

## **E1: Applied Electromagnetics**

Electromagnetics is a fundamental area of science. Engineering Electromagnetics encompasses applications of electromagnetic theory in areas such as high frequency (RF, microwave) circuits, sources, and systems; antennas; wireless communications; electromagnetic wave propagation; computational electromagnetics; pulsed power science and technology; plasma science; particle accelerator science and technology; electromagnetic compatibility (EMC); electromagnetic effects; and bioelectromagnetics. The ECE department has active research in most of these areas.

**Area Chair:** Prof. Mark Gilmore (<http://www.ece.unm.edu/~gilmore/>)

### **Faculty Members:**

Prof. Christos Christodoulou (<http://www.ece.unm.edu/faculty/cgc/>)

Prof. Jane Lehr ([http://www.ece.unm.edu/faculty\\_Staff/Lehr.html](http://www.ece.unm.edu/faculty_Staff/Lehr.html))

Prof. Zhen Peng (<https://sites.google.com/site/zhenpeng11111/>)

Prof. Edl Shamiloglu (<http://www.ece.unm.edu/faculty/edl/>)

### **Major core courses:**

ECE560 Introduction to Microwave Engineering (Fall), ECE561 Electrodynamics (Spring) and either:

1) ECE534 Plasma Physics I (Fall, Plasma Science track),

OR

2) ECE569 Antennas (Spring, Antennas track).

4<sup>th</sup> course required for Ph.D.: ECE 563 Computational Methods for Electromagnetics