Formal Session of the Board of Trustees
December 15, 2023
9:00 a.m. – 11:00 a.m.
Location: MUB Ballroom B
Public Meeting

I Call to Order
Jeffrey Littmann, Chair

II. Roll Call
Sarah Schulte, Secretary

III. Confirm Agenda
Jeffrey Littmann, Chair

IV. Opening Remarks

A. Opening Remarks of the Board Chair
Jeffrey Littmann, Chair

B. Opening Remarks of the University President
Richard Koubek, President

V. Public Comment Period

VI. Committee Reports

A. Academic Affairs Committee
John Bacon, Committee Chair

B. Audit and Finance Committee
Andrea Dickson, Committee Chair

C. Leadership Committee
Jon Jipping, Committee Chair

VII. Consent Agenda

A. Approval of Minutes

B. Resignations, Retirements, and Off-Payroll

C. Funding Productivity Report

VIII. Action and Discussion Items

A. Emeritus Rank
Andrew Storer, Provost and Senior Vice President for Academic Affairs

B. Election of Board of Trustees Chair and Vice Chair
Jeffrey Littmann, Chair

IX. Reports

A. Faculty Presentation: Great Lakes Buoy Network
Jamey Anderson, Assistant Director, Marine Operations, Great Lakes Research Center

B. Faculty Presentation: TBD
Gordon Parker, John and Cathi Drake Endowed Chair in Mechanical Engineering

C. Treasurer's Report
Nicholas Stevens, Treasurer

D. University Research and Sponsored Programs Report
David Reed, Vice President for Research

E. Undergraduate Student Government
Mason Krause, President

F. Graduate Student Government
Karlee Westrem, President

G. University Senate
Robert Hutchinson, President

X. Informational Items

A. Analysis of Investments

B. Research & Sponsored Programs

C. Advancement & Alumni Relations

D. Media Coverage

E. Employee Safety Statistics

F. Disposal of Surplus Property

XI. Other Business

XII. Date for Next Formal Meeting: February, 23, 2024

XIII. Adjourn

VII. Consent Agenda

A. Approval of Minutes

B. Resignations, Retirements, and Off-Payroll

BOARD OF TRUSTEES OFF-PAYROLL REPORT

(September 17, 2023 – November 25, 2023)

RETIRED					
Name	**Class**	**Department**	**Title**	**Most Recent Hire Date**	**Term Date**
Tony Rogers	FF	Chemical Engineering	Associate Professor	08/30/1993	09/22/2023

OFF-PAYROLL					
Name	**Class**	**Department**	**Title**	**Most Recent Hire Date**	**Term Date**
Beth Fredianelli	AF	Facilities Management	Custodian	09/05/2023	09/16/2023
Joel Tuoriniemi	FC	College of Business	Professor of Practice	08/18/2014	09/19/2023
Benny Garbacz	AF	Facilities Management	Custodian	02/22/2021	09/25/2023
Michael Porter	AF	Wadsworth Hall Food Service	Baker	09/19/2011	09/25/2023
Kevin Folk	UF	Graduate School	Administrative Aide	06/26/2023	09/29/2023
Tina Barker	AF	Wadsworth Hall Food Service	Food Service Helper	09/05/2023	09/30/2023
Amanda Clouthier	AP	Facilities Management	Custodian	03/06/2023	10/09/2023
Chelsea Archambeau	UP	Information Technology	Senior Office Assistant	11/28/2022	10/12/2023
Shaun Archambeau	AF	Facilities Management	Custodian	11/02/2020	10/13/2023
Brian Agen	NF	Telecommunications	Telecommunications Technician	11/20/2017	10/13/2023
Angelica Hebert	PF	Information Technology Operations	Information Technology Support Coordinator	07/25/2011	10/20/2023
Thomas Cogswell	PF	College of Computing	College Coordinator	10/23/2017	10/23/2023
Ricky Greub	PF	Sponsored Programs Accounting	Assistant Sponsored Programs Accountant	06/14/2021	10/29/2023
Tammy Hodson	PF	Center for Technology & Training	Business/Training Support Specialist	03/09/2020	10/29/2023
Victoria Mazur	UF	Human Resources	Senior Office Assistant	06/26/2023	11/03/2023
Christopher Roby	AF	Wadsworth Hall Food Service	Food Service Helper	10/02/2023	11/06/2023
Thomas Freeman	PF	Jackson Center for Teaching & Learning	Senior Instructional Designer	03/11/2002	11/10/2023
Jared Johnson	PF	Athletic/Recreation Complex Operations	Director of the Outdoor Adventure Program	04/30/2012	11/10/2023
Karma Kilpela	UP	Aerospace Studies (Air Force ROTC)	Office Assistant	04/07/2008	11/12/2023
Charlene Brean	UF	Human Resources	Administrative Aide	11/13/2023	11/14/2023
Ashley Lehto	UF	Sponsored Programs Accounting	Senior Office Assistant	02/20/2023	11/18/2023
Brian Danhoff	PF	Great Lakes Research Center	Research Scientist	01/01/2021	11/24/2023

C. Funding Productivity Report

Michigan Technological University
Michigan Tech Fund
Fundraising Productivity Report - INTERNAL

Fiscal Year 2024 through 10/31/2023
Compared to Prior Fiscal Year

2024					2023					
Source	**YTD Total**	**Adjustment**	**FY Goal**	**% of Goal**	**Source**	**YTD Total**	**Adjustment**	**FY Goal**	**% of Goal**	**FY Total**
Major Gifts (Over 10K)	846,534.30		7.96	11%	Major Gifts (Over 10K)			6.92	0%	5,444,018.85
Planned Gift Commitments	3,665,587.53		13.35	27%	Planned Gift Commitments			12.04	0%	11,718,599.04
Annual Giving (10K or less)	641,035.13		2.37	27%	Annual Giving (10K or less)			2.31	0%	8,181,044.88
Subtotal: Ind Giving	*5,153,156.96*		*23.68*	*460%*	*Subtotal: Ind Giving*	*0.00*		*21.27*	*0%*	*13,625,063.73*
Corporate Giving	889,364.60		2.50	36%	Corporate Giving			2.05	0%	3,066,298.76
Foundation & Other Org Giving	392,480.16		3.00	13%	Foundation & Other Org Giving			5.13	0%	2,202,536.90
Corporate Sponsored Research	0.00				Corporate Sponsored Research	6,502,461.00				16,309,474.00
FUNDRAISING TOTAL	**6,435,001.72**		**42.85**	**15%**	**FUNDRAISING TOTAL**	**0.00**		**41.77**	**0%**	**18,893,899.39**

Amt of TOTAL from Gifts-in-Kind	262,361.40	
Amt of Gifts/Pledges earmarked for demand funds	4,486,984.60	
Amt of Gifts/Pledges earmarked for endowment funds	1,830,705.88	
Amt of Gifts/Pledges earmarked for unrestricted funds	993,159.72	
TOTAL PROGRESS TOWARDS FUNDRAISING GOAL	6,435,001.72	
Realized Planned Gifts - All	945,306.66	
Amt of Realized Planned Gifts earmarked for the endowment	14,297.98	
Realized Pledges	873,537.88	

Notes:
The Adjustment totals include changes to gift records (eg. gift received date, amount, or other donor driven gift modifications)
The FUNDRAISING TOTAL includes outright gifts, as well as new pledge and planned gift commitments, made in the specified date range.
Realized planned gifts and realized pledges are not included in the FUNDRAISING TOTAL.
An Individual's gifts made through a donor-advised fund are counted under the individual
An individual's gifts made through another source (i.e. family foundation or closely held business) are counted under the source entity.
The FUNDRAISING TOTAL for fiscal years 2020 and later include gifts-in-kind under other sources (Major Gifts, Annual Giving, etc).

VIII. Action and Discussion Items

VIII-A. EMERITUS RANK

Recommendation for the granting of faculty emerita/emeritus status originates within the retiree's academic department and proceeds through the respective college. 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: It is recommended that the Board of Trustees approves the following emerita/emeritus appointments:

Dr. Theresa Ahlborn, Professor Emerita
Department of Civil, Environmental, and Geospatial Engineering

Dr. Stephen Hackney, Professor Emeritus
Department of Materials Science & Engineering

Michigan Tech

OFFICE MEMO

TO: Michigan Technological University Board of Trustees

FROM: Brian Barkdoll, Interim Department Chair, Civil, Environmental, and Geospatial Engineering

DATE: October 26, 2023

SUBJECT: Recommendation for Emeritus Status

The faculty of the Civil, Environmental, and Geospatial Engineering Department voted on September 26, 2023 to request that the Michigan Technological University Board of Trustees name Theresa Ahlborn as Professor Emerita upon her retirement on June 30, 2023.

Dr. Ahlborn's research is in the area of structural concrete related to concrete buildings and bridges, including the use of ultra-high performance concrete for bridges and remote sensing technologies for bridge condition assessment. She is a respected international scholar with over 110 publications, and has been PI or co-PI on over $10M in research. In 2013, she was named *WTS Woman of the Year in Michigan* honoring her dedication to the professional advancement of women in transportation, and demonstrated leadership and outstanding contributions in the transportation field.

In 2010, she was awarded the prestigious *PCI Distinguished Educator Award*, recognizing educators who have made significant contributions to the precast/prestressed concrete industry and in 2014, she was honored with Michigan Technological University's *2014 Distinguished Faculty Teaching Award* recognizing excellence and passion for teaching. Dr. Ahlborn is a licensed professional engineer (State of Minnesota), a Fellow of the American Concrete Institute, and a Fellow of the Precast/Prestressed Concrete Institute.

Approved

Brian Barkdoll Digitally signed by Brian Barkdoll
Date: 2023.10.26 12:02:43 -04'00'

Interim Department Chair _____ Date _____

College Dean _____ Date _____

Provost and Senior Vice President for Academic Affairs _____ Date _____

President _____ Date _____

Revised 9/25/23

Michigan Tech

OFFICE MEMO

TO: Michigan Technological University Board of Trustees

FROM: Audra Morse, Dean of the College of Engineering

DATE: October 3, 2023

SUBJECT: Recommendation for Emeritus Status

The faculty of the Materials Science and Engineering voted on October 3, 2023, to request that the Michigan Technological University Board of Trustees name Stephen Hackney as Professor Emeritus upon his retirement on January 1, 2024.

Steve joined the Department in August of 1986, and has been a model faculty member. He has authored 119 refereed publications, has received several million dollars in research support, has collaborated with many campus researchers, and has developed a strong program in EV battery technologies. His EV batteries course, which he plans to continue to offer online after retirement, is extremely popular.

Approved

Walter W. Milligan

Department Chair/School Dean	10/03/2023 Date
College Dean	Date
Provost and Senior Vice President for Academic Affairs	Date
President	Date

Revised 9/21/16

B. Election of Board of Trustees Chair and Vice Chair
Jeffrey Littmann, Chair

VIII-B. ELECTION OF CHAIR AND VICE CHAIR

The Bylaws of the Board of Trustees record that at the last meeting of the calendar year, the Board shall elect a chair to take office at the first meeting in the following calendar year. It further states that the Board shall also elect a vice chair to preside in the absence of the chair.

RECOMMENDATION: That the Board of Trustees elects a chair for the calendar year 2024; and that further, the Board elects a vice chair for the same period.

IX. Reports

A. Faculty Presentation: Great Lakes Buoy Network
Jamey Anderson, Assistant Director, Marine Operations, Great Lakes Research Center

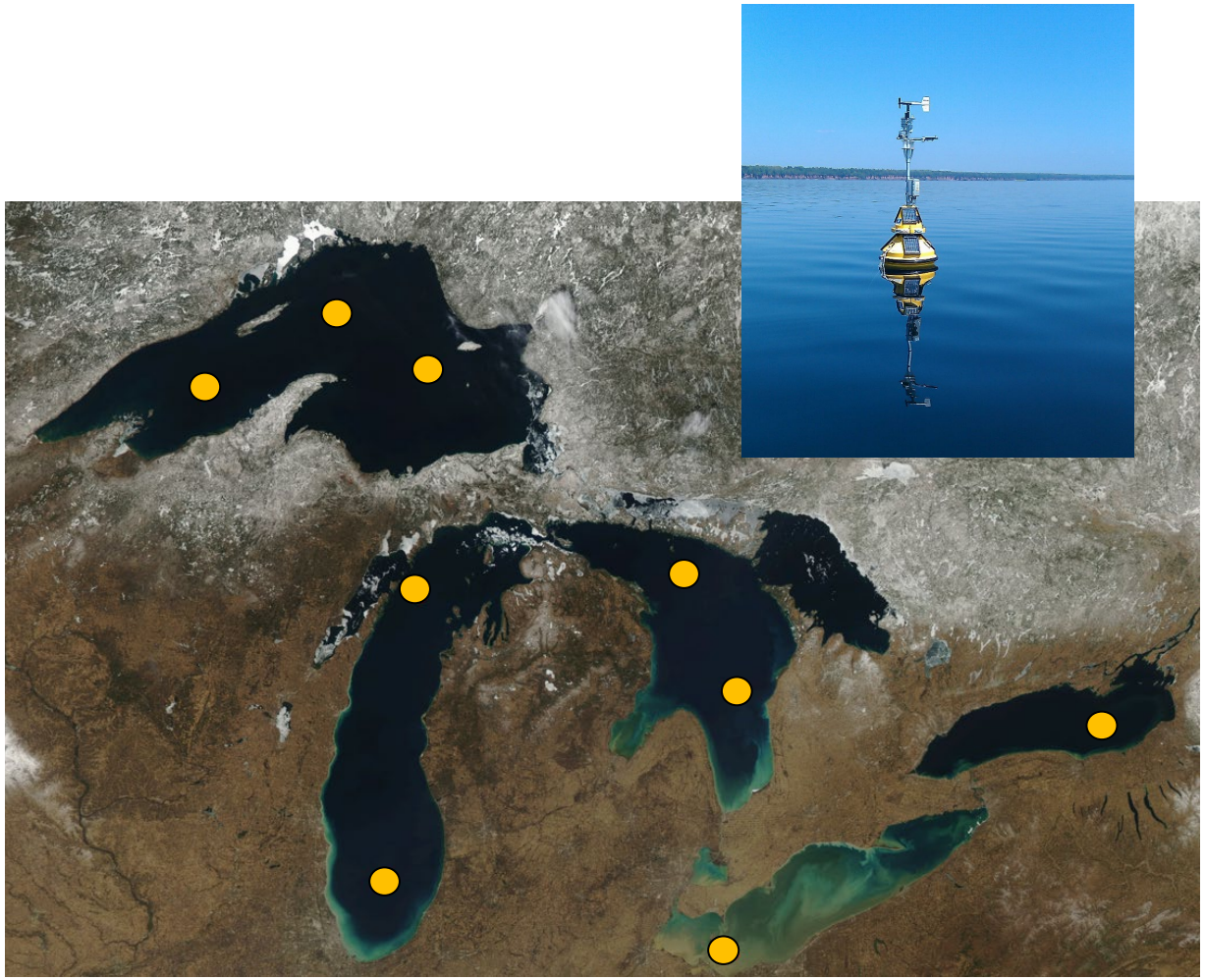
Big Lake Sentinels

Michigan Tech's Science Buoy Program

- Great Lakes Research Center and the Marine Research Assets Shared Facility
  - Staff
  - Resources
- **GLRC Vision:** Embracing passion in research to pursue a brighter future for the Great Lakes Region and beyond

- Brief history of the Michigan Tech’s buoy program
- What are they? What data do they collect?
- Evolution of design, form and use

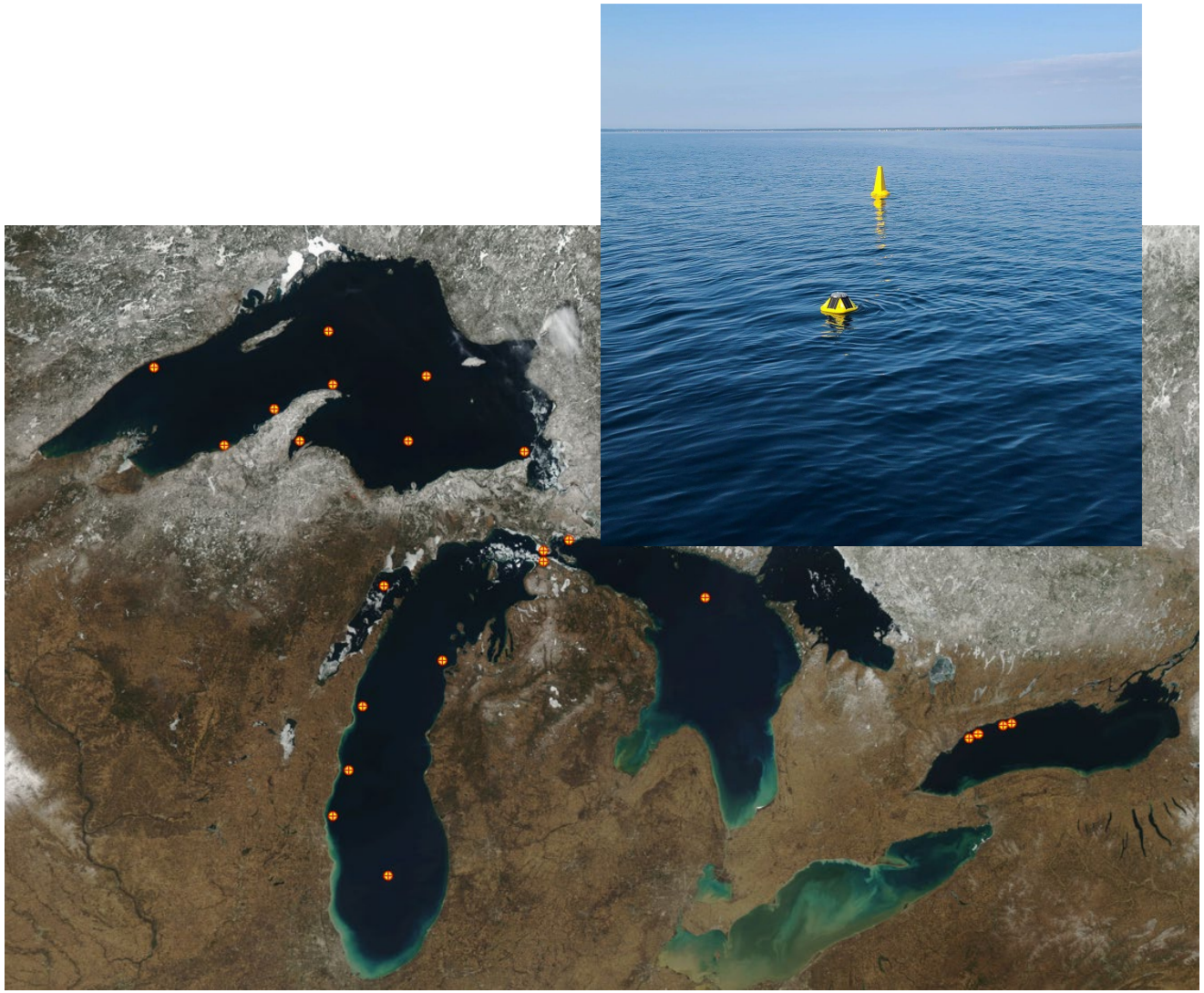
History

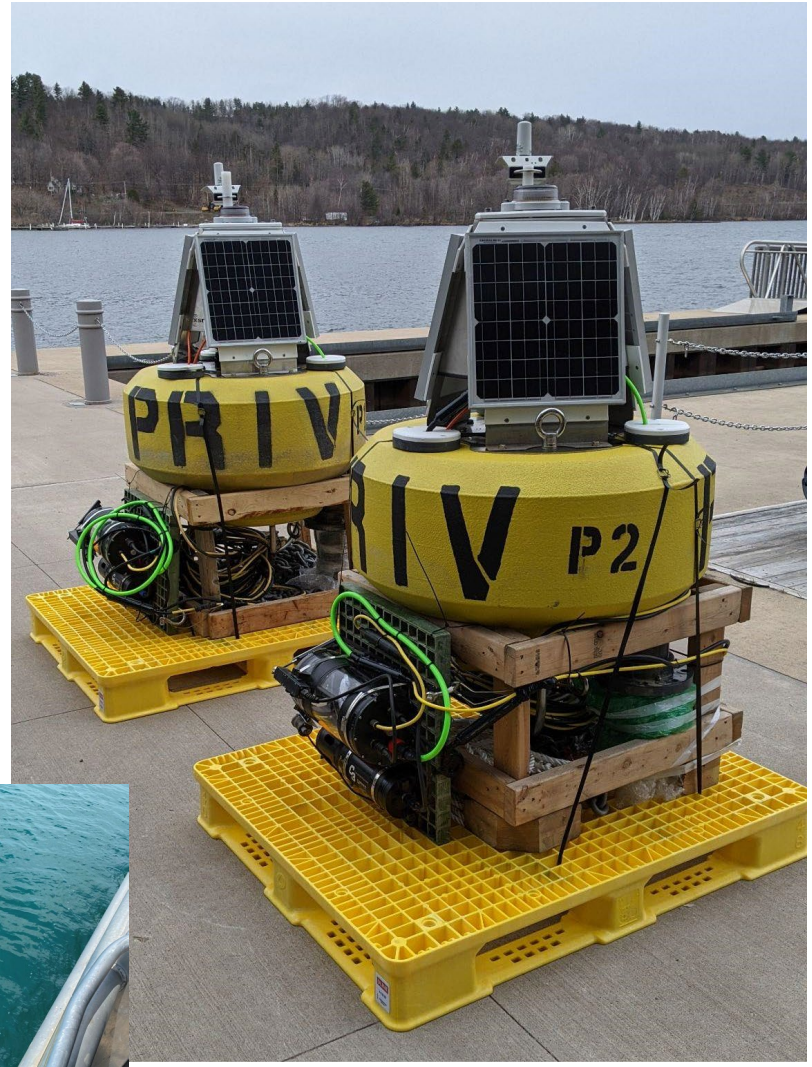


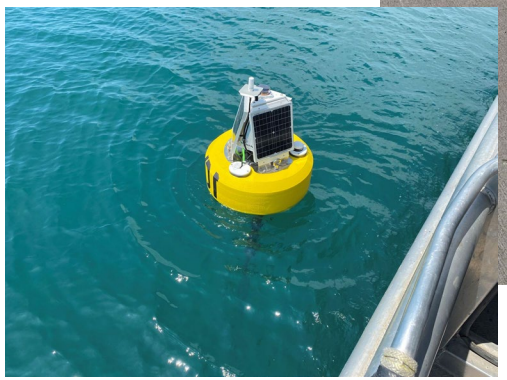
- 2010 - **1 buoy** (North Entry, Keweenaw Waterway)
- Program began w/ Guy Meadows design and direction when still at UofM
- TIDAS 900 hull/design
- Funding for additional buoys and deployments increase
- CB-250 hulls

History

- CDIP Datawell’s
- Enbridge Datawell
- Lake Ontario CB’s
- Spotters
- Spotters as drifters
- Spotters overwinter for 2023-24
- 2024: Michigan Tech deploys **26 buoys** across four Great Lakes







What do they do?

- What data do they collect and whom do they support?
- Both real-time decision-making and critical long-term datasets
- Public benefit/safety:
  - boating conditions (wind/waves)
  - water temperature
  - 80,000 buoy page views in 2023 on GLOS data portal

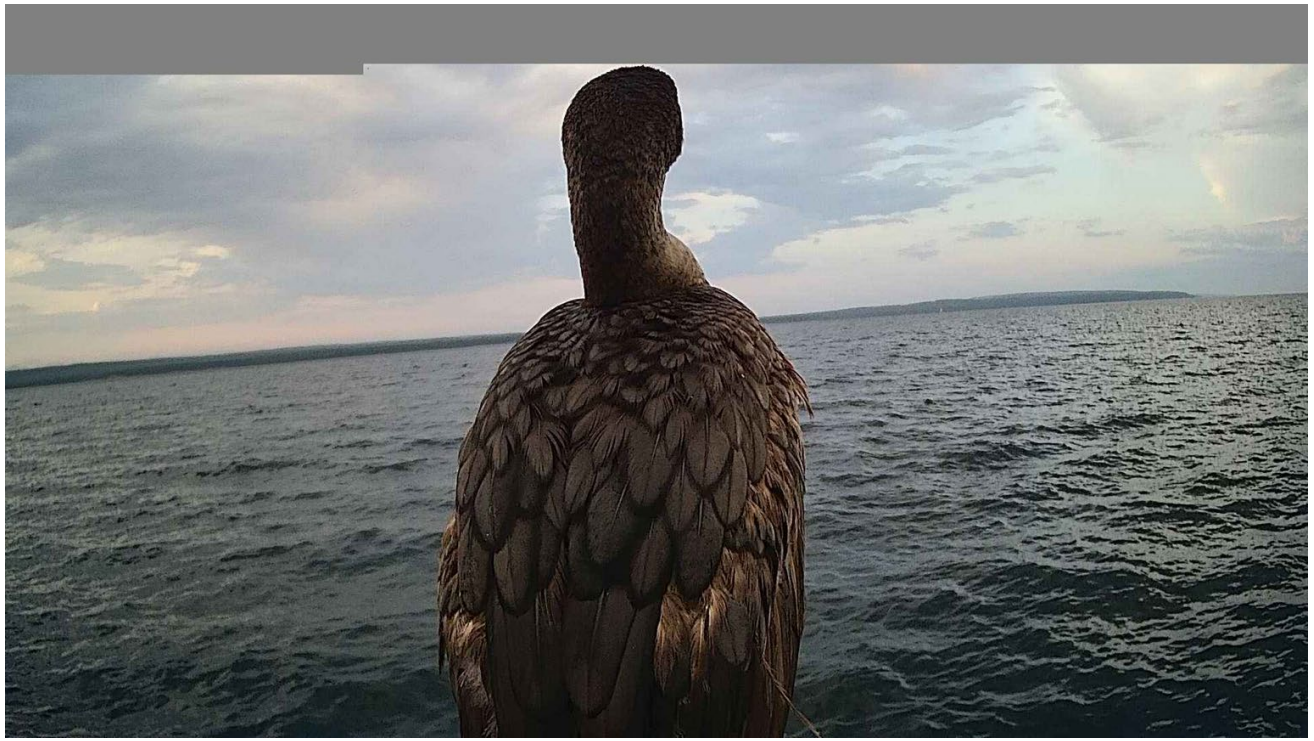
What do they do?

- Science support: modelling, forecasting, climate, decision support
- Industry, State/Federal Agencies
  - Multiyear regional observation networks (IOOS, GLOS)
  - Interface and directly support six different National Weather Service offices (Duluth, Marquette, Gaylord, Milwaukee, Chicago, Green Bay)

What do they do?

- Project specific needs:
  - Images, currents, DO, turbidity, waves, coastal erosion, model input & validation
- Time lapse to capture phenomena
- First moored overwinter collection of wave height and sea surface temperature. Used to validate NOAA Wavewatch 3 model.
- Combined 1,700 days/year @ 30 minute interval (GLOS only)

What do they do?



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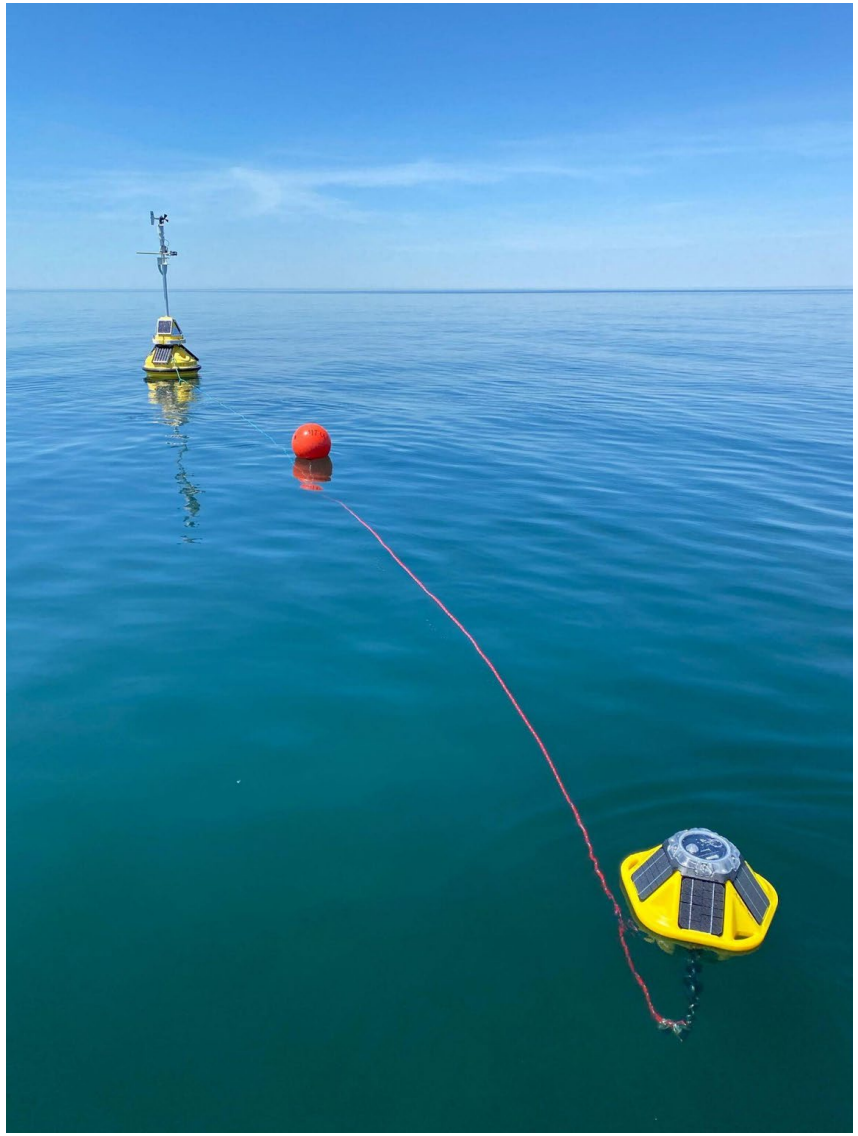
Evolution

- Early TIDAS design, iterations
  - fiberglass, steel
  - 800 lbs
  - 1,200 lb mooring needed
- Micro-electronics & miniaturization, decreased power consumption
- Advanced materials

Evolution

- Improved mooring design
- Improvements in battery chemistry, charging, behavior
  - 24 Ah in 2010
  - 84 Ah in 2022
- Improved photovoltaic tech
  - size, efficiency
- Data telemetry: 1G cell in 2010, now Iridium satellite is common
- High data throughput for images and dense data streams



Evolution

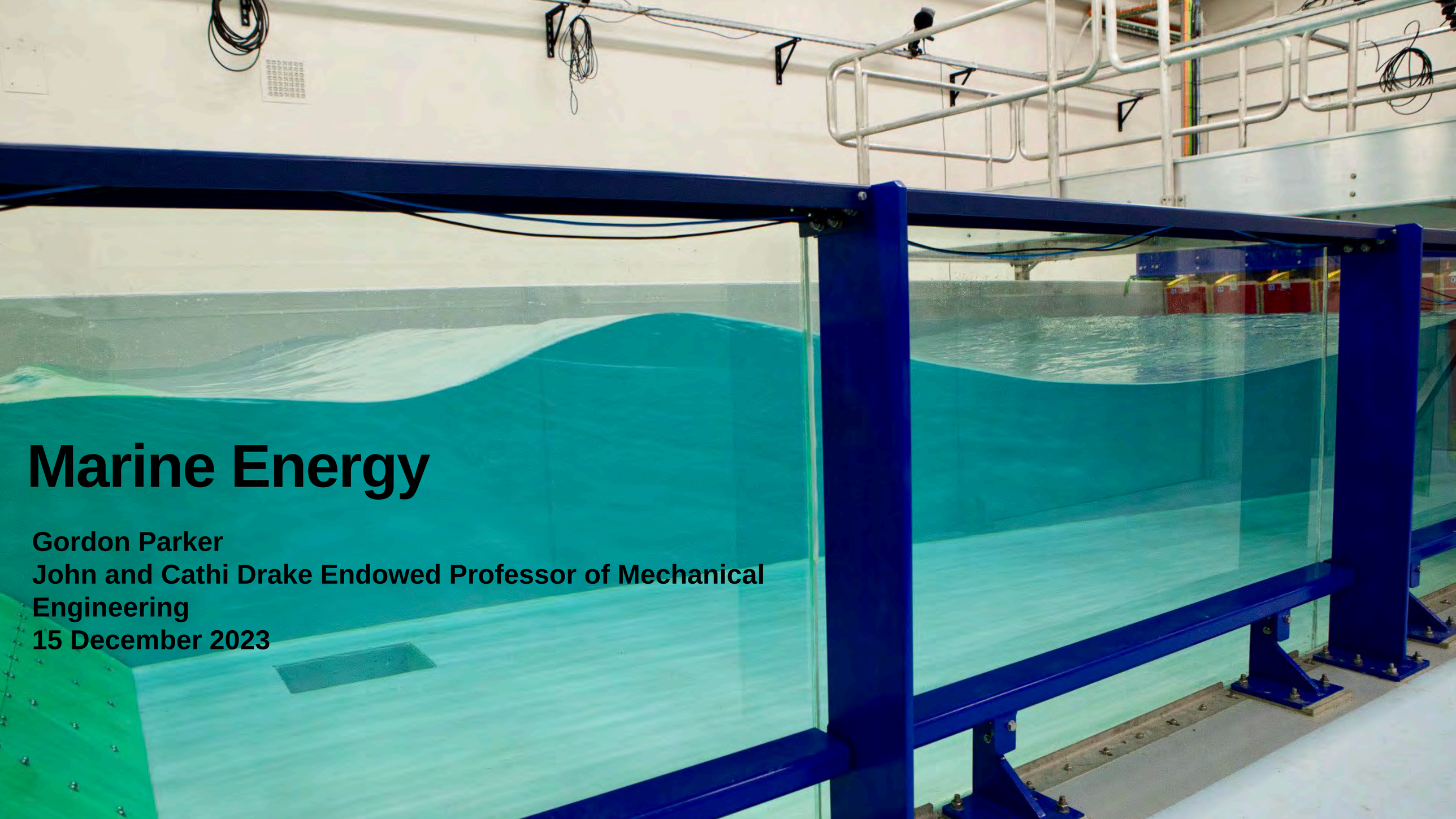
- Fondriest CB buoy line
  - rhino lined foam body, steel skeleton
  - 95 -145 lbs
  - 200 lb mooring needed
- Spotter wave buoy
  - 12 lbs
  - derived wind data
  - other WQ sensors
- Student Interns - none of this evolution happens without their input and efforts

Final Thoughts

- Efficient & Effective
  - By comparison: NOAA GLERL and CIGLR combined deploy ~8 buoys with support from a dozen vessels, dedicated field and boat personnel, etc.
- Michigan Tech has developed and maintained many of the operational monitoring capabilities for the Great Lakes Observing System (GLOS) for over a decade.
- No other entity deploys and supports as many science buoys on the Great Lakes.
- Take pride in continuing to forge the advancement of technology in the marine engineering space, serving both public and private stakeholders.

Thank You

B. Faculty Presentation: Wave Energy
Gordon Parker, John and Cathi Drake Endowed Chair in Mechanical Engineering



Marine Energy

Gordon Parker
John and Cathi Drake Endowed Professor of Mechanical Engineering
15 December 2023

What We Do

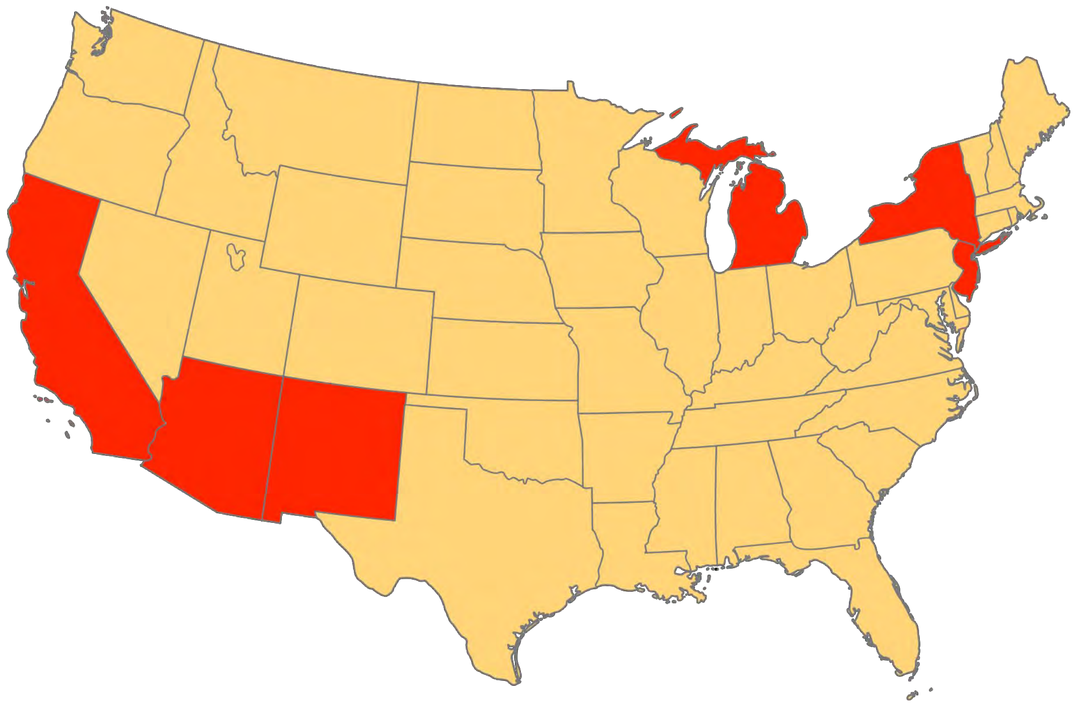
Develop and Experimentally Validate WEC Math Models

Design Control Systems that Maximize Energy Extraction

Mentor

What, Why, How

Introduction

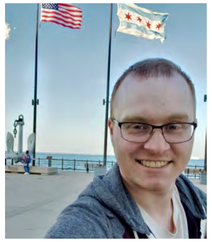


Dynamics, Simulation, Control

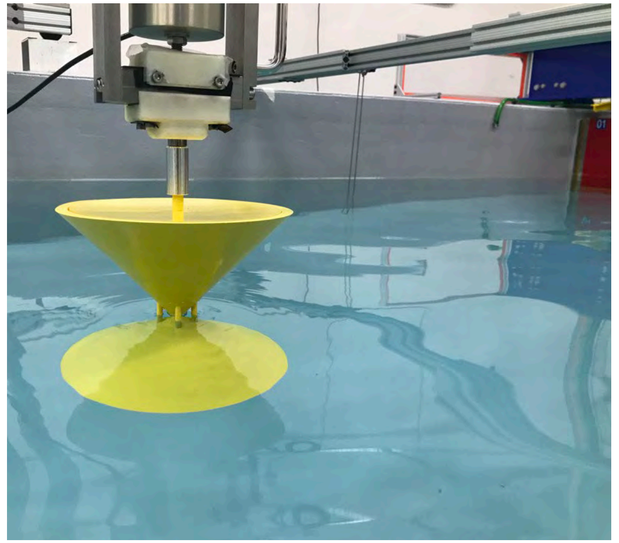
Research Areas

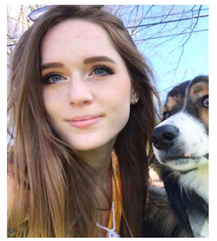
Naval Technologies

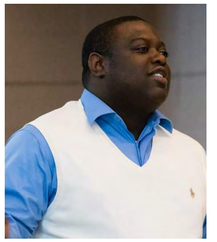
Diesel Aftertreatment



Marine Renewables







7/10 Michigan Tech BS Graduates

Michigan Tech

Collaborations and Acknowledgements

John and Cathi Drake Chair

DOE and Labs: Sandia, NREL, PNNL

DoD: ARL, ONR, AFOSR, NAVSEA, GVSC

Several For-Profit Companies

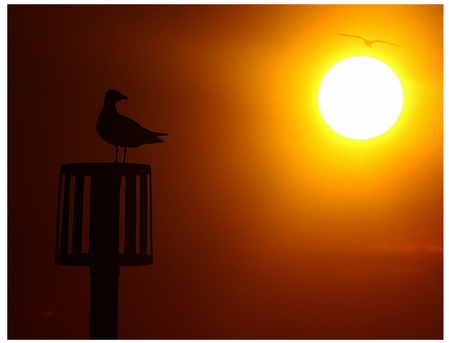
Undergraduate and Graduate Students

Michigan Tech Faculty and Staff

University of Edinburgh and University College London

Wave Energy

Density



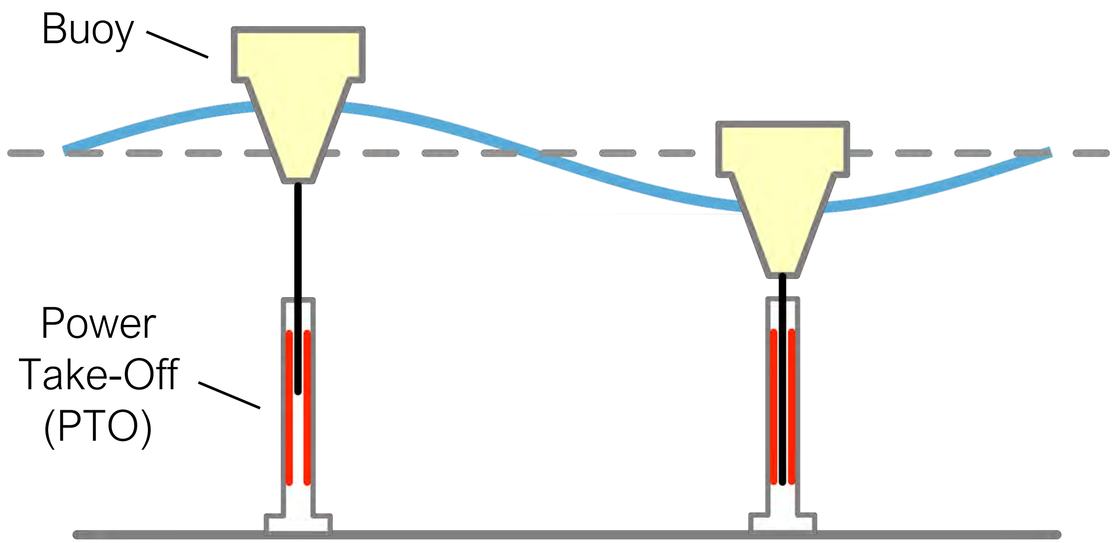
Survivability

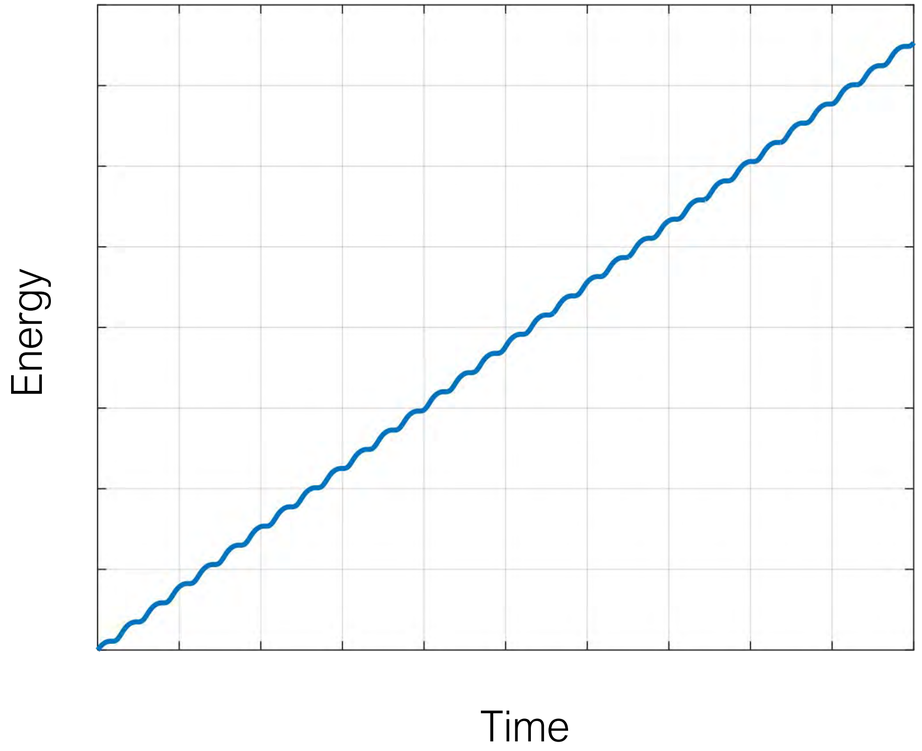
Application Focus:
Marine Energy Grids (MEG)

Research Focus:
Large motion nonlinear, optimal control

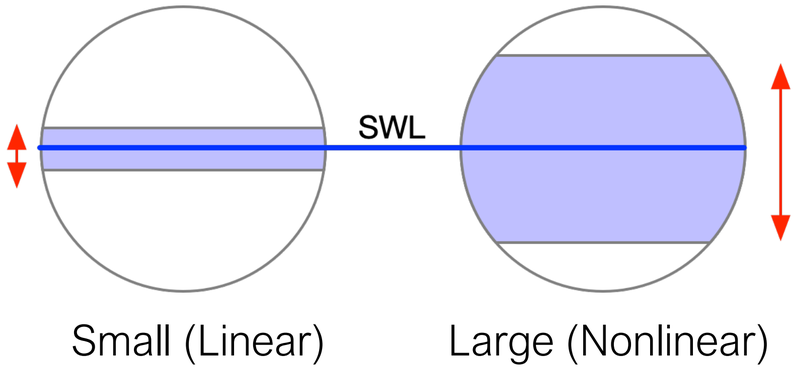
Michigan Tech

Anatomy of a Point Absorber WEC





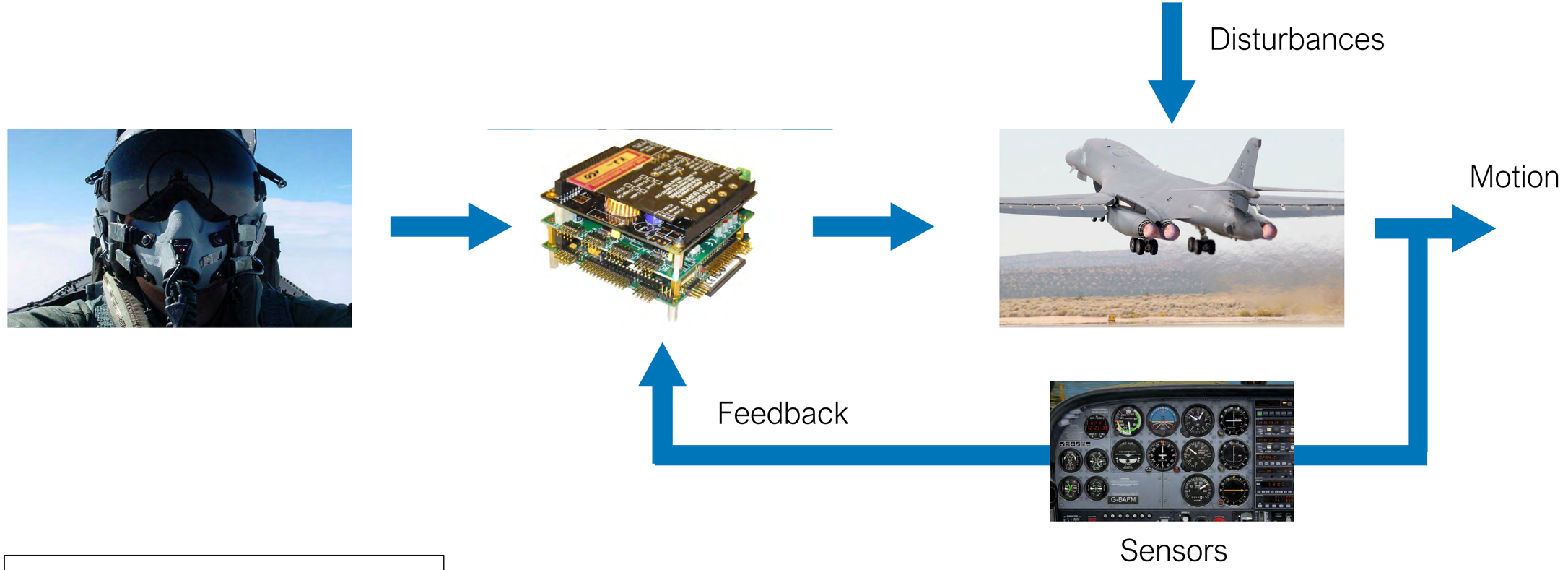
Wetted Surface Area



Convert wave (disturbance) kinetic energy into something useful

Power = Force x Velocity

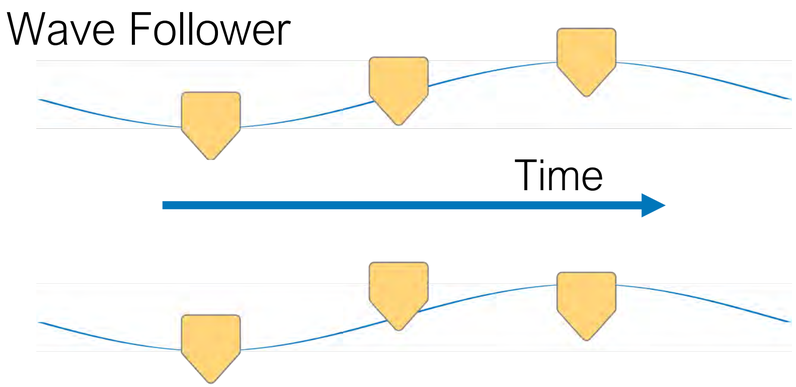
Control System: Typical Versus WEC



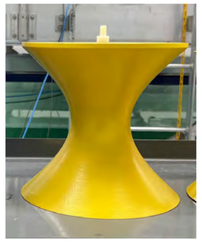
A point absorber controller extracts and adds energy harmonizing velocity and force

Most feedback control systems are designed to mitigate the effect of disturbances

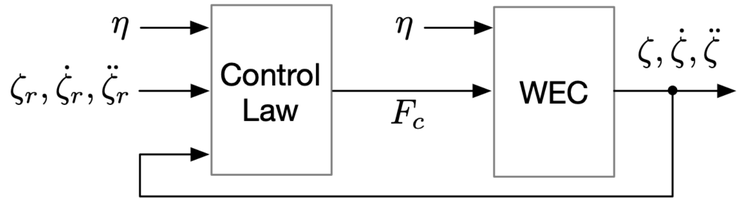
WEC Control



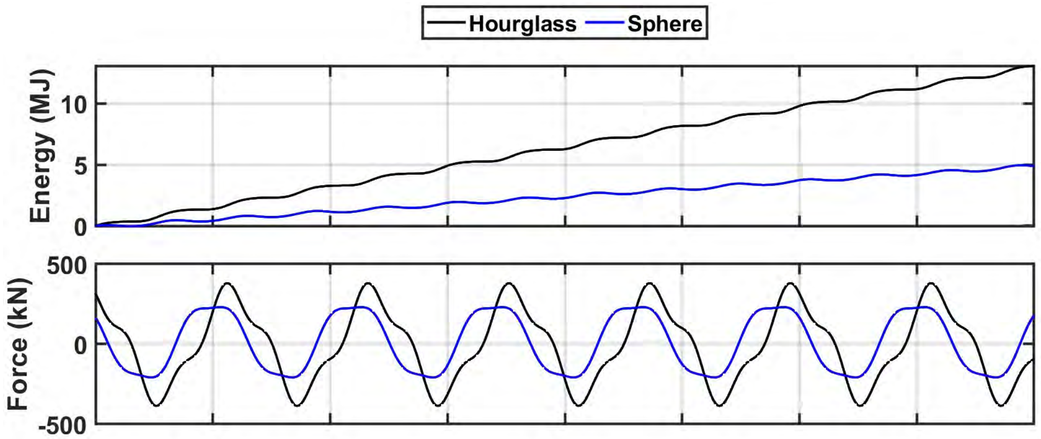
Design Variables



Buoy Shape



Control System



What We Do

Develop and Experimentally Validate WEC Math Models

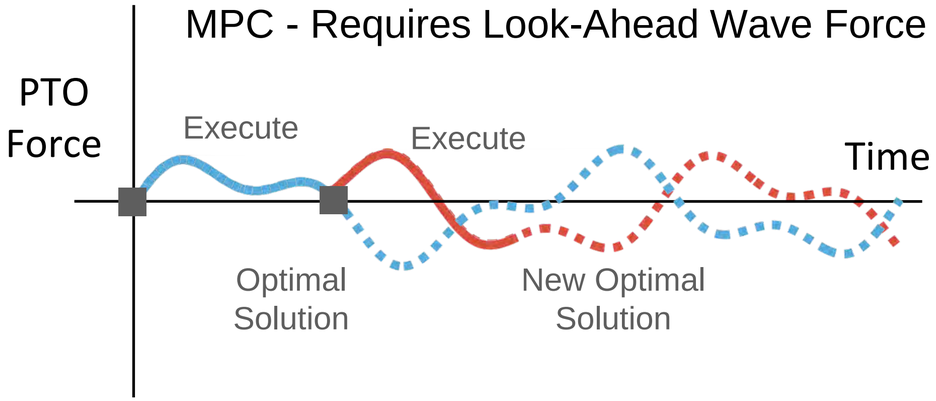
Design Control Systems that Maximize Energy Extraction

Mentor

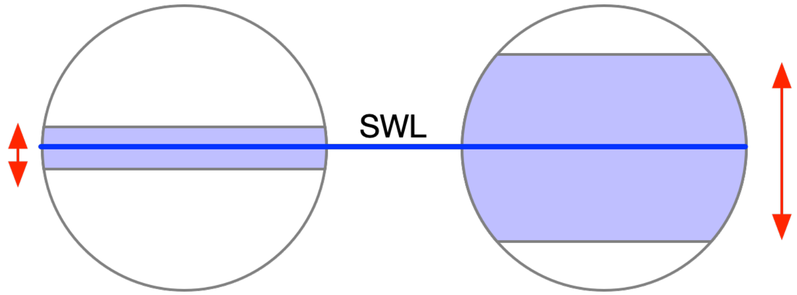
Model Predictive Control (MPC)

Tania Demonte

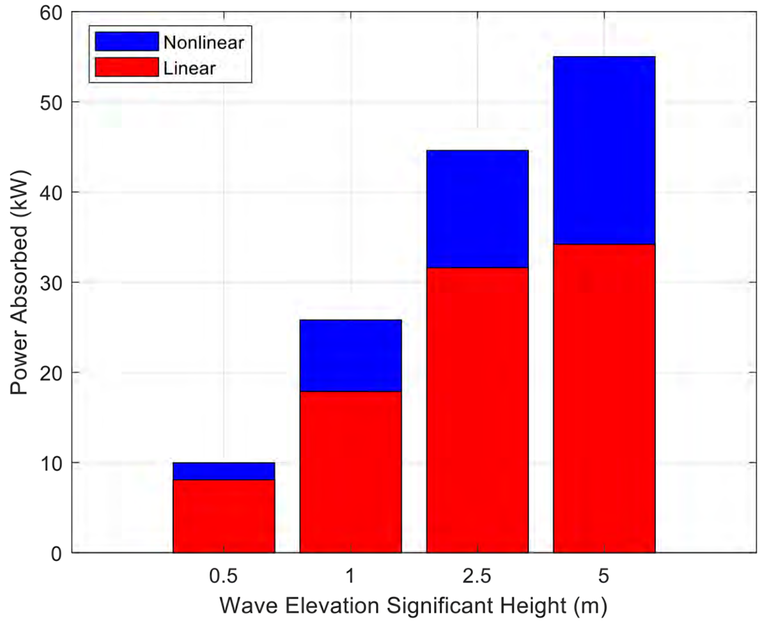
Objective: MPC for nonlinear, large motion WECs



Wetted Surface Area

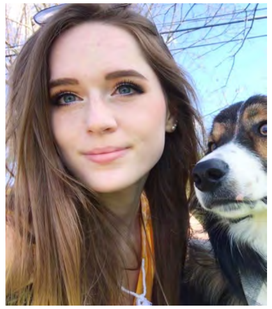


Results



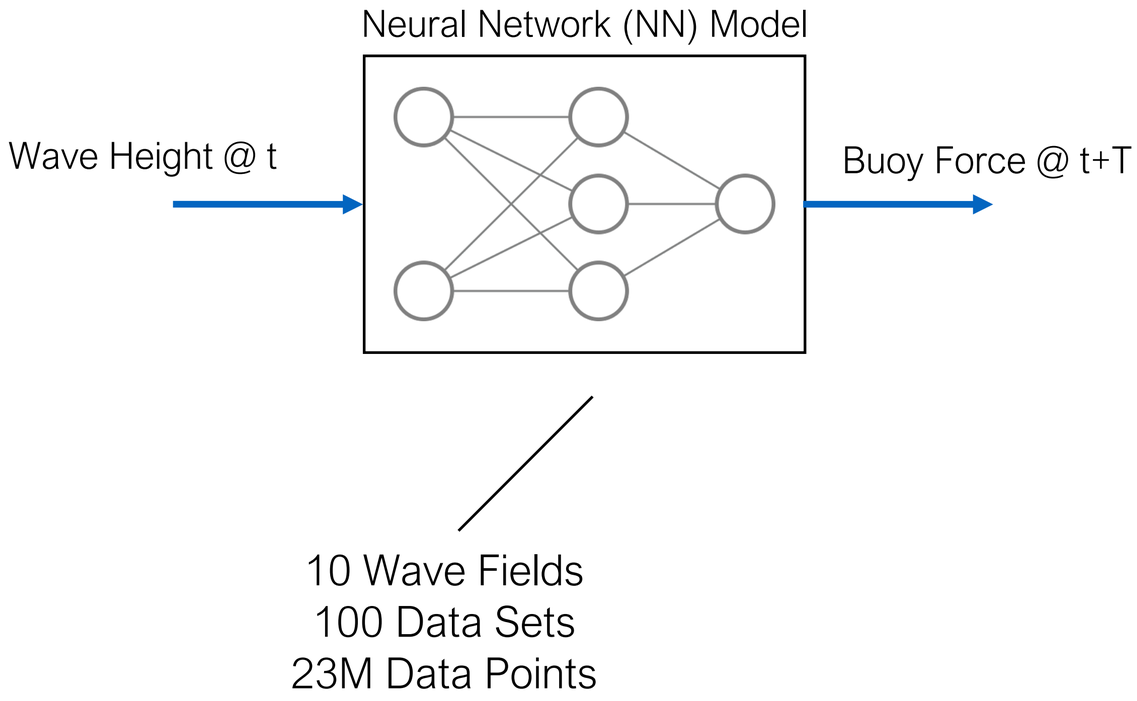
Requires Look-Ahead Wave Forces…

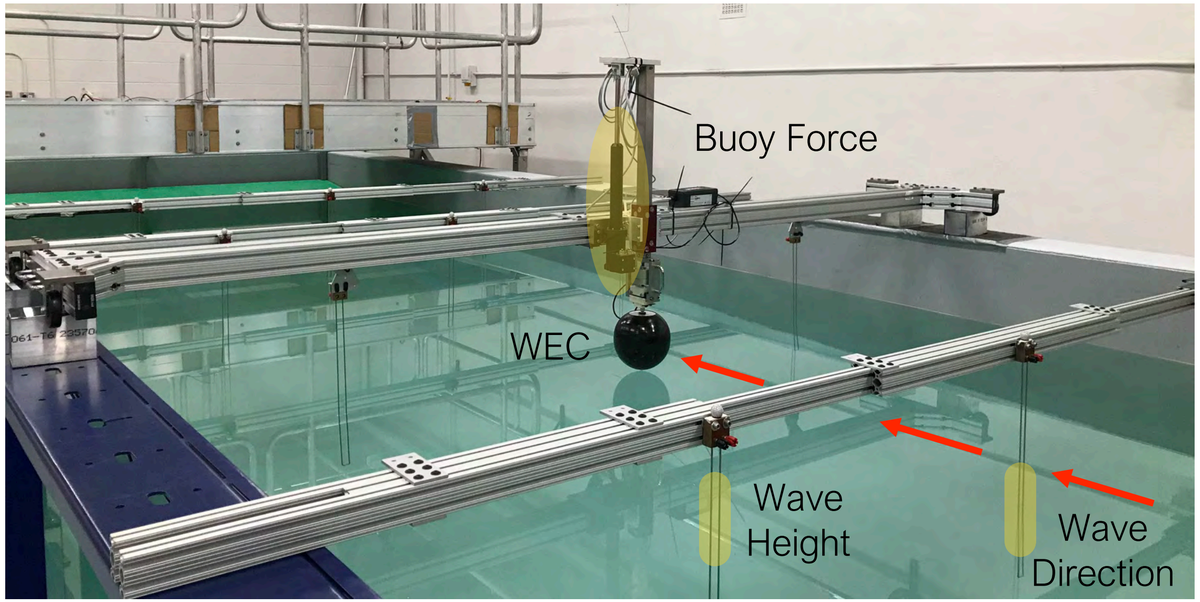
Machine Learning: Look-Ahead Wave Forces



Morgan Kline

Objective: Estimate wave forces BEFORE they occur using upstream wave elevation measurements



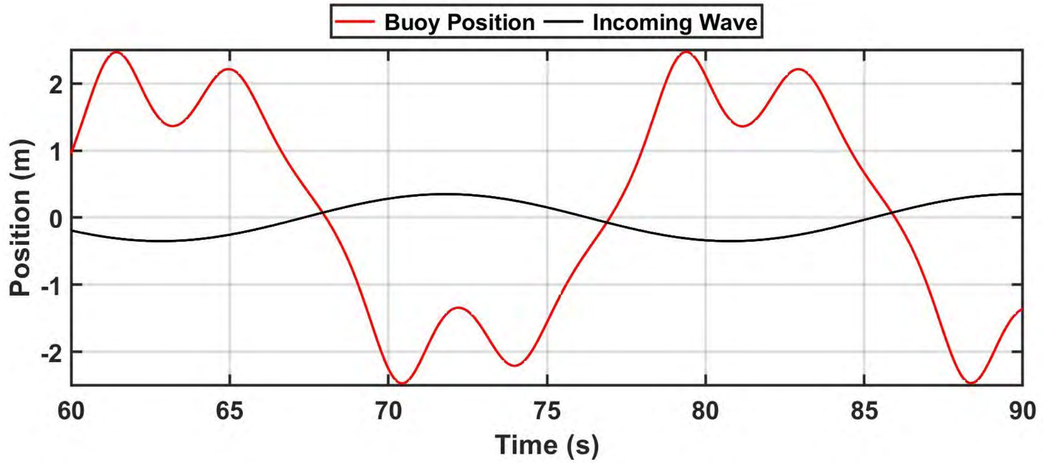


Results: Accurate force forecasts up to 1 second ahead AND best practice measurement geometry

Theoretical Optimal Control and Validation

Houssein Yassin Tania Demonte

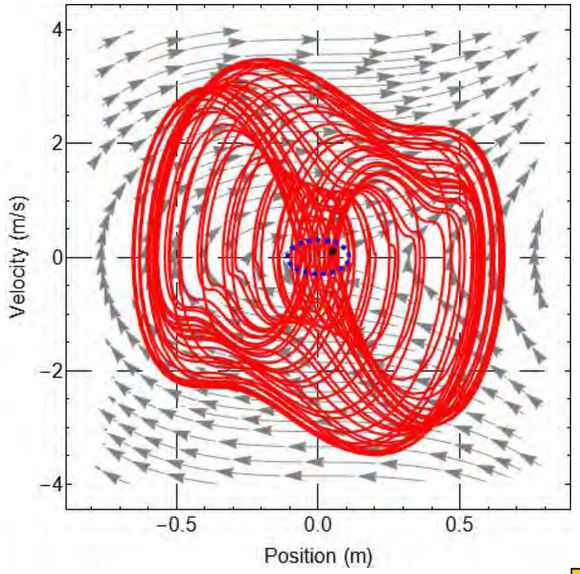
Showed that the dynamic Froude-Krylov force is essential for predicting nonlinear buoy response



Objective: Develop theoretical optimal control for large motion, nonlinear buoys

Validation …

Solved the PTO force optimal control problem, applicable to any buoy geometry

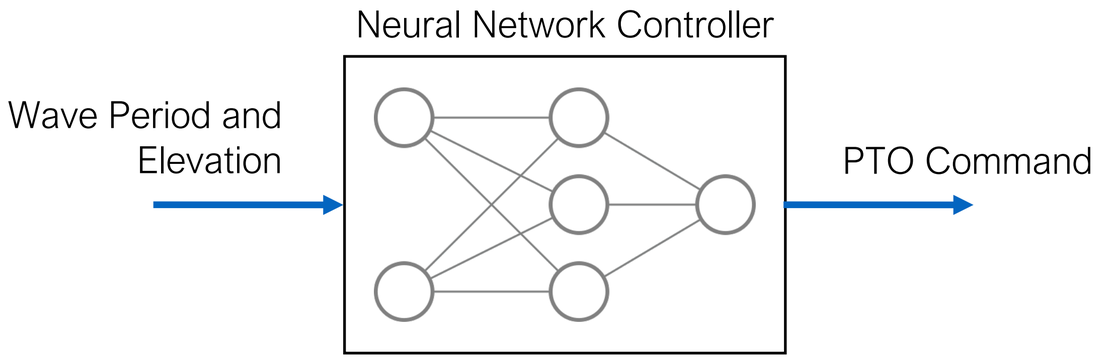


Machine Learning Control

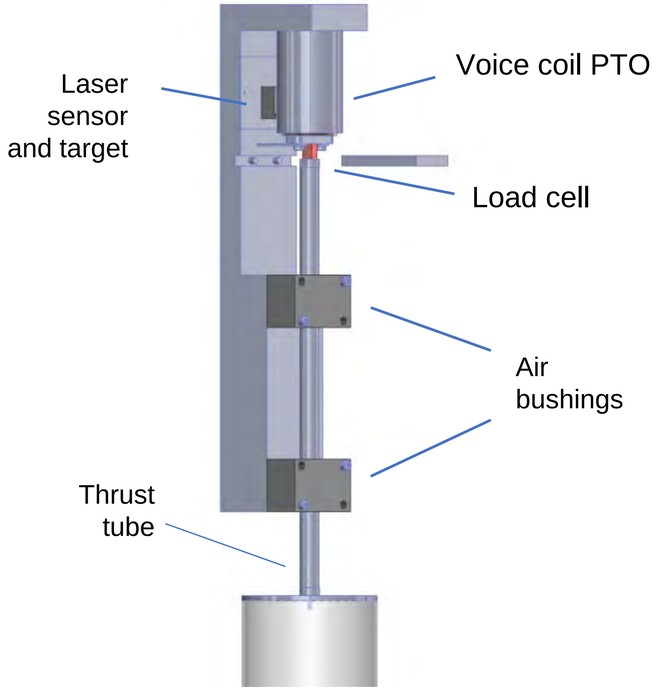
Mady Van Wieren

Vasu Bhardwaj

Objective: Develop NN control law to compute optimal PTO force, that maximizes energy capture, in real-time



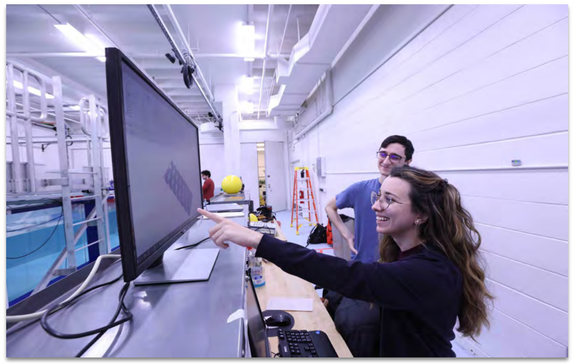
Low-Friction WEC Testbed

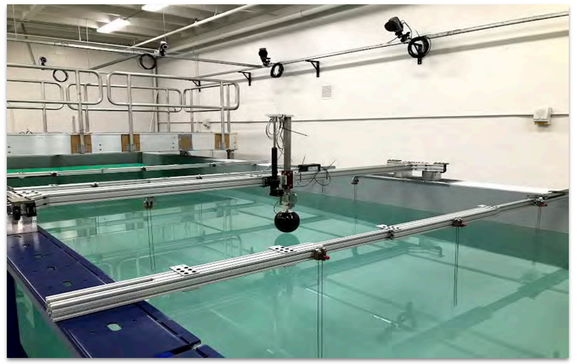


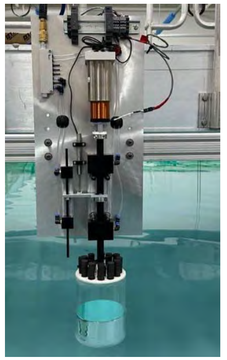
Results: Works for regular waves and extending to more complex wave forms

Facilities and Promotion

Luke Schloemp







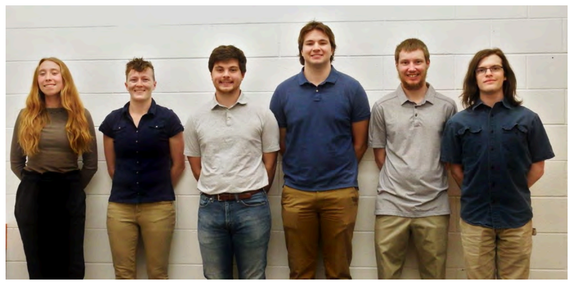
MTUWave: Exceptional WEC Model Test and Education Facility

TEAMER

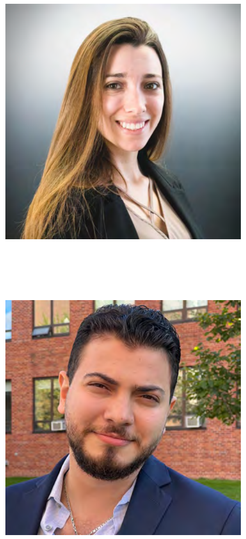
Testing & Expertise for Marine Energy

Michigan Tech is now one of 19 U.S. DOE Testing & Expertise for Access to Marine Energy Research (TEAMER) facilities

Interactive website with news and video walkthroughs highlighting results



2-3 Capstone Design and Enterprise teams per year, including the Marine Energy Collegiate Competition



Six Faculty: Shangyan Zou, Jungyun Bae, MK Park, Hassan Masoud, Wayne Weaver

Summary

What: Point absorber WECs convert wave kinetic energy into useful forms. Their energy harvesting control **exploits disturbances** instead of mitigating them.

Why: **Large, nonlinear buoy motion** offers the promise of greater energy extraction to advance **Marine Energy Grids**.

How: Combining modeling, simulation and experiments to understand how buoy shape and a harmonized control system impacts performance using **optimal and machine learning strategies.**

Attributions

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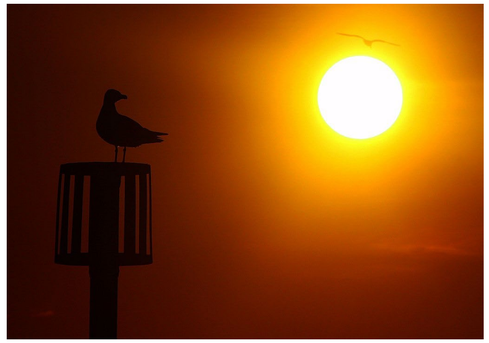
Shalish Telang / Wikimedia Commons / Public Domain



Funk Dooby / Wikimedia Commons / Public Domain

C. Treasurer's Report
Nicholas Stevens, Treasurer

Michigan Tech

Treasurer Report

December 15, 2023

Nick Stevens

Chief Financial Officer and
Senior Vice President for
Administration

Moody's Rating

MOODY'S INVESTORS SERVICE

A1 Stable – October 10, 2023

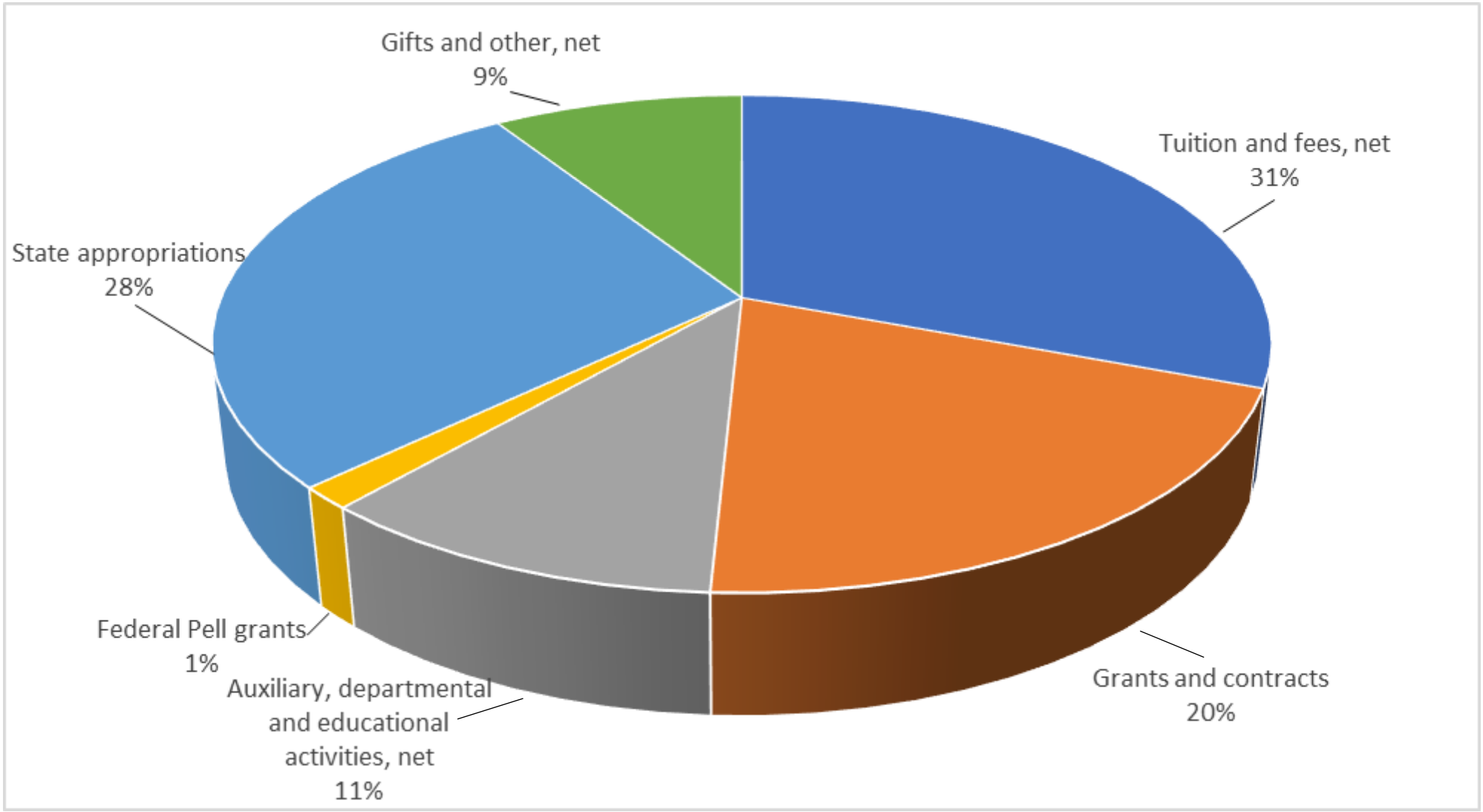
Strengths

- Niche focus on STEM programs
- Modest growth in FTE enrollment
- Revenue Diversification
- Favorable fundraising on a per student basis
- Total cash/investments provide an estimated 1.0x cushion of proforma debt

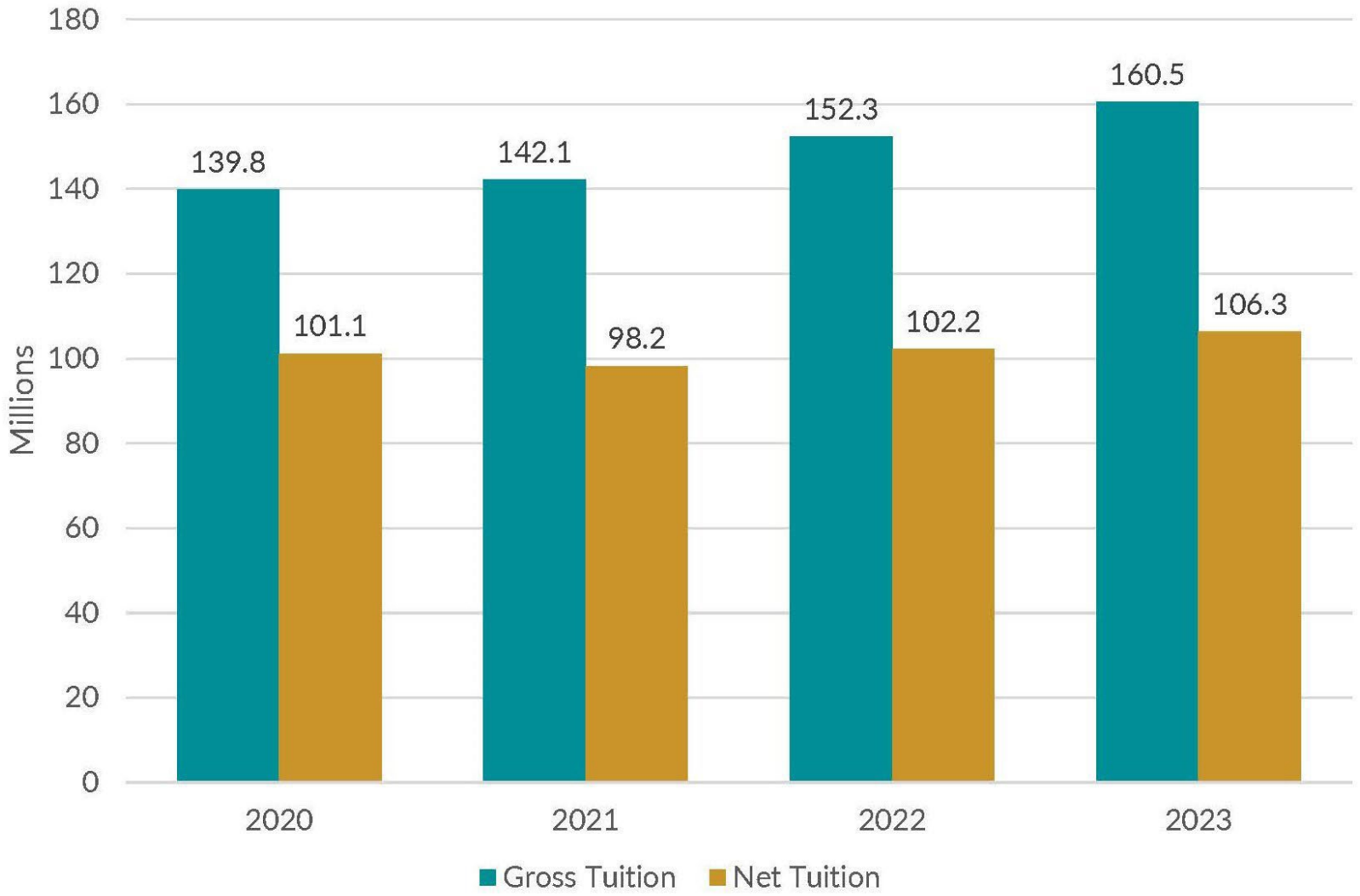
Challenges

- Highly competitive student market
- Historically thin operating performance with recent margin improvement
- Higher cost business model associated with STEM focus constrains budget flexibility
- More limited financial flexibility than peers

Operating Revenue



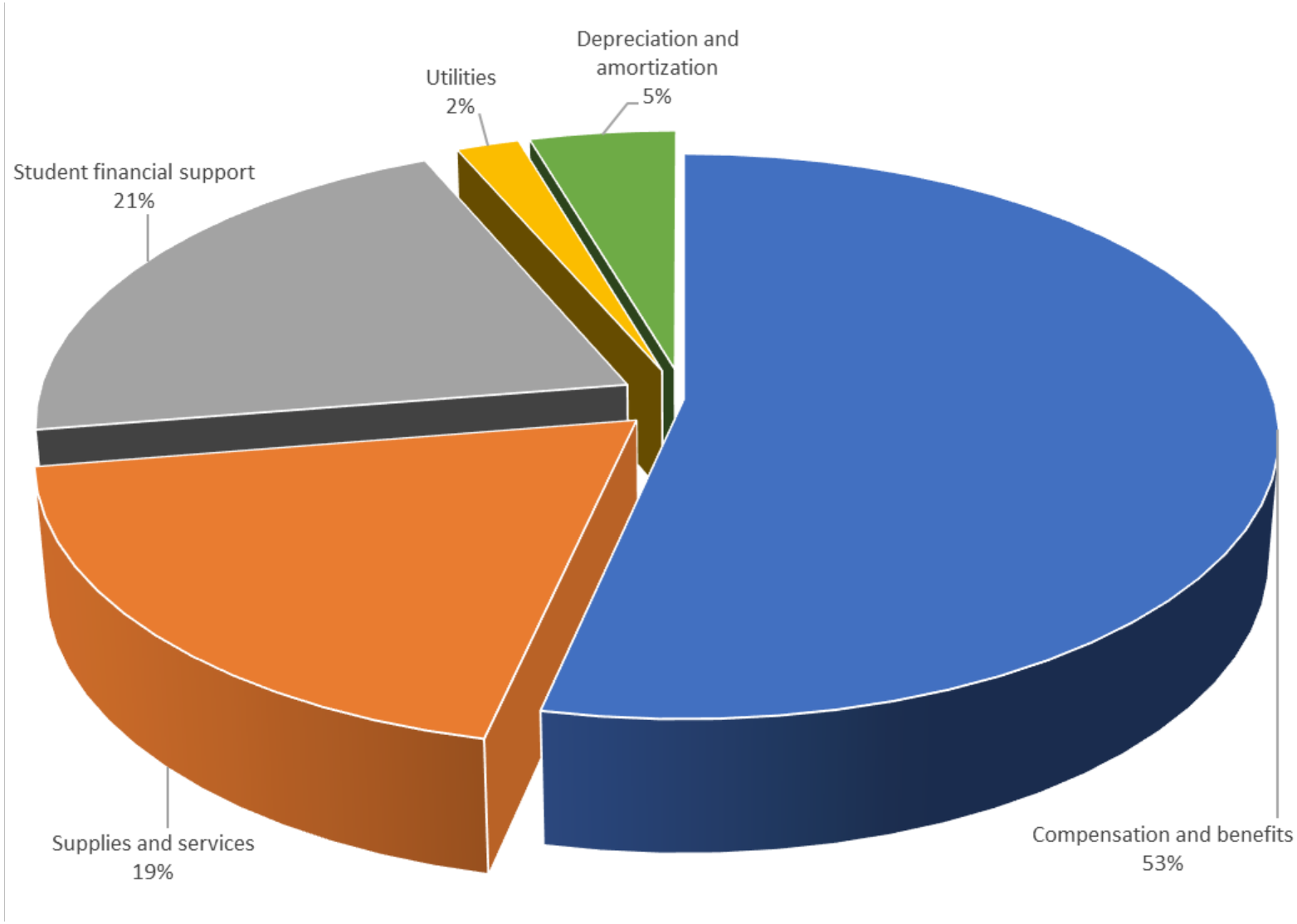
Net Tuition Revenue



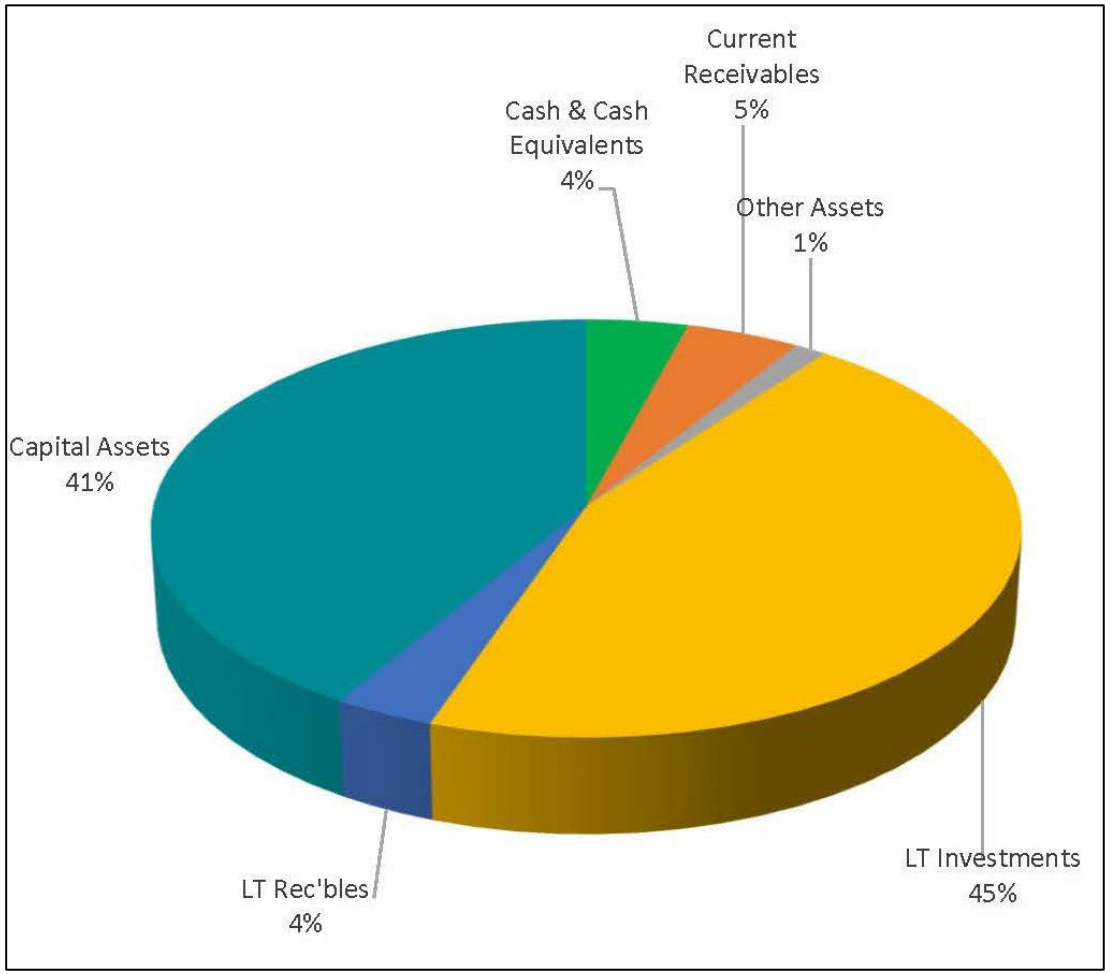
State Appropriations

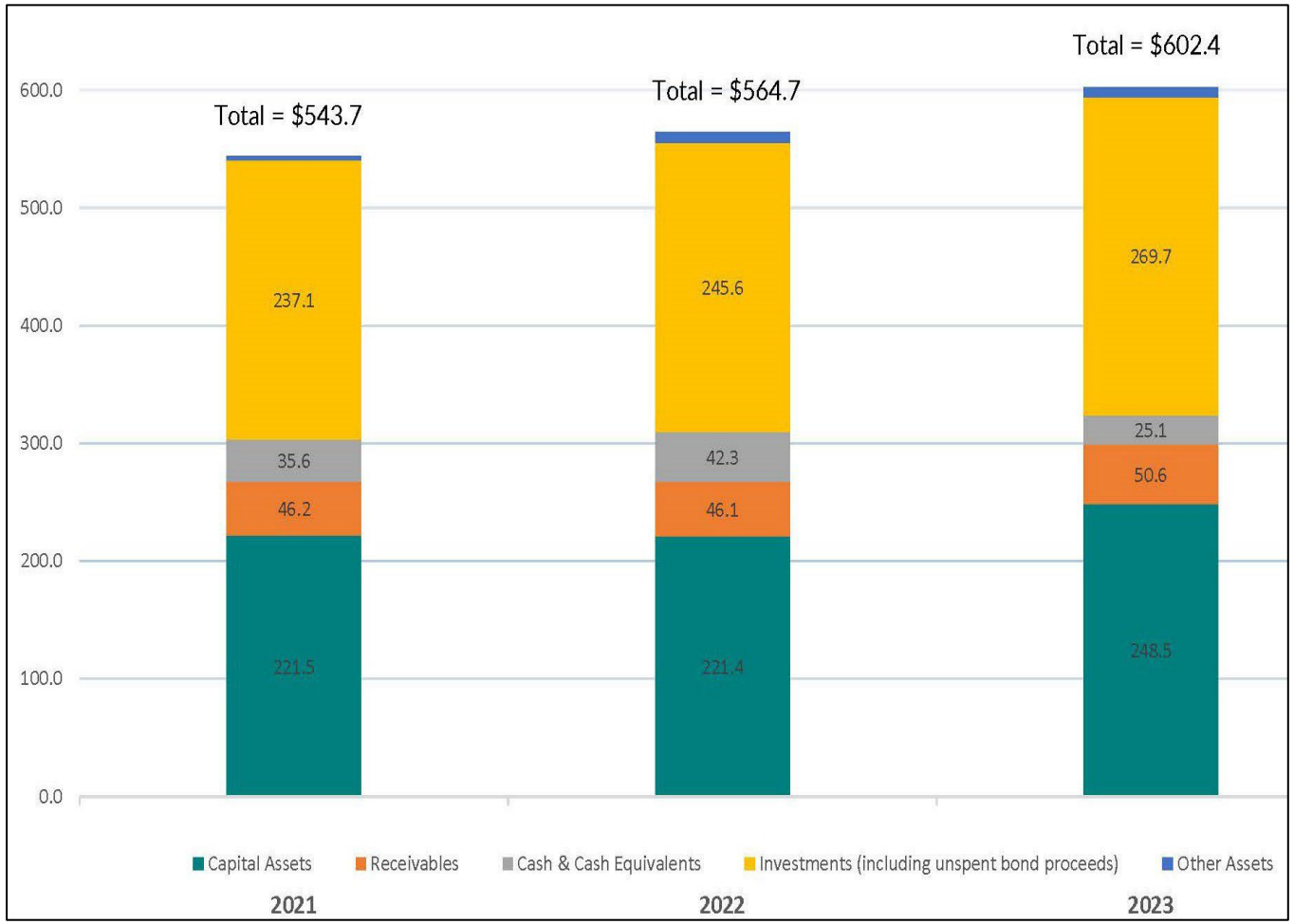
- Fiscal Year 2024 BASE FUNDING IMPACTS
  - Operating Appropriations 5%
  - MPSERS UAAL Payment
- Fiscal Year 2024 ONE-TIME IMPACTS
  - Nursing Program
  - ITEMS Funding
  - Critical Incident Mapping

Expenses

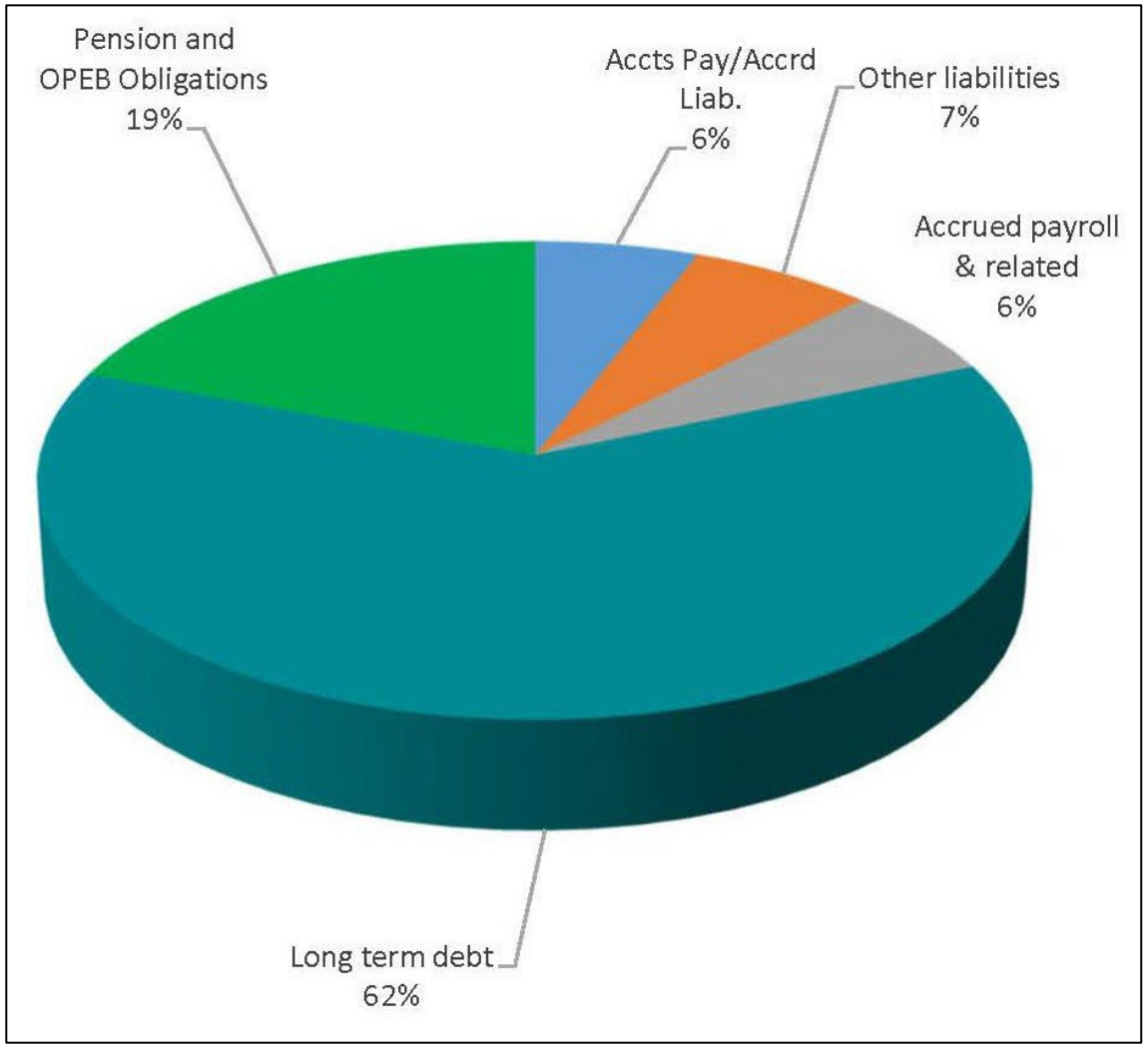

Depreciation and amortization 5%
Utilities 2%
Student financial support 21%
Supplies and services 19%
Compensation and benefits 53%

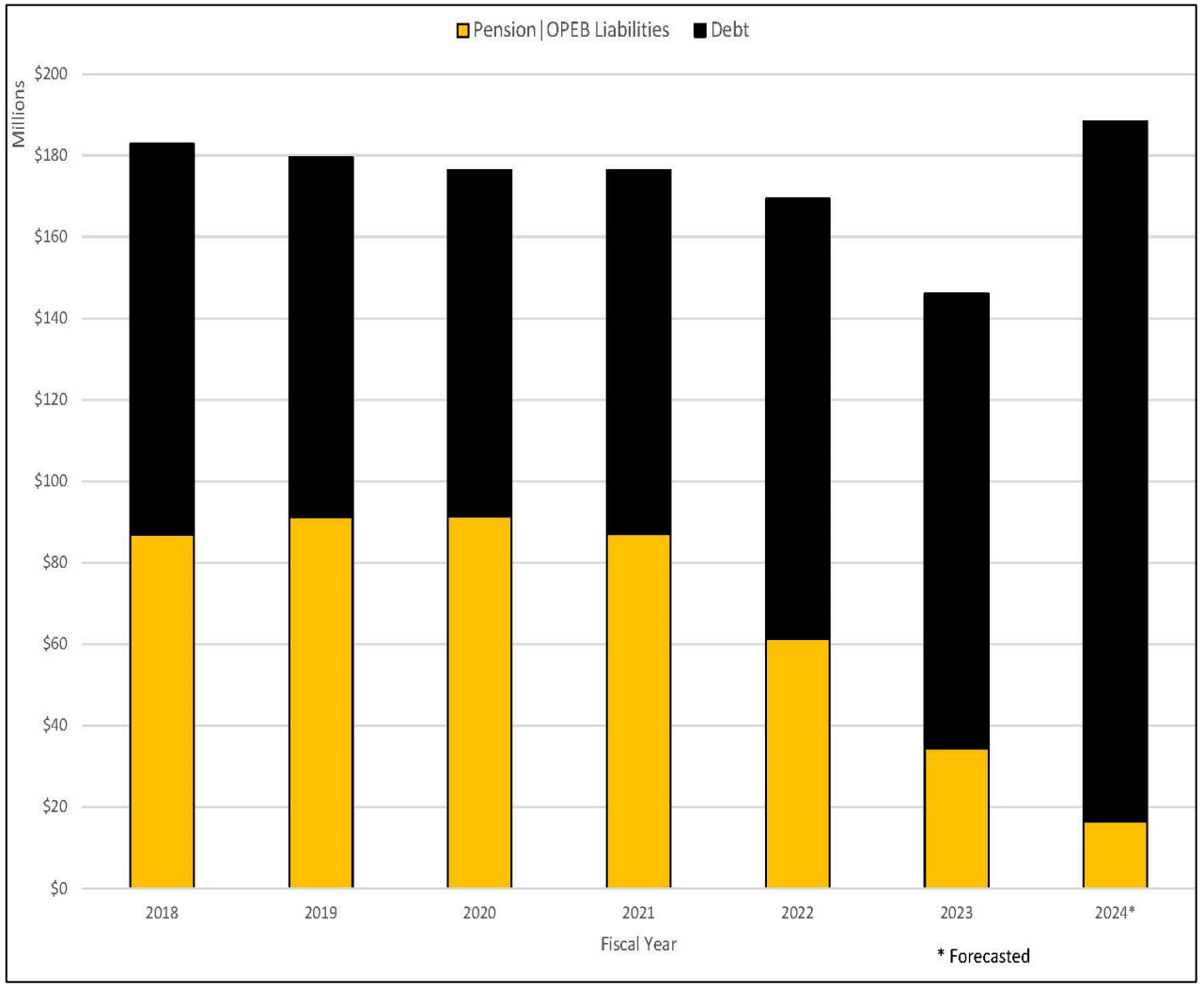
Assets


Current Receivables 5%
Cash & Cash Equivalents 4%
Other Assets 1%
Capital Assets 41%
LT Rec'bles 4%
LT Investments 45%

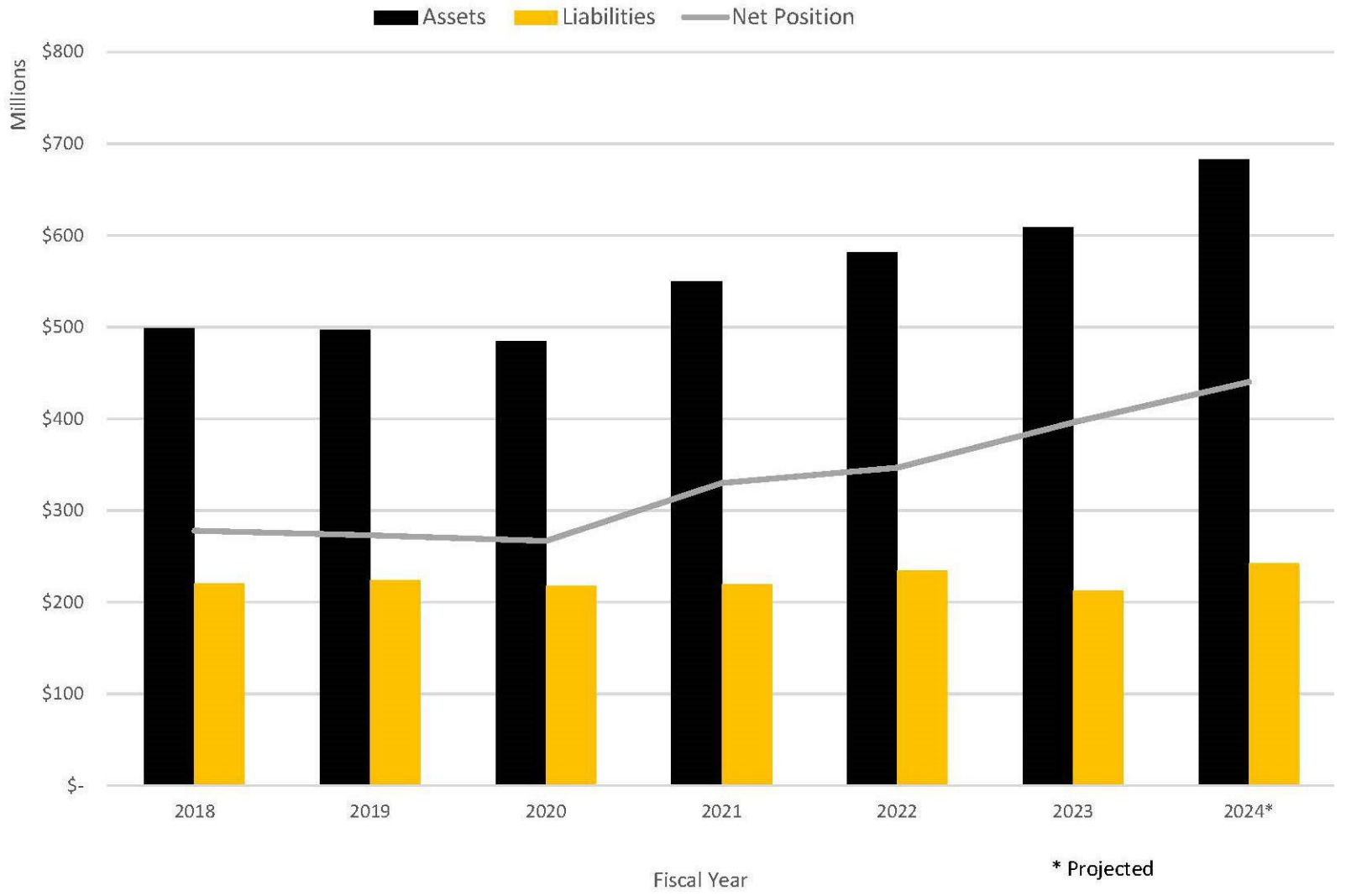

Total = $543.7
Total = $564.7
Total = $602.4
600.0
500.0
400.0
300.0
200.0
100.0
0.0
237.1
245.6
269.7
35.6
42.3
25.1
46.2
46.1
50.6
221.5
221.4
248.5
Capital Assets
Receivables
Cash & Cash Equivalents
Investments (including unspent bond proceeds)
Other Assets
2021
2022
2023

Liabilities





Assets, Liabilities and Net Position



Questions

D. University Research and Sponsored Programs Report
David Reed, Vice President for Research

Sponsored Program Summary
FY23 and 1st Quarter FY24 Activities

David Reed
Vice President for Research
December, 2023

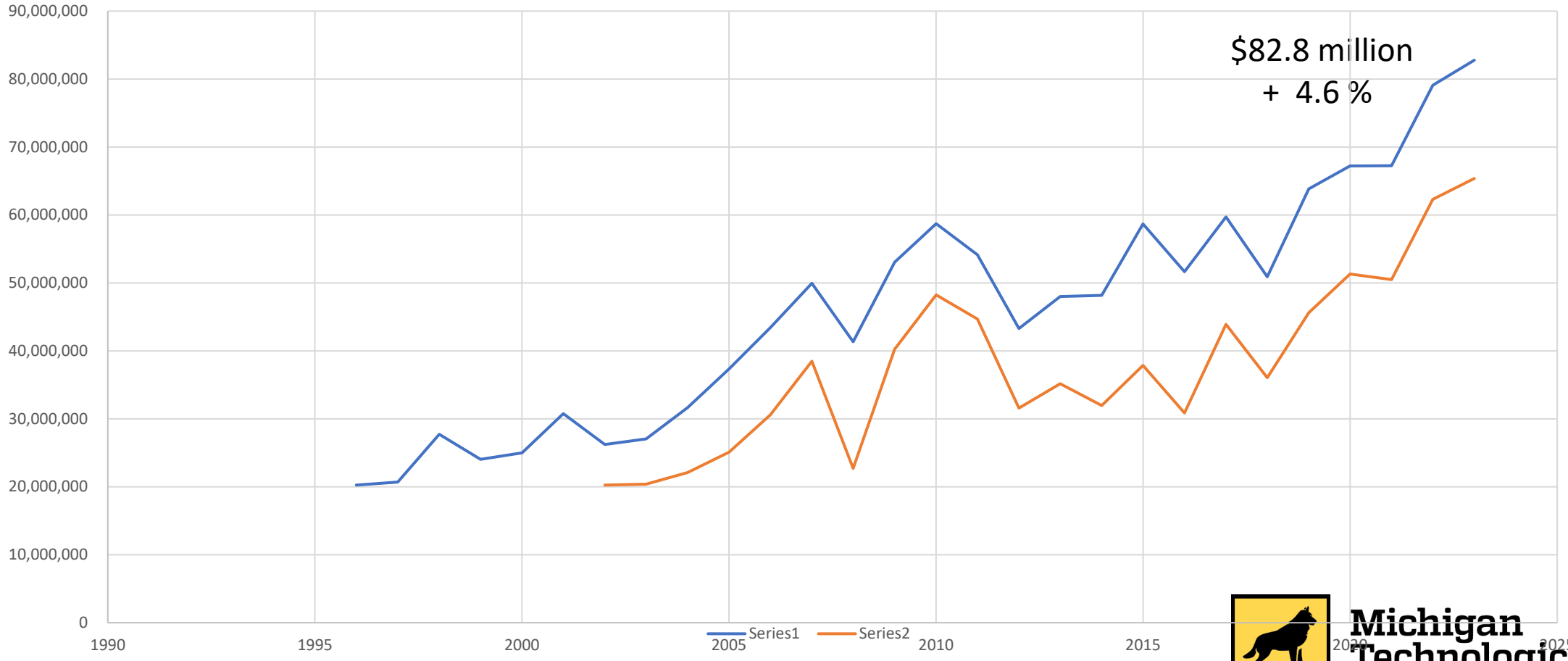
Michigan Technological University

Outline

- FY23 Results
  - Sponsored Awards
  - Research Expenditures
  - Intellectual Property/Commercialization
  - Corporate Sponsorship
- 1st Quarter FY24
  - Sponsored Awards
  - Research Expenditures

Michigan Technological University

Sponsored Awards, FY23



Michigan Technological University

Sponsored Awards, FY23

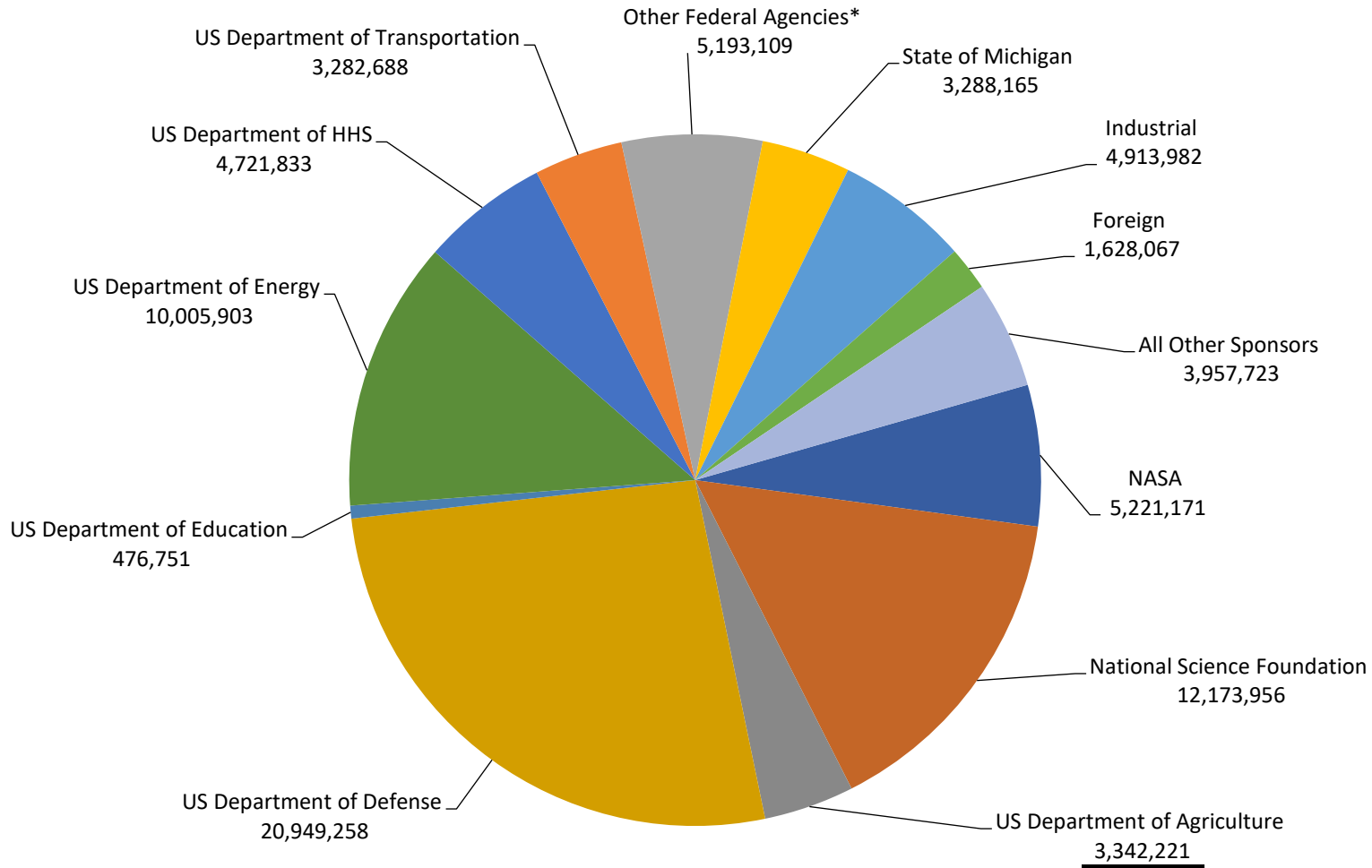
Sponsored Awards
Fiscal Year 2023
4th Quarter
Ended June 30, 2023

TOTAL: $82,787,026

Pre-Proposals Submitted

(excluded from Proposals Submitted figures below)

FYTD 2022: 37
FYTD 2023: 64



Michigan Technological University

Sponsored Awards FY23

	Proposals Submitted		Awards Received		Awards Received ($)			
Sponsor	FY '23 as of 6/30	FY '22 as of 6/30	FY '23 as of 6/30	FY '22 as of 6/30	FY '23 as of 6/30	FY '22 as of 6/30	Variance $	Variance %
NASA	68	79	44	42	5,221,171	5,394,284	-173,113	-3.2%
National Science Foundation	128	135	51	54	12,173,956	12,233,580	-59,624	-0.5%
US Department of Agriculture	57	43	38	42	3,342,221	2,126,970	1,215,251	57.1%
US Department of Defense	109	117	100	104	20,949,258	20,238,672	710,586	3.5%
US Department of Education	5	6	4	4	476,751	335,401	141,350	42.1%
US Department of Energy	66	42	47	34	10,005,903	6,667,440	3,338,463	50.1%
US Department of HHS	76	60	18	9	4,721,833	6,415,389	-1,693,556	-26.4%
US Department of Transportation	24	17	13	19	3,282,688	4,438,210	-1,155,522	-26.0%
Other Federal Agencies*	68	68	34	47	5,193,109	4,471,755	721,354	16.1%
Federal Agency Total	601	567	349	355	65,366,890	62,321,701	3,045,189	4.9%
State of Michigan	42	43	31	30	3,288,165	2,846,172	441,993	15.5%
Industrial	131	149	115	145	4,913,982	6,409,843	-1,495,861	-23.3%
Foreign	7	16	13	11	1,628,067	1,125,945	502,122	44.6%
All Other Sponsors	99	78	49	45	3,957,723	1,656,092	2,301,631	139.0%
Subtotal	880	853	557	586	79,154,827	74,359,753	4,795,074	6.4%
Gifts**	N/A	N/A	253	245	3,611,978	4,531,416	-919,438	-20.3%
Crowdfunding	N/A	N/A	15	10	20,221	225,997	-205,776	-91.1%
Grand Total	880	853	825	841	82,787,026	79,117,166	$3,669,860	4.6%

* National Endowment for the Arts and Humanities, US Dept of Commerce, US Dept of the Interior, US Dept of Labor, US Environmental Protection Agency, US Dept of Justice, US Dept of Homeland Security, Office of the Director of National Intelligence, US Dept of State, US Small Business Administration, Washington Headquarters Services

**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.

Michigan Technological University

Research Expenditures FY23

	Preliminary	Preliminary		
College/School/Division	FY2023	FY2022	Variance	%
Administration*	4,810,224	3,683,556	1,126,668	30.6%
Advanced Power Systems Research Center (APSRC)	1,721,481	1,020,792	700,689	68.6%
College of Business	1,873,140	1,823,367	49,773	2.7%
College of Computing	5,833,345	4,940,119	893,226	18.1%
College of Engineering	38,457,708	33,957,094	4,500,614	13.3%
College of Forest Resources & Environmental Science	7,883,525	6,964,038	919,487	13.2%
College of Science & Arts	18,030,384	16,503,279	1,527,105	9.3%
Great Lakes Research Center (GLRC)**	1,667,906	1,419,899	248,007	17.5%
Pavlis Honors College	N/A	N/A	N/A	N/A
Keweenaw Research Center (KRC)	8,795,329	11,276,788	(2,481,459)	-22.0%
Michigan Tech Research Institute (MTRI)	13,605,971	13,322,889	283,082	2.1%
Total	102,679,013	94,911,821	7,767,192	8.2%

Total	$102,679,013	+ 8.2 %
External	+ 6.4 %	
Internal	+ 11.0 %	

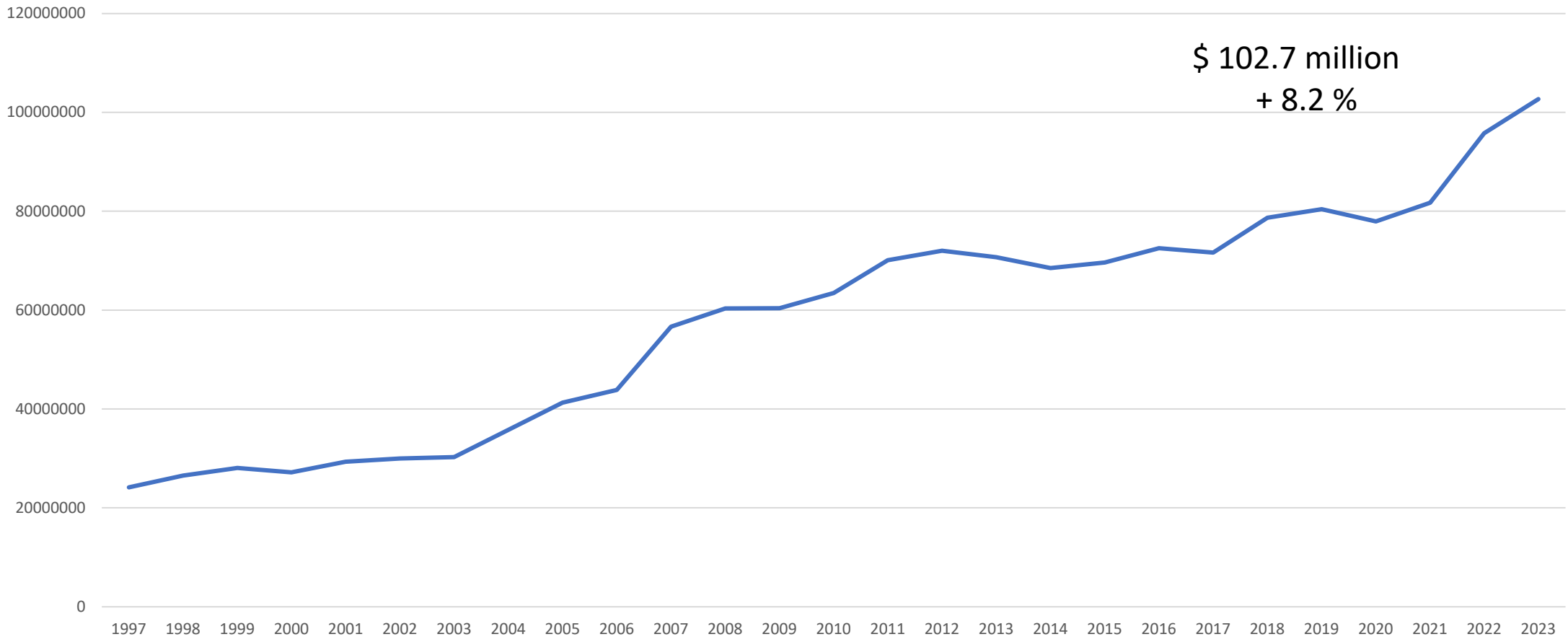
*Includes the Vice Presidents, Provost, and others who report to a VP, Provost or the President. Except for the research institutes that report to the VPR.

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

NOTE: FY2023 first quarter reported figures included National Science Foundation Other Sponsored Activities awards.

Michigan Technological University

Research Expenditures FY23



Intellectual Property, FY23

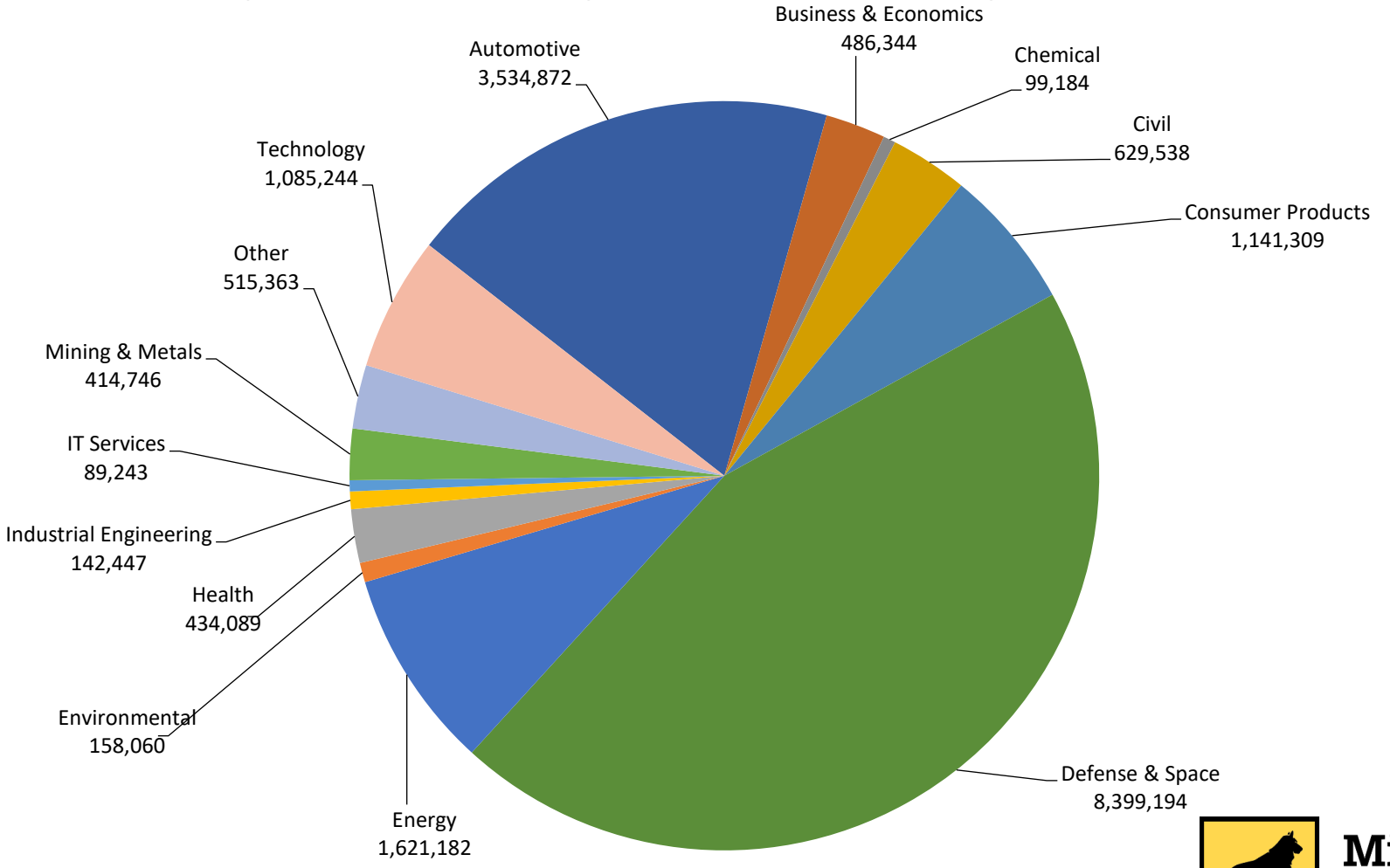
	FY22	FY23	Change
Disclosures Received	31	18	-41.9 %
Nondisclosure Agreements	88	98	11.4 %
Patents Filed or Issued	22	12	- 45.5 %
License Agreements	6	9	50.0 %
Gross Royalties	$ 76,548	$ 68,409	- 10.6 %

Michigan Technological University

Corporate Sponsorship, FY23

Sponsored Awards
-Industry-
COMBINED
Fiscal Year 2023
4th Quarter
Ended June 30, 2023

TOTAL: $18,750,815



Michigan Technological University

Sponsored Awards 1st Qtr FY24

	Proposals Submitted		Awards Received		Awards Received ($)			
Sponsor	FY '24 as of 9/30	FY '23 as of 9/30	FY '24 as of 9/30	FY '23 as of 9/30	FY '24 as of 9/30	FY '23 as of 9/30	Variance $	Variance %
NASA	15	7	4	9	317,512	1,769,094	-1,451,582	-82.1%
National Science Foundation	57	38	15	23	4,309,207	6,631,768	-2,322,561	-35.0%
US Department of Agriculture	5	11	13	12	962,286	1,697,824	-735,538	-43.3%
US Department of Defense	13	20	18	22	5,054,250	7,309,278	-2,255,028	-30.9%
US Department of Education	-	2	-	2	-	281,024	-281,024	-100.0%
US Department of Energy	15	13	12	13	1,794,316	841,097	953,219	113.3%
US Department of HHS	5	6	11	4	3,496,735	1,080,434	2,416,301	223.6%
US Department of Transportation	3	12	4	3	905,266	498,843	406,423	81.5%
Other Federal Agencies*	24	13	11	5	1,993,015	1,104,617	888,398	80.4%
Federal Agency Total	137	122	88	93	18,832,587	21,213,979	-2,381,392	-11.2%
State of Michigan	13	9	7	6	1,059,692	169,075	890,617	526.8%
Industrial	47	42	32	24	936,850	570,587	366,263	64.2%
Foreign	1	2	1	4	10,060	306,000	-295,940	-96.7%
All Other Sponsors	29	19	7	7	831,220	256,988	574,232	223.4%
Subtotal	227	194	135	134	21,670,409	22,516,629	-846,220	-3.8%
Gifts**	N/A	N/A	69	54	1,004,328	1,081,690	-77,362	-7.2%
Crowdfunding	N/A	N/A	2	4	1,388	1,281	107	8.4%
Grand Total	227	194	206	192	22,676,125	23,599,600	-$923,475	-3.9%

* National Endowment for the Arts and Humanities, US Dept of Commerce, US Dept of Health and Human Services, US Environmental Protection Agency, US Dept of the Interior, US Dept of Labor

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

Research Expenditures 1st Qtr FY24

College/School/Division	FY2024	FY2023	Variance	%
Administration*	3,076,161	2,997,877	78,284	2.6%
Advanced Power Systems Research Center (APSRC)	356,882	281,331	75,551	26.9%
College of Business	278,689	330,646	(51,957)	-15.7%
College of Computing	1,066,730	914,928	151,802	16.6%
College of Engineering	7,683,329	7,122,208	561,121	7.9%
College of Forest Resources & Environmental Science	1,538,123	1,748,679	(210,556)	-12.0%
College of Science & Arts	3,306,606	3,403,327	(96,721)	-2.8%
Great Lakes Research Center (GLRC)**	448,404	400,530	47,874	12.0%
Keweenaw Research Center (KRC)	1,621,536	1,619,323	2,213	0.1%
Michigan Tech Research Institute (MTRI)	2,701,049	2,767,981	(66,932)	-2.4%
Total	22,077,509	21,586,830	490,679	2.3%

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

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

NOTE: FY2023 first quarter reported figures included National Science Foundation Other Sponsored Activities awards.

Michigan Technological University

Carnegie Higher Ed Classification System

- The Carnegie Foundation, American Council on Education and Indiana University are revising the Carnegie Higher Ed Classification System, with new classifications to be released in early 2025.
- For research institutions, they are simplifying the research classification.
- With the release in 2025, R1 Very High Research institutions will be defined as having over $50 million in research expenditures reported in the NSF HERD Survey and over 70 research doctorates granted as reported to IPEDS.
- In 2023, we are reporting $102.7 million in research expenditures and 86 research doctorates granted, so Michigan Tech will be R1 at the next classification update in 2025.

E. Undergraduate Student Government
Mason Krause, President

USG Board of Trustees Presentation

Mason Krause, USG President

12-15-2023

Michigan Technological University

1885

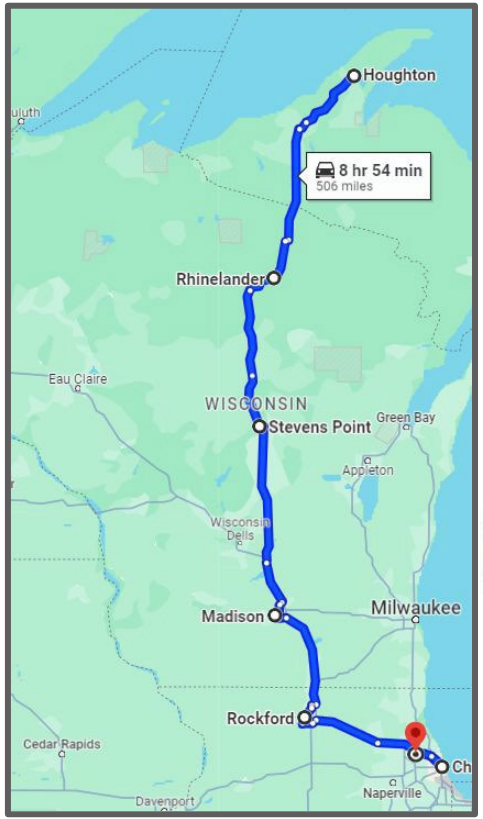
UNDERGRADUATE STUDENT GOVERNMENT AT MICHIGAN TECHNOLOGICAL UNIVERSITY

USG

Annual 1 UP Conference

- Annual Conference in partnership with NMU and LSSU
- ~50 Attendees from the Student Governments of our 3 Universities

USG Break Bus

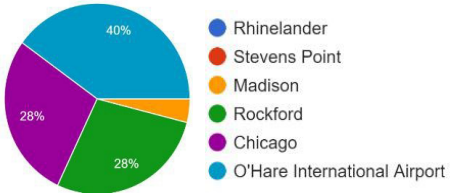


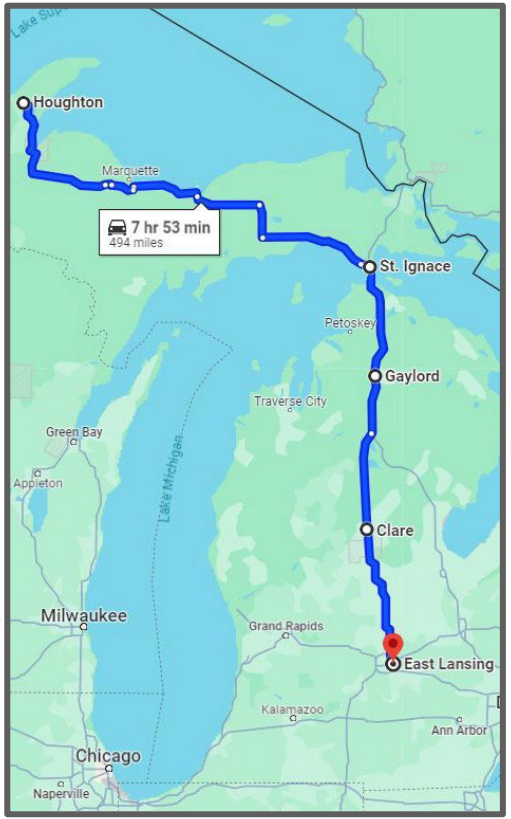
Wisconsin Break Bus

- Rhinelander
- Stevens Point
- Madison
- Rockford
- Chicago
- O'Hare Airport

Destination Drop Off Point

25 responses



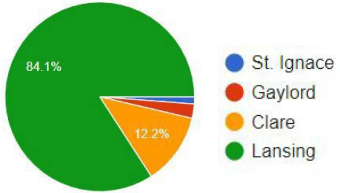


Michigan Break Bus

- St. Ignace
- Gaylord
- Clare
- East Lansing

Destination Drop Off Point

164 responses

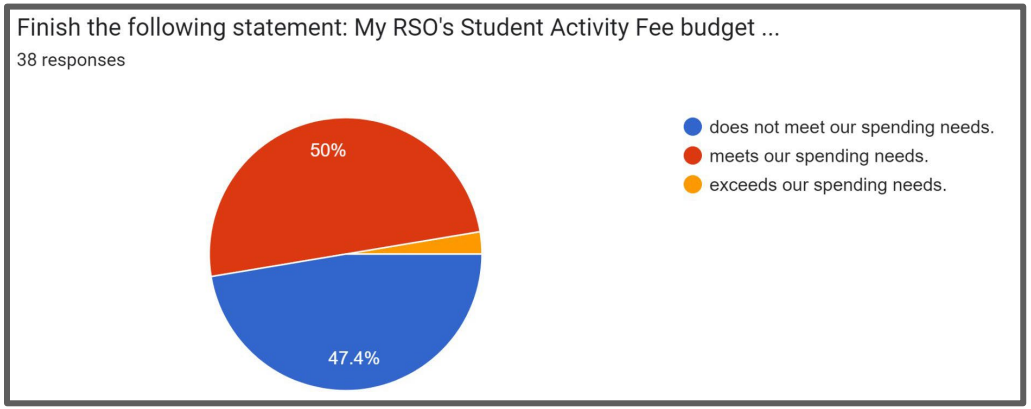


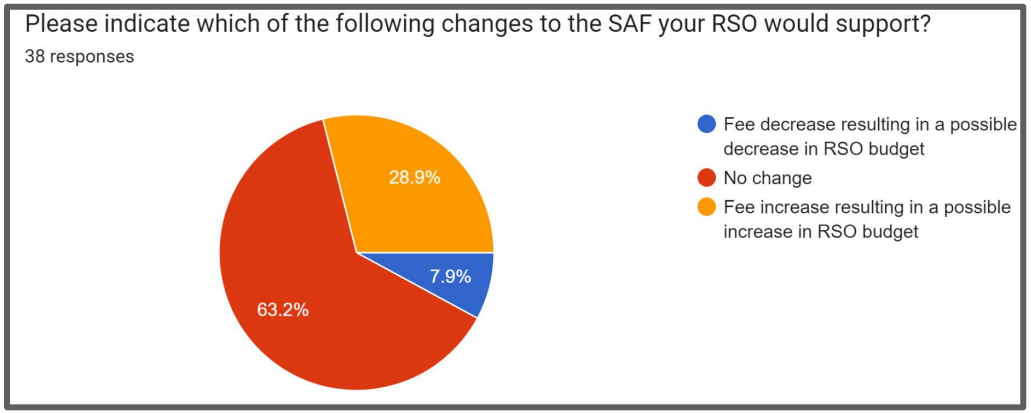
Israel-Palestine Info Session

- Informational Discussion with collaboration between USG's Political Affairs Committee and Professor Todd Holmstrom
- ~40 Attendees

SAF Review Ad-Hoc Committee

RSO Officer Survey





SAF Review Ad-Hoc Committee

Next Steps

November 2023	January / February	February / March	April
Plan Making **RSO Officer Survey** **SAF Advertising** **Student Body Survey**	Survey Data Analysis Focus Groups Budget Hearings	Begin Preparing for Recommendation Continued Focus Groups	Deliver findings and recommendation to the Board of Trustees (April 26th, 2024)

Thank you! Questions or Comments?

Mason Krause
mrkrause@mtu.edu
usg-president@mtu.edu

Michigan Technological University
1885

UNDERGRADUATE STUDENT GOVERNMENT AT MICHIGAN TECHNOLOGICAL UNIVERSITY
USG

F. Graduate Student Government
Karlee Westrem, President

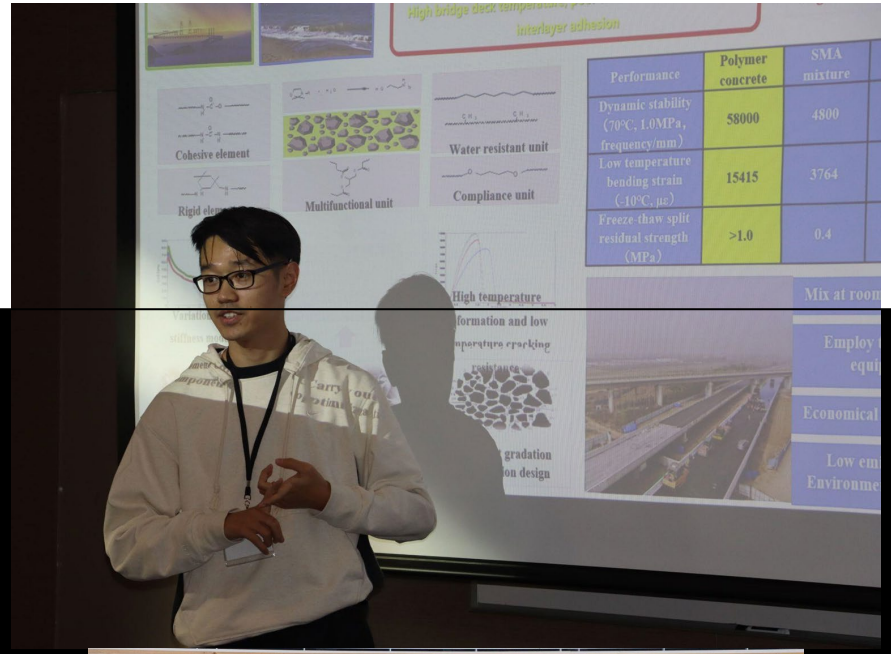
Presentation to

BOARD OF TRUSTEES

Karlee Westrem

GRADUATE STUDENT GOVERNMENT

December 15, 2023



GSG 3MT Competition

Congratulations to our winners:

First Place: Gustavo Bejar Lopez (Geological and Mining Engineering and Sciences)

Second Place: Ellianna Sempek (Biological Sciences)

People's Choice: Cody Tuftee (Biomedical Engineering)

Thank you to our judges:

Chris Sanders
Jill Olin
Laura Bulleit
Jacque Smith
Jim DeRoschers
Marina Tanavosa
Stefka Hristova
Jaemin Yeom
Will Cantrell
Andrew Storer
Michelle Miller

Recordings of Preliminary Rounds & Finals on our GSG Youtube channel

GSG FALL EVENTS

Write Right Dr. Yoke Khin Yap
Career Planning Dr. Melissa Baird
Research Journeys IPEC
Grant Writing IPEC, Ecosystem Science Center

Fall Color Tour
Halloween Costume Party
Ice Skating @ SDC
Coffee Chats SWE, Women in Physics, Weekly with GSG President

Updates

Grad Commons

May 1,2022-October 31, 2023

2,254 swipes*
370 unique students
~28% of graduate students

TRAVEL AND CAREER ENRICHMENT GRANTS

106 Travel Grants
3 Career Enrichment


THANK YOU!

G. University Senate
Robert Hutchinson, President

University Senate Update

Robert Hutchinson, Senate President

Fall 2023 Review

- Approved 1-24: Amending the Scheduling of Spring Break in Senate Procedure 101.1.1
- Approved 5-24: Proposal to Extend Employee Benefits Posthumously to Surviving Beneficiaries
- 3 other curricular proposals still to come

Pending Business from Spring 2023

- 19-23: Amending Constitution and Bylaws to Combine Voting Blocks
- 35-23: Proposal to Raise Awareness and Reduce Mental Health Stigma

Agenda Items for the Coming Year

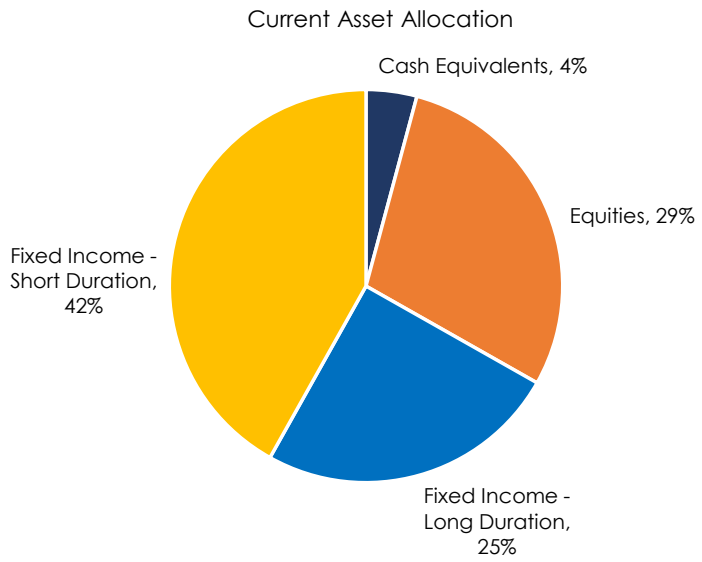
- Continue Working on Search Procedures for and Evaluation Procedures of Department Chairs and School Deans
- Conduct referenda to approve changes to the Senate Constitution and Appendix I of the faculty handbook in relation to joint appointment procedures
- Continue working to increase staff participation on the Senate
- Preparing to transition to daytime meetings for the 24-25 academic year

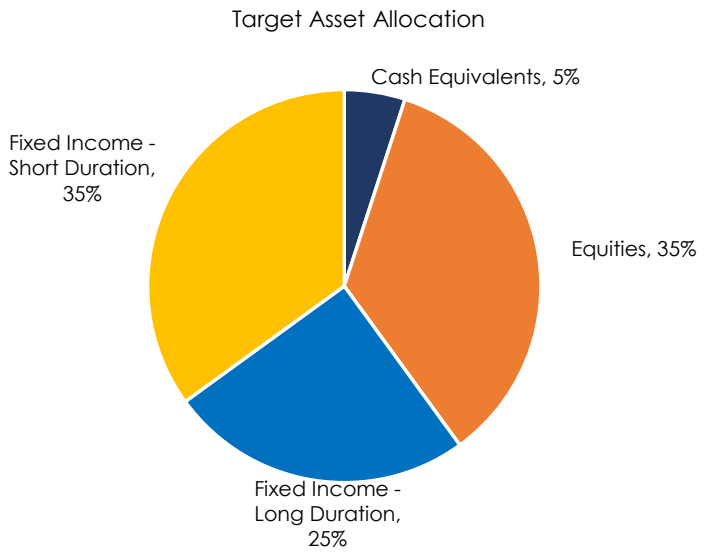
X. Informational Items

A. Analysis of Investments

MICHIGAN TECH UNIVERSITY
INVESTMENT PORTFOLIO
JUNE 30, 2023 THROUGH SEPTEMBER 30, 2023

	Market Value 6/30/2023	Market Value 9/30/2023	Fiscal-Year-To-Date Investment Return	Benchmark Return	Benchmark
Money Market Fund	$ 1,706,318	$ 1,774,280	1.32%	*1.32%*	*ICE BofA Merrill Lynch US T-Bill Index*
Equity Funds:					
Core Equity Fund	7,818,944	6,957,354	-3.21%	*-3.27%*	*S&P 500*
Commonfund OCIO Equity Fund	5,485,594	5,383,940	-1.85%	*-3.27%*	*S&P 500*
Total Equity Funds	13,304,538	12,341,294			
Fixed Income Funds:					
Intermediate Term Fund	7,252,185	7,272,460	0.62%	*0.74%*	*ICE BofA Merrill Lynch 1-3 Yr Treasury*
Commonfund Contingent Asset Portfolio	9,594,832	10,532,366	0.37%	*0.74%*	*ICE BofA Merrill Lynch 1-3 Yr Treasury*
High Quality Bond Fund	5,230,205	5,110,878	-3.37%	*-3.23%*	*Bloomberg Barclays US Aggregate Bond Index*
Multi-Strategy Bond Fund	5,899,333	5,484,938	-3.23%	*-3.23%*	*Bloomberg Barclays US Aggregate Bond Index*
Total Fixed Income Funds	27,976,555	28,400,642			
Total	$ 42,987,411	$ 42,516,216	-1.01%		





B. Research & Sponsored Programs

Sponsored Activities Summary

Fiscal Year 2024, Quarter Ended 9/30/2023

- Total awards are down 3.9% for FY24 compared to FY23.
- Gifts are down 7.2% for FY24 compared to FY23.
- Federal agency awards are down 11.2% for FY24 compared to FY23.
- Overall Industry activity decreased by 62.3% over the last fiscal year. However, it should be noted that a singular $3 million industry related award was received in Q1 of FY23 which was not the case in FY24.
- Research expenditures are up 2.3% over FY23. External expenditures remained relatively constant compared to FY23. Internal expenditures are up 6.1% over last fiscal year.

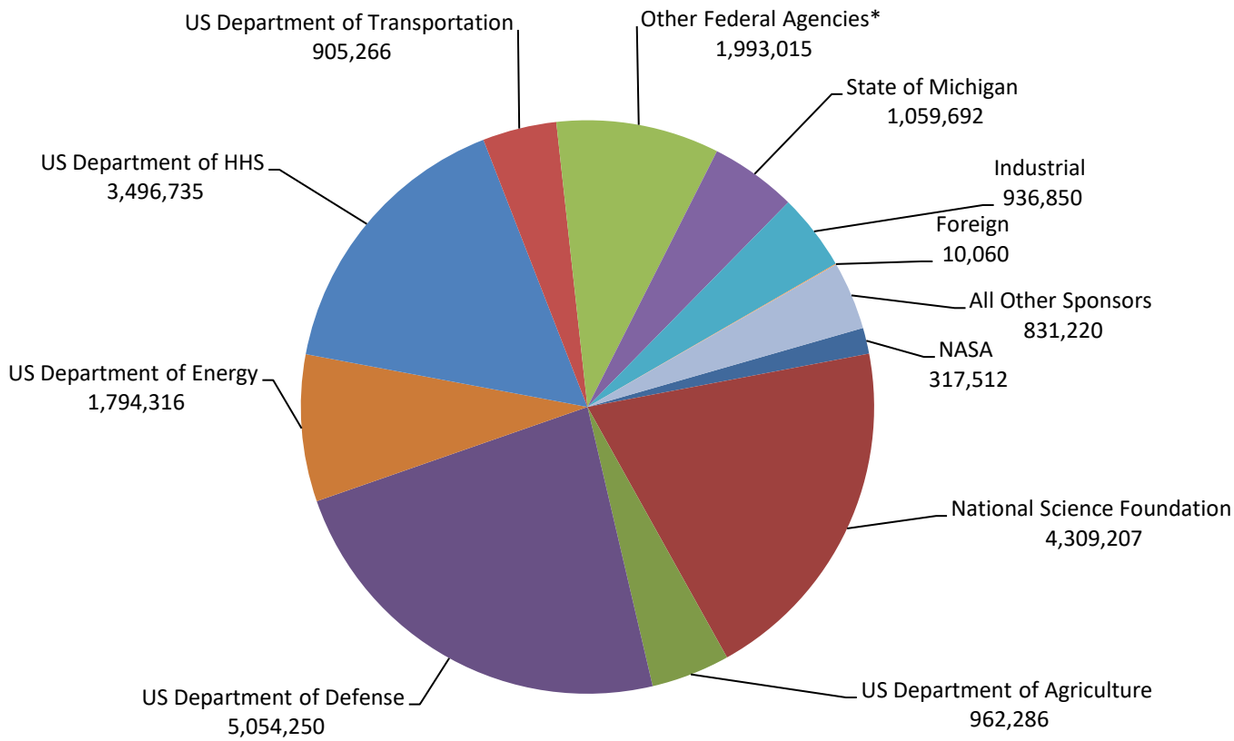
Sponsored Awards
Fiscal Year 2024
1st Quarter
Ended Sept 30, 2023

TOTAL: $22,676,125

Pre-Proposals Submitted

(excluded from Proposals Submitted figures below)

FYTD 2023: 15
FYTD 2024: 7



	Proposals Submitted		Awards Received		Awards Received ($)			
Sponsor	FY '24 as of 9/30	FY '23 as of 9/30	FY '24 as of 9/30	FY '23 as of 9/30	FY '24 as of 9/30	FY '23 as of 9/30	Variance $	Variance %
NASA	15	7	4	9	317,512	1,769,094	-1,451,582	-82.1%
National Science Foundation	57	38	15	23	4,309,207	6,631,768	-2,322,561	-35.0%
US Department of Agriculture	5	11	13	12	962,286	1,697,824	-735,538	-43.3%
US Department of Defense	13	20	18	22	5,054,250	7,309,278	-2,255,028	-30.9%
US Department of Education	-	2	-	2	-	281,024	-281,024	-100.0%
US Department of Energy	15	13	12	13	1,794,316	841,097	953,219	113.3%
US Department of HHS	5	6	11	4	3,496,735	1,080,434	2,416,301	223.6%
US Department of Transportation	3	12	4	3	905,266	498,843	406,423	81.5%
Other Federal Agencies*	24	13	11	5	1,993,015	1,104,617	888,398	80.4%
Federal Agency Total	137	122	88	93	18,832,587	21,213,979	-2,381,392	-11.2%
State of Michigan	13	9	7	6	1,059,692	169,075	890,617	526.8%
Industrial	47	42	32	24	936,850	570,587	366,263	64.2%
Foreign	1	2	1	4	10,060	306,000	-295,940	-96.7%
All Other Sponsors	29	19	7	7	831,220	256,988	574,232	223.4%
Subtotal	227	194	135	134	21,670,409	22,516,629	-846,220	-3.8%
Gifts**	N/A	N/A	69	54	1,004,328	1,081,690	-77,362	-7.2%
Crowdfunding	N/A	N/A	2	4	1,388	1,281	107	8.4%
Grand Total	**227**	**194**	**206**	**192**	**22,676,125**	**23,599,600**	**-$923,475**	-3.9%

* National Endowment for the Arts and Humanities, US Dept of Commerce, US Dept of Health and Human Services, US Environmental Protection Agency, US Dept of the Interior, US Dept of Labor

**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.

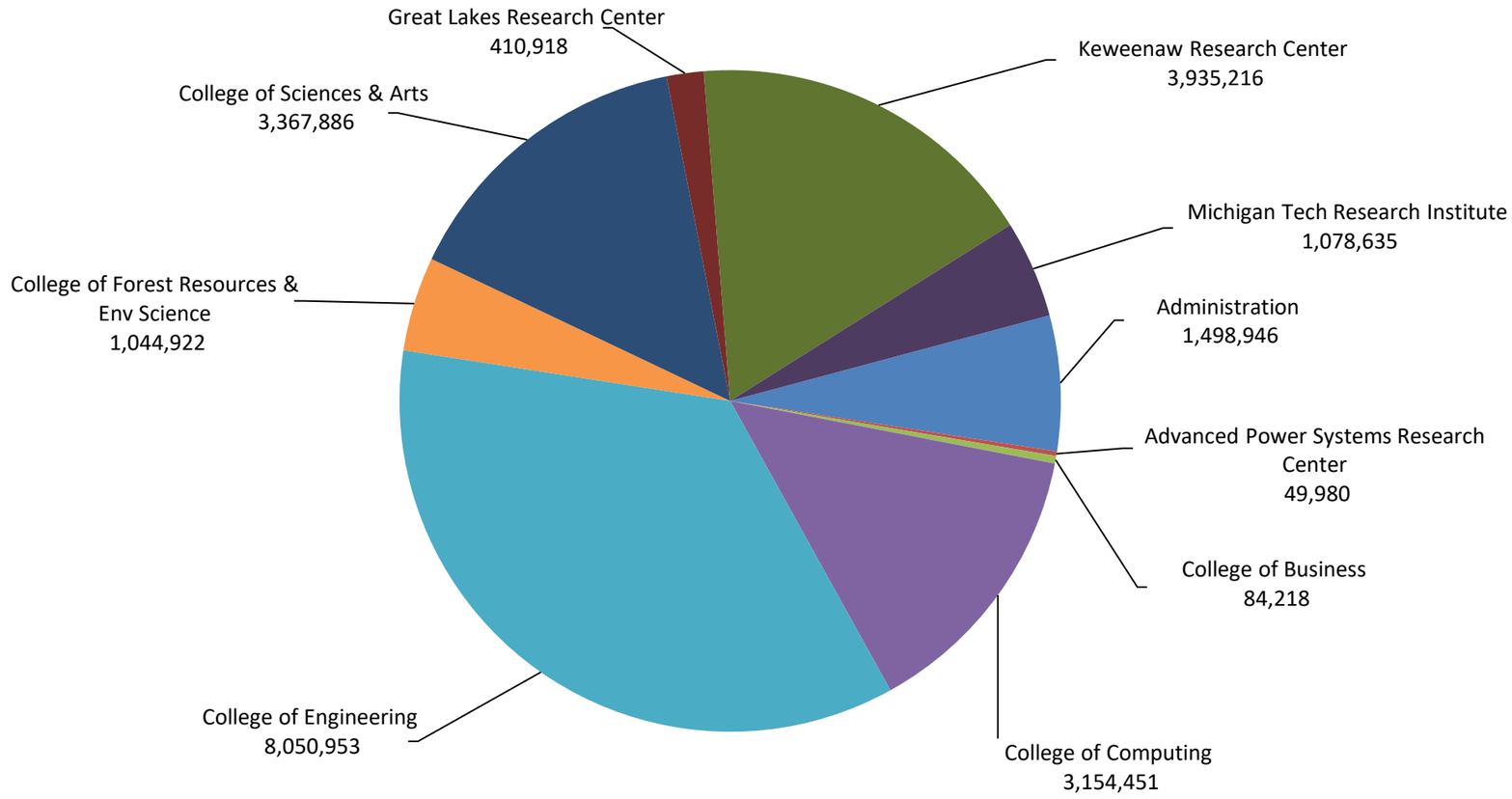
Vice President for Research
Fiscal Year 2024
1st Quarter
Ended Sept 30, 2023

TOTAL: $22,676,125

Percentages of Tenured & Tenure Track Faculty (as either PI or Co-PI)

Submitting Proposals since 07/01/2023
29.9%

On Active Projects as of 9/30/2023
52.2%



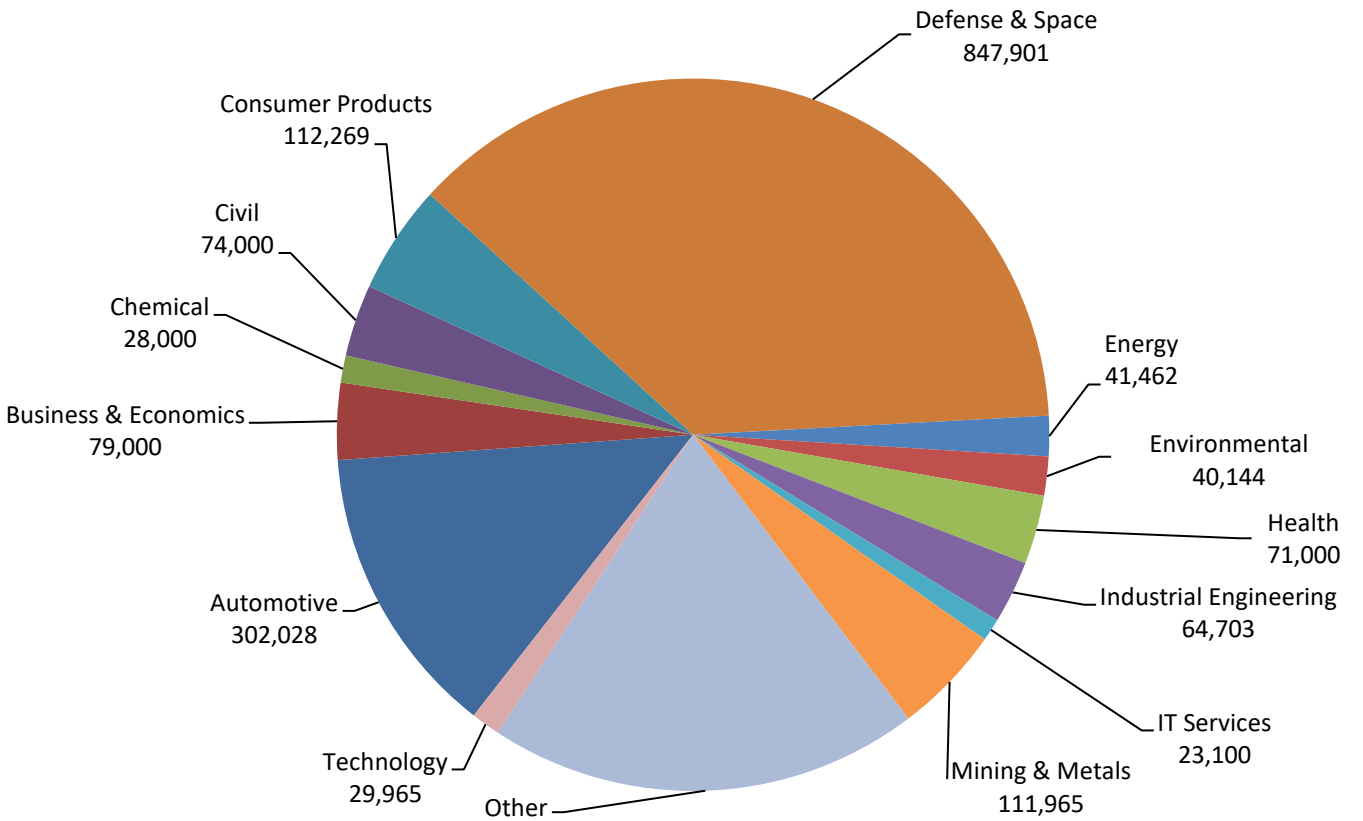
SPO & OIC Metrics[1]	Administration	Advanced Power Systems Research Center	College of Business	College of Computing	College of Engineering	College of Forest Resources & Env Science	College of Sciences & Arts	Great Lakes Research Center	Keweenaw Research Center	Michigan Tech Research Institute	Totals	Fiscal Comparison	Percent Change
Proposals Submitted	6	2	-	14	127	15	17	13	11	22	227	194	17.0%
Awards Received	42	1	3	10	82	17	17	8	14	12	206	192	7.3%
Federal	-	49,980	-	3,006,247	4,278,625	955,862	3,315,383	269,528	3,666,763	571,796	**16,114,184**	15,614,668	3.2%
Federal Pass-Through	430,607	-	-	78,357	1,608,612	52,000	-	108,359	3,625	436,843	**2,718,403**	5,599,311	-51.5%
Foreign	-	-	-	-	-	10,060	-	-	-	-	**10,060**	306,000	-96.7%
Gifts	680,839	-	-	69,847	211,108	27,000	15,034	-	500	-	**1,004,328**	1,081,690	-7.2%
Crowdfunding	-	-	-	-	-	-	463	925	-	-	**1,388**	1,281	8.4%
Industry	-	-	-	-	643,964	-	-	28,558	264,328	-	**936,850**	570,587	64.2%
Other	-	-	84,218	-	640,000	-	37,006	-	-	69,996	**831,220**	256,988	223.4%
State of MI	387,500	-	-	-	668,644	-	-	3,548	-	-	**1,059,692**	169,075	526.8%
Total $ by Division	**1,498,946**	**49,980**	**84,218**	**3,154,451**	**8,050,953**	**1,044,922**	**3,367,886**	**410,918**	**3,935,216**	**1,078,635**	**22,676,125**	23,599,600	-3.9%
Fiscal Comparison	1,348,982	34,744	77,500	3,168,646	6,417,956	2,012,308	3,494,304	212,918	2,194,665	4,637,577	23,599,600		
Percent Change	11.1%	43.9%	8.7%	-0.4%	25.4%	-48.1%	-3.6%	93.0%	79.3%	-76.7%	-3.9%		
Disclosures Received[2]	-	-	-	-	25.00%	-	25.00%	-	-	50.00%	**4**	4	0.0%
Nondisclosure Agreements	2	-	-	-	9	-	1	-	6	3	**21**	28	-25.0%
Patents Filed or Issued[2]	-	-	-	-	100.00%	-	-	-	-	-	**1**	3	-66.7%
License Agreements	-	-	-	-	2	-	-	-	-	-	**2**	4	-50.0%
Gross Royalties[2]	-	-	-	-	80.00%	-	20.00%	-	-	-	**6,980**	22,465	-68.9%

[1] *Combined Metrics from both the Sponsored Programs Office (SPO) and Office of Innovation & Commercialization (OIC)*

[2] *Percentages reflect the proportional contribution from each Division (calculated by dividing the sum of the fractional contributions of all inventors for each unit by the total number of inventors).*

Sponsored Awards
-Industry-
COMBINED
Fiscal Year 2024
1st Quarter
Ended Sept 30, 2023

TOTAL: $2,269,515



Industry Segment	Proposals Submitted FY '24 as of 9/30	Proposals Submitted FY '23 as of 9/30	Awards Received FY '24 as of 9/30	Awards Received FY '23 as of 9/30	Awards Received ($) FY '24 as of 9/30	Awards Received ($) FY '23 as of 9/30	Variance $	Variance %
Automotive	11	18	12	19	302,028	531,689	-229,661	-43.2%
Business & Economics	1	1	5	2	79,000	26,500	52,500	198.1%
Chemical	1	-	2	1	28,000	25,400	2,600	10.2%
Civil	6	1	5	8	74,000	166,865	-92,865	-55.7%
Consumer Products	7	9	13	16	112,269	387,338	-275,069	-71.0%
Defense & Space	8	7	8	8	847,901	3,670,438	-2,822,537	-76.9%
Energy	2	-	10	1	41,462	40,000	1,462	3.7%
Environmental	-	-	2	-	40,144	-	40,144	N/A
Health	8	2	5	4	71,000	276,602	-205,602	-74.3%
Industrial Engineering	6	2	5	2	64,703	35,000	29,703	84.9%
IT Services	3	1	4	1	23,100	2,000	21,100	1055.0%
Mining & Metals	6	3	8	6	111,965	113,200	-1,235	-1.1%
Other	4	4	17	8	443,978	135,912	308,066	226.7%
Technology	2	4	3	4	29,965	614,843	-584,878	-95.1%
Total	**65**	**52**	**99**	**80**	**2,269,515**	**6,025,787**	**-3,756,272**	**-62.3%**

Michigan Technological University
Total Research Expenditures by College/School/Division
Fiscal Year 2024 & 2023
As of September 30, 2023 and September 30, 2022

College/School/Division	FY2024	FY2023	Variance	%
Administration*	3,076,161	2,997,877	78,284	2.6%
Advanced Power Systems Research Center (APSRC)	356,882	281,331	75,551	26.9%
College of Business	278,689	330,646	(51,957)	-15.7%
College of Computing	1,066,730	914,928	151,802	16.6%
College of Engineering	7,683,329	7,122,208	561,121	7.9%
College of Forest Resources & Environmental Science	1,538,123	1,748,679	(210,556)	-12.0%
College of Science & Arts	3,306,606	3,403,327	(96,721)	-2.8%
Great Lakes Research Center (GLRC)**	448,404	400,530	47,874	12.0%
Keweenaw Research Center (KRC)	1,621,536	1,619,323	2,213	0.1%
Michigan Tech Research Institute (MTRI)	2,701,049	2,767,981	(66,932)	-2.4%
Total	**22,077,509**	**21,586,830**	**490,679**	**2.3%**

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

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

C. Advancement & Alumni Relations

Advancement and Alumni Engagement Narrative
Michigan Tech Board of Trustees
December 15, 2023

2023-2024 Goals and Initiatives to be achieved in collaboration with administrative and academic leadership and the Michigan Tech Fund Board of Directors.

- Paramount focus on Donor Integrity
    - Invest in each segment of the donor journey and facilitate a strategic opportunity to match the donor's passion
    - Utilize Flagship Campaign themes and material to jump-start new leadership gift donor relationships and facilitate acceleration of the ask in existing donor work
- Add new constituents and increase movement in the donor pipeline
- Launch and implement CRM
- Enhance donor impact and stewardship
- Get to 45% of the $350 million campaign goal

FY24 MTF Working Goals

- "The Year of Execution" on a Strong Foundation
    - Donor First: Culture supported by processes, practices and people
    - Campaign Execution: Provide oversight and resources for a successful campaign
    - Cash Flow Management: Execute and enhance cash flow
    - Endowment Growth: Higher emphasis on endowment gifts

Highlights

- Over $155 million in philanthropic contributions and currently 44% to the $350 million goal
- Raised $7.43 million, 17% of the $42.85 million goal (as of October 31, 2023)
- $31 million outstanding asks from individuals
- Raised nearly $2.8 million for the endowment
- Campaign:
    - Hosted Campaign Executive Committee meeting on campus, October 14, 2023
    - Hosted campaign dinner, Saratoga, CA, October 30, 2023
    - Initiative working groups are getting to work with plans to report out at the next CEC meeting on January 22, 2024
        - Endowment Education and Growth Initiative
        - Principal Gifts ($1MM or more)
        - Cornerstone Gifts ($100,000 to $999,999)
        - Corporate and Foundation Acceleration
        - Volunteer Engagement
        - Pay Forward Culture
- Organizational
    - New hires: Senior Administrative Assistant, Advancement and Gift Planning
    - Vacant positions:
        - Ongoing searches for Director for Charitable Giving (two open positions)
        - Advancement and Alumni Engagement Business Systems Analyst/Data Visualization Specialist
- Hosted representatives from the Thompson Foundation on campus to visit with scholarship recipients
- Hosted trustees of the McAllister Foundation on campus (one of our longest standing philanthropic partnerships)
- Hosted Backstage Jazz event at the Rozsa Center

- Hosted Time & Talent cohort this past October
- CRM installation

Fundraising totals as of October 31, 2023

- $4.6 million in planned gifts
- $945,000 in realized planned gifts
- $846,000 in major outright gifts and pledges
- $640,000 in annual gifts under $10,000
- $890,000 in corporate support
- $390,000 in foundation gifts
- 49 illustrations, proposals, and gift agreements were provided for donors

Principal Giving

FY 24 Finalized Gifts - Verbal

- Finalized an $8+ mm estate gift for scholarships for the College of Sciences and Arts,with an emphasis on Physics, Chemistry and Mathematics.
- Finalized a $3 million outright gift to benefit scholarship and research.

FY24/FY25 Pending Gifts

- We are working with a CoE alum on seven-figure gifts of active mineral interests and the Athletics Department for support of programs.
- Working on over $5 million gifts to benefit the Husky Child Care initiatives and possibly student counseling services, CoB for the Center for Convergence and Innovation Building, the ECE Department to support an endowed faculty position and an endowed faculty position and scholarship in Civil, Environmental, and Geospatial Engineering.

Principal Giving Travel
VP of Advancement and Alumni Engagement and/or AVP Principal Giving

- Week of 12/1 - SE Coast
- Week of 12/18 - Minnesota
- Week of 1/29 - Florida
- Week of 3/11 - Florida
- Week of 4/1 - East Coast

FY24 Upcoming Campaign Events

- Donor hosted dinners
    - Naples, FL - March 2024
    - Venice FL - March 2024
    - Armonk, NY - April 2024
    - Dollar Bay, MI - TBD

Principal Gifts Execution Committee

- Working with CCS to fine-tune the wealth, likelihood and ability of the top 70 fiends/alumnis who are rated as potential $1million+ donors.

Advancement and Gift Planning

Activity:

- The Flagship campaign Cornerstone Initiative is underway and working to recruit new volunteers.
- Working with CEC volunteers to train, identify and coordinate donor visits and create an initiative scorecard for volunteer contributions.
- Deans and Campus Units' collaborative meetings held in August focused on transitioning new interim dean fundraising plans for FY24 and other campus partner support.
- The Charitable Giving and the Corporate and Foundation Relations (CFR) teams are working with donors and campus partners on several naming opportunities.
- The CFR team has again provided significant support for the Fall Career Fair.
- Collaborative donor visits with Dean Morse to Minneapolis and Lower Michigan.
- Hosted representatives from the Thompson Foundation Foundation and trustees of the McAllister Foundation during campus visits.

Alumni Engagement & Annual Giving

Events

- The Alumni Engagement Office (AE Office) has already hosted ~40 alumni events this year, in 10 different states, in partnership with 30+ alumni hosts (10 of whom are brand new alumni event hosts).
- This December, the AE Office was excited to continue the “holiday blitz” tradition with alumni parties hosted across the country, bringing alumni & friends together to celebrate the holiday season.
- GLI 2023: continuing our alumni social tradition before Thursday’s afternoon game, this time at the MTU-designated local bar in Grand Rapids, Peppinos. The Alumni Board of Directors are co-hosting the pregame on Thurs Dec. 28 with the Alumni Engagement Office with *217* registrants are set to attend.

Communications

- Our calendar year end appeals are scheduled during “giving season” aka holiday season
    - Emails, text message, digital boosts began for #GivingTuesday: 11/28
    - Direct mail, emails, text messages: 12/20-12/31
- We continue to see our mass text messaging perform above industry benchmarks.

Volunteerism

- The AE Office hosted the first Time & Talent cohort in early October..
    - Each alumnus in the cohort had a custom itinerary where they guest lectured in a variety of classes, met with various student orgs and faculty/staff in between, and enjoyed the camaraderie of being back on campus together.
    - This unique volunteer opportunity fills an important gap we had in our volunteer offerings – we have historically provided a variety of one-off opportunities, or long-term leadership commitments, and this offers something in between. We look forward to hosting a new cohort of talented alumni on the roster (some returning!) in Spring Semester 2024.
- Our Alumni Board of Directors continues to be busy in a variety of initiatives in partnership with the AE Office:
    - Recruiting new Directors - the Board is reviewing nominations and interviewing candidates for a new slate that will begin a 6-year term of service on July 1, 2024.
    - Alumni Awards 2024: Nominations for the 5 annual Alumni Awards are still open! The Alumni Board will review and select recipients at their Winter Carnival 2024 meetings.
    - Alumni Resource Matchmaking: The Alumni Board has a tradition of supporting student organizations and initiatives through the Student Initiative Support Program (SISP). Last year, the Board expanded SISP into a new program, known as the Alumni Resource Matchmaker (ARM), and kicked off with a crowdfunding campaign that ran in April. ARM provides the

broader community an opportunity to support select student organizations financially through a crowdfunding campaign.

- The Board reviews applications from RSOs throughout the year and selects qualifying student organizations to participate in ARM. This year, the ARM crowdfunding campaign for 6 select student organizations ran <u>December 6-13</u>:
    - Arnold Air Society
    - IRHC Broomball
    - Men's and Women's Rugby Club
    - Men's Club Volleyball
    - Snowboard Racing Team
    - Sound and Light Services

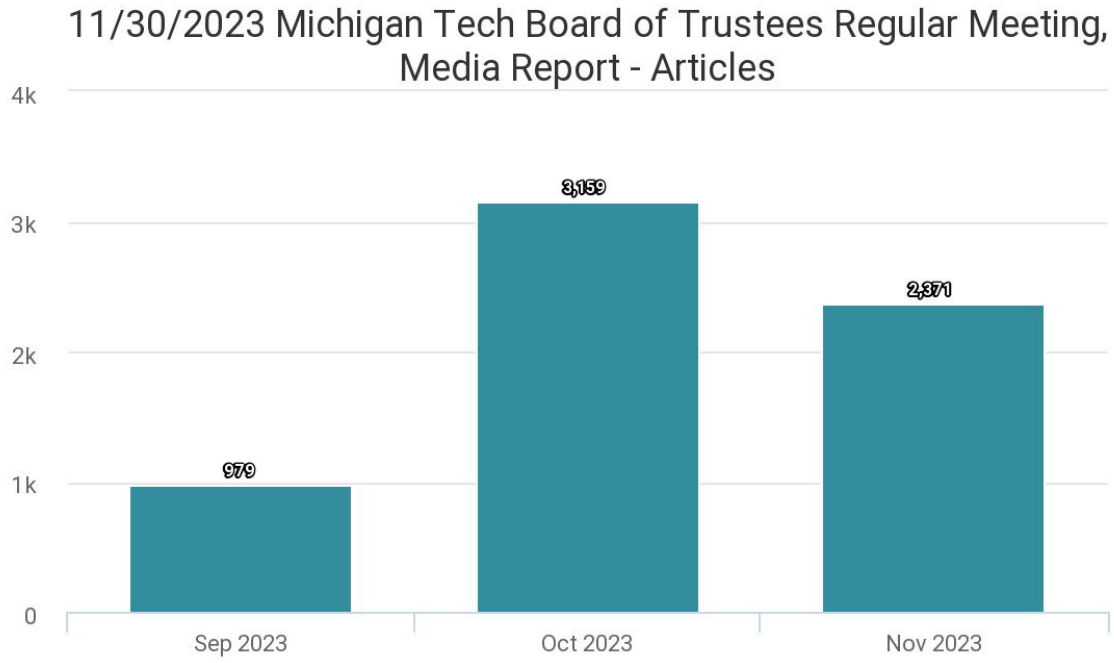
D. Media Coverage

Media Report: Sept 16 to Nov. 30, 2023
Michigan Technological University
Regular Meeting of the Board of Trustees
Dec. 15, 2023

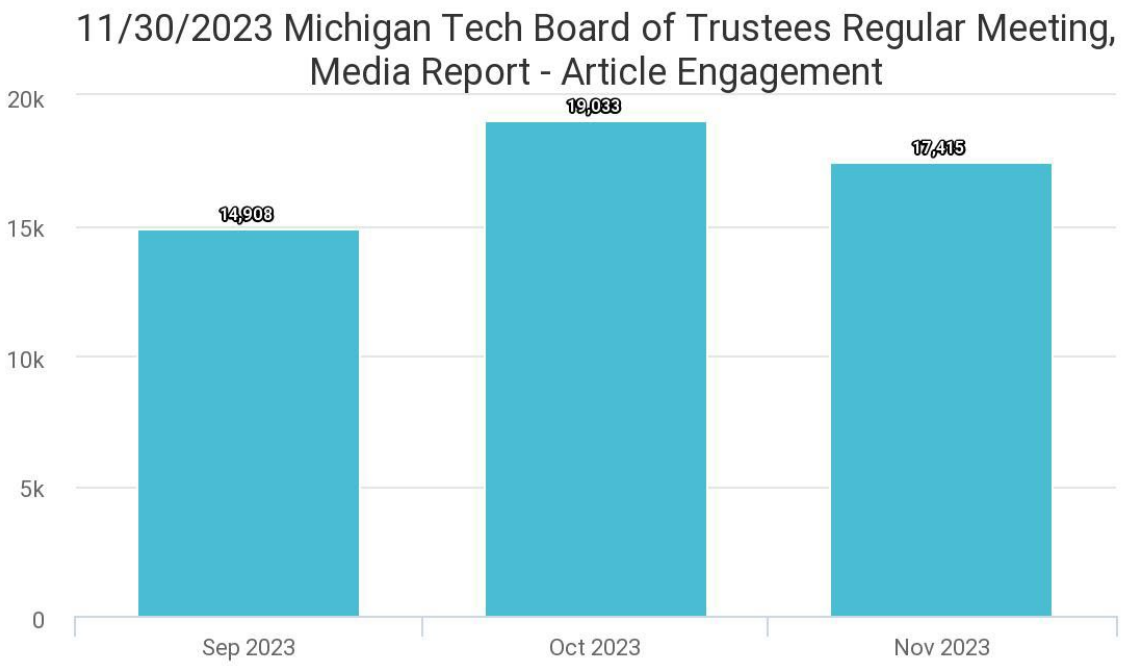
Overview

Articles	6,509
Total engagement	~ 51.4K
Average engagement	7
Journalist shares	307
Journalist reach	~ 9.66M
Average unique visitors per month (UVM)	~ 1.35M
Total UVM	~ 8.81B

Between Sept. 16 and Nov. 30, 2023, a total of 6,509 online articles mentioned Michigan Technological University:



Those 6,509 articles were shared, commented on, or liked on social media roughly 51,400 times, for an average engagement of 7 shares, comments, or likes per article:



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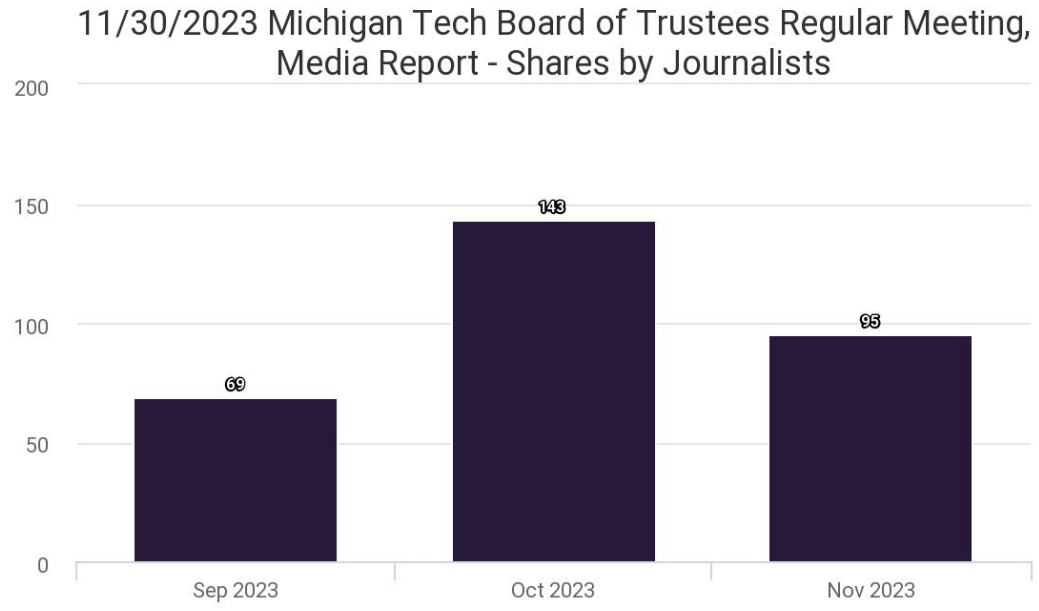
Journalists shared the articles on X(Twitter) 307 times, resulting in a reach of roughly 9.66 million people:



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News Highlights:

Research News

Tara Bal (CFRES/ESC) was quoted by the New York Times in a story listing five places to see outstanding fall colors this year. Bal commented on how stress can affect a tree's autumn leaf colors.

Paul van Susante (ME-EM) was quoted by Forbes in a story about development and testing of Lockeed Martin's inflatable space habitat, made of a strong, light and flexible polymer yarn that's comparable to Kevlar and 10 times stronger than aluminum. Van Susante commented on the efficiency of inflatables in space travel, prior testing and applications, and design considerations for future applications.

The Detroit News mentioned Michigan Tech in coverage of more than $3.6 million in funding for semiconductor training at multiple state universities announced by the state on Monday, Oct. 23.

Rolf Peterson (CFRES) was quoted by the Detroit News, Bridge Michigan, Detroit News, Michigan Radio, Alpena News, Great Lakes Echo and the Mining Journal in a story discussing whether a wolf hunt should be allowed in Michigan if the species is removed from the federal endangered species list. The story was picked up from Michigan State University's Spartan Newsroom.

CBS News and Reuters referenced Michigan Tech's Earthquake Magnitude Scale in a story about the high likelihood of a volcanic eruption near Iceland's town of Grindavik after more than 1,500 earthquakes were recorded nearby on Tuesday and Wednesday (Nov. 14-15).

The Michigan Business Network picked up a Michigan Economic Development Corporation announcement about a $100,000 Mobility Public-Private Partnership & Programming (MP4) Grant awarded to Michigan Tech to establish a drone operator training program. The funding was part of a total $775,000 awarded to MTU, Western Michigan University, and the University of Michigan.

The Mining Journal, WNMU-FM, Daily Mining Gazette and Michigan Business Network picked up a Michigan Economic Development Corporation press release announcing a $838,000 grant awarded to Michigan Tech to expand semiconductor education and training programs across the Upper Peninsula and respond to Michigan's increased demand for skilled technicians and engineering professionals in the semiconductor industry.

Roman Sidortsov (SS) was quoted in a BBC story exploring companies' reasons for continuing to operate in Russia, despite its invasion of Ukraine.

Hydro Review, Power Engineering International, Renewable Energy World, Renewable Energy World picked up an announcement from the U.S. Department of Energy's Water Power

Technologies Office of the first-round winners for the Innovating Distributed Embedded Energy Prize (InDEEP) — including a joint team from Michigan Tech and Arizona State University.

Kuilin Zhang (CEGE) and Jim Baker (VPR) were quoted by UPWord in a story about DRIFT, a research project awarded $1.2 million by the U.S. Department of Energy to model a low-carbon, intermodal freight transportation system of the future. The project was the subject of a Michigan Tech News story.

Ezra Bar-Ziv (ME-EM/APSRC) was quoted by Scrap Monster, Waste & Recycling and Nasdaq in a press release announcing a $600,000 grant from the Reducing Embodied Energy and Decreasing Emissions (REMADE) Institute to a polymer recycling technology research partnership between Michigan Tech, the University of Wisconsin-Madison and polyolefins and biopolymers producer Braskem. The release was picked up from Business Wire.

General News

Fast Company mentioned Michigan Tech in an article sharing tips on how companies can attract young tech professionals.

Forbes mentioned Michigan Tech as one of only four colleges in the nation rated "good" for free speech by the Foundation for Individual Rights and Expression (FIRE).

The Fort Worth Star-Telegram profiled Michigan Tech as No. 15 on Stacker's list of four-year public colleges with the best return on investment. Stacker's rankings were picked up by more than 80 outlets nationwide.

MLive and Crain's Detroit Business mentioned Michigan Tech in a story about Smart Asset's most recent list of "Best Value Colleges." MTU was ranked as the second-highest best value in Michigan, behind only the University of Michigan-Ann Arbor. Tech's starting salary, near $71,000, was described as "near the top of all schools on the list."

Michigan Tech undergrad Alexander Kwapisz (electrical engineering) was quoted by the Wall Street Journal in a story highlighting unexpected heavyweights among the WSJ's list of top schools for salary impact — how much a college boosts salaries earned by students after graduation. The list ranked MTU 12th overall in the nation and second-highest for public universities. The story was picked up by MSN.

The 'Gander mentioned Michigan Tech in a listicle featuring the best small Michigan towns to spend a winter's day in. Houghton was included in the piece, and Winter Carnival was named as the city's can't-miss winter event.

Jay Meldrum (GTRC) and Tim Havens (CS/ICC/GLRC) were quoted by MyNorth.com in a story about Michigan Tech's expanding presence for research, education and business development in Traverse City.

Crain's Detroit Business mentioned Michigan Tech in a story about Sterile State, a new company based in Hancock that's using an innovative sterilization process for newly manufactured medical instruments. The company is a new incarnation of a previous venture, FM Wound Care, which spun off from Tech in 2016.

MLive mentioned Michigan Tech in a story comparing fall 2023 enrollments at Michigan colleges to state and national trends. MTU was highlighted as one of three universities in the state to see positive growth over the last decade.

WLUC TV6 mentioned Michigan Tech in a tribute story remembering Ray Kestner '55 (B.S. Civil Engineering), who died Nov. 7. Kestner was a recipient of MTU's Distinguished Service Award in 1988. He met his wife Janet at Tech, and their seven children were Huskies as well.

Marina Stack and Breann Baker (both ADM) appeared in a segment aired by FOX 2 Detroit about the Next Gen STEM Festival, held at the Lexus Velodrome in Detroit on National STEM Day (Nov. 8). The Michigan Tech Mind Trekkers' musical banana piano also made an appearance. WXYZ Detroit also mentioned Michigan Tech in a story about the Next Gen STEM Festival.

Jenna Lane (Career Services) was quoted by WLUC TV6 in a story about Michigan Tech's fall 2023 Career Fair, held Tuesday (Sept. 19) with 376 employers in attendance. MTU undergraduate Nathaniel Vogler (marketing) and alumna Katie Amar-Fox '19 (B.S. Materials Science and Engineering) were also quoted in the story.

WLUC TV6 and WNMU-FM covered more than $3.4 million in economic development funds awarded to MTEC SmartZone — part of over $73 million in support for state entrepreneurial hubs announced last week by Gov. Gretchen Whitmer. Another recipient was Michigan Tech partner 20Fathoms in Traverse City, according to the Ticker.

The Detroit Free Press, MSN and Yahoo! News mentioned Michigan Tech in stories about Houghton being named one of the nation's top 15 off-the-beaten-path vacation destinations.

The Detroit News covered Michigan Tech hockey goaltender Blake Pietila's record-breaking 59th career victory in goal — the most by any Husky netminder.

Erin Smith (HU) was quoted by the Daily Mining Gazette, WLUC TV6, ABC 10, Keweenaw Report and WJMN Local 3 in stories about this year's 41 North Film Festival at Michigan Tech, which occurred from Nov. 2-5 at the Rozsa Center for the Performing Arts. The Gazette and the Mining Journal also mentioned Robert Schneider (Math) in a story about a particular documentary, "The Elephant 6 Recording Co.," which screened at the festival.

WNMU-FM covered the Higher Learning Commission's approval of Michigan Tech's new bachelor's degree in nursing.

E. Employee Safety Statistics

Michigan Technological University

EMPLOYEE SAFETY STATISTICS YEAR-TO-DATE

Jan - Oct 2022/2023 year to date

	Category	Years	Employee Classification							
			AFSCME	Faculty	Non-Exempt	POA	Professional	Temporary	UAW	Total
Number of Recordable Injuries	Injury Only w/Medical - No Lost Time	2022	2	0	0	0	0	0	0	**2**
		2023	2	1	0	0	0	0	0	**3**
	Lost Time Cases	2022	5	0	0	0	3	1	0	**9**
		2023	2	0	0	0	0	0	0	**2**
	Restricted Work Cases	2022	0	0	0	0	1	0	0	**1**
		2023	1	0	1	0	0	0	0	**2**
	Occupational Safety and Health Administration (OSHA) Recordable Injuries (Total of above)	2022	**7**	**0**	**0**	**0**	**4**	**1**	**0**	**12**
		2023	**5**	**1**	**1**	**0**	**0**	**0**	**0**	**7**
Number of Days	Injury Lost Time [3]	2022	171	0	0	0	44	29	0	**244**
		2023	8	0	0	0	0	0	0	**8**
	Restricted Work Days [3]	2022	0	0	0	0	7	0	0	**7**
		2023	15	0	17	0	0	0	0	**32**
Hours Worked	Total Work Hours	2022	196,135	589,752	65,133	13,825	922,330	60,383	122,150	**1,969,708**
		2023	205,299	599,812	68,724	14,041	977,419	61,581	130,798	**2,057,674**
	Percentage of Work Hours	2022	**10.0%**	**29.9%**	**3.3%**	**0.7%**	**46.8%**	**3.1%**	**6.2%**	**100.0%**
		2023	**10.0%**	**29.2%**	**3.3%**	**0.7%**	**47.5%**	**3.0%**	**6.4%**	**100.0%**
Rates	Lost Time Case Rate [1]	2022	**5.1**	**0.0**	**0.0**	**0.0**	**0.7**	**3.3**	**0.0**	**0.9**
		2023	**1.9**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.2**
	Frequency Rate [2] (Recordable)	2022	**7.1**	**0.0**	**0.0**	**0.0**	**0.9**	**3.3**	**0.0**	**1.2**
		2023	**4.9**	**0.3**	**2.9**	**0.0**	**0.0**	**0.0**	**0.0**	**0.7**

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

1 The Lost Time Case Rate is calculated by multiplying the number of Lost Time Cases by 200,000 then dividing by the labor hours at the U

2 The Frequency Rate is calculated by multiplying the number of recordable cases by 200,000 then dividing by the labor hours at the Unive

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

The Bureau of Labor Statics 2021 Injury, Illness, and Fatalities, Table 1 reports for Colleges and Universities;
the average LOST TIME CASE RATE of days away from work was 0.6 and the average FREQUENCY RATE was 1.4.

F. Disposal of Surplus Property

Michigan Technological University
Surplus Property Sales
September 1, 2023 - October 31, 2023

Date	Description	Amount
09/08/23	2007 Ford Escape XLT	$ 175.00
09/20/23	Vibration Isolation Table, Minus K, 250BM-1, WS-4 Stand	400.00
09/20/23	Vibration Isolation Table, Minus K, 100BM-1, WS-4 Stand	400.00
09/20/23	Nanoindenter System, Nanomechanics Inc, iNano	5,690.00
09/20/23	Microprobe, Nanomechanics Inc, InSEM HT III	18,500.00
09/26/23	Bench Press/Tricep Dip, Hammer Strength	500.00
09/26/23	Hack Squat, Cybex	500.00
09/26/23	Iso Behind Neck Press, Hammer Strength	500.00
10/05/23	South Bend 7 Inch Metal Shaper	305.00
10/05/23	Lincoln Motors Industrial Duty 100 hp Electric Motor	102.50
10/05/23	iPhone XR	61.00
10/05/23	Transfer Molding Press, Hull Corporation	100.00
10/05/23	Husky Concession Trailer, 8x24 Extreme	33,000.00
10/05/23	500GB Hard Drives (Approx. 600, sold in lots)	59.00
10/06/23	Cable Crossover Machine, Cybex, 5649-90	500.00
10/06/23	Leg Extension Machine, FreeMotion/Epic, GZFI8013	200.00
10/10/23	Incline Trainer Treadmill, FreeMotion, i11.9	350.00
10/10/23	Lot of four computers, one laptop	6,500.00
10/24/23	Miscellaneous scrap metal	180.60
Total		**$ 68,023.10**