## EEE MATLAB 2016 Projects List

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CONCEPTS:

- MATLAB/SIMULINK
- POWER SYSTEMS
  - PHOTO VOLTAIC CELLS
  - WIND POWER PLANTS (IG/DFIG)
  - ULTRA CAPACITORS
  - FUEL CELLS
  - HYBRID POWER PLANTS
  - SMART GRID
  - HVDC AND HVAC
  - CONCEPTS OF LOADS
  - POWER QUALITY
  - ETC....
- POWER ELECTRONICS
  - RECTIFIERS
  - INVERTERS
  - AC-AC CONVERTERS (CYCLO CONVERTER, MATRIX CONVERTERS)
  - DC-DC CONVERTERS (BUCK, BOOST, BUCKBOOST, SEPIC, FLYBACK, CUK)
  - MULTI LEVEL CONVERTERS (CHBMLC, FCMLC, DCMLC, HYBRIDMLC)
  - PWM (SPWM, SVPWM, CBPWM, MCPWM, SVM)
  - ETC....
- MACHINES
  - MODELLING AND DESIGNING OF INDUCTION MOTOR
  - MODELLING AND DESIGNING OF DC MOTOR
  - MODELLING AND DESIGNING OF PMBLDCM
  - VECTOR AND SCALER CONTROLLER
  - ETC....
- CONTROL SYSTEMS
  - PI CONTROLLER
  - FUZZY CONTROLLER
  - NEURAL NETWORKS, ARTIFICIAL NEURAL NETWORKS
  - NEURO FUZZY
  - ETC...
- OPTIMIZATION CONCEPTS
  - GENETIC ALGORITHM
  - PARTICIAL SWARM OPTIMIZATION
  - BACTERIAL OPTIMIZATION
  - PLANT GROWTH OPTIMIZATION
  - ETC....
- FACTS
  - SHUNT CONVERTERS, SERIES CONVERTERS, SERIES SHUNT CONVERTES, ETC.....