AGENDA
Formal Session of the Board of Trustees
Michigan Technological University
9:00 a.m. – August 4, 2016
Ballroom B – Memorial Union Building

I. Change of Chair

II. Approval of Agenda

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

IV. Consent Agenda
   A. Approval of Minutes
   B. Degrees in Course
   C. Gifts
   D. Resignations, Retirements and Off Payroll
   E. Tentative 2017 Meeting Dates
   F. Michigan Technological University/Michigan Tech Fund Agreement

V. Action/Discussion Items
   A. Emerita Rank
   B. Appointment with Tenure
   C. Board Policy 5.3 Sex Discrimination/Sexual Harassment
   D. Committee Assignments

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

VII. Other Business

VIII. Public Comments

IX. Adjournment
I. CHANGE OF CHAIR

The Board of Trustees Bylaws requires that the Chair elected at the last regular meeting of the fiscal year take the Chair at the first regular meeting of the next fiscal year.

Terry Woychowski, Chair for 2016-17 will succeed Julie Fream, Chair 2015-16 and Linda Kennedy will become Vice Chair for the 2016-17 fiscal year.
II. APPROVAL OF AGENDA

RECOMMENDATION: That the Board of Trustees approve the agenda of the formal session of August 4, 2016 as distributed to the Board.
III. OPENING REMARKS

A. Chair’s Comments

B. President’s Comments
IV. 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. Degrees in Course
C. Gifts
D. Resignations, Retirements and Off Payroll
E. Tentative 2017 Meeting Dates
F. Michigan Technological University/Michigan Tech Fund Agreement
IV-A. APPROVAL OF MINUTES

RECOMMENDATION: That the Board of Trustees approves the minutes of the formal session of April 29, 2016, as distributed to the Board.
IV-B. DEGREES IN COURSE

Included herein are candidates who have been recommended by their respective faculties and have been certified by the Registrar as having fulfilled all the requirements of their degrees as specified.

RECOMMENDATION: That the Board of Trustees approves the awarding of the degrees as specified, to each of the candidates listed, and offer congratulations.
MEMORANDUM

To: Dr. Glenn D. Mroz, President

From: Kelly Vizanko, Assistant Registrar
Registrar’s Office

Date: July 18, 2016

Subject: Candidates for Degrees – Conferral Term 201601

The attached list of candidates for degrees, beginning on page 3 with Hayley Loretta Long and ending on page 14 with Isidore Kafui Dorpenyo, is submitted for the granting of the appropriate degrees by the Board of Trustees. I certify that these candidates meet all requirements for their respective degrees and that the names have been submitted to and have received the approval of the faculty from their major department.

Signed

Kelly Vizanko
Assistant Registrar

KV: kph
Michigan Technological University
Degrees Awarded for Conferral Term 201601

Associate in Humanities
Hayley Loretta Long
Erica Elise Roche

Bachelor of Arts in Communication, Culture, and Media
Nathan William Tong
Anthony Emil Nordman

Bachelor of Arts in Theatre and Electronic Media Performance
Dolcie Michele Webb
Bradley David Ross
Courtney Lynn Schumaker - Summa Cum Laude
Victoria Marie Stack - Cum Laude

Bachelor of Arts in English
Jonathan M Maier
Dmitri Williams

Bachelor of Arts in Sound Design
Kevin Ross Gray

Bachelor of Arts in Physics
Joshua David Halffrisch - Magna Cum Laude
Cody Alexander Trevillian

Bachelor of Arts in History
Geoffrey Alexander Mui
William Charles DeMeyer
Rebecca Raye Driver - Cum Laude
Janelle M Scheck - Summa Cum Laude
Julia Lauren Nuri Weiss - Cum Laude

Bachelor of Science in Accounting
Nora Christine Pennala - Magna Cum Laude
Adam Michael Zawisza

Bachelor of Science in Engineering Management
Justine M Barker - Cum Laude
Jarrod Michael Bennett
Justin Jon Nicholas
Kyle Oberle
Alexander Jeffrey Ott
Justin R Slater
Nicolas Louis Winkler

Bachelor of Science in Finance
Jingwei Bao
Zachary Bernard Bedell
Dallas Mackenzie Bond
Xiaoxiao Chen - Magna Cum Laude
Connor Gregory Herbart
Alex James Rehbein

Bachelor of Science in Management
Kirsten Gohar Dulbandzhyan
Kristina Ann Eskola
Jeremy Alexander Fernstrum
Jack Ryland Gassner
Nathan Michael Hood
Rebekha Mary Horsch
William Walker Hyland
Yudan Lurong - Magna Cum Laude
Slacey A Mattila
Adam Richard Olson
Gage William Pruyne
Anthony Joseph Root
Yuning Sun
Chongsheng Sun
Erika Tentizbaeva

Bachelor of Science in Management Information Systems
Andrea Jean Bowen
Steven Michael Buda
Eric Anthony Carter
Diana Morgan Olechiw
Amanda F Rantala - Cum Laude
Adam Joseph Romanko - Cum Laude
Jordan J Smith
Arissara Suthijindawong - Cum Laude
Alyssa J Taavola

Bachelor of Science in Marketing
John Peter Bosio
Haley Marie Carlson
Shang Gao
Katelyn Marie Jelso
Brandon Ramon Martinez - Magna Cum Laude
Kaila Sue Pietila - Magna Cum Laude
Tyler Michael Szabo

Bachelor of Science in Applied Geophysics
Ronald Adam Knoll

Bachelor of Science in Biomedical Engineering
Megan Frances Ahren
Danielle Lorraine Blake
Kate Lauren Boyles - Magna Cum Laude
Michigan Technological University
Degrees Awarded for Conferral Term 201601

Nathan Richard Dills - Cum Laude
Laura Nicole Gazza
Anani Anne Gillette - Magna Cum Laude
Roger John Guillory
Annaliza E Hagman
Brigitta R Hammond
Alanie Madalaine Harmon - Cum Laude
Nicholas David Jones - Cum Laude
Tyler A Jubenville - Cum Laude
Mitchell A Kirby - Summa Cum Laude
Thomas Alan Kivisto
Thomas Gregory Koontz
Tobias Jacob Mahan
Patrick Clark Malone
John Andrew Wyatt Markel - Cum Laude
Jadyn Claudine Mayrose - Cum Laude
Kathleen Ann Moyryla
Brent Andrew Myers - Cum Laude
Joseph Donald Nugent - Cum Laude
Nina M Pacella - Cum Laude
Megan Elizabeth Petrich
Emilee Anne Philson
Travis Matthew Redman
Samuel Norman Richards
Kyle R Scheck
Luke J Schwerin
Elizabeth Meagan Shumaker - Summa Cum Laude
Elizabeth Claire Sickles
Anna Evelyn Sinclair
Sarah Faye Skelton
Brian Thomas Swanson - Magna Cum Laude
Kentaro Takahashi
Matthew John Tourville
Brad Robert Vinckier - Magna Cum Laude
Caleb D Vogt - Magna Cum Laude
Konner S Westerhouse
Danielle Elizabeth Wick
Patrick John Wolfer
Zhongtian Zhang
Joseph Michael Grocholski - Cum Laude
Tyler Joseph Arends
Derek Tanner Benoy - Magna Cum Laude
Mikalah M Blomquist
Nicholas Paul Bresler
Charles W Briner
Jordan Chartier
Michael Cheng
Luke Adam Cinader
Adam Michael Danielson
Allen James Eizember
Michael Scott Freckelton
Juehan Fu
Ashley Nichole Guenther
Isaiah Scott Hackney
Michael Timothy Hart - Summa Cum Laude
Christopher B Haskins
Carl David Ingalls - Cum Laude
Michael James Kenny
Lauren Amanda Krueger - Magna Cum Laude
Matthew R Lavallee - Cum Laude
Sophia Kantor Lopez
Jeremy Francis Mack
Jacob Conan Mathieu - Magna Cum Laude
Jed Dean Mattmiller - Magna Cum Laude
Joseph R Meemken
Peter Johannes Meingast - Cum Laude
Zachary Brian Lee Niemi - Cum Laude
Dane J Nowosatko

Bachelor of Science in Engineering
Bachelor of Science in Civil Engineering
Michigan Technological University
Degrees Awarded for Conferral Term 201601

Nicole Ann Phillips
Samuel P Pilla
Robert Donald Prell
James A Roath
Anna Marie Romenesko - Magna Cum Laude
Andrew L Ross
Daniel Ross Saari
Zachary K Scalzo
Joseph William Schmitt - Magna Cum Laude
Jacob Andrew Schoff
Qiijian Sheng
Alec J Sturos
Luke Allen Tolkkinen
Kristopher Ryan Turunen
Jacob Wood
Shi Yan
Yusheng Zeng - Magna Cum Laude
Alexander David Bank - Magna Cum Laude
Katefynne Rose Bauer
Casey Michael Beirne
Rachel Erin Belanger
Kevin G Biolchini - Magna Cum Laude
Tyler Joseph Blowers
Cassandra Christine Bobart
Leanne Marie Bregni
Alexander Thomas Brill
Casey James Buckner
Kevin Michael Bugay
Brody Stephen Burns - Magna Cum Laude
Bryan W Cammin
Valerie Sue Clevenger
Haley C Crites - Cum Laude
Michaela Rose Cromie
Christian A Dale
Kameo Mary-Ellen Dunn
Dominic A Eatherton
Dylaina Marie Fiebing
Morgan N Fisher
Sean Eric Forsberg
Benjamin J Fournier - Summa Cum Laude
Dillon Thomas Fredenburg - Cum Laude
Marquis Treveon Gill
Elizabeth Anne Golf
Gianna Gomez-Mayo
Michael Joseph Grillo
Jacqueline M Harms
Cameron Joseph Hempel
Michelle Terese Hoard - Summa Cum Laude
Taylor James Hover
Jonathan L Lafarte
Jaron Robert Innis
Danielle Rose Janny - Magna Cum Laude
Tyler Jared Jensen
Kendal Joy Johnsen
Peter James Jurica
John Thomas Keefe - Summa Cum Laude
Danielle Rose Kehrig
Zane Robert Kluesing
Nathan Jacob LaJoye
Jonathan Peter Lamers - Cum Laude
Paul Roy Langford - Summa Cum Laude
Robert Sample LeBrell - Magna Cum Laude
Lucia Li - Summa Cum Laude
Ashley Anne Lobe
Matthew Joseph Manning
Anna Rose Marchesano
Brandon Douglas McLean
Conner Jared Monette - Magna Cum Laude
Michigan Technological University
Degrees Awarded for Conferral Term 201601

Jessica M Montgomery - Cum Laude
Olivia Nicole Munoz - Magna Cum Laude
Elliot Noble Nagler - Magna Cum Laude
Justin James Norman
Dustin Lee Oakwood
Donnie Lee Palmer
Andrew Nelson Payfon - Magna Cum Laude
Travis James Deleon Pellosma
Matthew Paul Pirkola
Alexander Erik Todd Powell
Sarah Marie Rasmussen - Cum Laude
Alex Michael Reichanadter - Summa Cum Laude
Katie Elizabeth Rohlfis
Cameron Lee Roman - Magna Cum Laude
Ericka Ann Saari
Dana Elizabeth Savage
Noelle Renee Savage
Christine Caitlin Scharphorn - Cum Laude
Brandon Michael Schmidt - Cum Laude
James Michael Schmidt
Hannah Marie Schnack - Cum Laude
Alex Terry Schuh
Nolan Marcus Seelye - Magna Cum Laude
Collin Patrick Shooltz - Cum Laude
Shawn Michael Shove
Joshua Scott Shumaker - Cum Laude
Kaitlin Ellen Smith
Justin Donald Lee Stelfko
Adrien L Steinhurst
Kyle Richard Thompson - Summa Cum Laude
Dylan M Trudell
Dylan Gregory Turpeinen - Summa Cum Laude
Rebecca Elizabeth Villerot - Cum Laude
David Jack Walsh
Melissa Andree Wilson - Cum Laude
Pennie Alyese Winters - Cum Laude
Shaun Michael Wolf
Alexander Lawrence Wright - Magna Cum Laude
Cody J Yazzie
Evan Duane Yuhala
Andrew Paul Zimmerman - Cum Laude
Lucas Daniel Zoromski - Summa Cum Laude
Matthew Michael Andres - Summa Cum Laude
Michael Sean Bartkowiak - Magna Cum Laude
Daniel John Chappell
Joel James Cherney
Derek Joseph Chopp
Ian Thomas Cummings - Summa Cum Laude
Zachary T Dunham
Andrew S Higginbotham
Tanner Edward Howell
Nicholas Thomas Kasza
Joshua Max Manela - Magna Cum Laude
Michael C Middleton - Cum Laude
Shayle Quillian Murray
Obdil Pesina
Sarah Jane Przybyla
Michael Anthony Sessamen
Taylor William Sly
Mitchell Lee Stelnula
Chloe Elizabeth Sult
Ian Robert Wakely
William Harvey Weaver
Christopher James Wilkerson
Joel Braden Yauk - Magna Cum Laude
Christopher Shane Adams
Spencer William Allen
Tyler Austin Beauchamp

Bachelor of Science in Computer Engineering

Bachelor of Science in Electrical Engineering
Michigan Technological University
Degrees Awarded for Conferral Term 201601

Albert Fredrick Cowsky
James Everett Davis
Joshua A Dillon
James V Dunn
David Robert Elsey
Dylan J Etelamaki - Summa Cum Laude
Nathaniel Adam Evenhouse
Kyle William Frazier
Rebecca Emma Gast*
Wayne Andrew Helminen - Summa Cum Laude
He Huang - Magna Cum Laude
Tingzhao Huang
Grant Logan Hufford
Troy Michael Johnston
Tyler A Jubenville - Cum Laude
Daniel Whitman Klevorn
Spencer J Leivo
John Thomas Marsh
Matthew James Mason
Andrew Colin McMichael
Phillip Charles Miller - Cum Laude
Max L Moeller
Dustin J Nordell - Magna Cum Laude
Eric Parsell - Cum Laude
Jonathan Michael Phillips
Charles L Quinn - Cum Laude
Nopparuj Saipong - Magna Cum Laude
Kevin Robert Schoenknecht
Carrie Rachel Shuler
Alex James Simon
Cameron P Smith - Cum Laude
Alfredo Soto
Michael David Spenle
Juston Silvem Stone
Brian Thomas Swanson - Magna Cum Laude
Robert Tucker
Lucas A Wilder
Yaojun Xing
Zachary C Ackerman
Dylan James Bender
George William Cannon
Cassandra Lynn Carpio
Travis Christopher Catlin
Alexander John Chlapik
Alexis Mariah Cook
Nathaniel S Davis
Alaine Madalaine Harmon - Cum Laude
Junda He
Ashley Nicole Hendricks
Kristen Marie Jung - Cum Laude
Frederick Jonathon Morse
Dominic P Oldani
Hulling Piao
Allen Sanchez Prince - Summa Cum Laude
Roshni Sachar
Sarah Katherine Stoolmiller
Surbhi Thakur
Dyllan Robert Walker
Nicole Elise Wehner - Cum Laude
Jadyn Kay Weiler
Ray Edmund Woodworth
Maggie Elizabeth Zoilo

Bachelor of Science in Environmental Engineering

Benjamin L Kramka - Magna Cum Laude
Paul Erik Mueller
Elizabeth Eva Seiberlich
Carly Allison Siko

Bachelor of Science in Geological Engineering

Thomas L Cook
Benjamin L Kramka - Magna Cum Laude
Paul Erik Mueller
Elizabeth Eva Seiberlich
Carly Allison Siko
Bachelor of Science in Geology
Bachelor of Science in Mechanical Engineering

Taylor Nicholas Vergin - Magna Cum Laude
Blake Laurent Joseph
Jacob Hutton Ahlborn
Mikhail Grant Alexander
Zachary David Andres - Magna Cum Laude
Kyle James Badour
Jacob Anthony Bailey - Magna Cum Laude
Corey R Bakker
Nick Barber - Magna Cum Laude
Kyle Lewis Barie
David H Bayer
Kevin Albert Belvitch
Joseph Ryan Billman - Cum Laude
Michael Thomas Black
Shane S Blystone
Alexandria Elizabeth Bonner
Kayla Danielle Branton
Joseph A Brubaker
Daniel Steven Bruck
Trevor Edward Buswell
Nathan B Campbell - Magna Cum Laude
Zachary Michael Chenier
Tyler Jacob Childress
Michael Paul Ciupke
Paul Ronald Classen
Travis Edward Claus
Dylan James Cleereman
Mark Andrew Coldren - Magna Cum Laude
Andrew T Conley - Summa Cum Laude
Ryan Patrick Connor
Chet Robert Daavettila - Magna Cum Laude
Charles Edward Davis
Daniel Benjamin Davis
James Lucien Diem
Christopher Scott Doig - Summa Cum Laude
Jonathan David Drake - Magna Cum Laude
Jonathan Earl Eddy
Korey M Erickson - Magna Cum Laude
Joshua James Esch
Nathaniel Adam Evenhouse
Neil Allen Feliksa - Magna Cum Laude
Kristen Marie Florence
Melissa Rose Galant - Magna Cum Laude
Matthew Marten Gam
Jacob Edward Gefroh
Ryan Keith Robert Gentner - Magna Cum Laude
Earl Alexander Getchel - Magna Cum Laude
Marissa Vincene Graziano
Joshua James Greib - Cum Laude
Allena Bernice Greiner
Jacob Connell Grobbel
Derek Richard Grobbel - Cum Laude
Evan Allan Halvoran
Dean Raymond Halonen
Jeffrey Raymond Halonen
Hunter Alan Hamlin
David Matthew Hancock - Cum Laude
Nathaniel Alan Hartness
Ian Andrew Hatziillas
Eric J Hecht
Christopher James Helmer
Steven James Helminen - Cum Laude
Jennifer Ann Holthouse - Cum Laude
Rachel Ann Hook
Lee Foster Hovey
Ian T Hufford
Wil Tanner Jakeway
Jonathan Michael Jerred
Gunnar R Johnson
Calvin Lee Kahl
Kevin Alan Kahl
Bradon Reed Kampstra
Arthur Paul Kangas
Nathaniel Michael Karlsrud
Korey Harvey Keipe
Donald Patrick Keller
Scott J Klein
Connor Joseph Kmiec
Michael Anthony Kostick - Summa Cum Laude
Jordan Thomas LaCombe - Cum Laude
Grant Christian Larson
Joel Brian Larson - Magna Cum Laude
Evan A Leaf - Cum Laude
Zachary L Lemke
Keith W Lewis
Justin Drew Lichterwald
Benjamin Jerome Limberg - Cum Laude
Alexander Marcus Lurie - Cum Laude
Jingyun Ma - Cum Laude
Neal Michael Magnuson - Cum Laude
Caroline Alexandra Major - Cum Laude
Ethan J Marshall
Zachary James Mauerman
Steven Thomas Maurer
Nathan Alexander Mazurowski
Jordan Leonard McInnis
Tylre John Menucci
Stefano James Michaud
Kevin R Miller - Cum Laude
Chad M Moore - Magna Cum Laude
Justin Dakota Mueller - Magna Cum Laude
Brent Andrew Myers - Cum Laude
Matthew C Neutkens
Samuel Mahlon Nichols
Alexander John Niemi
Ian Paul Ottis
Joshua Michael Olsen - Magna Cum Laude
Casey Michael Olson
Dakota J Oparka - Cum Laude
Matthew Zobitz Palo - Magna Cum Laude
Ashley S Pedrotte - Magna Cum Laude
Matthew Raymond Pellet
Samuel Daven Perram
Lance Peter Pietila
Mikhail Andreevich Putintsev
Donald Stanley Rogers
Sylvia Grace Rokosh
Christian James Romans
Phillip Craig Romback
Tylre Steven Root
Andrew L Ross
Austin John Ross
Joseph Lee Saumier
Nicholas E Saur
Andrew Benjamin Schaub
Cole Michael Schiefelbein
Aaron Thomas Schneider
Christopher Dale Schnettler
Jacob Andrew Schoff
Jenna Ann Seaser - Magna Cum Laude
Ryan W Seitter
Steven Anthony Senczyszyn
Abbey Jillian Senczyszyn - Cum Laude
Andrey A Sergeyev - Cum Laude
Shang Shi - Cum Laude
Kurt Alan Siebenaller
Michigan Technological University
Degrees Awarded for Conferral Term 201601

Ann Marie Silski
Anna Evelyn Sinclair
Abigail Kathleen Skibowski
Chad Ryan Smith
Paul R St Louis
Derek James Saiji Stone
Garrison David Strand - Summa Cum Laude
Tyler Michael Sykes - Cum Laude
Nalani Akemi Taniguchi
Jerry Lee Tozer
Lauren M Tromp - Magna Cum Laude
Kent Michael VanSickle
William C Venis
Brad Robert Vinckier - Magna Cum Laude
Vincent R Virga
Zhi Wang
Jarad M Weeks
Ryan K Werner
Levi E Whipple
Kyle Conrad Williams
Elizabeth Grace Wohlford - Cum Laude
Brent Nathan Womble
Cheng Yang
Patrick C Yitlalo - Cum Laude
Wenbin Zhang
Rachel M Altscheffel
Erik Samuel Bain
Tessa L Burgess
Cleyton Michael Cavallaro
Conor J Cocking
Joshua David DeVet - Cum Laude
Joshua M Ellis
Katherine Lauren Fletcher
Karl Werner Freier
Melissa Rose Galant - Magna Cum Laude
Laura Nicole Gazza
Eli James Gooding
Tyler Alexander Gould
Christopher James Grace
Brittany Marie Hoffman
Olin Gregory Johnson - Magna Cum Laude
Thomas A Korejsza
Michael C Kosut
Joshua David Michael Krugh
Amanda Margaret Messina - Cum Laude
Sukaina Ann Mitah
Nathan E Peterson
Natalie Marie Pohlman
Adam Michael Pringle - Cum Laude
Sara Lynne Schellbach
Rachel May Smith
Nicole Lee Treinen - Cum Laude
Thomas Roberts Webb
Allison Lynn Wysocki
Alexander Thomas Abbott - Cum Laude
Mitchell G Beach
Nia Marie Moses Becker - Magna Cum Laude
Michelle Marie Gross
Chancellor Stewart Hayes
Jordan E Hunter
Devin James Kohn
Kollin Keith Long
Michael Gabriel Paling
David Mark-Hoffmann Pogoreski
Bryan William Reitter
Grace Anna Danielle Schilz
Adam Noel Sinclair
Trevor Josef St. John - Summa Cum Laude
| Bachelor of Science in Wildlife Ecology and Management | Ryan Randall Brown  
  Nathan Allen Comar  
  Rachael Lynn Schneider - Cum Laude  
  Gregory J Weber |
|------------------------------------------------------|------------------------------------------------------------------|
| Bachelor of Science in Anthropology                  | Brian Alexander Marzka  
  James Robert Spaight |
| Bachelor of Science in Applied Physics                | Evan Michael Fernandez  
  Yi Cui  
  Thomas Gerald Dixon - Magna Cum Laude  
  Geoffrey Michael Foster*  
  Ian Mark Greenland - Magna Cum Laude  
  Emily Elizabeth Jarvi  
  Anna Elizabeth Johnson  
  Alexandria Danielle Marks - Cum Laude  
  Timothy J Massoglia - Magna Cum Laude  
  Cameron D McKenzie - Magna Cum Laude  
  Daylon A Tisor  
  Alyssa Lauren Vinckier - Summa Cum Laude  
  Randeep Renee Wiodek - Magna Cum Laude  
  Madeline Margaret Wohlfell - Magna Cum Laude  
  Justin C Workman  
  Joshua David Younk  
  Jacquelyn Arlene Hood  
  Wade A Korf - Magna Cum Laude  
  Michael E Kuhn  
  Jessica Devon Messer  
  Jana Ann Parkila  
  Ashley Jo Schuman - Magna Cum Laude |
| Bachelor of Science in Cheminformatics                | Brandon John Barkle  
  Alexandra Lynn Carpenter - Summa Cum Laude  
  Erin Catherine Matthews - Magna Cum Laude  
  Tyler B Sawall |
| Bachelor of Science in Pharmaceutical Chemistry       | Mitchell A Bartlett  
  Caleb Gibson Chapman  
  Patrick T Chizek  
  Marco Franz Cullar - Cum Laude  
  William J DeVries  
  William Robert Doyle - Cum Laude  
  Kaylee Jean Edwards - Cum Laude  
  Nathaniel J Fisher  
  Benjamin Brown Frisbie - Magna Cum Laude  
  Mark Tom Furtland  
  Jordan J Gedney  
  Riley Adam Him  
  Gregory A Johnson  
  Benjamin Clayton Kobane  
  Brandon Paul Kuchnicki - Magna Cum Laude  
  Joshua Robert Marshall  
  Robin Lee McNally  
  Taylor Bryn Morris  
  Zhen Piao  
  Stephen Joseph Radachy  
  Keagan S Rasmusen  
  Sven Niklas Stroven - Cum Laude  
  James Stuart Vana  
  Cullen David VanderWood  
  Eric Vasey  
  Hannah Ellen Wilder - Summa Cum Laude  
  Mark D Woodford  
  David Thomas Yaden  
  Nicole Pavlich Yaroch - Summa Cum Laude  
  Janelle Lillian Adomelt - Cum Laude  
  Brittany Ann Charlevoix - Magna Cum Laude  
  Claire L Eischer - Cum Laude  
  Alexis Lynn Herrewig - Cum Laude  
  Jamie Joseph Percival Phillips - Cum Laude |
| Bachelor of Science in Biology and Biological Sciences|  
  Mary Patricia Wachuta - Summa Cum Laude |
<table>
<thead>
<tr>
<th>Degree</th>
<th>Name</th>
<th>Honors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor of Science in Audio Production and Technology</td>
<td>Anna Christine Catton</td>
<td>Magna Cum Laude</td>
</tr>
<tr>
<td>Bachelor of Science in Theatre and Entertainment Technology</td>
<td>Jamie Lynne Aneshansel</td>
<td></td>
</tr>
<tr>
<td>Bachelor of Science in Mathematics</td>
<td>Ennio Candelario Crane</td>
<td>Magna Cum Laude</td>
</tr>
<tr>
<td>Bachelor of Science in Biochemistry and Molecular Biology</td>
<td>Ryan Christopher Benson</td>
<td></td>
</tr>
<tr>
<td>Bachelor of Science in Medical Laboratory Science</td>
<td>Dakota Lee Chapman</td>
<td></td>
</tr>
<tr>
<td>Bachelor of Science in Physics</td>
<td>Logan Scott Pauli</td>
<td></td>
</tr>
<tr>
<td>Bachelor of Science in Psychology</td>
<td>Richard Walter Dumprope</td>
<td></td>
</tr>
<tr>
<td>Bachelor of Science in Software Engineering</td>
<td>Mitchell D Davis</td>
<td>Summa Cum Laude</td>
</tr>
<tr>
<td>Bachelor of Science in Sports and Fitness Management</td>
<td>James Alfred Leamon Davis</td>
<td></td>
</tr>
<tr>
<td>Bachelor of Science in Social Sciences</td>
<td>Caitlyn Ann Eurich</td>
<td></td>
</tr>
<tr>
<td>Bachelor of Science in Statistics</td>
<td>Nicole M Bonenfant</td>
<td>Cum Laude</td>
</tr>
</tbody>
</table>

Michigan Technological University
Degrees Awarded for Conferral Term 201601

18
Michigan Technological University
Degrees Awarded for Conferral Term 201601

Brandon Ramon Martinez - Magna Cum Laude
Erica Elise Roche

Bachelor of Science in Construction Management
Joshua Dale McClaren - Magna Cum Laude
Kip Thomas Pennala

Bachelor of Science in Computer Network and System Administration
Martin William Bandemer
Leonardo Caride Beiler
Wesley Gordon Bigalke
Brandon L Ingalls
Benjamin T Jeziorowski
Cody Anthony Malloy
Nicholas Ryan Taylor
Chelsea Ann Thomas
Zachary R Walker - Cum Laude

Bachelor of Science in Electrical Engineering Technology
Loryn Robert Becker
Cody E Helsen
Ted Jesse Wierzb - Magna Cum Laude

Bachelor of Science in Mechanical Engineering Technology
Karl Daniel Ahlem
Bradley Scott Blunden
Henry Cornell Brewer
Alex J Cooper
Brandon Lee Finney
Andrew C Kaiser
Jevon Alexander Maddox
Sean Michael Minch
Kenneth Donald Peterson - Magna Cum Laude
Jennifer Anne Pilbosian
Jack Thomas Piper
Jeffrey Howard Sargeant - Cum Laude
Zachary A Solka

Bachelor of Science in Surveying Engineering
Karl Douglas Szyszkoski

Master of Business Administr. in Business Administration
Siddharth Krishnarao Jadhav

Master of Engineering in Engineering
Jash Ketan Karani

Master of Forestry in Forestry
Sean Martin Akseintowitz

Master of Geographic Info Sci in Geographic Information Science
Emily Marie Collins
Houjun Ding
Alexander Ryan Sprague

Master of Science in Accounting
Jena Marie Hale
Sibo Li

Master of Science in Applied Natural Resource Economics
Jing Han
Yuxiao Wang

Master of Science in Biomedical Engineering
Kosar Khaksari
Elizabeh Ann Kruppe
Hoa Minh Le
Julia Jeanne Osborne
Amar Vaidya
Fan Zhang
Tyler James Brown
Brent Gregory Cousino
Alice Loraine Flanders
Gayatri Rajendra Jagtap
Sumantih Kalluri
John Thomas Kowalchuk
Erica Lynn Morley
Saurabh Sudhir Phatak
Rama Kishore Sanda
Nicholas Scott Toomey
Micah Tale Trienweller
Christopher Dawson VanArsdale
Abdulrahman Zahir

Master of Science in Chemical Engineering
Nastaran Alinezhadbalalami
Soontorn Tuntithavornvat

Master of Science in Computer Engineering
Ravitheja Srinivasa Dasika

Master of Science in Civil Engineering
Mounika Alaparthi
Anas Mouath Alrifai
Andres Mauricio Alvarez Zuluaga
Michigan Technological University

Degrees Awarded for Conferral Term 201601

Pouya Arabizadeh
Shantayan Banik
Meer Farhan Ibn Bashar
Brian Andrew Bolz
Taheen Cherichi
FNU Dapinder Singh
Sai Manohar Dhulipala
Harshavardhan Dinesh
Muhammad Fahad
Srikar Godisela
Sahil Goyal
Kunal Goyal
Songfei Gu
Sunil Lingamurthy Javali
Pruthvithar Kallam
Piyush Madhukar Kapate
FNU Kartikkeyan Ravikumar
Nishal Nitin Khopade
Venkatesh Kolluru
Saurabh Ganpatbhaji G Kothari Aka Shah
Praveen Kumar Krishnamoorthy
Ram Krishnan
Abhay Kumar
Kalin Christopher Bay Lee
Jian Lu
Varun Malladi
Sanjai Massey
Aishwarya Shrikant Mundada
Prathap Nagu Prabhakar
Sumanth Reddy Nallabolu
Venkata Krishna Sairam Nujalla
Kevin Kim Oliver
Akhshay Vaishnav Palle
Sumit Pant
Vamshidhar Reddy Pattola
Sai Venkata Srinam Poduri
Vaibhav Vijaykumar Prasad
Aishwarya Raghunathan
Tayyab Rahim
Pooja Ranay
Tanmay Prathad Sanas
Kunal Kaushik Kumar Shah
Krishna Karthi Sentineni
John Michael Steber
Anurag Upadhyay
Naveena Vemulapalli
Bruce K Venne
You Wang
Michael Joseph Witt
Qinjin Yang
Huiting Zhang
Bin Zhou
Ramya Dandayudham
Ankita J Mandelia
Christa Louise Meingast
Tia Rose Scarpelli
Annette LaVonne Sparks
Alexander Michael Sebastian Wohlgemuth
Nathan David Zgnilec

Master of Science in Environmental Engineering
Ramya Dandayudham
Ankita J Mandelia
Christa Louise Meingast
Tia Rose Scarpelli
Annette LaVonne Sparks
Alexander Michael Sebastian Wohlgemuth
Nathan David Zgnilec

Master of Science in Environmental Engineering Science
Surya Muruganantham
Ummu Gulsum Kurt
Aurelia Liegler
Jordan Edward Lubbers
Sheelahg M McCarthy
Simisola Modupe Arogundade
Cagri Ekinci
Ender Karakus
Deniz Yener

Master of Science in Geological Engineering

Master of Science in Geology

Master of Science in Geophysics

Formal Session of the Board of Trustees - IV. Consent Agenda
Michigan Technological University
Degrees Awarded for Conferral Term 201601

Master of Science in Mechanical Engineering
Utkarsh Jagdish Achara
Shrikant Hanumant Bankar
Kishan Shivashankar Bellur
Richard Jason Berkey
Nathan Thomas Beyers
Raghavendra Krishna Tej Bhamidipati
Ajit Badanidiyoor Bhat
Troy Michael Bouman
Omkar Fakira Daud
Nishad Deshkar
Parag Sanjeev Deshpande
Pratik Maruti Dighe
Ekramul Haque Ehite
Saurav Ghosh
Rutika Kaustubh Gokhale
Karan Shrikant Gujarathi
Bhargav Ram Gurram
Akansha Laxman Hande
Alexander Joseph Hirzel
Samuel Kryn Holmes
Srinivasa Rao Ippilli
David Benjamin Joda
Aniket Kapadane
Pranit Vijay Kasture
Cody Joseph Larson
Anand Mahendra Lolap
Gaurav Nilin Mahajan
Bhalchandra Chandrakant Mahajan
Anil Kumar Malik
Satya Naren Karthik Mandal
Muraleekrishnan Menon Menon Muraleedharan Nair
Ninad Mohale
Sanket Dinesh Nipunage
Rohit Sunil Pandhare
Karthik Panghat
Pranav Sadashiv Paranjape
Abhishek Pathak
Soham Ramkrishna Patil
Ekanth Ramesh
Siva Bhargav Ravella
Aravind Ravi
Danapana Vishal Reddy
Mahesh Sarode
Kyle Jon Schober
Soroush Sepahyar
Mugesh Shanmugam Pillai Gnanasekar
Pallav Sohoni
Nithin Subba Rao
Jawad Haider Syed
Kyle Joseph Yeake
Li Chen
Yiwei Li
Yangyang Shao
Katlin Louise Reinl
Rose Barrosse Schwartz
Karen Lynn Cladas
Steven Gerard Landry
Mary Amanda Shaw
Kristine M Nachbor
Bradley A Wells
Cong Li
Bo Yu
Brian Christopher Delrue
Christopher Daniel Henderson
Maria Frick
Kerry Ann Gardner
Andrea Catherine Lee
Timothy J Rusbasan

Master of Science in Materials Science and Engineering
Li Chen
Yiwei Li
Yangyang Shao
Katlin Louise Reinl
Rose Barrosse Schwartz
Karen Lynn Cladas
Steven Gerard Landry
Mary Amanda Shaw
Kristine M Nachbor
Bradley A Wells
Cong Li
Bo Yu
Brian Christopher Delrue
Christopher Daniel Henderson
Maria Frick
Kerry Ann Gardner
Andrea Catherine Lee
Timothy J Rusbasan

Master of Science in Applied Ecology

Master of Science in Forest Ecology and Management

Master of Science in Applied Cognitive Science and Human Factors

Master of Science in Applied Physics

Master of Science in Biological Sciences

Master of Science in Chemistry

Master of Science in Computer Science

Master of Science in Environmental and Energy Policy

Master of Science in Kinesiology
Michigan Technological University
Degrees Awarded for Conferral Term 201601

Master of Science in Mathematical Sciences
Matthew Ryan Stuck
Mustafa Gezek
Henriette Groenvik
Samuel David Judge
Xueling Li
Xiaoyu Liang
Brent Cedric Nicklas
Joseph Scott Reath
Xinlan Yang
Huanhuan Zhu

Master of Science in Physics
Md Mahfuzur Rahman

Master of Science in Rhetoric, Theory and Culture
Stephen Kwame Dadugblor
Efe Franca Plange
Adrian Paul Blake
Eric Thomas Pomer
Jeremiah Lee Harrington
Aaron Lawrence Brandt
Summer Anita Farmer
Twinkle Patel

Master of Science in Industrial Archaeology
Adrian Paul Blake
Eric Thomas Pomer

Master of Science in Integrated Geospatial Technology
Jeremiah Lee Harrington
Aaron Lawrence Brandt
Summer Anita Farmer

Master of Science in Medical Informatics

Doctor of Philosophy in Chemical Engineering
Suchada Ukaew

Doctor of Philosophy in Computer Engineering
Lengfei Han
Amir Torabi
Guswarni Anwar

Doctor of Philosophy in Electrical Engineering
Andrew Thomas Kozich
Joseph Daniel Niehaus
Faten Dhawi Almuahanna

Doctor of Philosophy in Forest Science
Guswarni Anwar
Lei Feng
Sebastian Karwaczynski
Khalid Zouhri

Doctor of Philosophy in Atmospheric Sciences
Andrew Thomas Kozich
Joseph Daniel Niehaus

Doctor of Philosophy in Biochemistry and Molecular Biology
Faten Dhawi Almuahanna

Doctor of Philosophy in Mechanical Engineering - Engineering Mechanics
Lei Feng
Sebastian Karwaczynski
Khalid Zouhri

Doctor of Philosophy in Applied Cognitive Science and Human Factors
Yin-Yin Tan
Zhichao Chen
Nethaniah Dorh
Colina Tapash Ranjan Dutta
Melanie L Talaga
Mu Yang

Doctor of Philosophy in Computer Science
Paul Joseph Bonamy
Alex Peter Klinkhamer
Ruin Zhang

Doctor of Philosophy in Environmental and Energy Policy
Valoree Sherick Gagnon

Doctor of Philosophy in Industrial Heritage and Archaeology
S.M. Mizanur Rahman
Frederick Ellsworth Sutherland

Doctor of Philosophy in Mathematical Sciences
Chao Liang
Jie Li

Doctor of Philosophy in Engineering Physics
Nancy Blanche Barr
Wincharles Coker

Doctor of Philosophy in Rhetoric, Theory and Culture
Isidore Kafui Dorpenyo

* Addendum to Conferral: Degree awarded in term 201508

Michigan Technological University  Student Records and Registration  11-JUL-16  03.26.32 PM  Page 1
IV-C. 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.
## Fundraising Productivity Report

**Michigan Technological University**  
**Michigan Tech Fund**  
**July 1, 2015 through June 30, 2016**  
**Compared to Prior Year**

---

<table>
<thead>
<tr>
<th>Source</th>
<th>FY16 YTD Total</th>
<th>FY15 YTD Total</th>
<th>FY15 Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individuals - Major Gifts (25K and up)</td>
<td>7,622,520</td>
<td>5,497,666</td>
<td>5,497,666</td>
</tr>
<tr>
<td>Realized Planned Gifts (Unanticipated - 25K and up)</td>
<td>812,439</td>
<td>130,506</td>
<td>130,506</td>
</tr>
<tr>
<td>Individuals - non-Major Gifts</td>
<td>1,752,723</td>
<td>1,680,381</td>
<td>1,674,866</td>
</tr>
<tr>
<td>Full Value New Planned Gift Commitments</td>
<td>11,843,218</td>
<td>8,630,087</td>
<td>8,630,087</td>
</tr>
<tr>
<td>Annual Fund</td>
<td>1,517,772</td>
<td>1,446,024</td>
<td>1,491,595</td>
</tr>
<tr>
<td>Corporate Sponsored Research</td>
<td>10,150,670</td>
<td>11,140,690</td>
<td>11,332,429</td>
</tr>
<tr>
<td>Corporations</td>
<td>1,607,609</td>
<td>1,398,181</td>
<td>1,373,181</td>
</tr>
<tr>
<td>Foundations &amp; Other Organizations</td>
<td>2,325,300</td>
<td>5,285,794</td>
<td>5,285,794</td>
</tr>
<tr>
<td>Gifts-in-Kind</td>
<td>784,349</td>
<td>207,058</td>
<td>207,058</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td><strong>38,416,600</strong></td>
<td><strong>35,416,386</strong></td>
<td><strong>35,623,181</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  

**07/13/2016  10:07**
IV-D. 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

(April 10, 2016 – July 16, 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>Crouch, Chris A.</td>
<td>Staff</td>
<td>Public Safety &amp; Police Services</td>
<td>Sergeant</td>
<td>06/15/87</td>
<td>07/05/16</td>
</tr>
<tr>
<td>Jones, Douglas R.</td>
<td>Staff</td>
<td>Public Safety &amp; Police Services</td>
<td>Sergeant</td>
<td>09/05/92</td>
<td>05/31/16</td>
</tr>
<tr>
<td>Rothenberger, Margaret P.</td>
<td>Staff</td>
<td>Materials Science and Engineering</td>
<td>Office Assistant 5</td>
<td>08/24/86</td>
<td>07/08/16</td>
</tr>
<tr>
<td>Seel, Maximilian J.</td>
<td>Faculty</td>
<td>Physics</td>
<td>Professor</td>
<td>09/01/86</td>
<td>06/30/16</td>
</tr>
<tr>
<td>Tahtinen, Dale R.</td>
<td>Staff</td>
<td>Governmental Relations/Sec Board</td>
<td>Vice President</td>
<td>01/07/91</td>
<td>06/30/16</td>
</tr>
<tr>
<td>Walck, Christa L.</td>
<td>Faculty</td>
<td>Provost and Vice President for</td>
<td>Associate Provost</td>
<td>09/01/86</td>
<td>04/30/16</td>
</tr>
</tbody>
</table>

## 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>Aho, Jethro N.</td>
<td>Staff</td>
<td>Information Technology</td>
<td>IT Procurement Agent</td>
<td>12/15/14</td>
<td>05/27/16</td>
</tr>
<tr>
<td>Berg, Karl R.</td>
<td>Staff</td>
<td>Facilities Management</td>
<td>Facilities Engineer</td>
<td>08/18/14</td>
<td>04/26/16</td>
</tr>
<tr>
<td>Chartier, Aaron A.</td>
<td>Staff</td>
<td>Rozsa Center for Performing Arts</td>
<td>Office Assistant 3</td>
<td>11/09/15</td>
<td>05/01/16</td>
</tr>
<tr>
<td>Clouthier, Gregory A.</td>
<td>Staff</td>
<td>Facilities Management</td>
<td>Custodian</td>
<td>10/21/13</td>
<td>05/19/16</td>
</tr>
<tr>
<td>Daly, Stephen M.</td>
<td>Staff</td>
<td>Provost and Vice President for</td>
<td>Manager of Finance &amp;</td>
<td>01/04/16</td>
<td>04/30/16</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Academic Affairs</td>
<td>Planning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dunstan, Gina M.</td>
<td>Staff</td>
<td>Engineering Fundamentals</td>
<td>Office Assistant 5</td>
<td>01/09/06</td>
<td>06/29/16</td>
</tr>
<tr>
<td>Feuerstein, Kailey A.</td>
<td>Staff</td>
<td>Housing and Residential Life</td>
<td>Residence Life Coordinator</td>
<td>08/05/15</td>
<td>05/27/16</td>
</tr>
<tr>
<td>Friedli, Zackary T.</td>
<td>Staff</td>
<td>General Athletics</td>
<td>Director, New Media</td>
<td>08/03/15</td>
<td>06/03/16</td>
</tr>
<tr>
<td>Jeltema, Shelley L.</td>
<td>Staff</td>
<td>Information Technology</td>
<td>Programmer/Analyst</td>
<td>02/01/16</td>
<td>05/18/16</td>
</tr>
<tr>
<td>Larson, Janet H.</td>
<td>Staff</td>
<td>Memorial Union</td>
<td>Office Assistant 5</td>
<td>07/06/06</td>
<td>07/15/16</td>
</tr>
<tr>
<td>Rosen, Clare S.</td>
<td>Staff</td>
<td>University Marketing &amp; Communications</td>
<td>Senior Design Specialist</td>
<td>11/01/05</td>
<td>06/24/16</td>
</tr>
<tr>
<td>Ruonavaara, Nathan E.</td>
<td>Staff</td>
<td>Office of Advancement</td>
<td>Advancement Officer</td>
<td>07/07/07</td>
<td>06/17/16</td>
</tr>
<tr>
<td>Rutterbush, Scott A.</td>
<td>Staff</td>
<td>Physics</td>
<td>Laboratory/Systems Associate</td>
<td>07/22/07</td>
<td>06/01/16</td>
</tr>
<tr>
<td>Scott, Connie L.</td>
<td>Staff</td>
<td>Office of Advancement</td>
<td>Advancement Officer</td>
<td>07/14/08</td>
<td>06/17/16</td>
</tr>
<tr>
<td>Seuberth, Nerrissa L.</td>
<td>Staff</td>
<td>Public Safety &amp; Police Services</td>
<td>Operator Dispatcher</td>
<td>08/04/15</td>
<td>05/01/16</td>
</tr>
<tr>
<td>Steed, Candy</td>
<td>Staff</td>
<td>Mathematical Sciences</td>
<td>Office Assistant 4</td>
<td>01/05/15</td>
<td>06/27/16</td>
</tr>
</tbody>
</table>
IV-E. TENTATIVE 2017 MEETING DATES

At the October meeting of the Board of Trustees dates are generally set for next year’s meetings. In order for members to check their calendars, the tentative dates are presented. If there is a problem with any of these dates, members are asked to please notify the Board Secretary.

- **Friday, February 24, 2017**
- **Friday, April 28, 2017** (Commencement – Saturday, April 29)
- **Thursday, August 3, 2017** (Alumni Reunion)
- **Friday, October 20, 2017** (Homecoming)
- **Friday, December 15, 2017** (Commencement – Sat., December 16)

This is an informational item for the Board.
IV-F. MICHIGAN TECHNOLOGICAL UNIVERSITY/MICHIGAN TECH FUND AGREEMENT

Attached is the form of a proposed agreement to continue the provision of space and services to the Michigan Tech Fund for the period September 1, 2016 to August 31, 2017.

Successful continuation of the relationship between Michigan Tech and the Michigan Tech Fund is subject to the Fund’s qualification as an institution permitted certain privileges with respect to credits on Michigan income tax. Specifically, Public Act No. 290 of 1974 reads in part:

“The tax credit shall be permitted only where the donee corporation, fund, foundation, trust or association is controlled or approved and reviewed by the governing boards of the institutions benefitting from the charitable contributions. Such nonprofit corporation, fund, foundation, trust, or association shall provide copies of their annual independently audited financial statements to the auditor general of the state and chairmen of the senate and house appropriations committees.”

RECOMMENDATION: That the Board of Trustees approves the Michigan Technological University/Michigan Tech Fund agreement and also, that the Board goes on record as having reviewed and approved the operations of the Michigan Tech Fund to continue as a recipient of donations eligible for the State of Michigan income tax credit.
AGREEMENT BETWEEN MICHIGAN TECHNOLOGICAL UNIVERSITY AND 
THE MICHIGAN TECH FUND

This Agreement made September 1, 2016 between Michigan Technological University ("University") and the Michigan Tech Fund ("Fund").

WHEREAS, the Fund’s work in receiving and managing charitable gift assets for the University is critical to its ability to fulfill its mission and strategic direction, and

WHEREAS, Fund’s advocacy of the University’s mission and priorities constitutes a valuable service, and

WHEREAS, fundraising is a joint priority of the University and the Fund, and

WHEREAS, the University and the Fund desire to continue a heretofore existing arrangement:

IT IS AGREED:

1. In consideration of the support directly inuring to the benefit of the University from the activities of the Michigan Tech Fund, the University will provide to the Fund:
   a. supporting services including mail services, limited printing services, access to the phone network, and an internal audit of Fund transfers to the University;
   b. access to the Banner system for maintenance and upkeep of the alumni/development database. The University will partially fund the alumni database maintenance conducted by the Fund.

2. The Fund agrees to continue its various fundraising administrative support and asset management functions for the betterment and advancement of the University. The Fund also agrees to support consulting services as done in the past.

3. This agreement shall terminate on August 31, 2017 and will be considered for renewal for successive one-year periods. The grant or denial of such renewal shall be at the sole discretion of the Board of Trustees of Michigan Technological University.

By:

Michigan Technological University

By:

Michigan Tech Fund
V. ACTION/DISCUSSION ITEMS

A. Emerita Rank
B. Appointment with Tenure
C. Board Policy 5.3 Sex Discrimination/Sexual Harassment
D. Committee Assignments
V-A. EMERITA RANK

Recommendation for the granting of faculty emerita 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 appointment:

   Dr. Suzanne Stephens, Professor Emerita, Department of Visual and Performing Arts
OFFICE MEMO

TO: Michigan Tech Board of Trustees
FROM: Jared Anderson, Chair, Visual and Performing Arts
SUBJECT: Recommendation for Emeritus Status

DATE: 18 May 2016

The faculty of the Department of Visual and Performing Arts voted on April 26, 2016 to grant Dr. Suzanne Stephens Professor Emerita status. Prof. Stephens retired on August 31, 2007. The department is requesting ratification of this action by the administration and the Michigan Tech Board of Trustees.

Dr. Stephens served at Michigan Tech from 1972-2007. Stephens was inducted into the Michigan Tech Academy of Teaching Excellence and nominated for the University Distinguished Teaching Award. In the Department of Humanities, her academic home from 1972 until Fine Arts formed its own department in 1993 she taught courses such as theater appreciation, art appreciation, composition, and speech. In the Fine Arts Department, she continued to teach such courses and, in addition, began directing main stage productions and the improvisational group, The Troupe, and teaching acting. Main stage productions she directed included Eugene Ionesco's Rhinoceros, Tennessee Williams's A Streetcar Named Desire, Tom Stoppard's Rosenkrantz and Gildenstern are Dead, Joan Silver and Julianne Boyd's A My Name is Alice, Mary Zimmerman's Metamorphosis, Karma-glin-pa and Jean Claude Van Italie's The Tibetan Book of the Dead, Beth Henley's Firecracker Contest, and Ron Destro's Hiroshima. Stephens also served the University community and the wider community by providing instruction in the fundamentals of yoga and meditation. Sue was a fine colleague and ardent supporter of the formation of the Department of Fine Arts (later Visual and Performing Arts), making important contributions to curriculum development. She was also a practicing artist in sculpture, mask making, and textiles.

Approved

[Signatures and dates]

[Signatures and dates]

[Signatures and dates]

02/2007
V-B. APPOINTMENT WITH TENURE

Included herein is a request for the appointment of Dr. Umesh Korde, who, with his initial appointment, will receive tenure.

Dr. Umesh Korde is being recommended for appointment as Professor with tenure in the Department of Mechanical Engineering-Engineering Mechanics effective December 27, 2016. The recommendation for tenure has been endorsed by the Department and College of Engineering Promotion and Tenure Committees, the Department Chair, the Dean, the Provost, and the President.

RECOMMENDATION: That the Board of Trustees approves the appointment of Dr. Korde as Professor with tenure in the Department of Mechanical Engineering- Engineering Mechanics effective December 27, 2016.
RECOMMENDATION FOR APPOINTMENT AT PROFESSOR WITH TENURE
Dr. Umesh Korde
SOUTH DAKOTA SCHOOL OF MINES AND TECHNOLOGY

Recommendation:

Umesh Korde, who is a currently professor with tenure and the Pearson Chair in Mechanical Engineering, Department of Mechanical Engineering, South Dakota School of Mines and Technology (SDSMT), is recommended to be hired at professor with tenure in the Department of Mechanical Engineering-Engineering Mechanics.

Academic Degrees:

<table>
<thead>
<tr>
<th>Degree</th>
<th>Date</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ph.D.</td>
<td>1993</td>
<td>The University of Notre Dame, Notre Dame, IN</td>
</tr>
<tr>
<td>M.Eng.</td>
<td>1988</td>
<td>The University of Tokyo, Japan</td>
</tr>
<tr>
<td>B.Tech.</td>
<td>1982</td>
<td>The Indian Institute of Technology, Kharagpur, India</td>
</tr>
</tbody>
</table>

Professional Record:

<table>
<thead>
<tr>
<th>Year</th>
<th>Position and Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010 - present</td>
<td>Person Endowed Professor in Sustainable Energy, Department of Mechanical Engineering, South Dakota School of Mines and Technology (SDSMT), South Dakota</td>
</tr>
<tr>
<td>2008 - 2010</td>
<td>Professor, Department of mechanical Engineering, SDSMT (tenured in 2009)</td>
</tr>
<tr>
<td>2003 - 2008</td>
<td>Associate Professor, Department of Mechanical Engineering, SDSMT</td>
</tr>
<tr>
<td>2002 - 2003</td>
<td>Associate Professor of Mechanical Engineering and Manufacturing Engineering, St. Cloud State University, MN</td>
</tr>
<tr>
<td>2001</td>
<td>NSF/JSPS Research Fellow, University of Tokyo, Japan</td>
</tr>
<tr>
<td>1999 - 2000</td>
<td>Chair and Associate Professor, Department of Mechanical Engineering, Indiana Tech</td>
</tr>
<tr>
<td>1997-1999</td>
<td>National Science Foundation (NSF/STA) Research Fellow, JAMSTEC, Coastal Research and Marine Technology Departments</td>
</tr>
<tr>
<td>1996</td>
<td>Distinguished Foreign Visiting Researcher, Japan Marine Science and Technology Center (JAMSTEC and the University of Tokyo, Japan</td>
</tr>
<tr>
<td>1993-1996</td>
<td>Assistant Professor of Mechanical Engineering, Christian Brothers University</td>
</tr>
</tbody>
</table>

Summary of Evaluation:

- **Teaching**
  
  From the student teaching evaluations of courses taught by Dr. Korde at SDSMT which he provided, his averages were consistently higher than the university averages in similar courses, often much higher as stated by his department chair (included in the teaching information provided). At SDSMT he was active in course development, which included the development of a sophomore-leave course in sustainable energy systems design (fossil, nuclear, renewable) and co-developed a senior-level course on vehicle design for sustainable energy use, energy systems for vehicle use, vehicle design implications, vehicle mission implications on energy conversion, electric vehicles, vehicles driven by solar/PV, and fuel cell technology. He is the lead author on a book in press titled “Hydrodynamic Control of Wave Energy Devices” by Cambridge University Press. He has taught twenty-three different undergraduate and graduate courses, which ranged from freshman- to doctoral-level courses, which is very unusual and will be an asset for the ME-EM department.

  Dr. Korde received an outstanding Engineering Professor of the Year in 2000 while at Indiana Tech for teaching, research, and service.

*June 09, 2016*
Research/Scholarly Activity

Dr. Korde is a Fellow of the American Society of Mechanical Engineers (ASME). He is the Pearson Chair in Mechanical Engineering at SDSMT. He has published thirty-four well cited journal publications and seventy-nine peer-reviewed conference publications. He has one book in press with Cambridge University Press. He has secured over $3.5 Million as PI and another $675,000 as co-PI in external research funding. His funding is from a variety of government agencies to include: NSF, Sandia National Lab., Army Research Lab., Air Force Research Lab., DARPA, ONR, and NAVFAC (Navy). It is noteworthy that three of the recently funded grants in which Dr. Korde is PI (DARPA at $250k, ONR at $876k, and NSF at $300k), and one proposal with him as co-PI already involve Michigan Tech faculty, Drs. Ossama Abdelkhalik and Rush Robinett.

Dr. Korde’s research is very well aligned with the Mechanical Engineering-Engineering Mechanics Department’s and Michigan Tech’s strategic plan in the energy area. In particular he is a nationally and internationally recognized expert in wave energy conversion, with an emphasis on theoretical modeling, an expert in controls, and an expert in hydrodynamic control of wave energy devices. Besides wave energy conversion his contributions will be applicable to many other areas in which a number of junior and senior faculty at Michigan Tech are working. The hiring of Dr. Korde will help this group to coalesce and establish a unique group of Michigan Tech scholars to address some important, timely, engineering and science research areas. In particular Dr. Korde will make an immediate impact by leading an effort to build a nationally recognized center in wave energy conversion controls and optimization.

Service

A brief summary of Dr. Korde’s professional service includes Associate Editor, Ocean Engineering and Marine Energy (Springer), since 2014; Editorial Board, Ocean Engineering International Journal (Elsevier), since 2007; Editorial Board and Technical Editor, Journal of Marine Science Engineering, since August 2015; Member, Technical Advisory Group to American National Standards Institute (ANSI) for wave energy converter standards development; Official Nominator, Japan Prize, 2015, 2016. He has been and continues to be active as a session organizer, session chair for many ASME conferences and is a journal reviewer. At SDSMT he is also very active in university, department, and outreach to include leading efforts to develop and coordinate two new PhD programs, advising high school teachers, undergraduate transfer student advising, mentoring junior faculty, leading contributor to development of a planned innovation center, faculty search committees, university academic council, and other committees.

Recent and Significant Publications/Exhibitions/Performances/etc.

Korde UA, ‘Near-optimal control of wave energy converters in irregular waves with propagation-model driven wave prediction’, Applied Ocean Research, v. 53, 2015, pp. 31-45, DOI: j.apor.2015.07.007
Korde UA, ‘Energy storage requirements for approximate near-optimal control of two axisymmetric wave energy devices’, IFAC Annual Reviews in Control, Oct. 2015, DOI: j.arcontrol.2015.08.004
Umesh A. Korde, Ph.D.
Professor and Pearson Chair in Mechanical Engineering
South Dakota School of Mines and Technology (SDSMT)
Phone: Office (605) 355-3731; Cell (605) 415-7655
E-mail: Umesh.Korde@sdsmt.edu

Office: Department of Mechanical Engineering
South Dakota School of Mines and Technology
501 East St. Joseph Street, Rapid City, SD 57701

Home: 8C Glendale Lane
Rapid City, SD 57702

Citizenship: U.S.

Education:
Indian Institute of Technology, Kharagpur
Naval Arch., Marine Engr. B. Tech. (Hon), 1982
University of Tokyo, Japan
Naval Arch., Ocean Engr. M. Eng., 1988
University of Notre Dame, USA
Mechanical Engineering Ph.D., 1993

Research Interests:
- Dynamics and control: floating body hydrodynamics, hydrodynamic modeling of buoys, cables; modeling and control of flexible and smart structures; wave energy converters, near-optimal control in the time domain; adaptive and nonlinear control of floating bodies; low-dissipation actuator and mechanism development, development of new detection and sensing modalities; deterministic wave prediction; control of ship-board systems; wave powered microgrids

Professional Associations:
- Fellow, American Society of Mechanical Engineers (ASME)
- Associate Editor, Ocean Engineering and Marine Energy (Springer): January 2014-Present
- Book-Review Editor, Ocean Engineering and Marine Energy (Springer): January 2014-Present
- Co-Guest Editor, Special Issue on Wave Energy Conversion, Ocean Engineering and Marine Energy (Springer): August 2016 (publication)
- Editorial Board, Ocean Engineering (Elsevier); January 2007-Present
- Editorial Board, Technical Editor, J. Marine Science and Engineering; August 2015-Present
- Member, Technical Advisory Group (to American National Standards Institute) representing the US on marine hydrokinetic energy (my focus: wave energy converter performance) international standards development
- Book: Hydrodynamic Control of Wave Energy Devices (UA Korde and JV Ringwood), Cambridge University Press, December (in press)
- Advisor, Contractor: Sandia National Labs, Water Power Group, multi-year DOE project on wave energy converter control for maximizing grid-delivered efficiency
- Collaborator, Advisor: Naval Facilities Engineering and Expeditionary Warfare Center (NAVFAC EXWC), Port Hueneme, CA, using radar measurements for wave by wave control of floating body response
- Consulting with Aquamarine Power Ltd, UK; Waveforce Energy Ltd, Ireland

Appointments:
- Professor and Pearson Chair in Mechanical Engineering, Mechanical Engineering, SDSMT, January 2012-Present
- Pearson Endowed Professor in Sustainable Energy, Mechanical Engineering, SDSMT, August 2010-December 2011
- Professor, Department of Mechanical Engineering, SDSMT, July 2008 –July 2010
- Tenured since 2009, Department of Mechanical Engineering, SDSMT
- Associate Professor of Mechanical Engineering, SDSMT, 2003 – June 2008
- Associate Professor of Mechanical and Manufacturing Engineering, St. Cloud State Univ., MN, 2002-2003
Current Research at SDSMT:

- Resilient time domain control of wave energy converters: advisor/collaborator (funded): Sandia National Laboratories, Water Power Group, ongoing multi-year DOE funded project (Partners: Diana Bull, David Wilson, Ryan Coe, Giorgio Bacelli at Sandia National Labs; Rush Robinett at Michigan Technological University, O. Abdelkhalik at Michigan Technological University).
- Time domain near-optimal smooth reactive control of 2-body submerged and floating point absorbers with 'up-wave' wave measurement accounting for multiple group velocities (a related parallel effort also underway with Naval Facilities Engineering and Expeditionary Warfare Center).
- Adaptive real-time control of a floating wave energy converter in irregular waves based on up-wave prediction (Partner: Rush Robinett at Michigan Technological University).
- Multiple-mode near-optimal control of coupled floating bodies for ocean sensing use (R. Robinett, O. Abdelkhalik at Michigan Technological University; H. Sosik and D. Peters at Woods Hole Oceanographic Institution).
- Nonlinear dynamic modeling of floating wave energy converters using higher-order techniques (with R. Robinett at Michigan Tech University (MTU)).

Sponsored Projects:

- PI: Using X-band radar to provide near-optimal control of a wave energy device (NAVFAC EXWC): grant approved; $340K for 3 years.
- PI: 10-fold improvement in wave energy converter performance for dynamic microgrids (DARPA); (with MTU and Sandia National Laboratories); grant approved; $250K/8 months.
- PI: Integrating new object detection capability into a coastal energy conversion system (ONR): grant ongoing; $876K for 4 years (with MTU).
- PI: Wave-by-wave control for near-optimal conversion on small (1-1.3 m radius) buoys for ocean sensing (NSF EAGER; invited): $300K; grant pending (with MTU).
- PI: Wave-by-wave prediction and its use in maritime platform motion control (ONR): pending (with MTU).
- PI: Contract; Sandia National Laboratories, Water Power Technologies Group, advisor and collaborator on wave energy converter control (Department of Energy funded; multi-year); Current.
- Co-PI: Optimal control of wave energy device arrays (NSF); MTU-led.
PI: Sustainable energy research and education: Pearson Chair Endowment through SDSMT foundation: Current ($60K/year)

PI: “Subreflector Actuation for Reconfigurable Antennas”, Army Research Laboratory (ARL), Materials and Manufacturing Sciences Division ($86,250): Concluded, December 2013

PI: “Shielding on Sounding Rockets and Launch Vehicles”, Air Force Research Laboratory (AFRL), Kirtland AFB, NM ($353,000): Concluded September 2012

PI: “Shielding Rocket Payloads in Transient Acoustic Loads”, Air Force Research Laboratory (AFRL), Kirtland AFB, NM ($305,000): Concluded September 2012


PI: “Advanced Smart Structures”, AFRL, Kirtland AFB, NM ($329,000): Concluded August 2009

PI: “Self-Repair of Space Structures”, AFRL, Kirtland AFB, NM ($150,000): Concluded September 2012

PI: “Intelligent Passive Damping of Membrane Structures”, AFRL, Kirtland AFB, NM ($200,000): Concluded September 2012

Co-PI: “Model Driven Feedforward Control of Laser Powder Deposition”, Army Research Laboratory ($275,000): Concluded December 2013


Co-PI: “Instrumentation for Advanced Material Characterization”, National Science Foundation, Major Research Instrumentation Grant ($400,000): Concluded July 2006


PI: College of Engineering Research Grant, St. Cloud State University, Spring 2003

PI: National Science Foundation Japan Program/ Japan Society for Promotion of Science: Principal Investigator, 2001

PI: Consulting Grant from Japan Marine Science and Technology Center, 2000

PI: National Science Foundation International Program Grant: May 1997

PI: Japan Science and Technology Agency NSF/STA Program Fellowship, May 1997-April 1999

PI: Japanese Government Research Award for Distinguished Foreign Specialists, 1996

Co-PI: Ball Foundation Initiation Grant for Applied Research Center, Joint Project Director, 2000

Co-PI: National Science Foundation IIL Program; Integrated Manufacturing Laboratory; Co-Project Director, 1995

PI: Society of Manufacturing Engineers Education Foundation Grant; Project Director, 1995

PI: College of Engineering Research Grant, Christian Brothers University, Summer, 1994

**Salient Contributions to Research:**

**Wave Energy Conversion:**

First implementation of reactive control for efficiency maximization on oscillating water column wave energy devices; (1988, 1991a, 1991b)


Korde, U.A., 'A power take-off mechanism for maximizing the performance of an oscillating water column wave energy device', *Applied Ocean Research*, v. 13, no. 2, pp. 75-81, 1991b

- First application of an actively controlled reaction mass to provide (i) wide-band heave compensation for drill pipes on drill ships and (ii) a stationary on-board/internal reference inertia for efficient wave energy conversion on floating devices; (1998a, 1998b, 1999)


- First use of future-velocity estimates based on time series analysis for real-time reactive control of wave energy devices in irregular waves (1999)


- First application of 'latching' control from an internal reference on a deep-water floating wave energy device; (2001)


- First use of controlled submerged inertias to hold a submerged disc stationary for wave energy focusing and conversion in deep water; (2012a, 2014)

Korde UA, Ertekin RC, 'Active-controlled submerged wave energy device', *Proc. 4th International Conference on Ocean Energy*, Dublin, Ireland, October 2012a


- Near-optimal control in irregular waves using wave prediction based on deterministic wave propagation model; (2015)


- Deformable/Smart Structures Control:

- Introduction of area-controlled and gap-controlled actuation for stable trajectory control of deformable mirrors for laser focusing and steering; (2009, 2010)


Korde, UA, 'Large-displacement electrostatic actuation of membrane reflectors through mechanical control of electrode-membrane gap', *J. Intelligent Material Systems and Structures*, v. 21, pp. 61-82, 2010

- Time-reversal mirror implementation for stress-wave pulse focusing at crack location for accelerated crack healing; (2012)

Book Completed:


Salient Contributions to Teaching:

— Salient New course development

— Development of a sophomore-level course in sustainable energy systems design combining classroom lectures/discussions of energy conversion technology (fossil, nuclear, renewable), environmental and global/societal and economic implications, energy storage technology; laboratory exercises on bench-top systems; design-through-construction and testing project (2013-current)

— Co-development of a senior-level course on vehicle design for sustainable energy use, energy systems for vehicle use, vehicle design implications, vehicle mission implications on energy conversion, electric vehicles, vehicles driven by solar/PV energy, fuel cell technology (2012)

— Development of a new graduate course on smart structures focusing on flexible structure dynamics and control in space, acoustics and noise reduction for rocket fairings, control of deformable mirrors, self-healing structures, time-reversed acoustics (2007-2008)

— Development of an advanced dynamics course stressing practical applications of 3-D rigid body dynamics, analysis of practical systems with holonomic and non-holonomic constraints, complex linkages and flexible structures (2002)

Potential New Course Development

— Dynamics and Control of Naval Systems
— Advanced Dynamics of Flexible Bodies
— Dynamics of Water Waves
— Marine Hydrodynamics
— Hydrodynamic Control of Wave Energy Devices
— Advanced Floating Body Hydrodynamics and Control

Teaching Awards and Recognition:

— Who’s Who among America’s Teachers 2002, 2004
— Who’s Who in Engineering Education, 2004
— Outstanding Engineering Professor of the Year, 2000

Selected Teaching Experience:

— SDSMT unless otherwise indicated
  ME 221- Dynamics of Mechanisms
  ME 299- Sustainable Energy Systems Design
CV

South Dakota School of Mines and Technology

Umesh A. Korde

ME 352- Introduction to Dynamic Systems
ME 3110- Theory of Machines (Indiana Tech)
ME 3800- Computer Integrated Manufacturing Laboratory (Indiana Tech)
ME 4800- Design for Manufacturability (Indiana Tech)
ME 220- Mechanical Engineering Design Graphics (St. Cloud State)
ME 221- Statics (St. Cloud State)
ME 321- Machine Control and Robotics (St. Cloud State)
ME 328- Computer Aided Design (St. Cloud State)
ME 111- Engineering Graphics (Christian Brothers Univ.)
ENGR 101- Introduction to Engineering (Christian Brothers Univ.)
ME 215- Manufacturing Processes (Christian Brothers Univ.)
ME 448- Robotics (Christian Brothers Univ.)
ME 423- Mechanical Vibrations
ME 426- Mechanical Systems Lab
ME 492-Sustainable Energy
ME 492-Sustainable Energy for Vehicles
ME 602-Advanced Dynamics (St. Cloud State)
ME 620- Smart Structures
ME 683-Advanced Mech. Syst. Control
ME 692- Advanced Renewable Energy Conversion
ME 673- Applied Engr. Analysis I

Graduate Students (graduated)
— At SDSMT unless otherwise indicated
  — Mr. Subhan Turlapaty (MS): 2004
  — Mr. Jagadish Narayana (MS): 2005
  — Dr. Awlad Hossain (PhD): 2006
  — Mr. Jacob Koester (MS): 2006
  — Ms. Abiuda Reddy (MS): 2007
  — Mr. Miles Wickersham (MS): 2008
  — Mr. Tyler Engberg (MS): 2009
  — Mr. Mike Fontaine (MS): 2009
  — Mr. Jeff Comrie (MS): 2010
  — Mr. Brian Fehrman (MS): 2011
  — Mr. Peter Karlsson (MEng; Chalmers University of Technology, Sweden): 1998
  — Ms. Elisabet Flinkberg (MEng; Chalmers University of Technology, Sweden): 1998

Undergraduate Researchers Employed and Supervised (SDSMT)
— Over 50 sophomores-through-seniors; 1 high school student

Research Scientist Employed through Projects and Supervised at SDSMT
— Mr. Miles Wickersham: 2009

University Wide PhD Program Development and Coordination (SDSMT)
— South Dakota School of Mines and University of South Dakota Joint PhD Program in Biomedical Engineering
Led Overall Program Development through program proposal development, proposal submission to Board of Regents, joint-institutional external review, program inception and promotion (worked closely with SDSMT Provost and USD Dean and other faculty from multiple departments in the two universities)

Overall Joint Program Coordinator: 2006-2008: curriculum development, student recruiting, course scheduling, faculty hiring, advertising, community interactions, etc.

South Dakota School of Mines Mechanical Engineering PhD Program (2009-2010)

Led department faculty group and external participants all stages of program development: development of ‘intent to propose’, full program proposal development and writing, coordination with department chair and faculty, coordination with faculty from other departments and external participants, planning and execution of the external review, close coordination with Board of Regents offices through inception of the program

Curriculum planning and development in coordination with faculty steering committee

Student recruitment until full time program coordinator was hired on staff

High School Teachers Advised (NSF RET Program)

Ms. Jennifer Mindlin (2005); Mr, Darwin Daugaard (2006); Mr. Eric Amundssen (2007)

Service to Profession:

Journal Editorships/Professional Committee Memberships

Associate Editor, Ocean Engineering and Marine Energy, (Springer), since 2014

Book-Review Editor, Ocean Engineering and Marine Energy (Springer): January 2014-Present

Co-Guest Editor, Special Issue on Wave Energy Conversion, Ocean Engineering and Marine Energy, Springer: August 2016 (publication)

Editorial Board, Ocean Engineering, international journal, (Elsevier), since 2007

Editorial Board, Technical Editor, J. Marine Science and Engineering; August 2015-Present

Member, Technical Advisory Group to ANSI for wave energy converter international standards development

Official Nominator: Japan Prize, 2015, 2016

Scientific Committee Member, Session Organizer, Session Chair: ASME Offshore Mechanics and Arctic Engineering (ASME-OMAE): Renewable Energy Symp. (annual)

Session Chair: European Wave and Tidal Energy Conference, 2015


ASME-OMAE Conference Special Appreciation/Service Award: June 2006

Scientific Committee Member, Session Chair: SPIE Smart Structures and Integrated Systems Conf.

Member: ASME Technical Committee on Model Identification and Intelligent Systems


American Society of Mechanical Engineers (ASME): Fellow
Recent Special Invited Lectures/Presentations:
- 3 lectures at Sandia National Labs (2014)
- ASHRAE Chapter Meetings: (2013)
- National University of Ireland Maynooth (Maynooth University): Wave Energy Workshop, January 2015
- Short Course on Wave Energy Converter Hydrodynamics and Control at Michigan Tech University (MTU): Nov 4, 6, 2015
- Graduate Seminar, ME-EM Department, Michigan Tech University, Nov. 5, 2015

Service to University:
- Department Chair, Civil and Mechanical Engineering Department, Indiana Institute of Technology, Fort Wayne, IN: 1999-2002
  - Led department through ABET report and site visit
  - Led department through establishment of faculty-driven Applied Research Center and served as its co-director
  - Led department through building renovation and two associated moves
  - Provided mentoring to faculty, enabled various faculty development activities, conducted annual performance evaluations
  - Course scheduling and student advising
  - Curriculum development, assessment, and continuous improvement
  - Worked with University Administration to further university and department vision
- Program Coordinator: Biomedical Engineering PhD program, SDSM&T: 2006-2008
  - Led program proposal development with Provost at SDSM&T and Dean at University of South Dakota, curriculum development, program leadership through external review for Board of Regents, student recruitment and course scheduling
- Program Development: Mechanical Engineering PhD program at SDSM&T: 2008-2010
  - Led program proposal development with department head and faculty, led preparations for and execution of external review, coordination with Board of Regents office, curriculum development, student recruitment
- Undergraduate transfer student advisor for mechanical engineering at SDSM&T: 2004-present
  - Transcript evaluation with input from Department Head, Registrar, academic enrollment services, other departments, other institutions, as needed
  - Frequent communication with prospective students by e-mail, phone, personal meetings
  - Registration help and advising through to graduation
  - Student mentoring on career and other issues
  - Significant and steady (over 2-fold) growth in transfer student enrollment since 2004
- Leading contributor to the development of the planned SDSM&T Innovation Center
- Mentoring of junior faculty at SDSM&T and elsewhere
- Department Graduate Committee
- Department Lab Committee
- Graduate student dissertation and thesis committees
- Chair and serve on faculty search committees (annually)
- External reviewer for promotion/tenure applications, research excellence award nominations
- President's University ad-hoc council on academic structure at SDSM&T: 2008
- University Curriculum Committee: 2010-Present
List of Publications (U.A. Korde)

Book Completed:


Peer-Reviewed Journals


Korde UA, ‘Energy storage requirements for approximate near-optimal control of two axisymmetric wave energy devices’, *IFAC Annual Reviews in Control*, Oct. 2015, DOI: j.arcontrol.2015.08.004


Technical Monthly

Korde, U.A., 'Active control applications in wave energy conversion', Sea Technology, v. 43, n. 7, July 2002 (invited article) (Sea Technology is equivalent in nature to Mechanical Engineering and Aerospace America.)

Research Monograph

Korde, U.A., Optimal Control of Floating Wave Energy Devices, Research Monograph, Marine Technology Department, JAMSTEC, January 1999

Peer-Reviewed Conferences


Korde UA, 'Up-wave surface elevation for smooth hydrodynamic control of wave energy conversion in irregular waves', Oceans 2013, San Diego, CA, Sept. 2013

Korde UA, Ertek R, 'An open water submerged device for wave energy focusing and conversion', European Wave and Tidal Energy Conversion (EWTEC), Aalborg, Denmark; Sept. 2013

Korde UA, Ertek R, 'Active-controlled submerged wave energy device', Proc. 4th International Conference on Ocean Energy, Dublin, Ireland, October 2012


Fehrman BC, Cushman A, Korde UA, 'Using focused acoustic excitation to accelerate crack healing', 51st AIAA SDM/Adaptive Structures Conference, full paper presented at the conference; April 2011


Comrie J, Korde UA, 'Laboratory testing of sounding rocket vibroacoustic response', Proc. 51st AIAA SDM/Adaptive Structures Conference; April 2011

Cushman AJ, Fehrman BC, Korde UA, 'Experiments on the focusing and use of acoustic energy to enhance the rate of polymer healing', Proc. SPIE Smart Structures/Materials 2011; March 2011


Petersen EA, Fehrman B, Barnes, KA, Korde UA, 'Experiments on focusing and use of acoustic energy to enhance the rate of polymer healing', 17th SPIE Smart Structures and Materials Conf, March 2010


**Thesis, Dissertation, Other Important Reports**


**Non-refereed Publications (abstracts reviewed)**


---

Formal Session of the Board of Trustees - V. Action/Discussion Items
V-C. BOARD POLICY 5.3. SEX DISCRIMINATION/SEXUAL HARASSMENT

This is a housekeeping change to update the language per Federal guidance.

RECOMMENDATION: That the Board of Trustees amends Board Policy 5.3. Sex Discrimination/Sexual Harassment as presented.
5.3 **SEX DISCRIMINATION BASED ON SEX / SEXUAL HARASSMENT**

Federal and State law prohibits discrimination in employment, and in the utilization of educational facilities, and in educational programs and activities based on because of sex. Such discrimination includes gender discrimination, sexual harassment, and sexual violence. The policy of Michigan Technological University is that such sex discrimination/sexual harassment is prohibited.

Sexual harassment is defined as unwelcomed sexual advances, requests for sexual favors, other verbal or physical conduct or communication of a sexual nature or gender related nature that is sufficiently severe, pervasive or objectively and subjectively offensive as to substantially or effectively disrupt or undermine a person’s ability to participate in or to receive the benefits, services or opportunities of the University when:

1. Submission to such conduct or communication is made a term or condition, either explicitly or implicitly, to obtain or retain employment, services, or access to educational facilities or services.

2. Submission to or rejection of such conduct or communication by an individual is used as a factor in decisions affecting the individual's employment, or receipt of services or education.

3. Such conduct substantially interferes with an individual's employment, or receipt of services or education, or creates an intimidating, hostile, or offensive employment, service, or education environment.

The mission of Michigan Technological University is to provide a quality education for its students and a fair and responsible work environment for its employees. Sexual discrimination/sexual harassment of, as described in the previous paragraph, directed towards employees by supervisors, students, or other employees, or towards of students by faculty, employees, or other students, is absolutely prohibited. Upon receipt of information that sexual discrimination/sexual harassment has occurred and after verification of such information, the University shall take prompt corrective action, up to and including dismissal from the University or discharge from University employment.

Students employees, faculty members, or employees applicants for admission or employment who feel that they have been subjected to discrimination based on sex or sexual harassment, suspect that an unfounded discrimination complaint may be filed against them, or have been threatened with the filing of such a complaint should notify the Director, Affirmative Programs, as soon as possible should notify the Title IX Coordinator in the Office of Institutional Equity and Inclusion.
Nothing in this policy will prevent persons involved from pursuing any legal remedy which might be available to them.

This policy shall be administered in accordance with procedures established by the Executive Director of Institutional Equity and Inclusion.

The amended policy shall read as follows:

5.3. DISCRIMINATION BASED ON SEX

Federal and State law prohibits discrimination in employment, in the utilization of educational facilities, and in educational programs and activities based on sex. Such discrimination includes gender discrimination, sexual harassment, and sexual violence. The policy of Michigan Technological University is that such sex discrimination is prohibited.

The mission of Michigan Technological University is to provide a quality education for its students and a fair and responsible work environment for its employees. Sexual discrimination, as described in the previous paragraph, directed towards employees by supervisors, students, or other employees, or towards students by faculty, employees, or other students, is absolutely prohibited. Upon receipt of information that sexual discrimination has occurred and after verification of such information, the University shall take prompt corrective action, up to and including dismissal from the University or discharge from University employment.

Students, employees, faculty members, or applicants for admission or employment who feel that they have been subjected to discrimination based on sex should notify the Title IX Coordinator in the Office of Institutional Equity and Inclusion.

Nothing in this policy will prevent persons from pursuing any legal remedy which may be available to them.

This policy shall be administered in accordance with procedures established by the Executive Director of Institutional Equity and Inclusion.
V-D. COMMITTEE ASSIGNMENTS

The Chair will announce the committee assignments for the 2016-2017 fiscal year, in addition to the Board appointing two members to the Department of Defense Classified Contracts and Information Executive Committee in accordance with Board Policy 12.8.

RECOMMENDATION: That the Board of Trustees appoints two members to the Department of Defense Classified Contracts and Information Executive Committee effective January 1, 2017.
2016-17 BOT Committee Assignments
August 4, 2016

Academic Affairs Committee
Linda Kennedy, Chair
Julie Fream
Paul Ollila

Audit & Finance Committee
Bob Jacquart, Chair
Tom Baldini
Bill Johnson
Brenda Ryan

Leadership Committee
Bill Johnson, Chair
Bob Jacquart
Linda Kennedy
Brenda Ryan

Executive Committee
Terry Woychowski, Chair
Linda Kennedy
Julie Fream

Ethics Point
Terry Woychowski

BOT Appointments to the Executive Committee for DoD BOT Policy
Bob Jacquart
Brenda Ryan
Terry Woychowski

BOT Appointments to Michigan Tech Fund Board of Directors
Terry Woychowski
Linda Kennedy
Bob Jacquart, Chair of Audit & Finance

Michigan Tech Fund Investment Committee
Bob Jacquart and Terry Woychowski

Michigan Tech Fund Finance & Audit Committee
Linda Kennedy

MTESC
Tom Baldini
Paul Ollila
Bob Jacquart

Portage Lake Golf Course
George Butvilas (MTF BOD Chair)
JB Hoyt
Mike Hendricksen
VI. INFORMATIONAL ITEMS

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

Attached are analyses of investments as of June 30, 2015 to June 30, 2016.
## MICHIGAN TECH UNIVERSITY
### INVESTMENT PORTFOLIO
#### JUNE 30, 2015 THROUGH JUNE 30, 2016

<table>
<thead>
<tr>
<th>Fund Type</th>
<th>Market Value 6/30/2015</th>
<th>Market Value 6/30/2016</th>
<th>Change</th>
<th>Fiscal-Year Investment Return</th>
</tr>
</thead>
<tbody>
<tr>
<td>Money Market Fund</td>
<td>$ 442,694</td>
<td>$ 234,115</td>
<td>$(208,579)</td>
<td>0.0%</td>
</tr>
<tr>
<td><strong>Equity Funds:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delaware Value Fund</td>
<td>1,050,723</td>
<td>1,480,858</td>
<td>430,135</td>
<td>9.4%</td>
</tr>
<tr>
<td>Vanguard Extended Market Index Fund</td>
<td>2,455,061</td>
<td>2,278,142</td>
<td>(176,919)</td>
<td>-5.4%</td>
</tr>
<tr>
<td>Vanguard 500 Index Fund</td>
<td>8,429,573</td>
<td>8,575,705</td>
<td>146,132</td>
<td>3.9%</td>
</tr>
<tr>
<td>Total Equity Funds</td>
<td>11,935,357</td>
<td>12,334,705</td>
<td>399,348</td>
<td></td>
</tr>
<tr>
<td><strong>Fixed Income Funds:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lord Abbett Bond Debenture Fund</td>
<td>1,412,742</td>
<td>7,527,635</td>
<td>6,114,893</td>
<td>2.2%</td>
</tr>
<tr>
<td>Lord Abbett Short Duration Income Fund</td>
<td>1,423,036</td>
<td>7,523,781</td>
<td>6,100,745</td>
<td>1.7%</td>
</tr>
<tr>
<td>Total Fixed Income Funds</td>
<td>2,835,778</td>
<td>15,051,416</td>
<td>12,215,638</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$ 15,213,829</td>
<td>$ 27,620,236</td>
<td>$ 12,406,407</td>
<td>2.2%</td>
</tr>
</tbody>
</table>

### Current Asset Allocation

- **Money Market, 0.8%**
- **Equities, 44.7%**
- **Fixed Income, 54.5%**
VI-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 June 30, 2016.
## MICHIGAN TECH UNIVERSITY
### OUTSTANDING BALANCES ON BOND ISSUANCES
#### JUNE 30, 2016

<table>
<thead>
<tr>
<th>Bonds Outstanding</th>
<th>Long-Term Outstanding Amount</th>
<th>Current Outstanding Amount</th>
<th>Total Outstanding</th>
<th>Original Issue Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Series 2008 Bond Issue (maturity 2038)</td>
<td>$5,090,000</td>
<td>-</td>
<td>$5,090,000</td>
<td>$15,880,000</td>
</tr>
<tr>
<td>Purchase of UPPCO Building</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partial Funding of KRC Building</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MUB Ballroom Renovation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Series 2008 Bond Issue</strong></td>
<td><strong>$5,090,000</strong></td>
<td><strong>-</strong></td>
<td><strong>$5,090,000</strong></td>
<td><strong>$15,880,000</strong></td>
</tr>
<tr>
<td>Series 2009A Bond Issue (maturity 2039)</td>
<td>15,600,000</td>
<td>405,000</td>
<td>16,005,000</td>
<td>18,235,000</td>
</tr>
<tr>
<td>New Student Apartment Building</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partial Funding of KRC Building</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Series 2009 Bond Issue</strong></td>
<td><strong>15,600,000</strong></td>
<td><strong>405,000</strong></td>
<td><strong>16,005,000</strong></td>
<td><strong>18,235,000</strong></td>
</tr>
<tr>
<td>Series 2010A Bond Issue (maturity 2040)</td>
<td>8,340,000</td>
<td>215,000</td>
<td>8,555,000</td>
<td>10,975,000</td>
</tr>
<tr>
<td>Great Lakes Research Center</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A.E. Seaman Mineral Museum</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KRC Building Purchase (Blizzard Building)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Life Safety Improvements on Campus</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Series 2010 Bond Issue</strong></td>
<td><strong>8,340,000</strong></td>
<td><strong>215,000</strong></td>
<td><strong>8,555,000</strong></td>
<td><strong>10,975,000</strong></td>
</tr>
<tr>
<td>Series 2012A Bond Issue (maturity 2034)</td>
<td>28,915,000</td>
<td>1,220,000</td>
<td>30,135,000</td>
<td>33,070,000</td>
</tr>
<tr>
<td>Refunding of 2003 &amp; 2004 Fixed Rate Bond Issues</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SDC Ice Plant and Partial Roof of SDC</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Series 2012 Bond Issue</strong></td>
<td><strong>28,915,000</strong></td>
<td><strong>1,220,000</strong></td>
<td><strong>30,135,000</strong></td>
<td><strong>33,070,000</strong></td>
</tr>
<tr>
<td>Series 2013A Bond Issue (maturity 2036)</td>
<td>12,790,000</td>
<td>740,000</td>
<td>13,530,000</td>
<td>14,265,000</td>
</tr>
<tr>
<td>Refunding 2006 Bond Issue</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Refunding partial 2008 Bond Issue</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Series 2013 Bond Issue</strong></td>
<td><strong>12,790,000</strong></td>
<td><strong>740,000</strong></td>
<td><strong>13,530,000</strong></td>
<td><strong>14,265,000</strong></td>
</tr>
<tr>
<td>Series 2015A Bond Issue (maturity 2046)</td>
<td>23,870,000</td>
<td>425,000</td>
<td>24,295,000</td>
<td>24,295,000</td>
</tr>
<tr>
<td>Daniell Heights Renovation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Campus Dining Renovation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fuel Storage Tank Facility</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chemical Storage Facility</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chemistry Labs Renovation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IT and Safety Systems Upgrades</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>McNair Hall Bathrooms Renovation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Series 2015 Bond Issue</strong></td>
<td><strong>23,870,000</strong></td>
<td><strong>425,000</strong></td>
<td><strong>24,295,000</strong></td>
<td><strong>24,295,000</strong></td>
</tr>
<tr>
<td><strong>Total - All Bond Issues</strong></td>
<td><strong>$94,605,000</strong></td>
<td><strong>$3,005,000</strong></td>
<td><strong>$97,610,000</strong></td>
<td><strong>$116,720,000</strong></td>
</tr>
</tbody>
</table>
VI-C. RESEARCH AND SPONSORED PROGRAMS REPORT

A report of contracts and grants is attached hereto.

This is for the Board's information.
### Formal Session of the Board of Trustees - VI. Informational Items

#### Sponsored Awards

**Fiscal Year 2016**

4th Quarter

Ended June, 30 2016

TOTAL: $51,287,299

---

#### Pre-Proposals Submitted

(excluded from Proposals Submitted figures below)

FYTD 2015: 51

FYTD 2016: 63

---

#### Proposals Submitted vs. Awards Received

<table>
<thead>
<tr>
<th>Sponsor</th>
<th>FY '16 as of 06/30</th>
<th>FY '15 as of 06/30</th>
<th>FY '16 as of 06/30</th>
<th>FY '15 as of 06/30</th>
<th>FY '16 as of 06/30</th>
<th>FY '15 as of 06/30</th>
<th>Variance</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>NASA</td>
<td>71</td>
<td>73</td>
<td>29</td>
<td>42</td>
<td>1,422,217</td>
<td>2,422,291</td>
<td>-1,000,074</td>
<td>-41.3%</td>
</tr>
<tr>
<td>National Science Foundation</td>
<td>186</td>
<td>216</td>
<td>65</td>
<td>89</td>
<td>7,363,202</td>
<td>12,308,810</td>
<td>-4,945,608</td>
<td>-40.2%</td>
</tr>
<tr>
<td>US Department of Agriculture</td>
<td>48</td>
<td>55</td>
<td>43</td>
<td>78</td>
<td>2,078,969</td>
<td>2,842,385</td>
<td>-763,416</td>
<td>-26.9%</td>
</tr>
<tr>
<td>US Department of Defense</td>
<td>72</td>
<td>83</td>
<td>69</td>
<td>49</td>
<td>9,886,023</td>
<td>12,592,868</td>
<td>-2,706,845</td>
<td>-21.5%</td>
</tr>
<tr>
<td>US Department of Education</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>208,945</td>
<td>51,224</td>
<td>157,721</td>
<td>307.9%</td>
</tr>
<tr>
<td>US Department of Energy</td>
<td>45</td>
<td>49</td>
<td>15</td>
<td>14</td>
<td>3,203,615</td>
<td>2,439,403</td>
<td>764,212</td>
<td>31.3%</td>
</tr>
<tr>
<td>US Department of Transportation</td>
<td>23</td>
<td>27</td>
<td>20</td>
<td>22</td>
<td>1,914,590</td>
<td>2,817,164</td>
<td>-902,574</td>
<td>-34.9%</td>
</tr>
<tr>
<td>Other Federal Agencies*</td>
<td>55</td>
<td>52</td>
<td>29</td>
<td>26</td>
<td>2,591,175</td>
<td>1,606,449</td>
<td>984,726</td>
<td>61.3%</td>
</tr>
<tr>
<td>Federal Agency Total</td>
<td>543</td>
<td>592</td>
<td>292</td>
<td>334</td>
<td>30,503,337</td>
<td>37,874,498</td>
<td>-7,371,161</td>
<td>-19.5%</td>
</tr>
<tr>
<td>State of Michigan</td>
<td>41</td>
<td>37</td>
<td>28</td>
<td>35</td>
<td>3,088,672</td>
<td>3,065,035</td>
<td>23,637</td>
<td>24.3%</td>
</tr>
<tr>
<td>Industrial</td>
<td>181</td>
<td>204</td>
<td>188</td>
<td>181</td>
<td>7,128,823</td>
<td>8,776,896</td>
<td>-1,648,073</td>
<td>-18.8%</td>
</tr>
<tr>
<td>Foreign</td>
<td>19</td>
<td>27</td>
<td>16</td>
<td>15</td>
<td>857,054</td>
<td>1,030,914</td>
<td>-173,860</td>
<td>-16.9%</td>
</tr>
<tr>
<td>All Other Sponsors</td>
<td>72</td>
<td>72</td>
<td>31</td>
<td>39</td>
<td>1,523,010</td>
<td>973,760</td>
<td>549,250</td>
<td>56.4%</td>
</tr>
<tr>
<td></td>
<td>Subtotal</td>
<td>856</td>
<td>932</td>
<td>555</td>
<td>604</td>
<td>43,820,896</td>
<td>51,721,103</td>
<td>-7,900,207</td>
</tr>
<tr>
<td>Gifts**</td>
<td>334</td>
<td>333</td>
<td>7,439,801</td>
<td>6,923,814</td>
<td>515,987</td>
<td>51,224</td>
<td>157,721</td>
<td>307.9%</td>
</tr>
<tr>
<td>Crowd Funding</td>
<td>27</td>
<td>29</td>
<td>26,602</td>
<td>35,102</td>
<td>-8,500</td>
<td>-24.2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Grand Total</td>
<td>856</td>
<td>932</td>
<td>916</td>
<td>966</td>
<td>$51,287,299</td>
<td>$58,680,019</td>
<td>-$7,392,720</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.
### SPO & IIE Metrics

#### Administration
- College of Engineering: $19,814,244
- College of Sciences & Arts: $9,869,568
- Keweenaw Research Center: $4,921,036
- Michigan Tech Research Institute: $8,266,439
- Pavlis Honors College: $388,009
- School of Business & Economics: $99,635
- School of Forest Resources & Environment Science: $3,636,620
- School of Technology: $46,796
- Administration: $4,244,952

#### Percentages of Tenured & Tenure Track Faculty (as either PI or Co-PI)
- Submitting Proposals since 07/01/2015: 62.9%
- On Active Projects as of 06/30/2016: 51.3%

#### Fiscal Year 2016 4th Quarter
- Ended June 30, 2016
- TOTAL: $51,287,299

#### Disclosures Received
- 32
- Percent Change: -3.0%

#### Nondisclosure Agreements
- 116
- Percent Change: -4.3%

#### Patents Filed or Issued
- 117
- Percent Change: 0.0%

#### License Agreements
- 20
- Percent Change: 81.8%

#### Gross Royalties
- 301,120
- Percent Change: 18.1%

### Proposals Submitted

<table>
<thead>
<tr>
<th>Division</th>
<th>SPO</th>
<th>IIE</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration</td>
<td>177</td>
<td>339</td>
<td>-5.2%</td>
</tr>
<tr>
<td>College of Engineering</td>
<td>91</td>
<td>76</td>
<td></td>
</tr>
<tr>
<td>College of Sciences &amp; Arts</td>
<td>60</td>
<td>41</td>
<td>-8.2%</td>
</tr>
<tr>
<td>Keweenaw Research Center</td>
<td>41</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Michigan Tech Research Institute</td>
<td>118</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Pavlis Honors College</td>
<td>9</td>
<td>4</td>
<td>-3.0%</td>
</tr>
<tr>
<td>School of Business &amp; Economics</td>
<td>118</td>
<td>4</td>
<td>-72.5%</td>
</tr>
<tr>
<td>School of Forest Resources &amp; Env Science</td>
<td>463</td>
<td></td>
<td>-14.1%</td>
</tr>
<tr>
<td>School of Technology</td>
<td>34</td>
<td>2</td>
<td>-95.1%</td>
</tr>
<tr>
<td>Administration</td>
<td>9</td>
<td>4</td>
<td>-12.6%</td>
</tr>
</tbody>
</table>

#### Awards Received

<table>
<thead>
<tr>
<th>Division</th>
<th>SPO</th>
<th>IIE</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration</td>
<td>177</td>
<td>339</td>
<td>-5.2%</td>
</tr>
<tr>
<td>College of Engineering</td>
<td>91</td>
<td>76</td>
<td></td>
</tr>
<tr>
<td>College of Sciences &amp; Arts</td>
<td>60</td>
<td>41</td>
<td>-8.2%</td>
</tr>
<tr>
<td>Keweenaw Research Center</td>
<td>41</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Michigan Tech Research Institute</td>
<td>118</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Pavlis Honors College</td>
<td>9</td>
<td>4</td>
<td>-3.0%</td>
</tr>
<tr>
<td>School of Business &amp; Economics</td>
<td>118</td>
<td>4</td>
<td>-72.5%</td>
</tr>
<tr>
<td>School of Forest Resources &amp; Env Science</td>
<td>463</td>
<td></td>
<td>-14.1%</td>
</tr>
<tr>
<td>School of Technology</td>
<td>34</td>
<td>2</td>
<td>-95.1%</td>
</tr>
<tr>
<td>Administration</td>
<td>9</td>
<td>4</td>
<td>-12.6%</td>
</tr>
</tbody>
</table>

#### Fiscal Comparison

<table>
<thead>
<tr>
<th>Division</th>
<th>SPO</th>
<th>IIE</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration</td>
<td>177</td>
<td>339</td>
<td>-5.2%</td>
</tr>
<tr>
<td>College of Engineering</td>
<td>91</td>
<td>76</td>
<td></td>
</tr>
<tr>
<td>College of Sciences &amp; Arts</td>
<td>60</td>
<td>41</td>
<td>-8.2%</td>
</tr>
<tr>
<td>Keweenaw Research Center</td>
<td>41</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Michigan Tech Research Institute</td>
<td>118</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Pavlis Honors College</td>
<td>9</td>
<td>4</td>
<td>-3.0%</td>
</tr>
<tr>
<td>School of Business &amp; Economics</td>
<td>118</td>
<td>4</td>
<td>-72.5%</td>
</tr>
<tr>
<td>School of Forest Resources &amp; Env Science</td>
<td>463</td>
<td></td>
<td>-14.1%</td>
</tr>
<tr>
<td>School of Technology</td>
<td>34</td>
<td>2</td>
<td>-95.1%</td>
</tr>
<tr>
<td>Administration</td>
<td>9</td>
<td>4</td>
<td>-12.6%</td>
</tr>
<tr>
<td>Industry Segment</td>
<td>FY '16 as of 6/30</td>
<td>FY '15 as of 6/30</td>
<td>FY '16 as of 6/30</td>
</tr>
<tr>
<td>--------------------------</td>
<td>------------------</td>
<td>------------------</td>
<td>------------------</td>
</tr>
<tr>
<td>Automotive</td>
<td>4,834,597</td>
<td>3,993,403</td>
<td>841,194</td>
</tr>
<tr>
<td>Business &amp; Economics</td>
<td>191,355</td>
<td>293,443</td>
<td>(102,088)</td>
</tr>
<tr>
<td>Chemical</td>
<td>608,002</td>
<td>429,639</td>
<td>178,363</td>
</tr>
<tr>
<td>Civil</td>
<td>824,263</td>
<td>971,825</td>
<td>(147,562)</td>
</tr>
<tr>
<td>Consumer Products</td>
<td>989,961</td>
<td>876,894</td>
<td>113,067</td>
</tr>
<tr>
<td>Defense &amp; Space</td>
<td>1,687,208</td>
<td>1,557,338</td>
<td>129,870</td>
</tr>
<tr>
<td>Energy</td>
<td>735,900</td>
<td>2,984,027</td>
<td>(2,248,127)</td>
</tr>
<tr>
<td>Environmental</td>
<td>381,552</td>
<td>369,267</td>
<td>12,285</td>
</tr>
<tr>
<td>Health</td>
<td>343,036</td>
<td>277,067</td>
<td>(166,569)</td>
</tr>
<tr>
<td>Industrial Engineering</td>
<td>611,886</td>
<td>285,540</td>
<td>326,346</td>
</tr>
<tr>
<td>Mining &amp; Metals</td>
<td>376,258</td>
<td>815,085</td>
<td>(438,827)</td>
</tr>
<tr>
<td>Other</td>
<td>623,048</td>
<td>186,183</td>
<td>436,865</td>
</tr>
<tr>
<td>Technology</td>
<td>343,036</td>
<td>91,621</td>
<td>251,415</td>
</tr>
</tbody>
</table>

**Total: $12,543,545**

*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 PRELIMINARY Research Expenditures by College/School/Division
Fiscal Year 2016 & 2015
As of June 30, 2016 Period 12 and June 30, 2015 Period 12

<table>
<thead>
<tr>
<th>College/School/Division</th>
<th>PRELIMINARY FY2016</th>
<th>PRELIMINARY FY2015</th>
<th>Variance</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration*</td>
<td>1,512,152</td>
<td>1,633,089</td>
<td>(120,937)</td>
<td>-7.4%</td>
</tr>
<tr>
<td>College of Engineering</td>
<td>27,757,131</td>
<td>25,896,290</td>
<td>1,860,841</td>
<td>7.2%</td>
</tr>
<tr>
<td>College of Science &amp; Arts</td>
<td>15,752,581</td>
<td>14,776,195</td>
<td>976,386</td>
<td>6.6%</td>
</tr>
<tr>
<td>Pavlis Honors College</td>
<td>268,231</td>
<td>341,149</td>
<td>(72,918)</td>
<td>-21.4%</td>
</tr>
<tr>
<td>Keweenaw Research Center (KRC)</td>
<td>6,845,351</td>
<td>6,610,656</td>
<td>234,695</td>
<td>3.6%</td>
</tr>
<tr>
<td>Michigan Tech Research Institute (MTRI)</td>
<td>8,651,417</td>
<td>9,385,053</td>
<td>(733,636)</td>
<td>-7.8%</td>
</tr>
<tr>
<td>School of Business &amp; Economics</td>
<td>1,619,990</td>
<td>1,620,801</td>
<td>(811)</td>
<td>-0.1%</td>
</tr>
<tr>
<td>School of Forest Resources &amp; Environmental Science</td>
<td>5,273,081</td>
<td>5,581,847</td>
<td>(308,766)</td>
<td>-5.5%</td>
</tr>
<tr>
<td>School of Technology</td>
<td>742,752</td>
<td>493,248</td>
<td>249,504</td>
<td>50.6%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>68,422,686</strong></td>
<td><strong>66,338,328</strong></td>
<td><strong>2,084,358</strong></td>
<td>3.1%</td>
</tr>
</tbody>
</table>

*Includes the Vice Presidents, Provost, CIO, Exec Director Financial Services & Operations and others who report to a VP, Provost or the President. Except for the research institutes that report to the VPR.
VI-D. ADVANCEMENT AND ALUMNI RELATIONS REPORT

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

This is for the Board’s information.
BOARD OF TRUSTEES REPORT
August 2016

ADVANCEMENT

A total of $38.7 million was raised for Michigan Tech in the past twelve months—119% of the FY 2016 fundraising goal of $32.5 million.

Major Outright/Planned Giving raised $21.1 million in FY 2016—136% of its $15.5 million goal. Remaining pending gift asks in this category total $40.3 million.

A total of $3.6 million of existing planned gifts was realized this past fiscal year. The remaining planned giving registry totals $148.1 million as of June 30, 2016, of which:

- 60% is specifically designated for endowments (16% is undesignated/unrestricted)
- 86% is revocable

The Advancement team made 1,312 personal visits in the past 12 months, exceeding its FY 2016 goal by 252 visits. This compares to a total of 942 visits made in FY 2015.

The email bequest campaign launched in March was very successful: 482 alumni/friends requested estate planning information, and 168 of these individuals have been qualified and recommended for a visit by an Advancement team member.

A strategic and timely qualification process utilizing recent wealth screening data and models has been developed to better support fundraising growth. Each Advancement team member’s portfolio will be refreshed in July and then reviewed on a quarterly basis.

The President’s Advancement Council met on campus on June 15-16. Discussion items included:

- Review of Michigan Tech’s FY 2016 results and our unique lifecycle of engagement model
- Portrait of Michigan Tech 2045
- Advancement’s plan to support the 2045 goals and the anticipated sources for this support
- Reorganizing for fundraising growth and broader alumni engagement
- Michigan Tech’s branding and messaging strategies
- Typical engagement process and giving cycle for major outright/planned gift donors
- Silicon Valley Experience program

ALUMNI RELATIONS AND ANNUAL GIVING

FY16 Achievements

- Raised $2.54 million in gifts/pledges toward a fiscal year Annual Giving goal of $2.5 million. Achieved 102% of goal. (These numbers are as of May 31, 2016. Still waiting for final June 30, 2016 numbers). This included $1.51 million in gifts and pledges toward a fiscal year Annual Fund* goal of $1.5 million. Achieved 100.7% of goal. (These are preliminary numbers). (* Note: Annual Fund gifts are based on designation: unrestricted-7300, Annual Fund Scholarships-4620, Women at Tech Scholarship-4592 and academic department unrestricted.)
### FY16 Achievements (continued)

- Hosted 103 events throughout the country including several in India in cooperation with Industry Partnerships, International Programs and Services and Career Services.
- Expanded the chapter leader program to include diverse alumni representation in 33 states plus eight international chapters. Supported the Indian Alumni engagement project in conjunction with colleagues in Industry Partnerships, Career Services, International Programs and Services and the Graduate School.
- In FY16 we supported the campus community’s e-mail communications and sent 1,834,767 emails to alumni and friends. Of those, 449,939 were opened, an average open rate of 24.74%.
- Launched the new online giving form with improved overall functionality that provides donors with more options when making their gifts via the web. Also launched the new Alumni website which includes a page dedicated to our international alumni.

Registrations for Reunion 2016 August 4-6 is tracking ahead of last year with more young alumni and their families planning to attend. New events such as “Stuff a Husky” are sold out already.
VI-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
University Marketing & Communications
April 9, 2016 – July 15, 2016

News by Category
Athletics 464
Alumni 581
Research 649
Student Life 114
Business/People 86
Events 922
Hometown News 2,010
Curricula/Programs 382
Other 119

Total Traditional Media 5,327

Social Media
Michigan Tech’s social media followers have increased dramatically over the past year. Here are the numbers for June 2015, compared to June 2016.

<table>
<thead>
<tr>
<th>Social Media</th>
<th>June 2015</th>
<th>June 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facebook</td>
<td>23,355</td>
<td>32,165</td>
</tr>
<tr>
<td>Twitter</td>
<td>7,340</td>
<td>8,624</td>
</tr>
<tr>
<td>LinkedIn</td>
<td>40,707</td>
<td>45,051</td>
</tr>
<tr>
<td>Instagram</td>
<td>2,407</td>
<td>4,958</td>
</tr>
<tr>
<td>YouTube</td>
<td>1,026</td>
<td>1,263</td>
</tr>
</tbody>
</table>
A Few Examples

*The Wall Street Journal, Detroit Free Press, Lansing State Journal* and other newspapers around the northern US carried an article about Michigan Tech researchers who are working to restore the Arctic grayling to Michigan waters. See http://www.wsj.com/articles/michigans-arctic-grayling-poised-for-a-long-awaited-comeback-1466242200

*Discover* magazine published an article about Wayne Pennington’s study and analysis of a phenomenon known as the Menominee Crack, a geological “pop-up.” Pennington is a geophysicist and dean of Michigan Tech’s College of Engineering. See http://discovermagazine.com/2016/jul-aug/cracking-open-a-mystery

*Huffington Post* ran an article about Associate Professor Joshua Pearce’s paper in the journal Energy Policy, showing that consumers in the Upper Peninsula of Michigan can profit by leaving the grid and using solar power. See http://www.huffingtonpost.com/joshua-pearce/consumers-can-profit-from_b_10230420.html?utm_hp_ref=green&ir=Gree

News outlets across the nation, include *WFLX-TV Fox 29* in West Palm Beach, Florida, reported on the DENSO Foundation’s $1 million in grants to 24 colleges and universities, including Michigan Tech, to advance engineering and skilled trades education. See http://www.wflx.com/story/32290528/denso-foundation-gives-more-than-1-million-in-grants-to-24-colleges-and-universities-to-advance-engineering-and-skilled-trades-education
A consumers’ financial website called WalletHub published an interview with Emanuel Xavier-Oliveira, assistant professor in Michigan Tech’s School of Business, on what states and local communities can do to boost their economies and to develop, attract and retain highly skilled workers. See https://wallethub.com/edu/states-with-the-best-economies/21697/#emanuel-xavier-oliveira

Science Around Michigan, a science news website focusing on research being conducted in Michigan, featured work being done by the Michigan Tech Research Institute in Ann Arbor on the causes of the spread of Eurasian watermilfoil, an invasive species, and the most effective ways of containing it. See www.sciencemi.org/2016/07/eurasian-watermilfoil-one-of-michigans-biggest-invasive-threats/

TechCentury, an engineering, science and technology news website published by the Engineering Society of Detroit, featured a Michigan Tech undergraduate who won a national Environmental Protection Agency grant to study how herbicides and pesticides may be causing the die-off of bees in Colorado. See https://techcentury.com/2016/06/16/michigan-tech-student-wins-grant-to-study-bee-decline/

WJMN-TV Channel 3 and its website, UP Matters, aired a news story about Robert Larson, a doctoral student at Tech and one of the first recipients of a Portage Health Foundation Graduate Assistantship, part of a new partnership between the University and the foundation. See http://www.upmatters.com/news/local-news/michigan-tech-makes-cardiovascular-research-possible
CHARTS and GRAPHS

News by Category Chart

<table>
<thead>
<tr>
<th>Color</th>
<th>Name</th>
<th>Value</th>
<th>Pct.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Events</td>
<td>774</td>
<td>29.24%</td>
</tr>
<tr>
<td></td>
<td>Research</td>
<td>540</td>
<td>20.40%</td>
</tr>
<tr>
<td></td>
<td>Alumni</td>
<td>452</td>
<td>17.08%</td>
</tr>
<tr>
<td></td>
<td>Athletics</td>
<td>357</td>
<td>13.49%</td>
</tr>
<tr>
<td></td>
<td>Curricula/Programs</td>
<td>284</td>
<td>10.73%</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>99</td>
<td>3.74%</td>
</tr>
<tr>
<td></td>
<td>Business/People</td>
<td>67</td>
<td>2.53%</td>
</tr>
<tr>
<td></td>
<td>Student Life</td>
<td>38</td>
<td>1.44%</td>
</tr>
</tbody>
</table>

News by Media Chart

<table>
<thead>
<tr>
<th>Color Name</th>
<th>Value</th>
<th>Pct.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online, consumer</td>
<td>1430</td>
<td>55.32%</td>
</tr>
<tr>
<td>Online, trade/industry</td>
<td>392</td>
<td>15.16%</td>
</tr>
<tr>
<td>Newspaper</td>
<td>264</td>
<td>10.21%</td>
</tr>
<tr>
<td>Online, news and business</td>
<td>142</td>
<td>5.49%</td>
</tr>
</tbody>
</table>
News Clips vs. Ad Value by Date

Month

News

Ad Value

News Map
Social Media by Category Chart (Social Media)

- Athletics
- Curricula/Programs
- Research
- Alumni
- Events
- Student Life
- Other (None)

Formal Session of the Board of Trustees - VI. Informational Items
Sample Clippings
Consumers Can Profit from Leaving the Grid

Joshua Pearce
Director, Michigan Tech Open Sustainability Technology Lab, scientist, engineer, solar photovoltaic specialist and open hardware hacker.

Secret is Out

It is no secret that solar energy is a money maker. Since 2011, the cost of solar electricity has been less than what consumers pay their electric utilities in a growing swath of America. Solar costs have plummeted like a rock and are continuing to drop.

This has created a surging market for solar technologies - 2015 was the biggest year in solar in U.S. history. Yet the American solar industry is set to more than
NASA joins fight against invasive Great Lakes shoreline plant

Keith Matheny, Detroit Free Press  10:29 a.m. EDT July 5, 2016

The fight against one of the nastiest, prettiest, most problematic shoreline plant invaders in Michigan has gone into outer space.

New NASA research utilizes satellite Earth observations to gather data incorporated into updated computer modeling of Phragmites australis’ spread. The modeling, designed for use by local governments and other community leaders, hopes to predict where the plants are going next and where they will be most problematic in the Great Lakes basin — important information, as Phragmites are extremely difficult to eradicate once established, making early intervention key.

It all helps beleaguered local leaders already spending thousands, if not tens of thousands, of dollars each year to try to control Phragmites, a reed-like plant that can grow 29 feet or taller, with root systems that spread out around 40 feet and sprout other plants. The Phragmites quickly out-compete and eliminate other, native aquatic and shoreline plants, including those important to wildlife and aquatic nesting and other habitat. The Phragmites stands can become so thick, even a small frog or turtle can have difficulty navigating through them.

DETROIT FREE PRESS

$1.6M in grants awarded for invasive species projects
The state’s six largest research universities want to do something about the disconnect between the private sector and their researchers and lab facilities, and they’re offering up to $40,000 to companies looking for collaborative help.

Last week, Crain’s reported findings from a report on the state’s 21st Century Jobs Trust Fund and its efforts to diversify Michigan’s economy, which included the fact that Michigan fares poorly compared to Midwest and benchmark states at collaboration between the private sector and its research universities.

The Michigan Corporate Relations Network is hoping to change that by offering financial incentives to help for-profit companies improve their technology or broaden their product offerings through partnering with university researchers.

According to the report, by Columbus, Ohio-based TeChnology Partners LLC in 2013, there was just $1,610 spent per $10 million of gross state product in Michigan on industry-sponsored R&D at state universities.

That compared with the national average of $2,049 and ranked Michigan ninth among the 12 benchmark states identified by the report, which included Midwest states and other states with similar diversification efforts.

MCRN was formed in 2011 by the Michigan Economic Development Corp. and is a partnership of the state’s six largest research organizations—the University of Michigan, Michigan State University, Wayne State University, Western Michigan University, Michigan Technological University and the University of Michigan-Dearborn—to connect the private sector to university researchers.

Through a MCRN program called Small Company Innovation Program/Technology & Commercialization Assistance, applications are now being accepted for companies in need of research help. Companies can get up to $40,000 but must come up with matching funds.

According to Mike Forbes, who works in the technology and commercialization assistance program at UIH’s Institute for Research on Labor, Employment and the Economy who
VI-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 - June

<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><strong>Number of Recordable Injuries</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Injury Only w/Medical - No Loss Time</td>
<td>2015</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>2016</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Lost Time Cases</td>
<td>2015</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>2016</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Restricted Work Cases</td>
<td>2015</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></td>
<td>2016</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td><strong>Occupational Safety and Health Administration (OSHA)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recordable Injuries (Total of above)</td>
<td>2015</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>2016</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td><strong>Number of Days</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Injury Loss Time Days</td>
<td>2015</td>
<td>15</td>
<td>0</td>
<td>27</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>47</td>
</tr>
<tr>
<td></td>
<td>2016</td>
<td>35</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>35</td>
</tr>
<tr>
<td>Restricted Work Days</td>
<td>2015</td>
<td>84</td>
<td>0</td>
<td>19</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>14</td>
<td>117</td>
</tr>
<tr>
<td></td>
<td>2016</td>
<td>80</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>7</td>
<td>14</td>
</tr>
<tr>
<td><strong>Hours Worked</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Work Hours</td>
<td>2015</td>
<td>139,756</td>
<td>412,088</td>
<td>62,097</td>
<td>8,306</td>
<td>506,779</td>
<td>32,530</td>
<td>115,894</td>
<td>1,277,448</td>
</tr>
<tr>
<td></td>
<td>2016</td>
<td>143,769</td>
<td>404,384</td>
<td>62,216</td>
<td>7,740</td>
<td>530,382</td>
<td>36,844</td>
<td>119,331</td>
<td>1,304,666</td>
</tr>
<tr>
<td>Percentage of Work Hours</td>
<td>2015</td>
<td>10.9%</td>
<td>32.3%</td>
<td>4.9%</td>
<td>0.7%</td>
<td>39.7%</td>
<td>2.5%</td>
<td>9.1%</td>
<td>100.0%</td>
</tr>
<tr>
<td></td>
<td>2016</td>
<td>11.0%</td>
<td>31.0%</td>
<td>4.8%</td>
<td>0.6%</td>
<td>40.7%</td>
<td>2.8%</td>
<td>9.1%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Formal Session of the Board of Trustees - VI. Informational Items

July 26 2016
VII.  OTHER BUSINESS
VIII. PUBLIC COMMENTS
IX. ADJOURNMENT