

## DAILY ASSESSMENT REPORT

Date:	13 June 2020	Name:	Gagan M K
Course:	AC DC Analysis of Diode - Electronics Engineering	USN:	4AL17EC032
Topic:	<ul style="list-style-type: none"> <li>• Half Wave Rectifier (DC AC Analysis of Diode)</li> <li>• Full Wave Rectifier (DC AC Analysis of Diode)</li> <li>• Analysis in Detail</li> <li>• Diode Limiters (DC AC Analysis of Diode)</li> <li>• Diode Clampers (DC AC Analysis of Diode)</li> <li>• Zener Diode (DC AC Analysis of Diode)</li> <li>• Testing of Diode (DC AC Analysis of Diode)</li> </ul>	Semester & Section:	6 <sup>th</sup> sem & 'A' sec
GitHub Repository:	Alvas-education-foundation/Gagan-Git		

### FORENOON SESSION DETAILS

#### Image of session

**Udemy** | AC DC Analysis of Diode - Electronics Engineering

★ Leave a rating    Your progress    Share

### HALF-WAVE RECTIFIERS

- A diode is connected to an ac source and to a load resistor,  $R_L$ , forming a **half-wave rectifier**. Let's examine what happens during one cycle of the input voltage using the ideal model for the diode

*(Circuit diagram showing an AC source, a diode  $D_1$ , and a load resistor  $R_L$  connected in series. The input voltage  $V_i$  is shown as a sine wave, and the output voltage  $V_o$  is shown as a half-wave rectified sine wave. The current  $I$  flows through the diode and the load resistor.)*

Overview    **Notes**    Announcements

Create a new note at 1:02

**Course content**

3 / 3 | 42min

**Section 2: Electronics Engineering**  
1 / 1 | 8min

- ☒ 4. 4- Diode Models (DC AC Analysis of Diode) 8min

**Section 3: Explanation of Rectification**  
0 / 2 | 21min

- ☐ 5. 5- Half Wave Rectifier (DC AC Analysis of Diode) 10min
- ☐ 6. 6- Full Wave Rectifier (DC AC Analysis of Diode) 12min

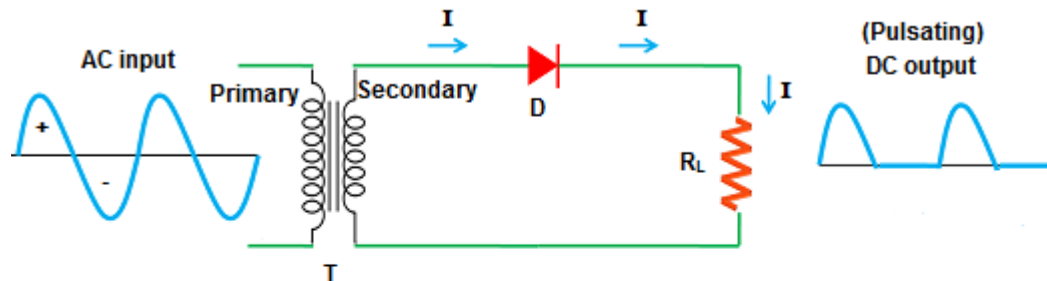
**Section 4: Analysis in Detail**  
0 / 5 | 25min

- ☐ 7. 7- Diode Limiters (DC AC Analysis of Diode) 7min
- ☐ 8. 8- Diode Clampers (DC AC Analysis of Diode) 6min
- ☐ 9. 9- Zener Diode (DC AC Analysis of Diode) 6min
- ☐ 10. 10- Testing of Diode (DC AC Analysis of Diode) 6min

Report – Report can be typed or hand written for up to two pages.

## Explanation of Rectification:

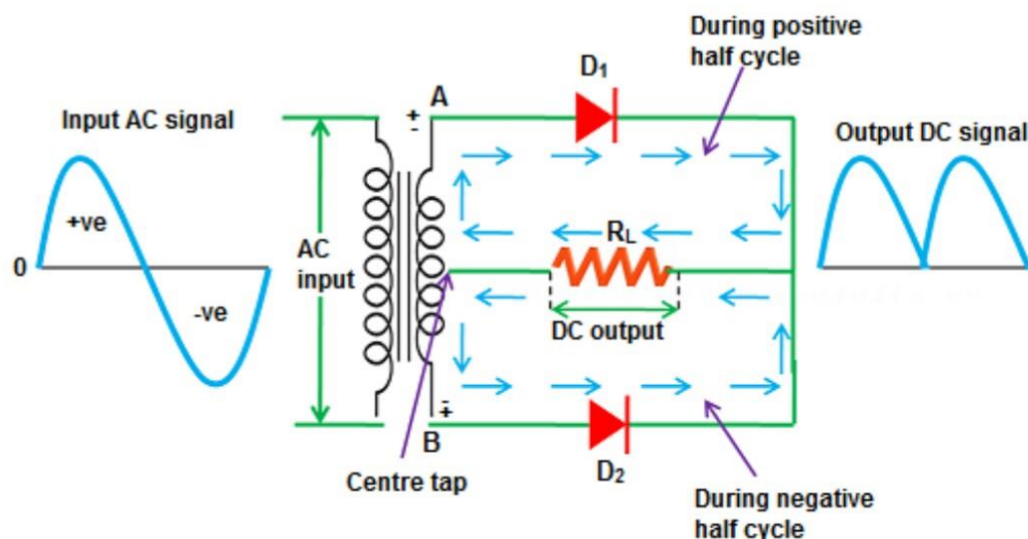
- Half Wave Rectifier



I = Current  
D = Diode  
 $R_L$  = Load resistor  
T = Transformer  
+ = Positive half cycle  
- = Negative half cycle

### Half wave rectifier

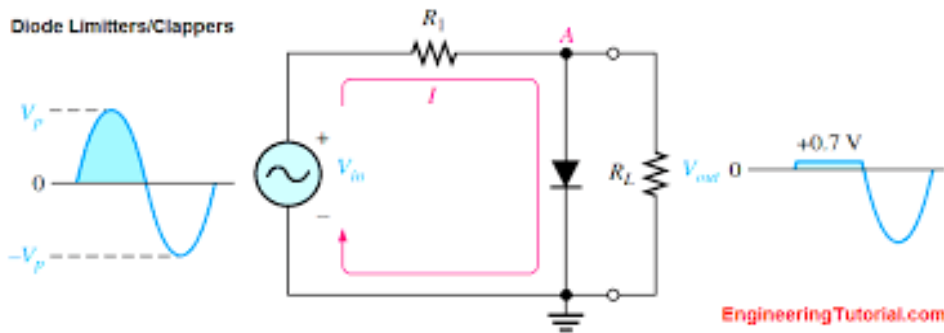
- A half wave rectifier is defined as a type of rectifier that only allows one half-cycle of an AC voltage waveform to pass, blocking the other half-cycle. Half-wave rectifiers are used to convert AC voltage to DC voltage, and only require a single diode to construct.
- Full Wave Rectifier



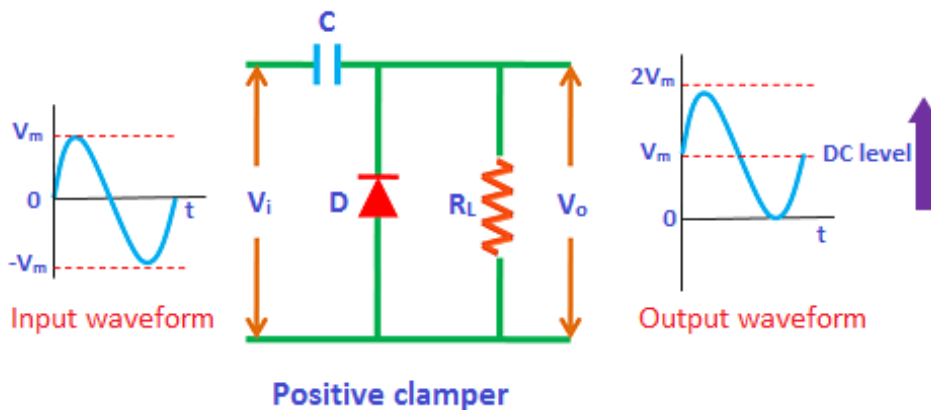
- A Full Wave Rectifier is a circuit, which converts an ac voltage into a pulsating dc voltage using both half cycles of the applied ac voltage. It uses two diodes of which one conducts during one half cycle while the other conducts during the other half cycle of the applied ac voltage.

- **Diode Limiters**

Diode Limiters/Clippers



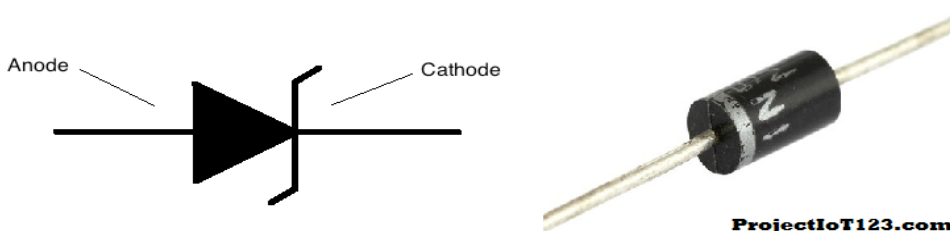
- **Diode Clipping Circuits.** The Diode Clipper, also known as a Diode Limiter, is a wave shaping circuit that takes an input waveform and clips or cuts off its top half, bottom half or both halves together. This clipping of the input signal produces an output waveform that resembles a flattened version of the input.
- **Diode Clampers**



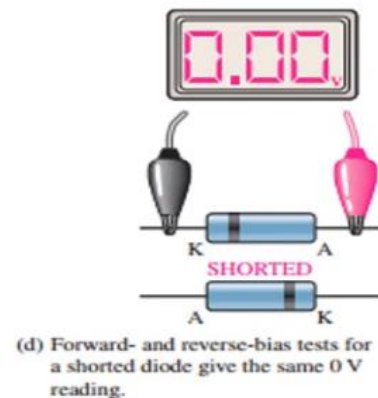
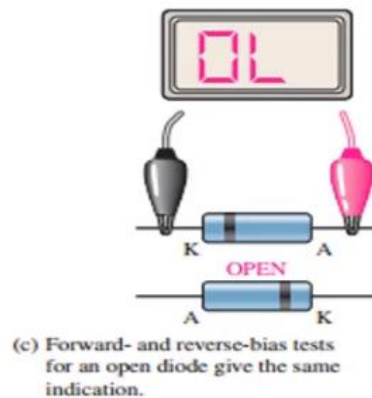
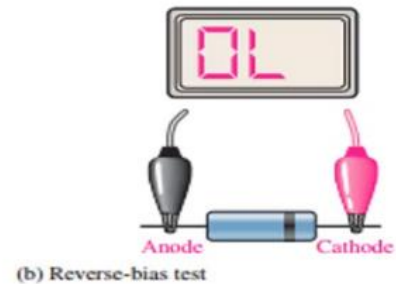
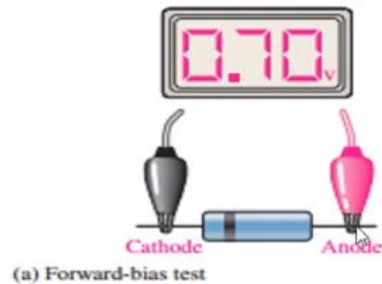
Physics and Radio-Electronics

- A Clamper Circuit is a circuit that adds a DC level to an AC signal. Actually, the positive and negative peaks of the signals can be placed at desired levels using the clamping circuits. As the DC level gets shifted, a clamper circuit is called as a Level Shifter.
- Clamper circuits consist of energy storage elements like capacitors. A simple clamper circuit comprises of a capacitor, a diode, a resistor and a dc battery if required.
- **Zener Diode**

## Zener Diode



- A Zener diode is a special type of diode designed to reliably allow current to flow "backwards" when a certain set reverse voltage, known as the Zener voltage, is reached. Zener diodes are manufactured with a great variety of Zener voltages and some are even variable.
- Testing of Diode



- Make certain a) all power to the circuit is OFF and b) no voltage exists at the diode. Voltage may be present in the circuit due to charged capacitors.
- Turn the dial (rotary switch) to Diode Test mode ( ).
- Connect the test leads to the diode. ...
- Reverse the test leads.

<b>Date:</b>	<b>13 June 2020</b>	<b>Name:</b>	<b>Gagan M K</b>
<b>Course:</b>	<b>Java Tutorial for Complete Beginners</b>	<b>USN:</b>	<b>4AL17EC032</b>
<b>Topic:</b>	<ul style="list-style-type: none"> <li>• The Equals Method</li> <li>• Inner Classes</li> <li>• Enum Types: Basic and Advanced Usage</li> <li>• Recursion: A Useful Trick Up Your Sleeve</li> <li>• Serialization: Saving Objects to Files</li> <li>• Serializing Arrays</li> <li>• The Transient Keyword and More Serialization</li> <li>• Passing by Value</li> </ul>	<b>Semester &amp; Section:</b>	<b>6<sup>th</sup> sem &amp; 'A' sec</b>

## AFTERNOON SESSION DETAILS

Image of session:

The screenshot displays the UdeMy course interface for "Java Tutorial for Complete Beginners". The top navigation bar includes the UdeMy logo, course title, a rating prompt, progress indicator, and share options. The main content area is divided into two panels. The left panel shows a code editor with a Java class named "App" containing a "main" method. The right panel displays the "Course content" list, which includes sections 45 through 52, each with a duration and a "Resources" link. The bottom section shows "About this course" with a description: "Learn to program using the Java programming language".

Report – Report can be typed or hand written for up to two pages.

## Java:

- We learnt “The Equals Method”
- “Inner Classes” concept was learnt.
- Enum Types was taught along with Basic and Advanced Usage
- Recursion function was seen and a Useful Trick Up Your Sleeve was seen.
- Saving Objects to Files using “Serialization”
- Serializing Arrays was learnt in Java.
- The Transient Keyword and More Serialization was seen.
- Passing by Value is only way in Java!

```
package one;

//A Java program to show that we can change members using using
//reference if we do not change the reference itself.

class Test
{
    int x;
    Test(int i) { x = i; }
    Test() { x = 0; }
}

class p_by_value
{
    public static void main(String[] args)
    {
        // t is a reference
        Test t = new Test(5);

        // Reference is passed and a copy of reference
        // is created in change()
        change(t);

        // New value of x is printed
        System.out.println(t.x);
    }

    // This change() doesn't change the reference, it only
    // changes member of object referred by reference
    public static void change(Test t)
    {
        t.x = 2020;
    }
}
```

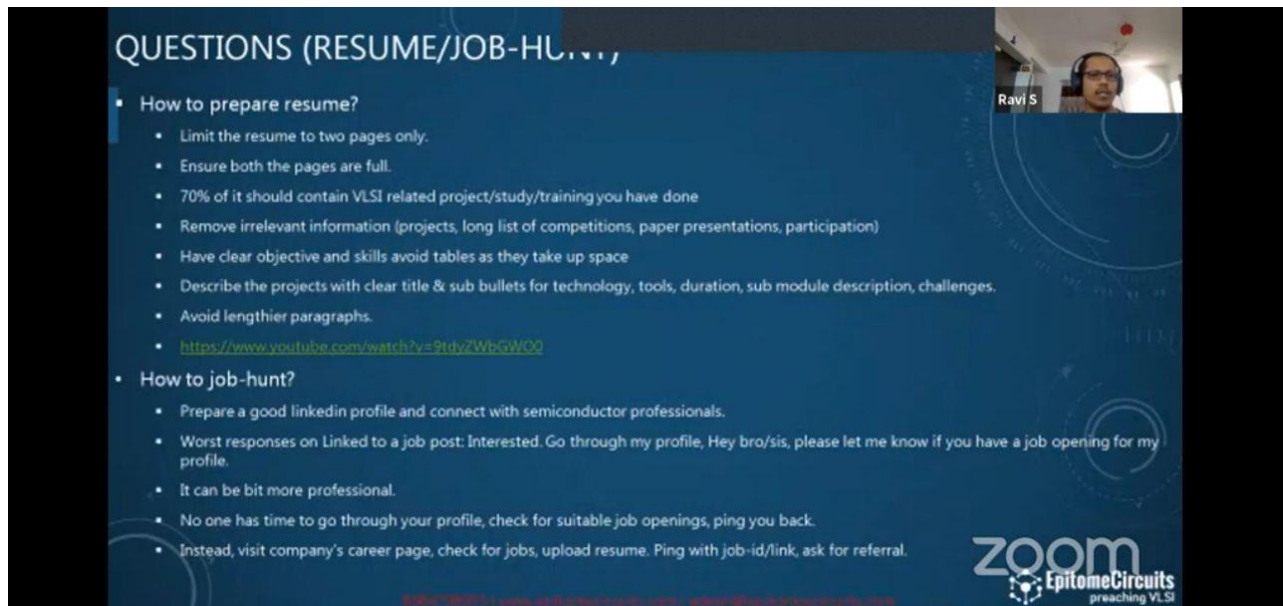
- The Equal Method Example

```
package one;
class Complex {
    private double re, im;

    public Complex(double re, double im) {
        this.re = re;
        this.im = im;
    }
}

public class equals {
    public static void main(String[] args) {
        Complex c1 = new Complex(10, 15);
        Complex c2 = new Complex(10, 15);
        if (c1 == c2) {
            System.out.println("Equal ");
        } else {
            System.out.println("Not Equal ");
        }
    }
}
```

“Attended a Webinar on '**Semiconductor as a Profession**' in the webinar series of '**Future Ahead for Electronics Engineers**' organized by Dept. of Electronics and Communication Engineering of Alva's Institute of Engineering and Technology, Moodbidri, Karnataka”



The screenshot shows a Zoom webinar interface. The main content area has a blue background with white text. The title is "QUESTIONS (RESUME/JOB-HUNT)". There are two main sections: "How to prepare resume?" and "How to job-hunt?". Each section has a list of bullet points. A small video window in the top right corner shows a man wearing a headset, labeled "Ravi S". The Zoom logo and "EpitomeCircuits preaching VLSI" are visible in the bottom right corner.

**QUESTIONS (RESUME/JOB-HUNT)**

- How to prepare resume?
  - Limit the resume to two pages only.
  - Ensure both the pages are full.
  - 70% of it should contain VLSI related project/study/training you have done
  - Remove irrelevant information (projects, long list of competitions, paper presentations, participation)
  - Have clear objective and skills avoid tables as they take up space
  - Describe the projects with clear title & sub bullets for technology, tools, duration, sub module description, challenges.
  - Avoid lengthier paragraphs.
  - <https://www.youtube.com/watch?v=9tdyZWpGW0Q>
- How to job-hunt?
  - Prepare a good linkedin profile and connect with semiconductor professionals.
  - Worst responses on Linked to a job post: Interested. Go through my profile, Hey bro/sis, please let me know if you have a job opening for my profile.
  - It can be bit more professional.
  - No one has time to go through your profile, check for suitable job openings, ping you back.
  - Instead, visit company's career page, check for jobs, upload resume. Ping with job-id/link, ask for referral.

zoom EpitomeCircuits preaching VLSI

### Certificate:



The certificate is from Alva's Institute of Engineering & Technology, Moodbidri, Department of Electronics and Communication Engg. It certifies that Gagan M K has participated in the webinar on "SEMICONDUCTOR AS A PROFESSION" held on 13 JUNE 2020 as part of the webinar series on "Future Ahead for Electronics Engineers". The certificate is signed by Mr. Ravi Siddanath, Dr. D V Manjunatha, and Dr. Peter Fernandes.

ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY, MOODBIDRI.  
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGG.

*Certificate*

OF PARTICIPATION

THIS IS TO CERTIFY THAT

*Gagan M K*

from Alvas institute of engineering and technology has participated in the webinar on "**SEMICONDUCTOR AS A PROFESSION**" held on **13 JUNE 2020** as part of the webinar series on "**Future Ahead for Electronics Engineers**"

*Mr. Ravi Siddanath*  
Mr. Ravi Siddanath  
Principal Design Engineer  
Broadcom Limited, Bangalore

*Dr. D V Manjunatha*  
Dr. D V Manjunatha  
Professor and Head  
Dept. of ECE, AIET

*Dr. Peter Fernandes*  
Dr. Peter Fernandes  
Principal  
AIET