**2018 ECE 506 Paper Summary Submission Guidelines**

**Links and Deadlines**

1. Select meeting time from Doodle: <https://doodle.com/poll/a2wz5tkwyv6s7hem>.

Deadline=Friday, November 16th, 2018.

1. Project information is provided under Project in learn.unm.edu.
2. Resubmit material after meeting. Deadline=Friday, November 23rd, 2018.

**Project summary assignment outline**

The project summary assignment involves the following steps:

1. Review lectures and material on how to write your paper.
2. Prepare a draft summary (see below) that will be discussed in our face-to-face meeting. Also, note that you will need to prepare very carefully for meeting since I will be asking you some very specific questions.
3. Select a time for meeting me. Make sure to bring the **required** draft material to the meeting and keep records of all the feedback that you receive during the meeting.
4. Submit the **required** material online as detailed below.

To prepare for this meeting, you will need to review the online material on how to prepare your paper. Please note that there are several example journal and some conference papers online. Make sure to take a look at papers that include optimization examples. For the meeting you will need to:

* Select a time to meet via the Doodle link.
* Select appropriate IEEE or other related, high-quality papers that are not older than 5 years old that relate to the project. You will need to bring printouts or PDFs with you for review. These papers will be references to your paper.
* Write a draft paper as documented below.
* Keep notes of the feedback as documented below.

**Meeting format**

At the beginning of the meeting, you will be asked to submit all of the material listed below. I will then spend up to five minutes reviewing the material. After my review, I will be asking you some questions.

**Questions that will be asked during the meeting**

During the meeting, you will have to be prepared to:

* Carefully explain which ECE 506 or other optimization concepts will be used in your project.
* If running simulations, explain what type of new data and algorithms will be developed and run to generate the results. Alternatively, you can simply use the Optimization toolbox from Matlab, Python, or R (more on this later).
* If working on mathematical models, you will need to explain how the theory relates to the class textbook or provide background references.
* Explain how the project is different than prior work that you worked on.
* Explain different aspects of the project based on my review.
* I will also ask you if you have **any questions for me to answer regarding the assignment.**

**Required documents**

The assignment consists of two separate documents. The first document is your proposal draft. It should be submitted in both PDF and Word (.docx) or PDF and zip-files of LaTex documents. The second document should be the revision history document.

**Requirements for proposal draft document**

You are required to submit a draft with the following **sections**. Failure to provide them separately will result in losing points.

* **Title:** Your title should include the paper type: **review** or **original method** or **tutorial**. For example, your title needs to be: *Original Method: Your title goes here.*
* **Abstract (1 paragraph):** Write a short abstract of what you would like to do in your project. I advice that you write the abstract ***after*** you complete the remaining parts of the assignment.
* **Motivation (1 paragraph):** Explain why you have chosen the topic. You will need to make connections to the modules discussed in class. ***Make sure to avoid overly relying on material that has already been covered. Please look at future material.***
* **Expected contribution (1 paragraph):** Explain what your original contribution will be in the proposed research. Are you implementing all of the code? Can you provide the source code for everything that you have implemented with clear indication on which parts of the code was done by others?
* **Expected contribution against competitive methods (table):** Provide a draft table that should include prior methods that you will compare against. Specifically indicate which ***new*** feature or approach you will provide over prior or existing methods. You may want to finish the writing of this section after you complete the other pieces since it involves the use of validation metrics (specified below).
* **Draft flowchart or pseudo-code (one or more diagrams):** Please provide a draft flowchart for the image and video processing blocks that will be used in your project. You do not need to understand the pieces right now.
* **Code (1 paragraph):** Explain how you will get or develop the code for your project. Give the language that you are using and websites that you will be using.
* **Data (max=1 paragraph):** Explain how you are going to collect your data. Where will the images or videos come from? Do you already have them?
* **Data training and independent testing method (max=1 paragraph):** You will need to optimize your method on a training set while reporting your results on an independent data set (e.g., leave-one-out, cross-validation).
* **Method(s) validation metrics:** Carefully identify the metrics that you will be using for validating your approach (e.g., mean-squared error, SSIM, PSNR+bitrate, ROC parameters or curves, etc).
* **Bibliography (1 paragraph justification):** Select relevant IEEE Transactions or high-impact IEEE Conferences or other high impact publications **with at-least one major reference paper published in the** ***last 3 years*** (see below) that are relevant to your proposal. If you are not using IEEE Transactions, you need to provide an impact factor or the citations of the paper or a brief statement explaining how the references were chosen. Similarly, you will need to provide justification if you are only using papers that are older than 3 years old.
* **Links or PDF documents for the bibliography:** I want to see the papers or links to the papers that you will be using. This will allow me to review them with you.

**Requirements for paper revision document**

Prepare a separate document that needs to include the following sections:

* **Revision process (1 paragraph):** First, you will need to identify how you will be revising your paper. Will you be using Microsoft Word or LaTeX? How will you track your changes between revisions? I want you to use “track changes” as well as a separate document.
* **Revision history:** You will also need to provide a log that summarizes the changes that you made to the document based on the feedback that you receive (both oral and written). Start this document by providing a dated entry of your first version of the document. For example, your first entry can be: “MS Word (date=March xxx, 2016): The initial proposal draft has been created based on the assignment.”. I also want to see a second dated entry in your document that should be: “MS Word (date=month/day/year): Changes made to provide connections and flow: (followed by a single paragraph)”. In the paragraph, please include a list of changes that you made to your document to provide better ***flow*** and ***connections*** among the different part.

**Online submission of required material after the meeting**

Following the meeting, you will be expected to write a short paragraph summarizing the meeting discussion on what you were asked to do and what you have decided to do. A week following the meeting, you will be expected to submit COPIES of the following 3 documents: (i) original paper summary presented in the meeting, (ii) brief summary of feedback received during the meeting, and (iii) revised paper summary based on the feedback.

**Grading**

The goal of this assignment is to prepare you for a successful project. This first assignment requires drafts of your material that will be reviewed in face-to-face meetings. The assignment will be graded based on the following simplified metric for ***each project component*** listed below:

* **Full credit:** Substantial effort has been demonstrated in preparing the material.
* **Half credit:** Some effort has been demonstrated but significant material is lacking.
* **Zero credit:** Very little effort has been demonstrated.

In addition to the above, your proposal draft will be graded based on:

* **Flow:** There needs to be a flow among the different parts of the proposal project. They should not contradict each other.
* **Connections:** I need to see the connections between the different portions of your paper. You should not ignore how the pieces connect to each other.