**Laboratory Report Cover Sheet
DeVry University
College of Engineering and Information Sciences**

**Course Number:** REET 420

**Professor:**

**Laboratory Number:** 6

**Laboratory Title:**  Controlled Thyristors

**Submittal Date:** Click here to enter a date.

***Objectives:***

***Results:***

***Conclusions:***

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| ***Team:*** |  |  |  |  |  |
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|  | Name |  | Program |  | Signature |
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|  | Name |  | Program |  | Signature |

***Observations/Measurements:***

# Thyristor Operating Characteristics

### Describe verification for

### *Switch is open and silicon controlled rectifier (SCR) does not turn on:*

### *SCR turned on; stays on:*

### *SCR turns off every negative cycle and must be turned on:*

1. Paste the graph of the oscilloscope and label where the switch is closed and where the line current goes negative:

# Thyristor Phase Angle Firing

### Paste graph of oscilloscope:

### Describe performance of control circuit:

1. Explain the performance of the control circuit:
2. Show Multisim simulation with Vcontrol = 2.5 V dc

# Questions/Discussion

### Fully describe the SCR and be sure to use its key parameters.

### Explain the use of scrubbers for thyristor circuits. Be sure to include justification for why they are such critical components?

***Grade:***

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| **Deliverable** | **Points Available** | **Points Achieved** |
| Laboratory Cover Sheet | 6 |  |
| Calculations/Measurements | 12 |  |
| Questions | 6 |  |
| **Total Points** | 24 |  |
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| Comments: |