Master of Science in Electrical Engineering

WSU’s Department of Electrical Engineering and Computer Science offers courses of study leading to the Master of Science in Electrical Engineering (MSEE). The MSEE is a flexible degree program for students seeking an advanced professional career in electrical engineering, or gaining admission into PhD programs around the world. Students of the program have the opportunity to build a strong foundation in physical science and mathematics, while exploring key sub-disciplines taught by active researchers having national and international recognition in communication and signal processing, computing systems, control systems and robotics, power and energy systems, and computer networking.

MSEE Admission
The program admits students with a bachelor’s degree in electrical engineering, computer engineering, or a related area. Students from other areas with at least one year of university-level engineering mathematics may be admitted with an extra requirement to complete some undergraduate background deficiency courses prescribed at the time of admission.

To be considered for admission to the program, a student must have earned a GPA of at least 3.000 (or an equivalent score from another country) in the bachelor’s degree.

Students whose bachelor’s degree is from an institution outside the U.S. are required to submit official scores of the GRE General Test along with the admission application.

English Proficiency
Non-native speakers of English must provide either an official TOEFL score of at least 79 on the internet based test, OR an overall minimum band score of 6.5 on the IELTS examination, OR a score of 58 on the PTE-Academic.

MSEE Degree Requirements
Each MSEE student chooses a major and minor specialization area. Major areas in the department are communication and signal processing, computing systems, control systems and robotics, power and energy systems. Any of these can also be chosen as a minor area. In addition, computer networking can be a minor area. Current courses in each of these areas are listed on the department’s website. The number of courses taken by the student in the major and minor areas depends upon the graduating option chosen. A limited number of electives may also be taken with approval of the student’s advisor.

Graduating Options:
Thesis option – at least 30 credit hours, including (a) at least 9 hours of courses from a major area, of which at least 3 hours must be numbered at 800-level, or higher, (b) at least 6 hours from a minor area, and (c) 6 hours of thesis, EE 876.

Project option – at least 33 credit hours, including (a) at least 9 hours of courses from a major area, of which at least 3 hours must be numbered at 800-level, or higher, (b) at least 6 hours from a minor area, and (c) 3 hours of project, EE 878.

Coursework option – at least 36 credit hours, including (a) at least 12 hours of courses from a major area, of which at least 6 hours must be numbered at 800-level, or higher, and at least 3 hours must be courses with a research writing and presentation component, (b) at least 6 hours from a minor area, of which at least 3
hours must be numbered at 800-level, or higher, and (c) at least 27 hours of courses from the MSEE major and minor course list.

**Financial Aid**
Several financial aid opportunities are available on a competitive basis to the best qualified students in the form of doctoral fellowships and teaching and research assistantships. Furthermore, the university at large provides several campus employment opportunities for students.

**Faculty**

*Visvakumar Aravinthan*, Assistant Professor. Power systems and reliability, smart distribution systems and grids, distribution systems reliability

*Zheng Chen*, Assistant Professor. Dynamics & controls, bio-inspired robotics, renewable energy systems

*Yanwu Ding*, Associate Professor. Communication systems, wireless communications, signal processing

*Murtuza Jadliwala*, Assistant Professor. Computer networking, information assurance, network security, graph theory and combinatorial optimization

*Ward T. Jewell*, Professor. Power systems, power quality, sustainability

*Hufeza Kagdi*, Assistant Professor. Software maintenance, visualization, and evolution, empirical software engineering, program comprehension

*Preethika Kumar*, Associate Professor. Quantum computing architectures

*Hyuck M. Kwon*, Professor. Communication systems/theory, wireless communications

*Vinod Namboodiri*, Associate Professor. Wireless networking

*Chengzong Pang*, Assistant Professor. Power system security, stability analysis for smart grid

*Prakash Ramanan*, Professor. XML, database systems, algorithms, data structures, information retrieval

*Steven R. Skinner*, Professor and Associate Dean. Quantum computing

*Pu Wang*, Assistant Professor. Data networks, cognitive radio networks, Internet of multimedia things

*John M. Watkins*, Professor and Chair. Control systems

**For More Information**

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