**CT Project – General Description**

BME-2104 Biomedical Imaging Technology

Project Description:

In this project, our main goal is for students to gain hands-on experience on CT imaging. We will apply the principles learned in classroom to investigate the details of data acquisition, reconstruction, processing, and analysis for CT imaging. We will use an optical CT scanner to collect raw data, and develop a reconstruction algorithm that can reconstruct raw data into CT images at the highest quality possible. The algorithm can be analytical, iterative, or deep-learning based. Finally, you will evaluate your experimental results, both qualitatively and quantitatively.

Each team will consist of 3-4 student members (exception may be granted pending on instructor approval). Team members are encouraged to work collaboratively, and every member of the team should contribute to the project outcome. Each team will need to submit a written project report, which should contain a title, a list of contributing team members (i.e. author info), an abstract, four main sections (Introduction, Method, Result, Discussion), as well as a “Contribution” section. The “Contribution” section should report the contribution of each member to the project.

Here is the **important** **project timeline**:

* **April 14:** Completion of team formation
* **April 15:** Release of this project
* **April 26:** Completion of optical CT data acquisition
* **May 15:** Submission of your project report to Blackboard