Computer Systems and Networks

Computer networks are ubiquitous now. This emphasis is designed to prepare students for dynamic careers in the field of computer networks and distributed systems. A set of core courses are focused on advanced topics to allow students to build expertise in areas of fundamental cores of Internet and distributed systems, next generation mobile networks (5G and beyond), distributed decision making based on artificial intelligence, network economics, edge/fog/cloud computing, high performance computing system, high performance networking and computing, multimedia and wireless networks, communications protocols, peer-to-peer systems, distributed storage and transactions, resource management, system security, performance measurement and tuning, and various distributed applications.

Area Chair: Prof. Eirini Eleni Tsiropoulou (http://ece-research.unm.edu/tsiropoulou/)

Faculty Members:

Prof. Michael Devetsikiotis (https://ece.unm.edu/faculty-staff/electrical-and-computer/michael-devetsikiotis.html)

Prof. Ramiro Jordan (https://ece.unm.edu/faculty-staff/electrical-and-computer/ramiro-jordan.html)

Prof. Marios Pattichis (https://ece.unm.edu/faculty-staff/electrical-and-computer/marios-pattichis.html)

Prof. Jim Plusquellic (http://ece-research.unm.edu/jimp/)

Prof. Xiang Sun (http://www.unm.edu/~sunxiang/index.htm)

Prof. Eirini Eleni Tsiropoulou (http://ece-research.unm.edu/tsiropoulou/)

Recommended courses:

1. ECE 440 Introduction to Computer Networks

2. ECE 506 Optimization Theory

3. ECE 517 Machine Learning

4. ECE 522 Hardware/Software Codesign with FPGAs

5. ECE 524 Network Economics

6. ECE 525 Hardware Oriented Security & Trust

7. ECE 537 Foundations of Computing

8. ECE 540 Advanced Networking Topics

9. ECE 541 Probability Theory and Stochastic Processes

10. ECE 551/651 Problems

11. ECE 599 Master's Thesis

Other courses delivered as Special Topics (ECE 595) may become available per semester. Please contact the Area Chair or the faculty members for further information.