EE290N-3 Class Projects:

Class projects can center on the topics already presented in class, those advertised for future lectures, as well as other connected topics. A partial list of possible project topics follows:

1) Building energy system analysis and design:
   - electrical
   - mechanical
   - codesign

2) Energy monitoring:
   - methodologies for assessment (ref. Culler lecture)
   - opportunities to eliminate waste
   - social response to information

3) Grid Connected power electronics:
   - high voltage dc transmission
   - flexible ac transmission (facts) devices
   - customer side line connected devices

4) Smart Grid:
   - information+communication technology applied to enable enhanced power system functionality
   - how to integrate large penetration of intermittent renewables
   - load side technologies - demand response
   - emerging ac transmission information technology features
     (eg. use of phasor measurement data)

5) Energy Storage:
   - survey of current and emerging technologies
   - application and economic valuation of energy storage

6) Electric drive vehicle technology

7) Solar energy:
   - photovoltaics
   - solar thermal electric
   - thermal
   - combined functions

8) Wind energy technology
9) Green Appliances:
   - lighting + controls
   - "white" goods
   - sleep modes that work
   - standards

10) Green Fuels
    - renewable fuel cycles and potential for scaled application