


MichiganTech
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Technology Transfer, Entrepreneurship, and Efforts to Create New Economy Jobs at Michigan Technological University

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 Technology Transfer and Economic Development
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 Marquette, MI 49830

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Background – Research and Technology Transfer

- \$60M total research expenditures in 2008
- 28th in nation in proportion of research sponsored by industry
- 2 times national average for technology licenses per dollar of research
- 2.3 times national average for invention disclosures per dollar of research
- 2004 Study on local impact of Michigan Tech's research program
 - More than \$29,000,000 local spending/revenue
 - 900-1100 jobs

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


Background - Enrollment

- 2008 Enrollment
 - Undergraduate - 6,033
 - Graduate Students - 981
 - Michigan Resident Students - 4,666
 - International Students – 820
- Program Size Rankings
 - 4th largest Mechanical Engineering enrollment
 - 10th largest Materials Science and Engineering enrollment
 - 6th most degrees awarded in Mining Engineering
 - Most degrees awarded in Environmental Engineering

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Background – Policy


University Research Policy:

The research objectives of Michigan Technological University are:

1. To encourage scholarship and to assist and improve education.
2. To discover and disclose new knowledge.
3. To promote the utilization of new discoveries for the public benefit.
4. To aid, encourage, and support industry, particularly within Michigan.
5. To support the research objectives of State and Federal agencies.

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


Background - Academic Units


- College of Engineering - 3,878 (55%)
- College of Science and Arts - 1,692 (24%)
- School of Technology - 433 (6%)
- School of Forest Resources and Environmental Science - 263 (4%)
- School of Business and Economics - 480 (7%)

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Economic Outcomes – example cases

- IR Telemetrics Inc.
 
 - Founded in 1991
 - Build wireless analytical and data transfer equipment for industrial and commercial applications
 - 10 employees in Hancock.
 - Licensed patented technology developed by graduate student and faculty advisor
 - Continue to work with University
 - One patent filed last year and another being assessed


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Economic Outcomes –
example cases

- Endres Machining Innovations
 - Advanced machining/manufacturing technology
 - Extending metal-cutting expertise to biofuels etc.
 - Housed in incubator on campus
 - Founder currently on faculty of department of Mechanical Engineering – Engineering Mechanics
 - University licensed technology and independently developed technology

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University Collaboration

- University Technology and Expertise Assets Management for Enterprise Development – (U-TEAMED)
 - Collaborative led by Michigan Tech to build on Michigan Tech's established infrastructure in technology transfer to create programs at Eastern Michigan, Central Michigan, and Oakland Universities.
 - Recently began working with Ferris State and Lake Superior State Universities.


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Economic Outcomes –
example cases

- VIO Inc.
 - Wearable video products for outdoor recreation and military/law enforcement applications.
 - Marquette based technology company with historically outsourced engineering and production (west coast and overseas).
 - Team of three faculty and several students building regional engineering function located in Houghton.

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University Collaboration

- Michigan Initiative for Innovation and Entrepreneurship (MIIE)
 - Effort involving all Michigan public universities and their economic development partners to increase economic impact from University research, technologies, and infrastructure.
 - Fills a critical need for gap funding which is fundamental to moving laboratory discoveries to the marketplace.


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Economic Outcomes –
example cases

- Aursos Inc.
 - Technology related to using black bear biochemistry to treat and prevent osteoporosis in humans.
 - Company founded by the Apjohn Group of Kalamazoo to commercialize the technology under license from Michigan Tech.
 - Development work continues at Michigan Tech and with corporate partners in Michigan.

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Thank You

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