

EE 491 Weekly Report | Dec15—02 | Week 12 4/13/2015

Project Title: Human Dielectric Equivalent Model	
Advisor: Jiming Song	Client: Honeywell
Members (roles): Stephen Nelson (Team Leader), Cory Snooks (Communications Leader/Webmaster), Andrew Connelly (Webmaster), Jacob Schoneman (Concept Holder).	

Weekly Summary:

Cory, Stephen, and Jacob worked on measuring the conductivity of different solutions. Electrodes were made and inserted into a glass tube that contained the material being tested. An AC voltage was placed across the material and the current was measured. We divided the voltage by the current to get resistance and solved $\rho = RA/l$, where A is the surface area of the electrode and l is the length of the material being measured. Conductivity = $1/\rho$.

Andrew worked on...

Meeting Notes:

Make corrections to project plan. Use a sine wave signal at the desired frequency to test the model. Need to model conductivity based on frequency as the properties are not very dependent on temperature in our range. Need to bypass the mesh tool in HFSS so that the tetrahedral model can be given to HFSS directly. Need to be able to display Houston Model in HFSS.

Pending Issues:

Testing materials to get baseline numbers. Working on importing binary files into HFSS.

Plans for Next Week:

Start preparing for presentation. Take more measurements. Work on the computer model. Meet with advisor on 4/13/2015.

Individual Contributions (This Week):

Jacob Schoneman: 4.5 hours
Cory Snooks: 7.5 hours
Andrew Connelly: 0 hours
Stephen Nelson: 8 hours

Total Contributions for the Project:

Jacob Schoneman: 42.5 hours
Cory Snooks: 52 hours
Andrew Connelly: 30.75 hours
Stephen Nelson: 54.25 hours