**Hao Liang**

1. Title: Smart Power Micro-grid (Enterprise level grid).  
   Utility level micro-grid (more issues, voltage unbalance, disturbance, so on).

Ans: I don’t mind changing the title but since our solutions are applicable to general mircogrid (following certain assumptions), we may keep the same title. Second, it may be hard to change the title in Graduate Studies Office after the defense. Please let me know if you want me to change the title to “An Analytical Framework for Power Quality Monitoring in Enterprise Level Power Grid”

1. Chapter 1: Add related work, before contributions

Ans:

1. Power quality monitoring: Regular order: placement—> monitoring —>estimation. Why do you estimate first? Any reason for the change of order? Add some discussion over there.

Ans:

1. Page 12: Table 2.2. Swell (double check all values. Swell values normally are larger than 1).

Ans:

1. Page 17: Item 3. “The existing PMU placement algorithms address the problem of estimating network states and do not consider power quality estimation explicitly.” More explanation is required. What is the main difference between your problem and existing PMU Placement problem mathematically?

Ans:

1. Page 22, Figure 3.1: Circle represents the power quality meters. What type of power quality meters are used here? How about devices that only have one link to the smart grid (e.g. Capacitor bank)? It is better to change the title of the thesis and narrow down to Enterprise level power grid.

Ans:

1. Data collection: details of the data. How large is the size, voltage level,

Ans:

1. 14 power quality events. Explain the meaning of Power quality class (Table 3.2).

Ans:

1. Table 3.6: What is the device of D8? Why the output of C14 is high?  To help readers understand, detail of D8 needs to give.

Ans:

1. Page 49, comparison between EM and MaxEnt, how significant is the time saving? Put discussion here. When the network size becomes large and real-time estimation is required, the running time is more important.

Ans:

**Hong-Chuan Yang**

1. Is there a reverse transfer function?

Ans:

1. Entropy maximization: Page 16. Put constraints in the problem formulation, change the notation from R^n to [0,1]^n

Ans:

1. Does the transfer function change over time?

Ans:

1. Presentation of thesis. Table of Nomenclature. Move ahead because this nomenclature has been used in all chapters.

Ans:

1. Abstract: (add one more sentence regarding the performance).

Ans:

**Dimitri Marinakis**

1. Page 24: Table 3.2, Table 3.5, Table 3.6, consistent problem. More explanation.

Ans:

1. MaxEnt: MaxEnt has been compared with the BP/Sampling algorithms. In which situation MaxEnt will suffer? Does Network topology have impact on this?

Ans:

1. Could you extend the model to capture the temporal feature of transition function? For the four-your data, have you observed any changes of transfer function over time?

Ans:

1. Stochastic matrix: could you find some related literature on the roots of stochastic matrix, which may help your solution?

Ans:

1. Section 6.4.3: How does the number of samples impact the accuracy of CE?

Ans:

1. Put discussion on the condition when MaxEnt suffers (related to question 2).

Ans:

1. Page 65, Page 67 (What is the difference between BP benchmark vs. BP algorithm? How many samples? How does the size of samples impact the results? Add discussion to help readers understand better.

Ans:

1. Page 45, third constraint. If we remove the constraint, what is the impact?

Ans:

**Kui Wu:**

1. Chapter 7: Section 7.3.1, Correlation function. What is the underlying assumption in order to use the correlation function defined here?

Ans:

1. Suggestion: Title (reconsider)

Ans:

1. Equation 7.1 —> Equation (7.1). Double check the whole thesis for the missing ( ).

Ans: