

**M.S. Thesis Announcement**  
**Department of Electrical & Computer Engineering**

**ARC FLASH MITIGATION: OVERVIEW OF CODEPENDENT  
SYSTEM STUDIES RELEVANT TO IEEE STANDARD 1584**

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**Date:** 04/27/2015

**Time:** 12:00 PM – 1:00 PM

**Place:** ECE Conference Room N328-D

**Committee Chair:** Dr. Wajiha Shireen

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**ABSTRACT:**

Accidents due to arc flash events are currently of special interest in the electrical power industry. These events often result in serious injuries, deaths, equipment damage, facility shutdowns, lawsuits, and penalties. Risk assessments are usually performed by the power systems engineer during the design phase to mitigate the effects of potential arc flash occurrences.

The objective of this thesis is to demonstrate the significance of arc flash hazard risk assessments implemented during the installation of electrical power equipment. This thesis presents a synopsis of the main industry design standards and codes that govern the design of electrical distribution systems in commercial and industrial facilities.

Simulations were performed for a case study using *SKM Power Tools* to demonstrate the interpretation and practical application of these standards and codes. Electrical studies and analyses were performed on the model, and recommendations were provided to address the mitigation of potential arc flash incidents throughout the electrical network of the case study.