



**Institute of Electrical and Electronic Engineers (IEEE)
Women Society of Engineers (SWE)**

UNIVERSITY OF MICHIGAN

April 16, 2025

INTRODUCTION TO ELECTRICAL ENGINEERING/POWER

AGENDA

1. Introduction to CTC Engineering, LLC
2. What Does an Electrical Engineer in Power Do/Concept-to-Commissioning
 - Design of Medium and High Voltage Power Systems
 - Generation
 - Transmission
 - Distribution
 - Protective Relaying
 - Metering
3. Health Care
 - St. Joseph Mercy Hospital
 - University of Michigan Medical Center
 - Beaumont Hospital/Corewell Health/Troy
4. Industrial
 - Dearborn Rouge Plant – Ford Motor Company/Cleveland-Cliffs
 - CMS/Northstar Energy - 660MW Generation - 230kV/120kV/ 34.5kV
5. Airport Applications
 - DTW/Detroit Metropolitan Wayne County Airport - 40kV to 120kV/13.8kV
 - ATL/Hartsfield Airport Failure
 - LHR/Heathrow Airport Substation Failure
6. Codes and Standards
7. Engineering is Fun!!!
8. Emergency Situations
9. Questions???