# EE 492 Weekly Report |Dec15—02| Week 7 10/12/2015

| **Project Title: Human Dielectric Equivalent Model** | |
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| **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:

Setup initial waveguide testing on phantom arm model. Tried finding resistance of the human arm at 21 MHz. We found that the multimeters in the lab only give a true rms current up to 5 kHz. We tried using the Oscilloscopes to measure the voltage drop across the arm and the voltage drop across a 1 ohm resistor to find the resistance of the arm. We could not get an accurate measurement from the output of the function generator. When we tried to measure two probes across the output of the function generator, the Oscilloscope displayed two voltages about 6 volts apart which breaks Ohm's law.

## Meeting Notes:

The waveguide test may be invalid due to the way that we set it up. Need to investigate further. The PVC may not be a good substitute for skin.

## Pending Issues:

Finding test equipment that can operate at our frequency range.

## Plans for Next Week:

Continue research, testing, and phantom construction. Continue to develop HFSS model.

## Individual Contributions (This Week):

Jacob Schoneman: 8 hours
Cory Snooks: 10 hours
Andrew Connelly: 6 hours
Stephen Nelson: 16 hours

## Total Contributions for the Project:

Jacob Schoneman: 107
Cory Snooks: 126.5
Andrew Connelly: 100.25
Stephen Nelson: 148.5