**10/23/14 General Board Meeting**

Our guest speaker is Raj Goberdhan, Distribution Engineer at Duke Energy.

* History of Duke
  + Duke energy has been in service for 114 years
  + They operate in parts of Florida, Carolinas, etc.
    - In Florida, they mostly work near the Disney area
* Some ways Duke creates electricity
  + Coal
  + Gas/oil
  + Nuclear
    - Uses plutonium and uranium
    - However it is expensive to purchase these elements
  + Hydro/renewable
* What is a Megawatt
  + One megawatt is 1 million watts of power
    - Enough to power one thousand 100W light bulbs
    - Can power about 500 to 1000 homes
* What is electricity
  + Current is created by a magnetic force (magnetic flux)
  + Current pushes the electrons which creates electricity
* Raj’s job
  + He is a designer that maps areas to install transformers, lighting fixtures, poles, etc.
  + Overhead phone wires are cheaper to install than underground wires because you avoid digging costs.
  + He works mostly in the area of International drive and Seaworld
* Advice
  + Make sure your work/reports are well written because maybe other professors, colleagues, etc. will look over them and critique them
* Duke “360” safety procedure
  + You go around your vehicle and check everything works. I.E. lights, blinkers, tires are not damaged, etc.
  + They look for anything out of the ordinary
  + The repercussions for not doing the “360” procedures
    - Results in minor and social consequences
  + Never leave your vehicle without your hard hate, steel toed boots, and vest
* Story about a person who failed to remember the “360” procedures
  + A friend parked his duke truck into a parking spot like anyone would, however, with a duke truck you are supposed to back it up into the spot. He backed out of the spot without any help from his colleague and backed up into a car. What he was supposed to do was get his colleague to help him back out of the spot and to warn him of any incoming traffic.
* Duke’s Core Values
  + Caring
  + Kind
  + Safe
* Software they use
  + They use GNet software to create their maps, documents, and redline
* Some of the engineers they hire
  + Electrical engineers
  + Lineman crew
  + Crewman (responsible for carrying out the plans that the designers create)