



Summer Program Builds Capacity and Competency

Program
Summer Scholars

Sponsor
University Transportation
Center for Materials in Sus-
tainable Transportation Infra-
structure (UTC-MiSTI)

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Who will be the future researchers to support the transportation industry? The UTC-MiSTI's Summer Scholars program is building a workforce of transportation professionals with first hand knowledge of university based research while advancing the UTC-MiSTI's research program expertise in sustainable materials.

Program Objectives

The objectives of the Summer Scholars program include components of all the main UTC program goals; enhancing education; conducting research to meet state and national transportation agency needs; disseminating research through technology transfer; and, building a sustainable and diverse transportation workforce.

Education Objectives

The Summer Scholars Program enhances a students educational experience by engaging them in university based research. Some students may continue down a career path in research while others may enter the engineering and consulting world. For both, an enhanced understanding of how problems are solved through research and the process to develop and implement research, will help them solve real problems and develop solutions in the future.

Professional development is a key component of the Summer Scholars Program. In addition to conducting their research investigations, students are required to participate in a number of professional development activities which benefit the research objectives of the program. These include mandatory writing coach sessions to improve writing skills and attending research integrity seminars.

Activity Summary

Outreach Publication



University Facts (2008-2009)

Total Enrollment	7018
Graduate Enrollment	984
Number of Faculty	445
Placement Rate	96%

Michigan Technological University is located in Houghton, Michigan on the south shore of Lake Superior. This rural area is known for natural beauty, pleasant summers, abundant snowfall, and numerous all-season outdoor activities. In addition, the University maintains its own downhill and cross-country ski facilities and golf course. There are numerous cultural activities and opportunities on campus and in the community. Michigan Tech has also been rated as one of the safest college campuses in the United States, and the local community provides excellent resources conducive to an outstanding quality of life.

For more information, visit the University's website.

www.mtu.edu

Research Objectives

The Summer Scholars Program provides support, including seed funds and student research assistants, for faculty to develop internal investigations. These investigations are used to augment future proposals to external research partners. The investigations are reviewed by the UTC-MiSTI Technical Advisory Council comprised of transportation professionals from industry and government.

A second objective of the program is to build research team capacity by teaming a faculty member with a graduate student and undergraduate student research assistant. Faculty and graduate student mentorship facilitates more efficient undergraduate student involvement in research.

Technology Transfer Objectives

Participants work individually on focused teams and in a larger cohort of teams pursuing a variety of transportation materials related investigations. This supports information exchange across materials and modes.

For each investigation, the research team produces a Project Summary publication, similar to this Activity Summary, on their specific investigation. These publications are available on the UTC-MiSTI website and form the basis for the Transportation Research Board Research in Progress (RiP) data base posting.

Workforce Development Objectives

The Summer Scholars Program engages students with a variety of educational interests in transportation facilitating opportunities for people from underrepresented populations to gain a greater awareness of transportation career opportunities.

Program Outcomes

UTC-MiSTI conducted the Summer Scholars Program in 2007, 2008 and 2009. As of April 2010, the following program outcomes are noted:

- Students and faculty have participated in 16 internal research investigations which have lead to four externally funded projects.
- Summer Scholars investigations have fostered to two published reports and three journal articles.
- Provided research assistant positions for 26 undergraduates, 10 MS and 11 PhD students that included 12 underrepresented positions and 13 positions held by female students.
- Ten Project Summaries, published on the UTC-MiSTI website at www.misti.mtu.edu

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