EE/CprE/SE 492 WEEKLY REPORT 5

April 8th – April 21th

Group number: 29

Project title: Building Blocks and Sub-Circuits with Magnetic Field Generators

Client &/Advisor: Robert Bouda, Wei Shen Theh, Mani Mina

Team Members/Role:

Andrew Murphy - Circuit Design, Simulation and Testing
Steven Huynh - Circuit Design, Simulation and Testing
William Nichols - CST Waveguide and Coupler Models Designer
Michael Lopez - Matlab/Simulink Mach-Zehnder Model Designer
Umair Sarwar - Inductor coil in Comsol Designer

o **Weekly Summary** For this week, the team members worked on a variety of different goals. First we made the ZVS circuit, created tutorial videos for next year's project, and worked on our final presentation.

o **Past week accomplishments**

  ·Andrew: Put together and tested the ZVS circuit. Worked on the final presentation.

  ·Michael Lopez: Created RF Matlab tutorial Video and worked on final presentation.

  ·William Nichols: Worked on Final Presentation.

  ·Umair Sarwar: Worked with force calculation for two planar spiral coils.

o **Pending issues** *(If applicable: Were there any unexpected complications? Please*

  elaborate.) · William: Unable to solve some problems in CST.

o **Individual contributions**

NAME	Individual Contributions *(Quick list of contributions. This should be short.)*	Hours this week	HOURS cumulative
Andrew Murphy	Finished ZVS circuit design and testing.	11	128
William Nichols	Studied Waveguide design and started working on creating a Mach-Zehnder loop in CST.	5	117
Michael Lopez	Creating a Mach-Zehnder Optical Simulation within MATLAB/Simulink	8	157
Steven Huynh	Finished ZVS circuit design and testing.	4	79
Umair Sarwar	Created Spiral Coil within COMSOL using 2D Model and attempting to verify magnetic flux density by hand.	4	75

o **Plans for the upcoming week** *(Please describe duties for the upcoming week for each member. What is(are) the task(s)? Who will contribute to it? Be as concise as possible.)*

   •Andrew and Steven: Continue Testing ZVS circuit and work on final documentation as well as the poster.

   • Michael Lopez: Work on final documentation and poster.

   • William Nichols: Work on CST tutorial video and work on final documentation and poster.

    • Umair: Work on Comsol tutorial video and work on final documentation and poster.