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| **MEETING MINUTES – Team Meeting** |
| DATE: September 12, 2014 |
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| OWNER: Julia Kim |

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During this team meeting held on 09/12/2014, ECE advisor Dr. Foo, ECE coordinator Dr. Frank, and ME chair Dr. Collins were present during the 30 minute long meeting.

* We formally introduced ourselves and talked about experiences that each team member has that would contribute to the project.
* We received the news that there are two Industrial Engineering students who are part of the project.
  + Possible roles for them: Budget Management, Schedules, Project Management, Analysis, Design and Manufacturing.
* Budget for project is given to FAMU Foundation.
  + Have to be on top of things because they are slow. Also, they only reimburse FAMU students for out of pocket purchases.
  + Possibility of getting card in order to make parts purchases in a timely manner.
* We talked about what the project will consist of. The purpose is to design and build a radar imager that is low in cost and high in efficiency. The goal is to produce low resolution images of the target to detect metal to be used in security applications.
  + Most of the existing systems mechanically move the receiving dish or transmitter to get the information from different positions to emit the image.
  + Dr. Frank explained that this imager will be different because multiple receiving antennas will be placed at fixed locations and they will digitally switch between them to get signals from the different antennas sequentially. It will cycle through the antennas, collect data digitally from the array of antennas, and combine data together to generate the image. Only one receiver will be active at a time.
  + Array of antennas will be relatively close together. The area to be scanned is about 6 ft. or 10 ft. across. The distance to the target is 20 ft.
  + Advantage of new design would be that it would electronically sample the signal very fast, whereas if it’s mechanical, it would be slower.
  + There will be a lot of signal processing to be implemented.
  + They want some nice, professional looking mechanical drawings of the assembly since they are hoping to eventually turn it into a future product.
    - Also, for the Mechanical Engineering students, one thing needed is the alignment of the receiving antennas because they have to be pointed very precisely at specific angles.
    - For Industrial Engineers, they can look into safety considerations, such as what the limits are on radiation exposures.
  + Dr. Foo will also send a timeline of design milestones for the project.
* Informed advisors about teleconference with contact Pete Stenger from Northrop-Grumman on Tuesday, September 16th at 6:30 p.m.
  + Dr. Foo will be in the meeting as well and will be held in his office.