



# SNS COLLEGE OF TECHNOLOGY

Coimbatore-35  
An Autonomous Institution

Accredited by NBA – AICTE and Accredited by NAAC – UGC with 'A+' Grade  
Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai

## DEPARTMENT OF MECHATRONICS

### **19MCB302 – INDUSTRIAL ELECTRONICS & APPLICATION** III YEAR V SEM

#### UNIT 2 – PHASE CONTROLLED CONVERTER

#### TOPIC – Single phase uncontrolled Rectifier

Mr. M.Anand., M.E.,(Ph.D.,)

ASSISTANT PROFESSOR,

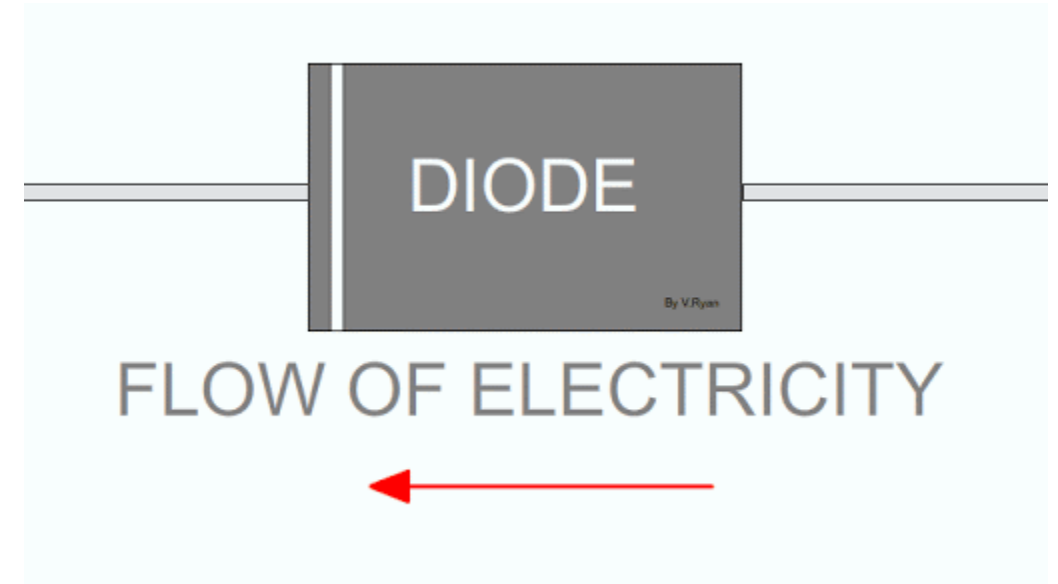
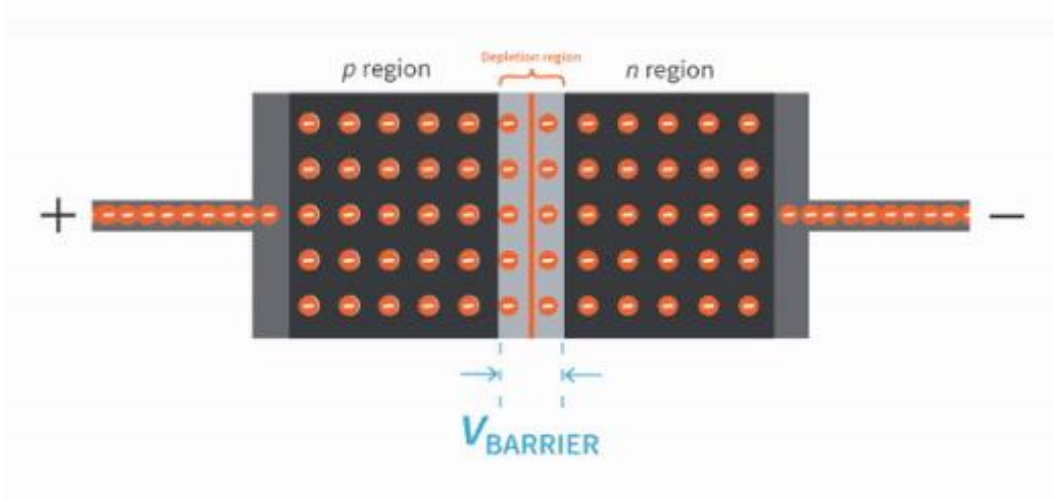
DEPARTMENT OF MECHATRONICS,

SNSCT, Coimbatore.





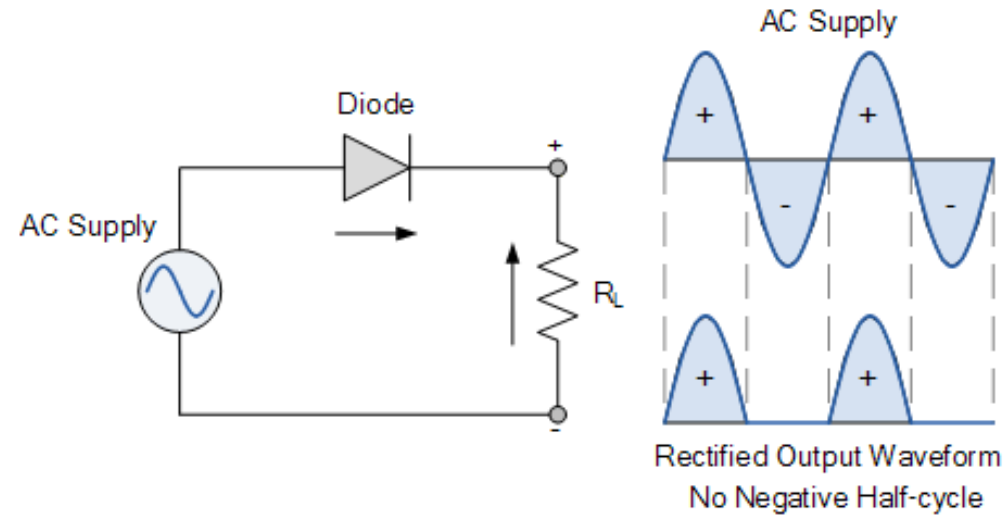
## Intro-Diode





## Introduction to Single phase un controlled Converter

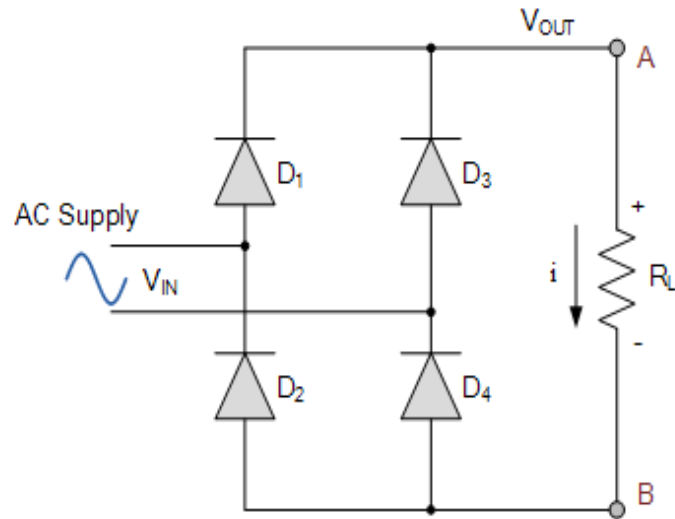
Solid State Devices:



<https://www.youtube.com/watch?v=PfWmIQfYIRI>



# Single phase Uncontrolled Converter



**4 Diodes**



**Uncontrolled converter**

**Input**

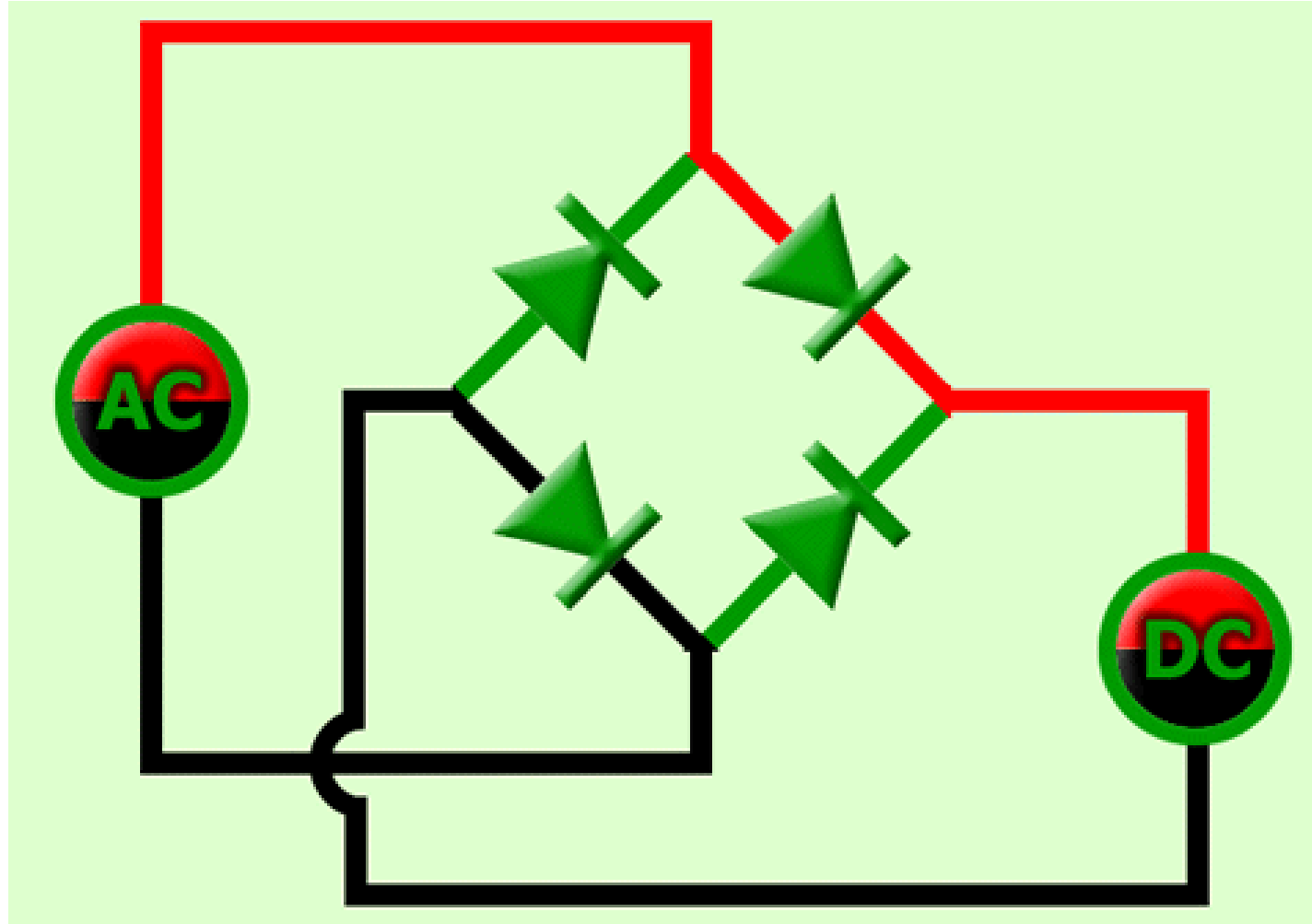


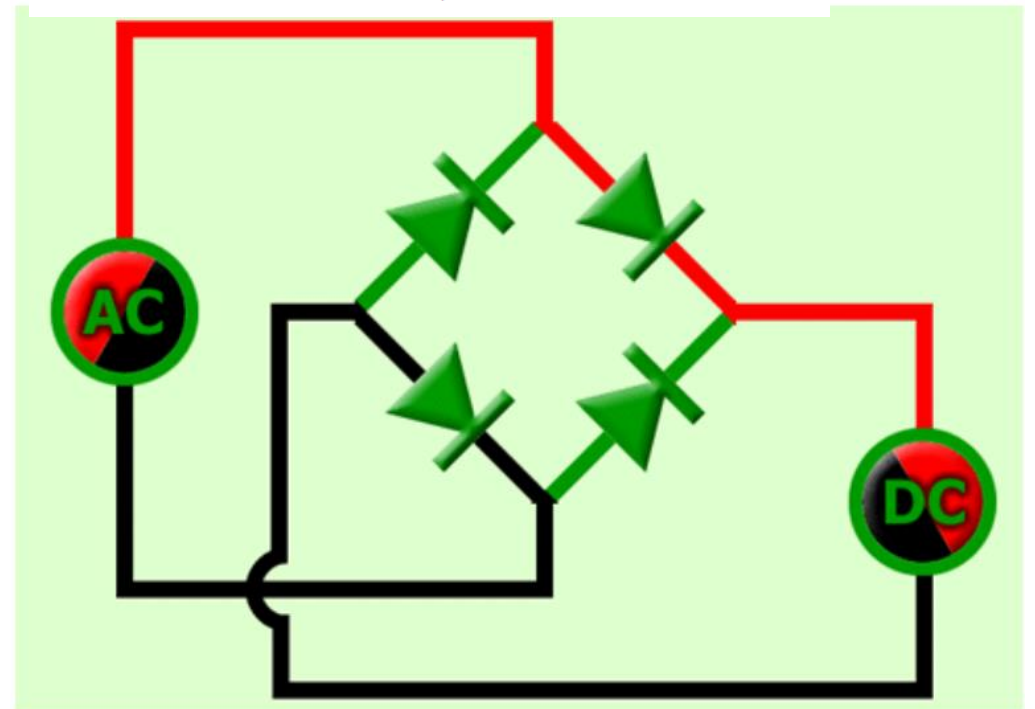
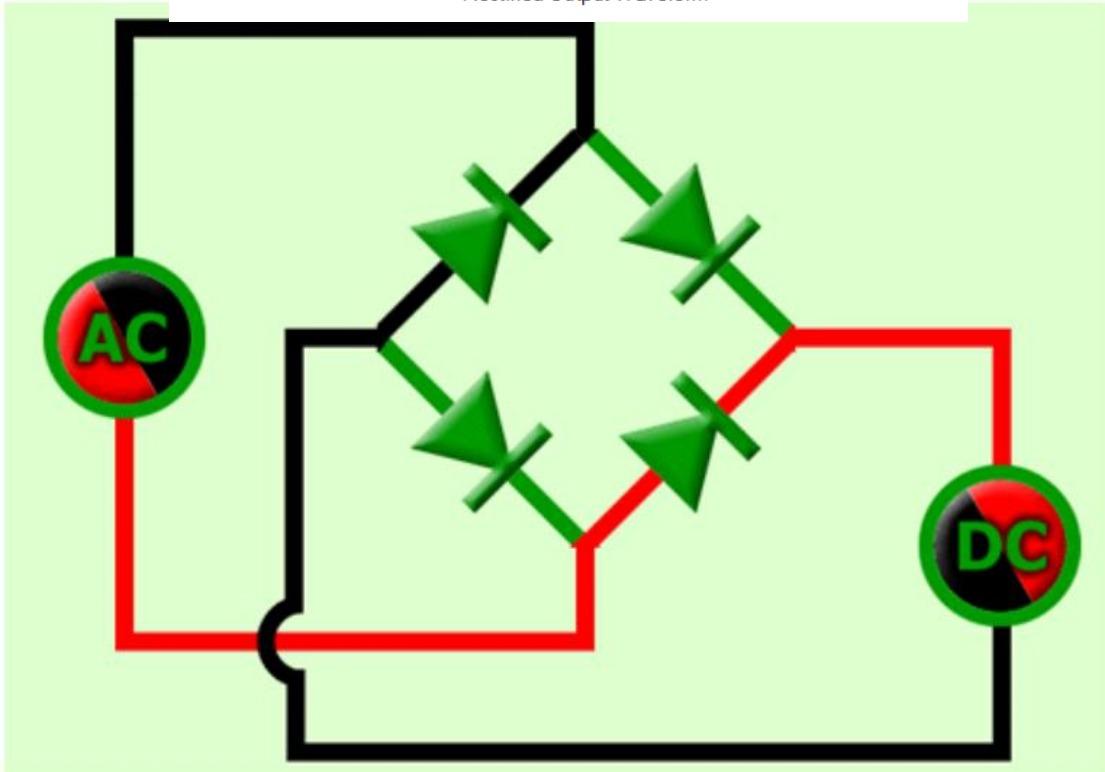
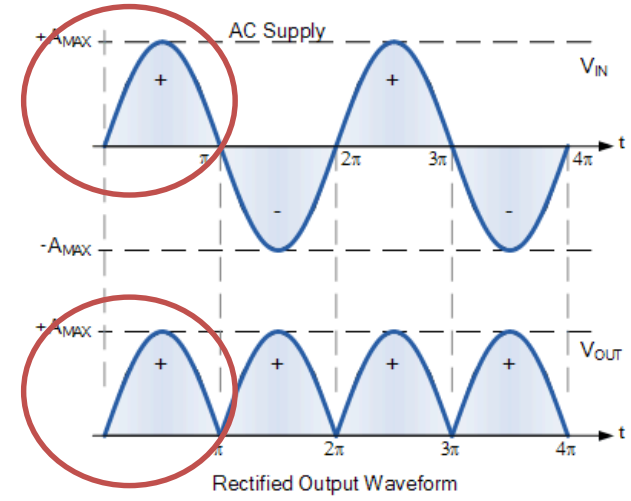
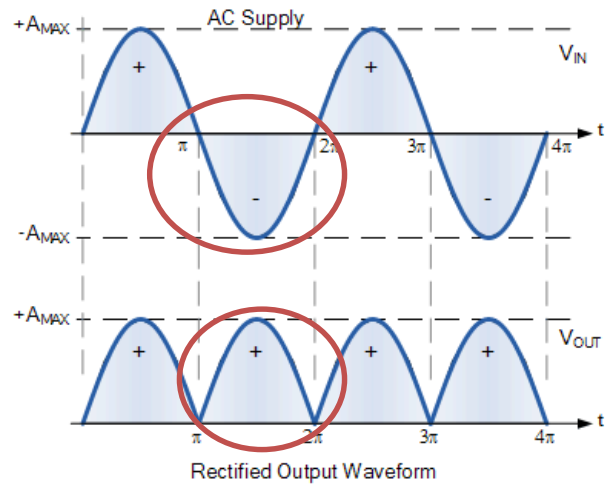
**Single phase AC**

**Output**



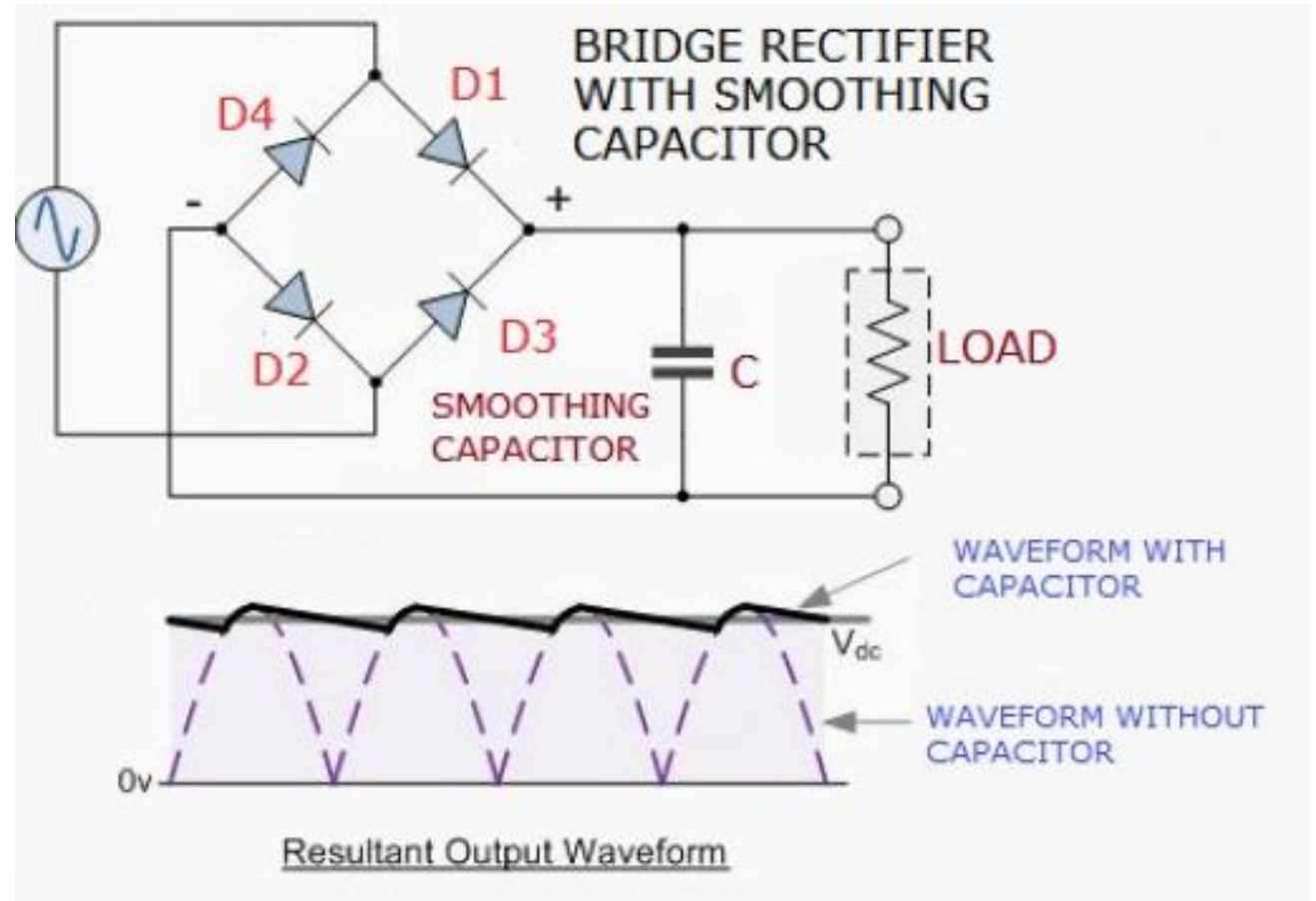
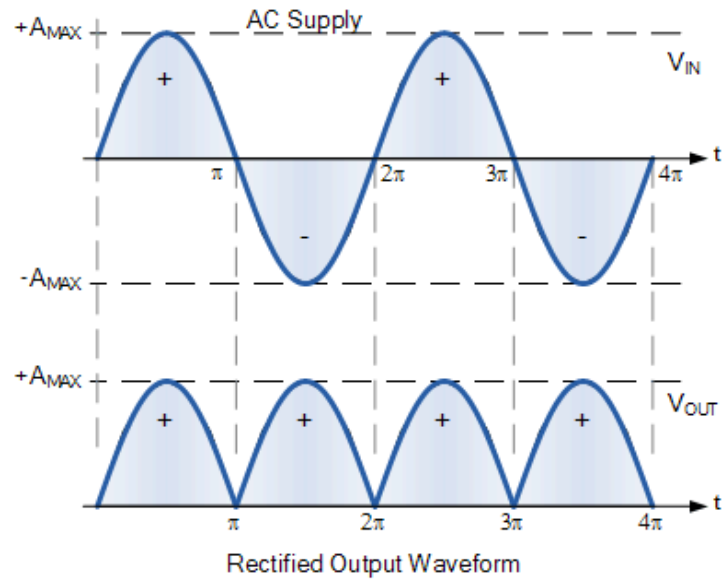
**Uncontrolled DC**







## Output Waveform





## Assessment - Match the Following

- |                |   |         |
|----------------|---|---------|
| Rectifier      | - | AC - AC |
| Inverter       | - | DC - DC |
| Chopper        | - | AC - DC |
| Cycloconverter | - | DC - AC |







## References

1. [https://www.tutorialspoint.com/power\\_electronics/power\\_electronics\\_introduction.htm#:~:text=Power%20Electronics%20refers%20to%20the,efficiency%20and%20reliability%20is%20100%25.](https://www.tutorialspoint.com/power_electronics/power_electronics_introduction.htm#:~:text=Power%20Electronics%20refers%20to%20the,efficiency%20and%20reliability%20is%20100%25.)
2. <http://www.egr.unlv.edu/~eebag/EE-442-642%20Introduction%20F14.pdf>
3. <https://www.youtube.com/watch?v=djbJm-xWo2w>
4. <https://www.youtube.com/watch?v=jx5l2Fbil8U>

