



# Michigan Technological University

# Civil and Environmental Engineering

## Strategic Plan 2018-2023

### Mission

The Department of Civil and Environmental Engineering provides an educational, professional, and intellectual experience that enables students, alumni, faculty, and staff to contribute to society through teaching, learning, research, practice, and service.

### Vision

The Department of Civil and Environmental Engineering will provide unique educational and research opportunities for students and faculty that promote fundamental understanding of our disciplines while providing a strong foundation to adapt to future change and improve the condition of humanity.

### Culture

The Department of Civil and Environmental Engineering (CEE) aims to promote a culture that values teamwork and collaboration while recognizing all contributions of faculty, staff, and students to meet our core mission. We acknowledge and respect the importance of diversity in an inclusive environment and recognize how this helps shape our Department culture. We aim to reinforce the importance of safety to our department's constituents as industry expects these values in our graduates. To facilitate this culture, the Department realizes that faculty and staff accessibility to our students remains a top priority to support the building of mutually-beneficial, life-long relationships and the development of our graduating engineers.

### Programs

#### Strategic Objective – High-Impact Undergraduate Programs

As a signature trait of our Department, we strive to maintain the excellence of both our undergraduate civil and environmental engineering programs to produce high-quality practicing engineers with an eye on the changing trends in our fields. The uniqueness of our small college, small town setting in conjunction with a large engineering program is a significant draw for many of our prospective undergraduate students seeking social mobility. We aim to provide higher visibility to our undergraduate programs to highlight their distinctive aspects.

#### Strategic Initiatives

- A. Support students with distinct qualities for our unique undergraduate degree programs
- B. Enhance experiential learning opportunities
- C. Make CEE a safe place to learn and work

## Strategic Objective – Growing and Strengthening Graduate Programs

Graduate education is a vital component of our Department's programs. Graduate students are the engine for our research programs that enhance visibility and provide tangible benefits to society and a source of pride to our stakeholders. In addition, many of our students need the high-level theory and skills that are only attainable through graduate education for licensure and career advancement. Supporting these goals, we aim to further develop both our civil and environmental engineering graduate programs to provide focused, high-level educational experiences and to meet the goals laid out in the Michigan Tech Portrait 2045.

### Strategic Initiatives

- A. Support students with distinct qualities for our unique graduate degree programs
- B. Address societal and technological challenges facing the civil and environmental engineering professions
- C. Initiate programs to support graduate student personal and professional development

## Strategic Objective – Strong and Sustainable Research Programs

In the Michigan Tech Portrait 2045, the University aims for research expenditures of \$210 million per year that requires an annual increase in research of 4.5% per year. To achieve these goals in light of reduced federal and state support for research, building and reinforcing key contacts within industry will be necessary.

### Strategic Initiatives

- A. Address interdisciplinary and cross-cutting issues relevant to the civil and environmental engineering profession
- B. Cultivate industry partnerships for collaborative work
- C. Strategically support research productivity and quality

## People

### Strategic Objective – Faculty and Staff Development

CEE Department faculty and staff are the most critical component for providing exceptional educational programs and advancing our fields through research and service. The Department must maintain and develop the level of quality of these human resources to assure our programs' ability to attract students and funding as well as our standing with alumni and industry in an evolving global environment. The Department must also further develop a culture where all faculty and staff feel their contribution (teaching, research, service, and mentoring) directly supports the CEE Department's mission and vision.

### Strategic Initiatives

- A. Faculty and Staff mentoring and professional development
- B. Flagship CEE Seminar experience
- C. Shared governance and service model
- D. Make CEE a safe place to learn and work

### Strategic Objective – Alumni Engagement

CEE alumni are the most visible product of our programs and source of tremendous pride. We will develop and further connect with our alumni base and friends of the Department to enhance experiences of current and future students through mutual collaboration and life-long connections.

Adopted May 2018

## Strategic Initiatives

- A. Inspire alumni giving
- B. Re-engage alumni
- C. Strategically engage future alumni

## Places

### Strategic Objective – Facilities Improvement

The CEE Department acknowledges the space and equipment allotted to us as significant resources, but having limitations to advance the Department toward our strategic program goals in their current state. Efforts to remedy this situation are therefore critical.

### Strategic Initiatives

- A. Fundraising initiatives to advance CEE programs
- B. Make CEE a safe place to learn and work