***EE 491 WEEKLY REPORT 8 Date: 10/25/16 - 10/31/16***

***Group number: MAY1740***

***Project title: Magnetic Pulse Generator***

***Client &/Advisor: Dr. Mani Mina and Neelam Prabhu-Guankar***

***Team Members/Role: Jack Lamar, Qibai Zheng, Pengchao Lian, and Ran Ma***

* **Weekly Summary (Short summary about what you did this week)**

In this week, we imported the MOSFET model of the previous group in Multisim, and simulate the circuit from previous group to understand the circuit. We also meet with Neelam and JP to discuss what we simulated and to get a deeper understand with the circuit.

* **Past week accomplishments (please describe as what was done, by whom, when)**
* Jack Lamar: Checked the imported FET parameters and simulated circuit to make sure our results matched those of last year’s team (based on their final design from design document 2). Also read through the suggested pages in the “Design of Analog CMOS Integrated Circuits” (suggested by JP) to understand transistor biasing.
* Pengchao Lian: I tried to read and think more about last group did, and I simulated the circuit to make me understand deeply about the circuit. And I remove some components and change some value to know how to make the capacitance to store the charges in order to create a high value current to pass the inductor.
* Ran Ma: Simulated last group’s circuit on Multisim, changed the values of different components and make it clear what will happen and why. Asked why the model not working on Pspice.
* Qibai Zheng: simulated the last group’s circuit by testing each component, and changed the values or removed them to understand how this circuit work. Also compared my result with the one from last year’s group from their design document to match the result.
* **Pending issues (if applicable)**
* Jack Lamar:
* Pengchao Lian: read the reference book to learn more about MOSFET
* Ran Ma: Change the values in the circuit.
* Qibai Zheng: try to change the values in the circuit to achieve our goal
* **Individual contributions**

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| **NAME** | **Individual Contributions** | **Hours this week** | **HOURS****cumulative** |
| Jack Lamar | Simulation testing to match our results to last year’s group’s and reading | 10 | 38 |
| Pengchao Lian | Set some ideas about our own circuits and analyze the output graph in different circuit. | 4 | 28 |
| Ran Ma | Simulated last group’s circuit on Multisim, changed the values of different components. | 4 | 28 |
| Qibai Zheng | Simulation the last group’s circuit to match their result and search for MOSFET | 5 | 28 |

* **Comments and extended discussion**

* **Plan for coming week (please describe as what, who, when)**
* Jack Lamar: Complete Design document v1.0 and continue to work on understanding circuit fundamentals
* Pengchao Lian: read the reference book to learn more about MOSFET
* Ran Ma: Work with the project design document. Ask more question about the circuit.
* Qibai Zheng: thinking more about the circuit to have any idea about it and read the pages in Design of Analog CMOS Integrated Circuits suggested by JP.
* **Summary of weekly advisor meeting (if applicable/optional)**