

全额博士奖学金机会 - 优化和控制网联自动驾驶汽车: 密西根理工大学 Dr. Kuilin Zhang 项目组招收全额奖学金博士生做优化和控制网联自动驾驶汽车的项目。Dr. Zhang 刚拿到美国国家科学基金的 [NSF CAREER Award](#). 所以学生有机会利用优化(Optimization), 控制(Control), 博弈论(Game Theory), 机器学习(Machine Learning), 和大数据分析(Big Data Analytics) 来做理论方面的研究。另外, Dr. Zhang 正在做美国能源部的网联自动驾驶汽车的项目, 学生有机会把理论研究实现在真正的网联自动驾驶汽车上面, 做实际道路测试。作为土木工程(CEE)系和计算机(CS)系的教授, Dr. Zhang 同时指导交通(Transportation)专业和计算机(Computer Science)专业的博士生。Dr. Zhang 正在研究的方向有交通系统, 物流系统, 网联自动驾驶(CAV), 共享交通, 物联网(IoT), 车载移动网络(VANETs), 信息物理系统(CPS), 智能电网, 以及智慧城市。项目组的博士学生来自中国人民大学(城市规划专业), 北京邮电大学(通信工程专业), 以及Staffordshire University(计算机专业)。Dr. Zhang 毕业于美国西北大学(Northwestern University)并曾供职于美国能源部阿岗国家实验室(Argonne National Laboratory)。他与国家实验室以及工业界例如HERE Technologies 和 General Motors 有广泛的合作。感兴趣的学生请直接联系 Dr. Zhang klzhang@mtu.edu。

Ph.D. Positions in Data-Driven Optimization based Control for Connected and Automated Vehicles at Michigan Tech

Prospective students will work on an **NSF CAREER** project on data-driven optimization based control of connected and automated vehicles (CAVs) in smart cities. This [NSF CAREER project](#) will use optimization, control, game theory, machine learning, and big data analytics for theoretical research in connected and automated routing and driving decisions. In addition, the students also have an opportunity to work on an on-going DOE APRA-e project using a fleet of CAVs provided by General Motors. In addition to theoretical research, students will have a **UNIQUE** chance to implement their models and algorithms in a real-time online automated driving platform hosted in the fleet of CAVs, conduct **real-world road testing** of your models using CAVs, and interacting with engineers from General Motors. Students are expected to work in the high-performance computing Laboratory on Sustainable and Intelligent Transportation Systems (SITS-Lab) with Dr. [Kuilin Zhang](#). Dr. Zhang is Assistant Professor in the Department of Civil and Environmental Engineering ([CEE](#)) and Affiliated Assistant Professor in the Department of Computer Science ([CS](#)) at Michigan Technological University ([Michigan Tech](#)), Houghton, Michigan, U.S.A. Dr. Zhang received his Ph.D. degree in Transportation Systems Analysis and Planning from the Department of Civil and Environmental Engineering at [Northwestern University](#) in December 2009. After working as a Postdoctoral Fellow in the Transportation Center at Northwestern, he joined the Energy Systems Division at [Argonne National Laboratory](#) as a Postdoctoral Appointee in November 2010. Dr. Zhang is a member of the Editorial Advisory Board of [Transportation Research Part E - Logistics and Transportation Review](#), as well as Transportation Research Board (TRB) standing committees of Transportation Network Modeling ([ADB30](#)) and Freight Transportation Planning and Logistics ([AT015](#)). Dr. Zhang's research areas include transportation network modeling and optimization, intelligent transportation systems, logistics and supply chain systems, traffic flow theory and traffic simulation, mobile sensing and big traffic data analytics, connected and automated vehicles, and plug-in electric vehicles. In the Computer Science area, Dr. Zhang's research focuses on Vehicular Ad-hoc Networks (VANETs), Internet of Things(IoT), Cyber-Physical Systems (CPS), High-Performance Computing, and Machine Learning. Interested applicants from transportation engineering, applied mathematics, systems engineering, control theory, electrical and computer engineering, and computer science are encouraged to contact Dr. Zhang directly by sending a complete resume, research statement, and representative publications at klzhang@mtu.edu, and **submit their applications FREE on-line** at <http://www.mtu.edu/cee/graduate/civil/>. You are expected to have

- a **passion** for research areas in transportation and logistics systems, connected and automated vehicles, shared mobility, cyber-physical systems, smart grid, Internet of Things, and smart cities.
- solid **mathematics** background such as operations research, control theory, game theory, and machine learning,
- and proficient **programming** skills in C++ or Python.