

**Review of Performance:** VEE 222 Discrete Devices 2, Fall 2015, 7 students)  
**Submitted by:** Danilo S. Ibarrola

**Institutional Student Learning Outcomes (ISLO):**

- ILO1:** Effective oral communication.
- ILO2:** Effective written communication.
- ILO3:** Critical Thinking
- ILO4:** Problem Solving
- ILO5:** Intercultural knowledge and competence.
- ILO6:** Information literacy.
- ILO7:** Foundations and skills for life-long learning.
- ILO8:** Quantitative reasoning.

**Program Learning Outcomes (PLO)**

- PLO1:** Practice Safety and occupational health procedures in the workplace.
- PLO2:** Use electronic tools and test equipment competently.
- PLO3:** Interpret schematic diagrams and waveforms.
- PLO4:** Build electronic projects to a given specification.

SLO#	Program SLO#	I, D, M	ISLO	Reflection/Comment												
1. Describe the purpose and operation of Unijunction Transistor (UJT) and SCR.	3. Interpret schematic diagrams and waveforms.	I, D	6, 7	<p>SLO was assessed by written test questions using the assessment criteria as stated in the course outline. Result of assessment is shown below.</p> <table border="1"> <thead> <tr> <th>Letter Grade</th> <th>Number of student</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>1</td> </tr> <tr> <td>B</td> <td>1</td> </tr> <tr> <td>C</td> <td>3</td> </tr> <tr> <td>D</td> <td>1</td> </tr> <tr> <td>F</td> <td>1</td> </tr> </tbody> </table>	Letter Grade	Number of student	A	1	B	1	C	3	D	1	F	1
Letter Grade	Number of student															
A	1															
B	1															
C	3															
D	1															
F	1															

2. Describe UJT oscillator operation.	3. Interpret schematic diagrams and waveforms.	I, D	6, 7	<p>SLO was assessed by written test questions using the assessment criteria as stated in the course outline. Result of assessment is shown below.</p> <table border="1" data-bbox="1037 345 1478 570"> <thead> <tr> <th>Letter Grade</th> <th>Number of student</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>7</td> </tr> <tr> <td>B</td> <td>0</td> </tr> <tr> <td>C</td> <td>0</td> </tr> <tr> <td>D</td> <td>0</td> </tr> <tr> <td>F</td> <td>0</td> </tr> </tbody> </table>	Letter Grade	Number of student	A	7	B	0	C	0	D	0	F	0
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A	7															
B	0															
C	0															
D	0															
F	0															
3. Describe SCR trigger control operation.	3. Interpret schematic diagrams and waveforms.	I, D	6, 7	<p>SLO was assessed by written test questions using the assessment criteria as stated in the course outline. Result of assessment is shown below.</p> <table border="1" data-bbox="1037 678 1478 899"> <thead> <tr> <th>Letter Grade</th> <th>Number of student</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>7</td> </tr> <tr> <td>B</td> <td>0</td> </tr> <tr> <td>C</td> <td>0</td> </tr> <tr> <td>D</td> <td>0</td> </tr> <tr> <td>F</td> <td>0</td> </tr> </tbody> </table>	Letter Grade	Number of student	A	7	B	0	C	0	D	0	F	0
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A	7															
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4. Describe SCR power control operation.	3. Interpret schematic diagrams and waveforms.	D	6, 7	<p>SLO was assessed by written test questions using the assessment criteria as stated in the course outline. Result of assessment is shown below.</p> <table border="1" data-bbox="1037 1011 1478 1229"> <thead> <tr> <th>Letter Grade</th> <th>Number of student</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>1</td> </tr> <tr> <td>B</td> <td>6</td> </tr> <tr> <td>C</td> <td>0</td> </tr> <tr> <td>D</td> <td>0</td> </tr> <tr> <td>F</td> <td>0</td> </tr> </tbody> </table>	Letter Grade	Number of student	A	1	B	6	C	0	D	0	F	0
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A	1															
B	6															
C	0															
D	0															
F	0															
5. Describe SCR circuit troubleshooting.	3. Interpret schematic diagrams and waveforms.	I, D	6, 7	<p>SLO was assessed by written test questions using the assessment criteria as stated in the course outline. Result of assessment is shown below.</p>												

					Letter Grade	Number of student
					A	1
					B	6
					C	0
					D	0
					F	0
6. Describe the relationship between Triacs, Diac and four-layered devices.	3. Interpret schematic diagrams and waveforms.	I, D	6, 7	SLO was assessed by written test questions using the assessment criteria as stated in the course outline. Result of assessment is shown below.	Letter Grade	Number of student
					A	2
					B	5
					C	0
					D	0
					F	0
7. Describe the construction, operation and application of Programmable Unijunction Transistor (PUT)	3. Interpret schematic diagrams and waveforms.	I, D	6, 7	SLO was assessed by written test questions using the assessment criteria as stated in the course outline. Result of assessment is shown below.	Letter Grade	Number of student
					A	1
					B	3
					C	0
					D	2
					F	1

**Special comments:** 7 out of 7 or 100% of the students got a grade of C and higher.

**Summary of Grades:**

**A+ = 0**  
**A = 0**  
**A- = 1**  
**B+ = 1**

<b>B</b>	=	<b>3</b>
<b>B-</b>	=	<b>2</b>
<b>C+</b>	=	<b>0</b>
<b>C</b>	=	<b>0</b>
<b>C-</b>	=	<b>0</b>
<b>F</b>	=	<b>0</b>

**Recommendations:** Laboratory equipment (NIDA cards) for discrete devices II must be enough for at least 3 to 5 sets to be able for the students to perform their required experimentation. Additional quality analog multi-meter and oscilloscope must also be purchase so that more hands on experimentation can be done.

Signature:      **DANILO S. IBARROLA**  
                                  Instructor

**Date:** DEC. 2015