In recent years, research has demonstrated that data offers great potential to bridge infrastructure finance gaps, unlock efficient capital, and democratize investments for a fairer distribution of quality of life across communities. The **Center for Smart Infrastructure Finance (CSIF)** at the University of Michigan (U-M) integrates smart infrastructure with data science, finance, and policy to sustainably solve financing problems for projects across different targeted areas including: energy, water, transportation, housing, agriculture and forestry.

One of the ways in which CSIF achieves this objective is by providing a highly immersive academic experience through the **Master of Engineering (MEng) degree in Smart Infrastructure Finance**. Open to students from different academic backgrounds, this program not only provides a curriculum oriented towards data-driven finance and business models, but also offers students invaluable professional experience in the financial services, data management, and smart infrastructure industries.
#3 ENVIRONMENTAL ENGINEERING (US News & World Report)

#7 CIVIL ENGINEERING (US News & World Report)

6:1 STUDENT TO FACULTY RATIO

180+ YEARS AS A DEPARTMENT

$9M+ RESEARCH INVESTMENT IN 2019
This **26-credit** program provides students from a broad cross-section of academic backgrounds—including business, policy and engineering, with real-world skills to navigate both the rapidly evolving financial services markets and its intersection with physical and digital infrastructure models. It covers **5** areas of focus, including:

- **A foundation in infrastructure finance**
- **An exploration of smart infrastructure systems**
- **The role of technology and data in infrastructure applications**
- **The influence of data on financial models**
- **Design for investability: coming full circle**

As a standing example, the **multidisciplinary** focus of the Master of Engineering in Smart Infrastructure Finance is illustrated below by a number of students from different areas of study that were enrolled in **CEE 588: Environmental Finance**, over the last five years. This course is also offered as part of the MEng Degree curriculum.
ELECTIVES COVER TWO MAJOR AREAS OF FOCUS

DATA-DRIVEN SYSTEMS

- CEE 575 - Sensing for Civil and Environmental Engineering
- CEE 553 - Infrastructure Systems Optimization
- EECS 545 - Machine Learning
- CEE 572 - Dynamic Infrastructure Systems
- ENG 520 - Entrepreneurial Business Fundamentals
- CEE 554 - Data Mining in Transportation

FINANCE

- CEE 588 - Environmental Finance
- FIN 583 - Energy Project Finance
- FIN 480 - Options and Futures in Financial Decision Making
- FIN 624 - Private Equity
- PUBPOL 750 - FinTech Entrepreneurship
The MEng degree in Smart Infrastructure Finance enables students to:

- Explore the innovation opportunity of smart infrastructure as an asset class.
- Develop performance benchmarks based on infrastructure characteristics.
- Understand how data facilitates risk management in infrastructure investment.
- Categorize data types, their value, and pricing in the marketplace.
- Develop and test financial models to capture the value from data.
- Inform infrastructure designs that target financial and resiliency objectives.
- Explore career opportunities in finance-oriented fields such as investment banks, management consultancies, financial technology, and construction firms.

WITH THIS DEGREE, STUDENTS ARE UNIQUELY EQUIPPED TO PURSUE CAREERS ACROSS A VARIETY OF FIELDS

WEBSITE
sifin.engin.umich.edu/education

CSIF DIRECTOR
Professor Peter Adriaens
Email: adriaens@umich.edu

CONTACT AN ADVISOR
cee.engin.umich.edu/about/contact/masters-advising-contacts

CSIF ON TWITTER
@UM_CSIF