports
Benchmarking

• $ of Departmental and Central Research Admin Personnel Costs per Award
V.  CONSENT AGENDA

These are routine matters that generally do not require discussion or debate. Any Board member can remove any consent item from the agenda by request. They will be considered as one resolution.

A. Approval of Minutes
B. Gifts
C. Resignations, Retirements and Off Payroll
V-A. APPROVAL OF MINUTES

RECOMMENDATION: That the Board of Trustees approves the minutes of the formal session of September 28, 2018 as distributed to the Board.
V-B. GIFTS

Attached is a fiscal year to date comparative report of gifts to Michigan Technological University and the Michigan Tech Fund.

**RECOMMENDATION:** That the Board of Trustees acknowledges the gifts to Michigan Technological University.
Michigan Technological University
Michigan Tech Fund
Fundraising Productivity Report
July 1, 2018 through October 31, 2018
Compared to Prior Year

<table>
<thead>
<tr>
<th>Source</th>
<th>FY19 YTD Total</th>
<th>FY18 YTD Total</th>
<th>FY18 Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individuals - Major Gifts (25K and up)</td>
<td>1,120,275</td>
<td>1,278,064</td>
<td>6,201,844</td>
</tr>
<tr>
<td>Realized Planned Gifts (Unanticipated)</td>
<td>47,487</td>
<td>1,104,129</td>
<td>2,132,476</td>
</tr>
<tr>
<td>Individuals - non-Major Gifts</td>
<td>449,403</td>
<td>419,598</td>
<td>1,947,762</td>
</tr>
<tr>
<td>Full Value New Planned Gift Commitments</td>
<td>1,904,819</td>
<td>2,908,000</td>
<td>12,138,000</td>
</tr>
<tr>
<td>Annual Fund</td>
<td>349,546</td>
<td>239,557</td>
<td>1,491,595</td>
</tr>
<tr>
<td>Corporate Sponsored Research</td>
<td>3,606,041</td>
<td>460,485</td>
<td>3,025,560</td>
</tr>
<tr>
<td>Corporations</td>
<td>531,447</td>
<td>698,875</td>
<td>2,142,465</td>
</tr>
<tr>
<td>Foundations &amp; Other Organizations</td>
<td>108,259</td>
<td>51,171</td>
<td>163,749</td>
</tr>
<tr>
<td>Gifts-in-Kind</td>
<td>956,011</td>
<td>94,310</td>
<td>262,612</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td><strong>9,073,288</strong></td>
<td><strong>7,254,191</strong></td>
<td><strong>29,506,064</strong></td>
</tr>
</tbody>
</table>

-- Except for the Annual Fund, all totals include outright gifts and the full amount of new pledge commitments
-- Annual Fund includes cash from prior year pledges in addition to outright current year gifts and new pledge commitments due current year
-- An individual's gifts given through another source (i.e. family foundation or closely held business) are credited to the individual

11/07/2018  17:11
V-C. RESIGNATIONS, RETIREMENTS AND OFF PAYROLL

Attached is a report of resignations, retirements and off payroll which have been approved by the President and are included for his convenience in recommending acceptance by the Board.

RECOMMENDATION: That the Board of Trustees accepts the resignations, retirements and confirms the off payroll determinations.
# BOARD OF TRUSTEES OFF-PAYROLL REPORT

(September 9, 2018 – November 17, 2018)

## RETIRED

<table>
<thead>
<tr>
<th>Name</th>
<th>Class</th>
<th>Department</th>
<th>Title</th>
<th>Most Recent Hire Date</th>
<th>Term Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrigan, Nancy</td>
<td>Staff</td>
<td>Financial Services &amp; Operations</td>
<td>Office Assistant 6</td>
<td>09/21/1987</td>
<td>09/28/2018</td>
</tr>
<tr>
<td>Smigowski, Judith</td>
<td>Staff</td>
<td>Registrar's</td>
<td>Administrative Aide 7</td>
<td>01/23/2007</td>
<td>10/12/2018</td>
</tr>
<tr>
<td>Van Karsen, Charles</td>
<td>Faculty</td>
<td>Mechanical Engineering Mechanics</td>
<td>Associate Professor</td>
<td>08/31/1987</td>
<td>10/01/2018</td>
</tr>
</tbody>
</table>

## OFF-PAYROLL

<table>
<thead>
<tr>
<th>Name</th>
<th>Class</th>
<th>Department</th>
<th>Title</th>
<th>Most Recent Hire Date</th>
<th>Term Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baril, Peter</td>
<td>Staff</td>
<td>Vice President for Research</td>
<td>Health and Safety Manager</td>
<td>06/29/2015</td>
<td>10/26/2018</td>
</tr>
<tr>
<td>Baroni, Nancy</td>
<td>Staff</td>
<td>Residential Dining</td>
<td>Food Service Helper</td>
<td>02/14/2011</td>
<td>08/26/2018</td>
</tr>
<tr>
<td>Chevalier, Jimmy</td>
<td>Staff</td>
<td>Residential Dining</td>
<td>Food Service Helper</td>
<td>07/10/2017</td>
<td>10/04/2018</td>
</tr>
<tr>
<td>Crockett, Molly</td>
<td>Staff</td>
<td>Graduate School</td>
<td>Office Assistant 6</td>
<td>11/06/2017</td>
<td>11/02/2018</td>
</tr>
<tr>
<td>Crouch, Ronald</td>
<td>Staff</td>
<td>Residential Dining</td>
<td>Food Service Helper</td>
<td>01/29/2018</td>
<td>10/17/2018</td>
</tr>
<tr>
<td>Davison, Greg</td>
<td>Staff</td>
<td>Facilities Management</td>
<td>Custodian</td>
<td>10/08/2018</td>
<td>11/08/2018</td>
</tr>
<tr>
<td>Dube, Paula</td>
<td>Staff</td>
<td>Facilities Management</td>
<td>Custodian</td>
<td>08/15/2011</td>
<td>11/02/2018</td>
</tr>
<tr>
<td>Farrell, Cecil</td>
<td>Staff</td>
<td>Residential Dining</td>
<td>Food Service Helper</td>
<td>04/09/2018</td>
<td>08/29/2018</td>
</tr>
<tr>
<td>Grace, Celine</td>
<td>Staff</td>
<td>Materials Science and Engineering</td>
<td>Office Assistant 5</td>
<td>11/04/2018</td>
<td>11/02/2018</td>
</tr>
<tr>
<td>Iqbal, Zafar</td>
<td>Faculty</td>
<td>Computer Science</td>
<td>Research Assistant Professor</td>
<td>11/16/2017</td>
<td>11/15/2018</td>
</tr>
<tr>
<td>Klapperich, James</td>
<td>Staff</td>
<td>School of Forest Resources &amp;</td>
<td>Research Associate</td>
<td>06/01/2009</td>
<td>10/19/2018</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Environmental Science</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kumpula, Mitchel</td>
<td>Staff</td>
<td>Facilities Management</td>
<td>HVAC Technician</td>
<td>06/25/2018</td>
<td>09/07/2018</td>
</tr>
<tr>
<td>Normand, Lisa</td>
<td>Staff</td>
<td>Financial Aid Administration</td>
<td>Administrative Aide 7</td>
<td>11/10/2014</td>
<td>10/02/2018</td>
</tr>
<tr>
<td>Rice, Jason</td>
<td>Staff</td>
<td>Provost Senior Vice President for</td>
<td>ELI Administrative &amp; Tutoring</td>
<td>07/30/2018</td>
<td>10/15/2018</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Academic Affairs</td>
<td>Center Coordinator</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Schmitz, Jason</td>
<td>Coach</td>
<td>General Athletics</td>
<td>Assistant Coach, Women's Basketball</td>
<td>07/02/2018</td>
<td>10/03/2018</td>
</tr>
<tr>
<td>Tikkanen, Kristen</td>
<td>Staff</td>
<td>Facilities Management</td>
<td>Office Assistant 6</td>
<td>07/30/2018</td>
<td>10/19/2018</td>
</tr>
<tr>
<td>Walker, Larry</td>
<td>Staff</td>
<td>School of Forest Resources &amp;</td>
<td>Research Assistant</td>
<td>12/15/1997</td>
<td>10/20/2018</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Environmental Science</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wood, Dylan</td>
<td>Staff</td>
<td>Residential Dining</td>
<td>Food Service Helper</td>
<td>06/04/2018</td>
<td>10/01/2018</td>
</tr>
</tbody>
</table>

Formal Session of the Board of Trustees - V. Consent Agenda
VI. ACTION/DISCUSSION ITEMS

A. Emerita/Emeritus Rank
B. Board of Trustees Emerita/Emeritus Rank
C. 2019-2020 Room and Board and Apartment Rental Rates
VI-A. EMERITA/EMERITUS RANK

Recommendation for the granting of faculty emerita/emeritus status originates within the retiree’s academic department and proceeds through the respective college and school. Once approved, the recommendation is presented to the Provost, and if successful, to the President of the University for presentation to the Board of Trustees.

RECOMMENDATION: That the Board of Trustees approves the following emerita/emeritus appointments:

- M. Ann Brady, Professor Emerita, Humanities
- Dana Johnson, Professor Emerita, School of Business and Economics
TO: Michigan Technological University Board of Trustees
FROM: Department of Humanities/School of Sciences & Arts
DATE: September 12, 2018
SUBJECT: Recommendation for Emerita Status

The faculty of the Department of Humanities voted on September 12, 2018 to request that the Michigan Technological University Board of Trustees name Dr. M. Ann Brady as Professor Emerita upon her retirement on May 11, 2018.

Please see attached paragraph regarding Dr. Brady’s accomplishments.

Approved

Ron Strickland, Department Chair
9/13/18

Date

David Hemmer, Dean/College of Sciences & Arts
10/18/17

Date

Jacqueline Hurtoon, Provost and Vice President
for Academic Affairs
10/16/18

Date

Richard J. Koubek, President

Revised 9/21/16
To: Michigan Technological University Board of Trustees  
From: Ron Strickland, Humanities Department Chair  
RE: Recommending Dr. Ann Brady for Emerita Status  

Date: October 5, 2018  

On behalf of the Graduate Faculty in Humanities, representing their unanimous voice, I am pleased to recommend Professor Ann Brady for emerita status. Dr. Brady retired last summer after eighteen years on our faculty. During her career at Michigan Tech she established a notable record of scholarship and service to the profession of Technical Writing at the national level. She also served admirably for many years as Director of our program in Scientific and Technical Communication.  

The field of Technical and Professional Communication is still relatively young in its process of institutionalization, and this fact bears somewhat on the kind of scholarly profile typical of its practitioners. Many English departments or Communication departments will have only one tenured or tenure-track faculty member in Technical Communication, and these sole representatives of the field typically have a substantial burden of administrative work to carry. As a result, it’s fairly common to find a focus on programmatic issues in the Technical Communication journals. Dr. Brady’s focus on theoretical issues of epistemology, subjectivity and feminism set her apart from the crowd in this field, and reflect the more theoretical focus of our program.  

Significantly, many of Dr. Brady’s publications were co-authored with her PhD students; this is not as common in the Humanities as it is in some STEM fields. It is a mark of Dr. Brady’s intellectual and professional generosity and collaborative, interdisciplinary sensibility that she has co-published so often with these developing scholars. Through her teaching of our master-class in the pedagogy of Technical Communication she guided the development process of literally dozens of educators who have gone on to positions across the country. And she was an especially active member of Master’s thesis and PhD dissertation committees in our RTC graduate program—over the years she served on more than forty such committees.  

In sum, Dr. Brady is recognized among her peers nationwide as an accomplished contributor to her field, and warmly appreciated in the Humanities Department at Michigan Tech for her collaborations with faculty and dedication to the education of our students.
OFFICE MEMO

TO: Michigan Technological University Board of Trustees
FROM: Dean L. Johnson, Dean, School of Business & Economics
DATE: November 12, 2018

SUBJECT: Recommendation for Emeritus Status

The faculty of the School of Business and Economics voted on November 9, 2018 to request that the Michigan Technological University Board of Trustees name Dana Johnson as Professor Emerita upon her retirement on January 4, 2019.

Dana Johnson's time at Tech dates back to 1976 when she was a freshman, and then graduated in 1980. After completing her MBA, Johnson returned to Michigan Tech in 1981 as an instructor of accounting and finance in the School of Business and Economics. In 1984, she began her career in industry and worked at General Motors Corporation, General Physics Corporation, Grant Thornton and Competitive Advantage, a consulting contract firm she owned. After completing her PhD from Wayne State in 1999, Johnson returned to Michigan Tech. She is a professor of supply chain and engineering management and holds an Affiliate appointment in the Department of Mechanical Engineering-Engineering Mechanics.

Approved

[Signature]
Department Chair/School Dean

November 12, 2018
Date

[Signature]
Provost and Vice President for Academic Affairs

26 Nov 2018
Date

[Signature]
President

1 Dec 2018
Date

Revised 9/21/16
TO: Michigan Technological University Board of Trustees  
FROM: William W. Predebon, Ph.D., J.S. Endowed Department Chair  
DATE: November 7, 2018  
SUBJECT: Recommendation for Emeritus Status of Professor Charles D. Van Karsen

The faculty of the Department of Mechanical Engineering-Engineering Mechanics voted on October 9, 2018 to request that the Michigan Technological University Board of Trustees name Professor Charles D. Van Karsen as Professor Emeritus upon his retirement on October 1, 2018.

Professor Van Karsen began his employment with Michigan Technological University as an Assistant Professor on August 31, 1987. He was appointed to the rank of Associate Professor with tenure on September 3, 1991.

During his tenure at Michigan Tech, Professor Van Karsen has earned several honors including the 2018 Society for Experimental Mechanics (SEM) D. J. DeMichele Award in recognition of his exemplary service and support of promoting the science and educational aspects of modal analysis technology. He was also the 2015 recipient of SEM’s D.R. Harting Award for Experimental Techniques Outstanding Paper Award; a four time winner of the MTU Mechanical Engineering-Engineering Mechanics “Teacher of the Year” Award (2014-15, 1995-96, 1991-92, 1988-89); and a winner ('90) and finalist ('97) of Michigan Tech’s “Distinguished Teacher Award”.

Professor Van Karsen has been active in service to the Department having served as ME-EM Associate Chair and Director of Undergraduate Studies from 2007 to 2012 during which time he chaired both the ME-EM Curriculum and Curriculum Revision Committees, as well as the ME-EM ABET committee 2009-10. He also served on the ME-EM Executive Committee and as the department Director for the Design/Dynamic Systems technical area. Over the years he was a member of the departmental lab committee, the computer committee and several faculty and staff search committees. He was also a member of the University’s College Laptop Initiative Committee.

He is active in national and international service organizations including the Society for Experimental Mechanics (SEM) where he served as an Executive Board Member from 2013-14, and on their IMAC Advisory Board from 2013-18. He is also a member of the American Society of Mechanical Engineers (ASME).

Approved

[Signature]

[Signature]  
[Signature]  
[Signature]  

Date  
11/7/18  
16 Nov 2018  
11/12/18

R. L. Smith Building | 1400 Townsend Drive, Houghton, MI 49931-1295  
906-487-2551 | F: 906-487-2622 | mtu.edu/mechanical

Michigan Tech is an EOE which includes protected veterans and individuals with disabilities.
VI-B. BOARD OF TRUSTEES EMERITA/EMERITUS RANK

The Board of Trustees Emerita/Emeritus Rank is an honorary rank awarded to former Board of Trustees members in recognition of their distinguished and outstanding service to Michigan Tech.

The Board of Trustees is recommending that three individuals be awarded Board of Trustees Emerita/Emeritus rank, as presented herein.

RECOMMENDATION: In recognition of their distinguished and outstanding service to Michigan Tech, the Board of Trustees approves the following emerita/emeritus appointments, effective January 1, 2019:

1.) Paul G. Ollila, Board of Trustees Emeritus
2.) Julie Fream, Board of Trustees Emerita
3.) Terry Woychowski, Board of Trustees Emeritus
Paul Ollila began his career at Jeffers High School in Painesdale where he started the first special education senior high school program in the Copper Country. He served as superintendent of the Copper Country Intermediate School District from 1993 until he retired in 2004. Paul is not one to sit still, after retiring, he briefly served as the elementary principal for the Ontonagon Area School District and as acting superintendent of the Adams Township School District.

Paul has served the community in many capacities, notably as a member of the Portage Health Foundation Board, the Keweenaw Community Foundation Board, the Finlandia Community Advisory Committee, the Range Lions Club, the Keweenaw Economic Development Alliance, and the Michigan Tech Employees Federal Credit Union Board.

Ollila earned a bachelor's degree in social work/sociology and economics and psychology, a master's in special education/educational administration, and an Education Specialist (EdS) in educational administration, all from Northern Michigan University (but we don't hold that against him).

Paul served on the Board of Trustees from February 2009 until December 31, 2016. During his eight-year term, Paul served on the Board’s Academic Affairs committee; served on the Michigan Tech Entrepreneurial Support Corporation (MTESC); as well as serving on the Michigan Tech Fund Board of Directors. Paul was vice chair of the Board from 2014 to 2016.

Julie Fream graduated from Michigan Tech with a bachelor’s degree in chemical engineering and earned an MBA from the Harvard Business School. Julie has worked for General Motors, Ford Motor Company, TRW and Visteon. Julie was recognized by Crain’s Detroit Business “40 under 40" for her sales leadership and earned the Anti-Defamation League’s Woman of Achievement Award for fostering an inclusive and diverse work environment. Julie is currently president and chief executive officer of the Original Equipment Suppliers Association (OESA), representing new vehicle product suppliers across North America.

Fream is a member of the University's Distinguished Academy of Chemical Engineering. She received Michigan Tech’s Outstanding Young Alumni and Outstanding Service Awards and was the featured speaker at Midyear Commencement in 2003.

Julie was appointed to the Board of Trustees in January 2011 and concludes her appointment on December 31, 2018. During her eight-year term, she has served on the Board’s Leadership, Audit & Finance, Academic Affairs Committees, and the Michigan Tech Fund Board of Directors. Julie was also vice chair of the Board for two years and served as chair from 2014-16.
Terry Woychowski graduated from Michigan Tech with a bachelor’s degree in mechanical engineering, attended Duke University’s Global Executive Development Program, and received an Honorary Doctorate of Business Management from Indiana Wesleyan University. From 1997-2009 he served as GM's chief engineer for full-size pickups and SUVs, and from 2009-2012 he served as vice president for global quality and vehicle launches. He has received GM's highest honor, the Chairman’s Award, four times and is president of the Engineering Society of Detroit (ESD), where he has helped develop courses through Michigan Tech to retrain engineers. Recently, Woychowski joined Link Engineering as Vice President of Advanced Technology Development.

He is a member of Michigan Tech’s Academy of Mechanical Engineering–Engineering Mechanics, serves on the College of Engineering Industrial Advisory Board, and sponsors two Senior Design teams. Terry will also be the commencement speaker on Saturday.

Terry was appointed to the Board of Trustees in January 2011 and concludes his appointment on December 31, 2018. During his eight-year term, he has served on the Board’s Leadership and Academic Affairs Committees, and the Michigan Tech Fund Board of Directors. Terry served as Board chair from 2016-18.
VI-C. 2019-2020 ROOM AND BOARD AND APARTMENT RENTAL RATES

Michigan Tech Housing & Residential Life, Facilities Management, and Dining Services are committed to providing exceptional facilities and an aesthetically pleasing on-campus community that values academic success and friendship. Our on-campus community includes high quality and diversified dining services and housing alternatives that offer opportunities for learning and personal growth in a safe and comfortable environment.

The recommended schedule of residence hall room and board rates, Hillside Place Apartments rates and Daniell Heights Apartments rates for 2019-2020 are included herein.

Housing & Residential Life, Facilities Management and Dining Services are recommending approval of these rates, with the confidence our staff will continue to provide the type of innovative management and student development that has permitted Michigan Tech to attract, retain and support a world-class student population.

RECOMMENDATION: That the Board of Trustees approves the recommended residence hall housing and meal, as well as apartment rental rates for 2019-2020.
## Audit and Finance Committee | Board of Trustees | November 2018

### Douglass Houghton Hall, McNair Hall, Wadsworth Hall

Occupancy Dates: August 24, 2019 - December 21, 2019 and January 11, 2020 - May 2, 2020

<table>
<thead>
<tr>
<th>Housing (Regular Occupancy) and Dining</th>
<th>2018-2019 Housing &amp; Gold Plan Dining</th>
<th>Proposed Increase</th>
<th>2019-2020 Housing &amp; Unlimited Dining</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wadsworth Hall and McNair Hall</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*Double Occupancy</td>
<td>$10,726</td>
<td>$310</td>
<td>$11,036</td>
<td>2.89%</td>
</tr>
<tr>
<td>Single Occupancy</td>
<td>$12,183</td>
<td>$310</td>
<td>$12,493</td>
<td>2.54%</td>
</tr>
<tr>
<td>Triple/Quad Occupancy</td>
<td>$10,540</td>
<td>$310</td>
<td>$10,850</td>
<td>2.94%</td>
</tr>
<tr>
<td>Wadsworth Hall w/ private bath</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Double Occupancy</td>
<td>$11,470</td>
<td>$310</td>
<td>$11,780</td>
<td>2.70%</td>
</tr>
<tr>
<td>Single Occupancy</td>
<td>$13,268</td>
<td>$310</td>
<td>$13,578</td>
<td>2.34%</td>
</tr>
<tr>
<td>Douglass Houghton Hall</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standard Occupancy (Double and Quad)</td>
<td>$10,540</td>
<td>$310</td>
<td>$10,850</td>
<td>2.94%</td>
</tr>
<tr>
<td>Single Occupancy</td>
<td>$12,183</td>
<td>$310</td>
<td>$12,493</td>
<td>2.54%</td>
</tr>
</tbody>
</table>

### Housing (Reduced/Temporary Occupancy) and Dining

<table>
<thead>
<tr>
<th>Housing (Reduced/Temporary Occupancy) and Dining</th>
<th>2018-2019 Housing &amp; Gold Plan Dining</th>
<th>Proposed Increase</th>
<th>2019-2020 Housing &amp; Unlimited Dining</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temporary Housing</td>
<td>$8,866</td>
<td>$310</td>
<td>$9,176</td>
<td>3.50%</td>
</tr>
<tr>
<td>Quad to 2</td>
<td>$11,036</td>
<td>$310</td>
<td>$11,346</td>
<td>2.81%</td>
</tr>
<tr>
<td>Quad to 3/Quad to 2</td>
<td>$10,664</td>
<td>$310</td>
<td>$10,974</td>
<td>2.91%</td>
</tr>
<tr>
<td>Triple to 1</td>
<td>$12,183</td>
<td>$310</td>
<td>$12,493</td>
<td>2.54%</td>
</tr>
<tr>
<td>Wads Quad to 2</td>
<td>$11,129</td>
<td>$310</td>
<td>$11,439</td>
<td>2.79%</td>
</tr>
<tr>
<td>Wads Quad to 3</td>
<td>$10,943</td>
<td>$310</td>
<td>$11,253</td>
<td>2.83%</td>
</tr>
<tr>
<td>Triple Suite to 2</td>
<td>$11,873</td>
<td>$310</td>
<td>$12,183</td>
<td>2.61%</td>
</tr>
<tr>
<td>DHH Quad Suite to 3</td>
<td>$11,873</td>
<td>$310</td>
<td>$12,183</td>
<td>2.61%</td>
</tr>
</tbody>
</table>

Unlimited Dining has $200 dining dollars and 8 guest meal swipes per semester. Guest meal swipes expire at the end of the semester. Dining Dollars carry over from fall to spring semester. Dining Dollars expire at the end of the spring semester.

* Rate reported to US Department of Education Integrated Postsecondary Education Data System.

### Hillside Place Residence Hall

Occupancy Dates: August 24, 2019 - December 21, 2019 and January 11, 2020 - May 2, 2020

<table>
<thead>
<tr>
<th>Single Bedroom and Meal Rate</th>
<th>2018-2019 Housing &amp; 150 Block Dining</th>
<th>Proposed Increase</th>
<th>2019-2020 Housing &amp; 150 Block Dining</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Bedroom in Shared Apartment</td>
<td>$11,340</td>
<td>$570</td>
<td>$11,910</td>
<td>5.03%</td>
</tr>
<tr>
<td>Single Bedroom Apartment</td>
<td>$12,010</td>
<td>$675</td>
<td>$12,685</td>
<td>5.62%</td>
</tr>
</tbody>
</table>

Renewing Hillside Place contracts are eligible for the 75 Meal Block meal plan, rate as recommended above, minus $1060.

Block meal plans are only available for the Hillside Place. Meals expire at the end of each semester. Unlimited Dining plan is available.

### Daniell Heights Apartments

Lease Agreement Dates: July 1, 2019 to June 30, 2020 or August 15, 2019 to June 30, 2020

<table>
<thead>
<tr>
<th>Monthly Rental Rate</th>
<th>2018-2019</th>
<th>Proposed Increase</th>
<th>2019-2020</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Student Rates</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>One Bedroom</td>
<td>$705</td>
<td>$15</td>
<td>$720</td>
<td>2.13%</td>
</tr>
<tr>
<td>Two Bedroom</td>
<td>$1,000</td>
<td>$20</td>
<td>$1,020</td>
<td>2.00%</td>
</tr>
<tr>
<td>Three Bedroom</td>
<td>$1,260</td>
<td>$30</td>
<td>$1,290</td>
<td>2.38%</td>
</tr>
<tr>
<td><strong>University Employee Rates</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>One Bedroom</td>
<td>$880</td>
<td>$20</td>
<td>$900</td>
<td>2.27%</td>
</tr>
<tr>
<td>Two Bedroom</td>
<td>$1,080</td>
<td>$35</td>
<td>$1,115</td>
<td>3.24%</td>
</tr>
<tr>
<td>Three Bedroom</td>
<td>$1,375</td>
<td>$50</td>
<td>$1,425</td>
<td>3.64%</td>
</tr>
</tbody>
</table>
VII. INFORMATIONAL ITEMS

A. Analysis of Investments
B. University Issued Bond Balances
C. Research and Sponsored Programs Report
D. Advancement and Alumni Engagement Report
E. Recent Media Coverage
F. Employee Safety Statistics
VII-A. ANALYSIS OF INVESTMENTS

Attached are analyses of investments as of June 30, 2018 to October 31, 2018.
# MICHIGAN TECH UNIVERSITY
## INVESTMENT PORTFOLIO
### JUNE 30, 2018 THROUGH OCTOBER 31, 2018

<table>
<thead>
<tr>
<th></th>
<th>Market Value 6/30/2018</th>
<th>Market Value 10/31/2018</th>
<th>Change</th>
<th>Fiscal-Year Investment Return</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Money Market Fund</strong></td>
<td>$ 2,140,030</td>
<td>$ 2,152,210</td>
<td>$ 12,180</td>
<td>0.66%</td>
</tr>
<tr>
<td><strong>Equity Funds:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Core Equity Fund</td>
<td>8,672,775</td>
<td>8,730,571</td>
<td>57,796</td>
<td>-0.31%</td>
</tr>
<tr>
<td>Commonfund Strategic Solutions Equity Fund</td>
<td>5,316,134</td>
<td>5,332,136</td>
<td>16,002</td>
<td>2.01%</td>
</tr>
<tr>
<td><strong>Total Equity Funds</strong></td>
<td>13,988,909</td>
<td>14,062,707</td>
<td>73,798</td>
<td></td>
</tr>
<tr>
<td><strong>Fixed Income Funds:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intermediate Term Fund</td>
<td>6,348,165</td>
<td>6,385,654</td>
<td>37,489</td>
<td>0.44%</td>
</tr>
<tr>
<td>Commonfund Contingent Asset Portfolio</td>
<td>7,442,980</td>
<td>7,414,431</td>
<td>(28,549)</td>
<td>0.49%</td>
</tr>
<tr>
<td>High Quality Bond Fund</td>
<td>5,328,730</td>
<td>5,374,840</td>
<td>46,110</td>
<td>-0.61%</td>
</tr>
<tr>
<td><strong>Total Fixed Income Funds</strong></td>
<td>19,119,875</td>
<td>19,174,925</td>
<td>55,050</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$ 35,248,814</td>
<td>$ 35,389,842</td>
<td>$ 141,028</td>
<td>0.50%</td>
</tr>
</tbody>
</table>

*Current Asset Allocation*

- **Money Market, 6%**
- **Equities, 40%**
- **Fixed Income, 54%**
VII-B. UNIVERSITY ISSUED BOND BALANCES

Attached is an analysis of net revenues, debt retirement, and trustee reserve funds for University Bonded Operations for the period ended October 31, 2018.
### MICHIGAN TECH UNIVERSITY
### OUTSTANDING BALANCES ON BOND ISSUANCES
### OCTOBER 31, 2018

<table>
<thead>
<tr>
<th>Series 2008 Bond Issue (maturity 2038)</th>
<th>Purchase of UPPCO Building</th>
<th>Partial Funding of KRC Building</th>
<th>MUB Ballroom Renovation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Series 2008 Bond Issue</strong></td>
<td>$5,090,000</td>
<td>$</td>
<td>$5,090,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Series 2009A Bond Issue (maturity 2039)</th>
<th>New Student Apartment Building</th>
<th>Partial Funding of KRC Building</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Series 2009 Bond Issue</strong></td>
<td>14,305,000</td>
<td>445,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Series 2010A Bond Issue (maturity 2040)</th>
<th>Great Lakes Research Center</th>
<th>A.E. Seaman Mineral Museum</th>
<th>KRC Building Purchase (Blizzard Building)</th>
<th>Life Safety Improvements on Campus</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Series 2010 Bond Issue</strong></td>
<td>7,655,000</td>
<td>235,000</td>
<td>$7,890,000</td>
<td>10,975,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Series 2012A Bond Issue (maturity 2034)</th>
<th>Refunding of 2003 &amp; 2004 Fixed Rate Bond Issues</th>
<th>SDC Ice Plant and Partial Roof of SDC</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Series 2012 Bond Issue</strong></td>
<td>24,985,000</td>
<td>1,365,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Series 2013 Bond Issue</strong></td>
<td>10,570,000</td>
<td>665,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Series 2015A Bond Issue (maturity 2046)</th>
<th>Daniell Heights Renovation</th>
<th>Campus Dining Renovation</th>
<th>Fuel Storage Tank Facility</th>
<th>Chemical Storage Facility</th>
<th>Chemistry Labs Renovation</th>
<th>IT and Safety Systems Upgrades</th>
<th>McNair Hall Bathrooms Renovation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Series 2015 Bond Issue</strong></td>
<td>22,525,000</td>
<td>465,000</td>
<td>$22,990,000</td>
<td>$24,295,000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Total - All Bond Issues | $85,130,000 | $3,175,000 | $88,305,000 | $116,720,000 |
VII-C. RESEARCH AND SPONSORED PROGRAMS REPORT

A report of contracts and grants is attached hereto.

This is for the Board's information.
Pre-Proposals Submitted
(excluded from Proposals Submitted figures below)
FYTD 2018: 10
FYTD 2019: 18
### Percentages of Tenured & Tenure Track Faculty (as either PI or Co-PI)

- **Percentages of Tenured & Tenure Track Faculty**
- **Vice President for Research**
- **Fiscal Year 2019**
- **1st Quarter**
- **Ended September 30, 2018**

**TOTAL: $21,185,483**

**Subtracting Proposals since 07/01/2018**

- **36.2%**
- **On Active Projects as of 09/30/2018**

### 814,468

### Percentages of Tenured & Tenure Track Faculty

- **as either PI or Co-PI**

### Percentages Change

- **17.3%**
- **78.2%**
- **5.4%**
- **-81.4%**
- **18.7%**
- **30.8%**
- **379.0%**
- **-46.2%**
- **24.6%**
- **-100.0%**

### Fiscal Comparison

- **14,483,542**
- **9,174,217**
- **2,500,041**
- **702,008**
- **332,343**
- **521,247**
- **609,081**
- **66,389**

### Percent Change

- **18.9%**
- **0.0%**
- **39.2%**
- **-69.0%**
- **-30.8%**
- **-42.0%**
- **-39.0%**
- **45.1%**
- **-58.3%**

### Total S by Division

<table>
<thead>
<tr>
<th>SPO &amp; IIE Metrics</th>
<th>Administration</th>
<th>College of Engineering</th>
<th>College of Sciences &amp; Arts</th>
<th>Great Lakes Research Center</th>
<th>Keweenaw Research Center</th>
<th>Michigan Tech Research Institute</th>
<th>Pavlis Honors College</th>
<th>School of Business &amp; Economics</th>
<th>School of Forest Resources &amp; Envr Science</th>
<th>School of Technology</th>
<th>Totals</th>
<th>Fiscal Comparison</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposals Submitted</td>
<td>1</td>
<td>133</td>
<td>32</td>
<td>12</td>
<td>27</td>
<td>3</td>
<td>3</td>
<td>35</td>
<td>2</td>
<td>251</td>
<td>217</td>
<td>15.7%</td>
<td></td>
</tr>
<tr>
<td>Awards Received</td>
<td>38</td>
<td>95</td>
<td>31</td>
<td>2</td>
<td>17</td>
<td>23</td>
<td>13</td>
<td>1</td>
<td>50</td>
<td>-</td>
<td>270</td>
<td>227</td>
<td>18.9%</td>
</tr>
<tr>
<td>Federal</td>
<td>-</td>
<td>8,290,241</td>
<td>2,504,393</td>
<td>-</td>
<td>646,809</td>
<td>1,979,062</td>
<td>-</td>
<td>80,000</td>
<td>-</td>
<td>983,037</td>
<td>-</td>
<td>14,483,542</td>
<td>9,429,466</td>
</tr>
<tr>
<td>Foreign</td>
<td>-</td>
<td>100,565</td>
<td>-</td>
<td>-</td>
<td>15,722</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>116,287</td>
<td>375,290</td>
<td>-69.0%</td>
</tr>
<tr>
<td>Gifts</td>
<td>259,076</td>
<td>36,000</td>
<td>59,977</td>
<td>10,000</td>
<td>-</td>
<td>1,800</td>
<td>161,500</td>
<td>-</td>
<td>14,877</td>
<td>-</td>
<td>543,230</td>
<td>889,828</td>
<td>-39.0%</td>
</tr>
<tr>
<td>Crowd Funding</td>
<td>-</td>
<td>-</td>
<td>6,475</td>
<td>-</td>
<td>-</td>
<td>1,073</td>
<td>-</td>
<td>-</td>
<td>296</td>
<td>-</td>
<td>7,844</td>
<td>93</td>
<td>833.4%</td>
</tr>
<tr>
<td>Industry</td>
<td>-</td>
<td>784,664</td>
<td>53,444</td>
<td>-</td>
<td>102,181</td>
<td>-</td>
<td>-</td>
<td>17,500</td>
<td>512,456</td>
<td>-</td>
<td>1,470,245</td>
<td>553,553</td>
<td>165.6%</td>
</tr>
<tr>
<td>Other</td>
<td>4,400</td>
<td>205,973</td>
<td>7,652</td>
<td>4,414</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>110,971</td>
<td>-</td>
<td>333,410</td>
<td>481,582</td>
<td>-30.8%</td>
</tr>
<tr>
<td>State of MI</td>
<td>40,505</td>
<td>492,647</td>
<td>75,929</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>609,081</td>
<td>540,581</td>
<td>22.7%</td>
</tr>
<tr>
<td><strong>Total S</strong></td>
<td>814,468</td>
<td>10,907,287</td>
<td>2,811,853</td>
<td>14,414</td>
<td>1,475,781</td>
<td>2,833,875</td>
<td>551,248</td>
<td>17,500</td>
<td>1,759,057</td>
<td>-</td>
<td>21,185,483</td>
<td>14,852,330</td>
<td>42.6%</td>
</tr>
<tr>
<td><strong>Percent Change</strong></td>
<td>17.3%</td>
<td>78.2%</td>
<td>5.4%</td>
<td>-81.4%</td>
<td>18.7%</td>
<td>30.8%</td>
<td>379.0%</td>
<td>-46.2%</td>
<td>24.6%</td>
<td>-100.0%</td>
<td>42.6%</td>
<td>12</td>
<td>-58.3%</td>
</tr>
</tbody>
</table>

### 85

1. Combined Metrics from both the Sponsored Programs Office (SPO) and Innovation & Industry Engagement (IIE)
2. Percentages reflect the proportional contribution from each Division (calculated by dividing the sum of the fractional contributions of all inventors for each unit by the total number of inventors).
## Sponsored Awards - Industry-
### COMBINED
#### Fiscal Year 2019
1st Quarter
Ended Sep 30, 2018

**TOTAL: $3,064,787**

<table>
<thead>
<tr>
<th>Industry Segment</th>
<th>Proposals Submitted FY '19</th>
<th>FY '18</th>
<th>Awards Received FY '19</th>
<th>FY '18</th>
<th>Awards Received ($) FY '19</th>
<th>FY '18</th>
<th>Variance FY '19</th>
<th>Variance %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automotive</td>
<td>22</td>
<td>28</td>
<td>26</td>
<td>39</td>
<td>634,187</td>
<td>608,457</td>
<td>25,730</td>
<td>4.2%</td>
</tr>
<tr>
<td>Business &amp; Economics</td>
<td>-</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>20,000</td>
<td>134,258</td>
<td>-114,258</td>
<td>-85.1%</td>
</tr>
<tr>
<td>Chemical</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>274,988</td>
<td>165,000</td>
<td>109,988</td>
<td>66.7%</td>
</tr>
<tr>
<td>Civil</td>
<td>2</td>
<td>7</td>
<td>3</td>
<td>5</td>
<td>38,037</td>
<td>23,000</td>
<td>15,037</td>
<td>65.4%</td>
</tr>
<tr>
<td>Consumer Products</td>
<td>16</td>
<td>8</td>
<td>9</td>
<td>12</td>
<td>260,136</td>
<td>437,465</td>
<td>-177,329</td>
<td>-40.5%</td>
</tr>
<tr>
<td>Defense &amp; Space</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>8</td>
<td>453,075</td>
<td>552,459</td>
<td>-99,384</td>
<td>-18.0%</td>
</tr>
<tr>
<td>Energy</td>
<td>7</td>
<td>7</td>
<td>10</td>
<td>12</td>
<td>222,245</td>
<td>218,854</td>
<td>3,391</td>
<td>1.5%</td>
</tr>
<tr>
<td>Environmental</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>104,201</td>
<td>15,510</td>
<td>88,691</td>
<td>571.8%</td>
</tr>
<tr>
<td>Health</td>
<td>8</td>
<td>5</td>
<td>7</td>
<td>4</td>
<td>49,740</td>
<td>13,474</td>
<td>36,266</td>
<td>269.2%</td>
</tr>
<tr>
<td>Industrial Engineering</td>
<td>2</td>
<td>-</td>
<td>3</td>
<td>6</td>
<td>42,500</td>
<td>51,006</td>
<td>-8,506</td>
<td>-16.7%</td>
</tr>
<tr>
<td>IT Services</td>
<td>4</td>
<td>1</td>
<td>3</td>
<td>6</td>
<td>57,500</td>
<td>151,545</td>
<td>-94,045</td>
<td>-62.1%</td>
</tr>
<tr>
<td>Mining &amp; Metals</td>
<td>8</td>
<td>9</td>
<td>11</td>
<td>5</td>
<td>362,591</td>
<td>24,109</td>
<td>338,482</td>
<td>1404.0%</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>3</td>
<td>7</td>
<td>4</td>
<td>40,312</td>
<td>142,828</td>
<td>-102,516</td>
<td>-71.8%</td>
</tr>
<tr>
<td>Technology</td>
<td>9</td>
<td>3</td>
<td>13</td>
<td>5</td>
<td>505,275</td>
<td>275,288</td>
<td>229,987</td>
<td>83.5%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>92</strong></td>
<td><strong>84</strong></td>
<td><strong>106</strong></td>
<td><strong>116</strong></td>
<td><strong>3,064,787</strong></td>
<td><strong>2,813,253</strong></td>
<td><strong>251,534</strong></td>
<td><strong>8.9%</strong></td>
</tr>
</tbody>
</table>

*Gifts represent non-contractual funding from corporations, foundations, associations and societies in support of academic programs, scholarships/fellowships, student design & enterprise, research, youth programs and special programs.

**Gift numbers include Industry gifts ONLY, not others including Association or Society gifts.
Michigan Technological University  
Total Research Expenditures by College/School/Division  
Fiscal Year 2019 & 2018  
As of September 30, 2018 and September 30, 2017

<table>
<thead>
<tr>
<th>College/School/Division</th>
<th>FY2019</th>
<th>FY2018</th>
<th>Variance</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration*</td>
<td>1,734,428</td>
<td>1,459,336</td>
<td>275,092</td>
<td>18.9%</td>
</tr>
<tr>
<td>College of Engineering</td>
<td>6,427,621</td>
<td>6,008,224</td>
<td>419,397</td>
<td>7.0%</td>
</tr>
<tr>
<td>College of Science &amp; Arts</td>
<td>2,854,628</td>
<td>3,285,365</td>
<td>(430,737)</td>
<td>-13.1%</td>
</tr>
<tr>
<td>Great Lakes Research Center**</td>
<td>87,840</td>
<td>52,536</td>
<td>35,304</td>
<td>67.2%</td>
</tr>
<tr>
<td>Pavlis Honors College</td>
<td>91,594</td>
<td>73,743</td>
<td>17,851</td>
<td>24.2%</td>
</tr>
<tr>
<td>Keweenaw Research Center (KRC)</td>
<td>1,723,948</td>
<td>1,907,754</td>
<td>(183,806)</td>
<td>-9.6%</td>
</tr>
<tr>
<td>Michigan Tech Research Institute (MTRI)</td>
<td>1,940,095</td>
<td>1,909,480</td>
<td>30,615</td>
<td>1.6%</td>
</tr>
<tr>
<td>School of Business &amp; Economics</td>
<td>251,509</td>
<td>220,507</td>
<td>31,002</td>
<td>14.1%</td>
</tr>
<tr>
<td>School of Forest Resources &amp; Environmental Science</td>
<td>1,157,429</td>
<td>1,163,564</td>
<td>(6,135)</td>
<td>-0.5%</td>
</tr>
<tr>
<td>School of Technology</td>
<td>167,019</td>
<td>151,079</td>
<td>15,940</td>
<td>10.6%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>16,436,111</strong></td>
<td><strong>16,231,588</strong></td>
<td><strong>204,523</strong></td>
<td><strong>1.3%</strong></td>
</tr>
</tbody>
</table>

*Includes the Vice Presidents, Provost, and others who report to a VP, Provost or the President. Except for the research institutes that report to the VPR.
**Includes GLRC department (non-academic researchers) expenditures only. All other GLRC center expenditures are shown in the researchers' respective colleges.
VII-D. ADVANCEMENT AND ALUMNI ENGAGEMENT REPORT

Attached is a report from Dr. Les Cook, Vice President for Student Affairs and Advancement, on the university’s advancement and alumni engagement activities.

This is for the Board’s information.
ADVANCEMENT AND ALUMNI ENGAGEMENT
BOARD OF DIRECTORS REPORT
December 2018

Advancement

Events

● 13 innovators and entrepreneurs participated in over 26 hours of programing over two days as part of the bi-annual 14 Floors campus visits. Attendees participated in events from gift and scholarship talks to a panel discussion and student idea pitch competition.

● 5↓35 - Five high profile young alumni will be on campus November 11-16. This is a drive to begin our initiative with young alumni engagement and philanthropy.

● Presidential tour - President Koubek will be involved in an alumni event hosted by Fred (‘81) and Lou Anne (‘81) Koerschner in Minnesota on November 29.

Reorganization

● Review advancement officer, school and college portfolio assignments.

● Dean and Presidential list realignment.

● Posted two positions: Director of Advancement for College of Engineering and Digital Marketing and Content Specialist. Will be posting Donor Relations Officer and Director of Parent Philanthropy and Engagement.

Annual Giving

● Annual Giving Goal: $2.5 million. As of October 31, 2018, $683,074 (27%) has been raised.

● Annual Fund (unrestricted) Goal: $1.5 million. As of October 31, 2018, $336,916 (22%) has been raised.

● Campus Campaign - The annual faculty/staff campaign is well underway across departments on campus. Currently, 231 employees have made gifts totaling just over $80,250. The giving participation rate is 15%.

● Reunion Giving Program - the Class gift program is set to kick off in November. Class gift chairs have been chosen and the letters and emails are being written.

Culture of Philanthropy Programming

● The Class Tribute program for December’s graduation is underway. Students are invited to place a tribute in the commencement program for a gift of $10 in support of student scholarships.

● Planning is underway for a social media awareness program on #GivingTuesday that highlights giving to Michigan Tech and it’s impact.

Other

● On September 6, 2018 we held our first 906 Day on campus. We had events all day that highlighted the 906 area code and how it impacts Michigan Tech. There was a coffee tasting
with Keweenaw Coffee Works, chalking, prize drawings, and an OAP event table. We also launched a young alumni giving club that day, the 906 Club.

Alumni Engagement

Search underway for a Digital Marketing Content Coordinator for Advancement and Alumni Engagement to provide additional support for campus communications to alumni and donors.

Hosted an event to celebrate the launch of Husky Blend Coffee at the Keweenaw Coffee Works roaster in Calumet on November 3rd. The first 20 adults received a free sample bag of Husky Blend coffee and the first 10 children took home a mini plush Husky. A portion of the sales proceeds from Husky Blend Coffee goes to support Michigan Tech Scholarships.
VII-E. RECENT MEDIA COVERAGE

Included herein are recent news items that have appeared throughout the country.

This is for the Board’s information.
News Media Report, 9/10/18 to 11/21/18
TOTAL MENTIONS

10.7K

TOTAL REACH

8.2B

TOTAL PUBLICITY VALUE

$3.2M
News Media Report, 9/10/18 to 11/21/18

9/10/18 - 11/21/18

TAGS OVER TIME

number of clips

9/17/18
10/1/18
10/15/18
10/29/18
11/12/18

TAGS

Athletics 2.1K
Events 1.8K
Research 726
Alumni 479
Curricula/Programs 293
Other 66

Student Life 10

TAGS BY TOTAL VOLUME

Athletics 2.1K 38.1%
Events 1.8K 33.3%
Research 726 13.2%
Alumni 479 8.7%
Curricula/Programs 293 5.3%
Other 66 1.2%
Student Life 10 0.2%
News Media Report, 9/10/18 to 11/21/18

9/10/18 - 11/21/18

TOTAL MENTIONS

<table>
<thead>
<tr>
<th>Mentions</th>
<th>10.7K</th>
</tr>
</thead>
</table>

REACH

- UVPM: 8.2B
- Reach: 5.2M
News Media Report, 9/10/18 to 11/21/18

9/10/18 - 11/21/18

VALUE OF COVERAGE

Publicity Value
$3.2M

MENTIONS
News Media Report, 9/10/18 to 11/21/18

9/10/18 - 11/21/18

SENTIMENT OVER TIME

[Graph showing number of clips over time]

SHARE OF SENTIMENT

[Pie chart showing share of sentiment]

Neutral 6.0K 56.7%
Positive 3.8K 35.9%
Negative 780 7.4%
News Media Report, 9/10/18 to 11/21/18

9/10/18 - 11/21/18

### TREND OF COVERAGE BY MEDIA TYPE

- Microblog: 5.5K
- Online, consumer: 3.0K
- Online, trade/industry: 487
- Online, news and business: 196
- News/Release Distribution Service: 168
- Newspaper: 120
- Photo/Video Sharing Site: 117
- Wire service: 101
- Blog, consumer: 59
- Other: 116

### SHARE OF COVERAGE BY MEDIA TYPE

- Microblog: 55.8%
- Online, consumer: 30.5%
- Online, trade/industry: 4.9%
- Online, news and business: 2%
- News/Release Distribution Service: 1.7%
- Newspaper: 1.2%
- Photo/Video Sharing Site: 1.2%
- Wire service: 1.2%
- Blog, consumer: 0.6%
- Other: 1.2%
MENTIONS BY LOCATION
<table>
<thead>
<tr>
<th>Location</th>
<th>Number of Clips</th>
</tr>
</thead>
<tbody>
<tr>
<td>Michigan</td>
<td>667</td>
</tr>
<tr>
<td>California</td>
<td>297</td>
</tr>
<tr>
<td>New York</td>
<td>262</td>
</tr>
<tr>
<td>Minnesota</td>
<td>211</td>
</tr>
<tr>
<td>Washington DC</td>
<td>209</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>162</td>
</tr>
<tr>
<td>Texas</td>
<td>160</td>
</tr>
<tr>
<td>Ohio</td>
<td>103</td>
</tr>
<tr>
<td>Virginia</td>
<td>99</td>
</tr>
<tr>
<td>North Dakota</td>
<td>93</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>79</td>
</tr>
<tr>
<td>Illinois</td>
<td>76</td>
</tr>
<tr>
<td>Indiana</td>
<td>60</td>
</tr>
<tr>
<td>New Jersey</td>
<td>55</td>
</tr>
<tr>
<td>Kansas</td>
<td>42</td>
</tr>
<tr>
<td>Connecticut</td>
<td>39</td>
</tr>
<tr>
<td>Washington</td>
<td>39</td>
</tr>
<tr>
<td>Florida</td>
<td>35</td>
</tr>
<tr>
<td>Maryland</td>
<td>35</td>
</tr>
<tr>
<td>Oklahoma</td>
<td>34</td>
</tr>
<tr>
<td>Montana</td>
<td>32</td>
</tr>
<tr>
<td>North Carolina</td>
<td>27</td>
</tr>
<tr>
<td>Hawaii</td>
<td>24</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>22</td>
</tr>
<tr>
<td>Arizona</td>
<td>20</td>
</tr>
<tr>
<td>Mississippi</td>
<td>19</td>
</tr>
<tr>
<td>Arkansas</td>
<td>18</td>
</tr>
<tr>
<td>Georgia</td>
<td>18</td>
</tr>
<tr>
<td>Tennessee</td>
<td>18</td>
</tr>
<tr>
<td>Oregon</td>
<td>17</td>
</tr>
<tr>
<td>Iowa</td>
<td>17</td>
</tr>
<tr>
<td>Idaho</td>
<td>16</td>
</tr>
<tr>
<td>Kentucky</td>
<td>13</td>
</tr>
<tr>
<td>New Mexico</td>
<td>13</td>
</tr>
<tr>
<td>Nevada</td>
<td>12</td>
</tr>
<tr>
<td>Missouri</td>
<td>12</td>
</tr>
<tr>
<td>South Dakota</td>
<td>12</td>
</tr>
</tbody>
</table>
Alabama 11
South Carolina 10
Alaska 8
Colorado 7
Nebraska 7
Utah 7
Maine 5
Louisiana 4
Rhode Island 4
West Virginia 3
New Hampshire 3
Delaware 1
Vermont 1
Social Media Report,
9/10/18 to 11/21/18
After we shared "Huskies Help Solve Sunken Minesweeper Mystery," Dr. Guy Meadows received an email:

I just read about your search for the Inkerman and Cerisoles via the Michigan Tech page, which showed up on my Facebook feed. Since I was a kid, I've been a huge shipwreck buff and have always been fascinated by wrecks in the Great Lakes and Superior in particular. The story of the French minesweepers and the fact that they are still missing has been one I have been following for quite some time. With my wife's family having ties to the UP (her family is from Bruce Crossing), and spending a fair amount of time “up there”, this search is particularly fascinating. I've sent you $5,000 to help with your search. I wish you success in your endeavor and look forward to following your progress closely. Hopefully we'll get a chance to meet in person someday after you find them and I can shake hands with both of you and congratulate you on a job well done. Please keep me in the loop on future shipwreck searches.

Michael P. Puckett
President and Managing Principal
Puckett, Clement, and Schellenberg, P.C.
Certified Public Accountants and Consultants

P.S. I'm also fascinated by your desire to create an autonomous surface vessel for searches and would love to learn more about where you are in that process.

Thanks to the donation from Puckett, Clement, and Schellenberg, P.C., the Superior Ideas project to find the Cerisoles and Inkerman is now 149% funded.
Over 3M impressions* this quarter

BY PLATFORM

Facebook
@michigantech

- 42k followers, up 687 from last quarter
- 2.02 million impressions

Twitter
@michigantech

- 11.1k followers, up 200 from last quarter
- 578k impressions

Instagram
@michigantech

- 9,860 followers, up 521 from last quarter

LinkedIn

- 55,128 followers, up 921 from last quarter
- 388k impressions

(*Impressions: The number of times any content from your page or profile enters a person’s screen. This includes posts, check-ins, ads, and interactions. Instagram does not provide impression information.)

Social Media Report 9/10/18 to 11/21/18
TRAFFIC

6,590 sessions sent to Michigan Tech News, Unscripted, Magazine, and Research Magazine
VII-F. EMPLOYEE SAFETY STATISTICS

Included herein is a report from the Health and Safety Task Force and Human Resources.

This is for the Board's information.
## EMPLOYEE SAFETY STATISTICS YEAR-TO-DATE

### January - October

<table>
<thead>
<tr>
<th>Category</th>
<th>Years</th>
<th>AFSCME</th>
<th>Faculty</th>
<th>Non-Exempt</th>
<th>POA</th>
<th>Professional</th>
<th>Temporary</th>
<th>UAW</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Injury Only w/Medical - No Loss Time</td>
<td>2017</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>2018</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Lost Time Cases</td>
<td>2017</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>2018</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>Restricted Work Cases</td>
<td>2017</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>2018</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Occupational Safety and Health Administration (OSHA) Recordable Injuries (Total of above)</td>
<td>2017</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>6</td>
<td>0</td>
<td>1</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>2018</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>0</td>
<td>1</td>
<td>15</td>
</tr>
</tbody>
</table>

### Number of Recordable Injuries

<table>
<thead>
<tr>
<th>Category</th>
<th>Years</th>
<th>Injuries Only w/Medical - No Loss Time</th>
<th>Lost Time Cases</th>
<th>Restricted Work Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Injury Loss Time *</td>
<td>2017</td>
<td>45</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>2018</td>
<td>24</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Restricted Work Days *</td>
<td>2017</td>
<td>75</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>2018</td>
<td>14</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

### Hours Worked

<table>
<thead>
<tr>
<th>Years</th>
<th>Total Work Hours</th>
<th>Percentage of Work Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2017 290,354</td>
<td>11.0% 30.0% 5.4% 0.7% 41.4% 2.7% 8.8% 100.0%</td>
</tr>
<tr>
<td></td>
<td>2018 250,897</td>
<td>10.8% 29.2% 5.5% 0.7% 42.5% 2.4% 8.8% 100.0%</td>
</tr>
</tbody>
</table>

OSHA has established specific calculations that enable the University to report the Recordable Injuries, Lost Time Case Rates and Frequency Rates. The Standard Base Rate (SBR) calculation is based on a rate of 200,000 labor hours which equates to 100 employees who work 40 hours per week for 50 weeks per year. Using the SBR allows the University to calculate their rate(s) per 100 employees.

* The number of days are total days for the life of the cases first reported during this period.

November 2018
VIII. OTHER BUSINESS
IX. PUBLIC COMMENTS
X. ADJOURNMENT