Electronic Circuits

Week 1: Introduction

Professor & TAs

Prof: Dr. Vecdi Emre Levent

Office: 311

Email: emre.levent@fbu.edu.tr

TA: Arş. Gör. Ezgi Çakmak

Office: 311

Email: ezgi.cakmak@fbu.edu.tr

Course Plan

- Electronic Circuits
  - Introduction
  - Introduction to Electronics and Resistors
  - Ohm's Law
  - Series Circuits
  - Parallel Circuits
  - Capacitance
  - Debugging
  - Hardware Verification Methods (HVM): Classes
  - FB-CPU System Verilog TB
  - HVM : Inheritance
  - HVM: Variable Types
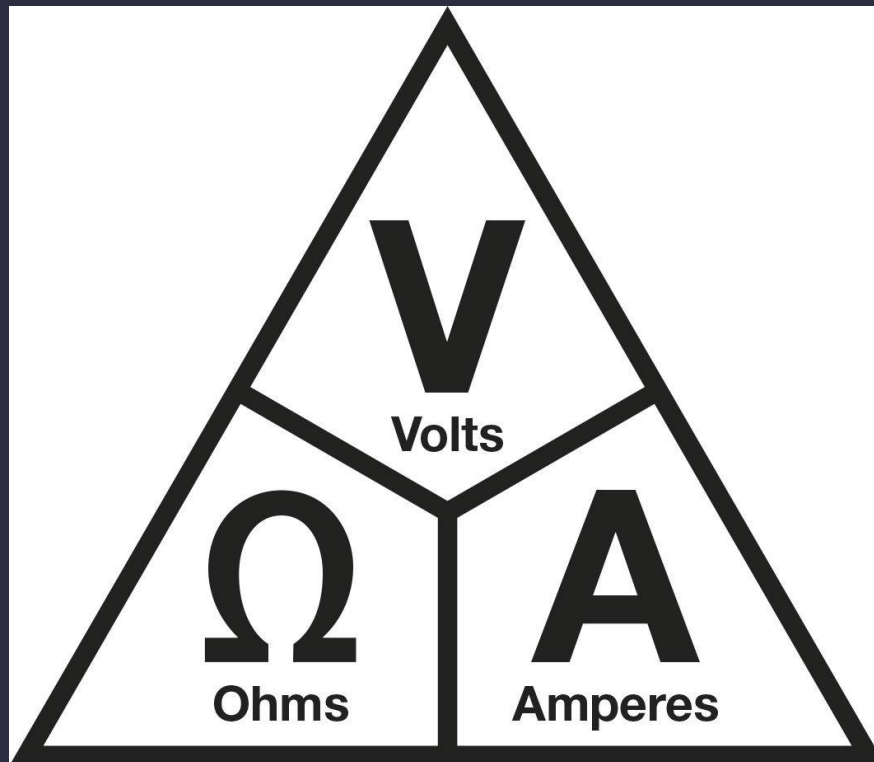 - HVM: Interfaces
  - HVM: Randomization

Course Plan

Introduction to Electronics and Resistors
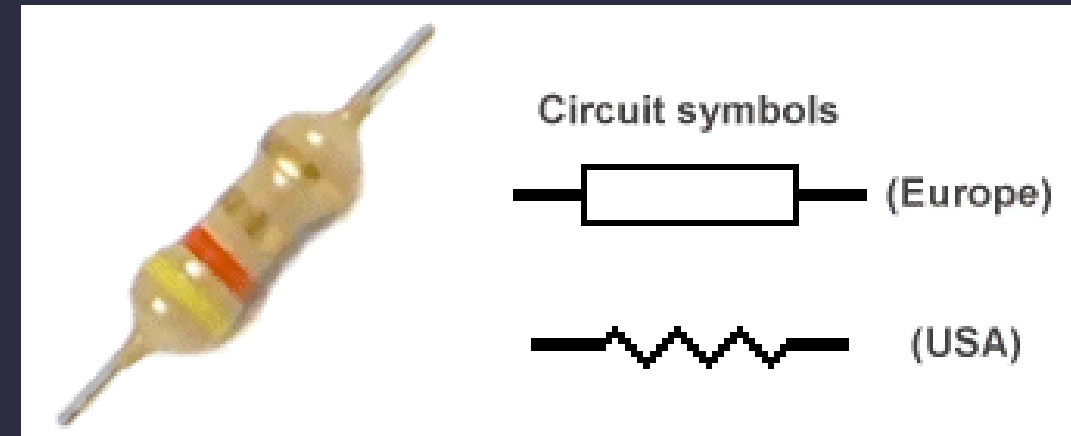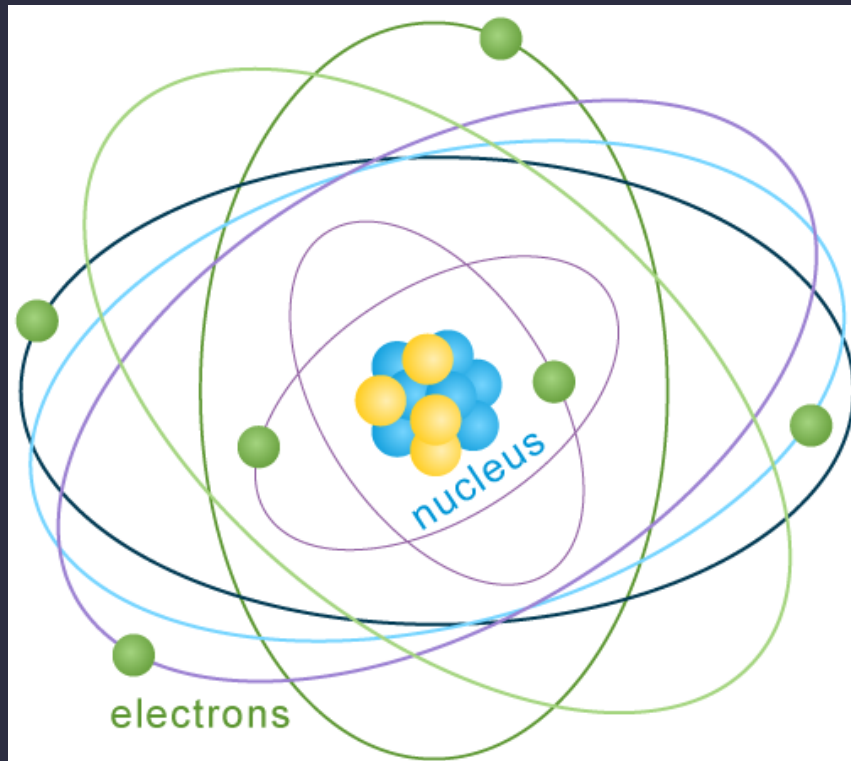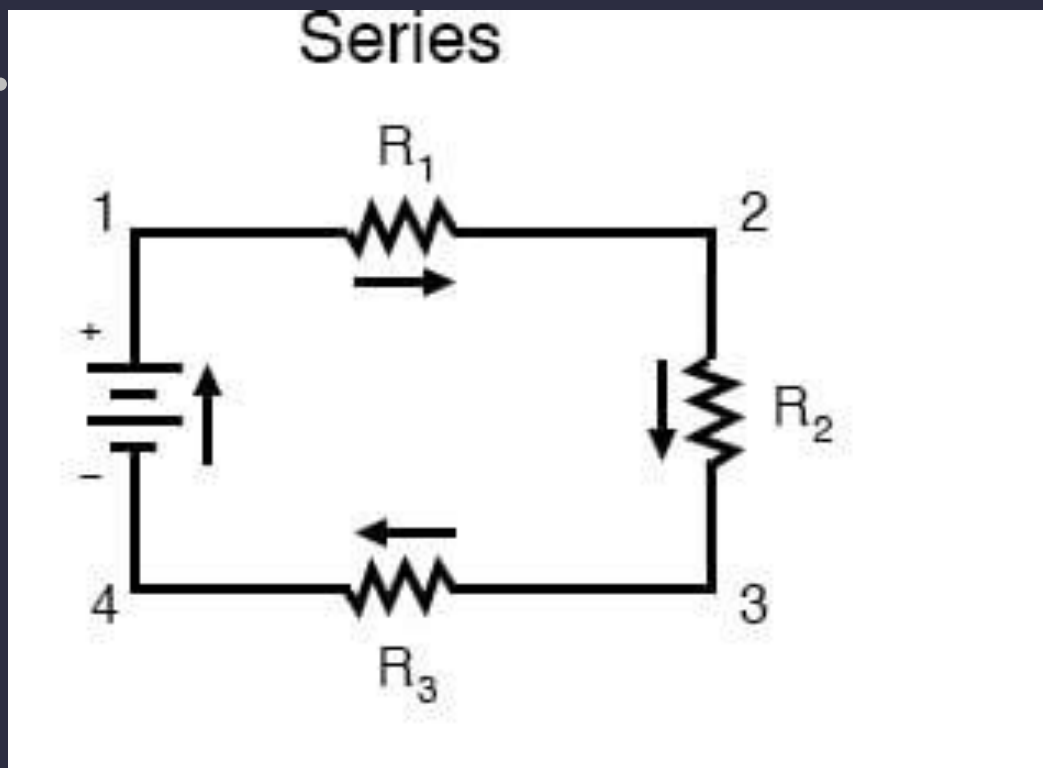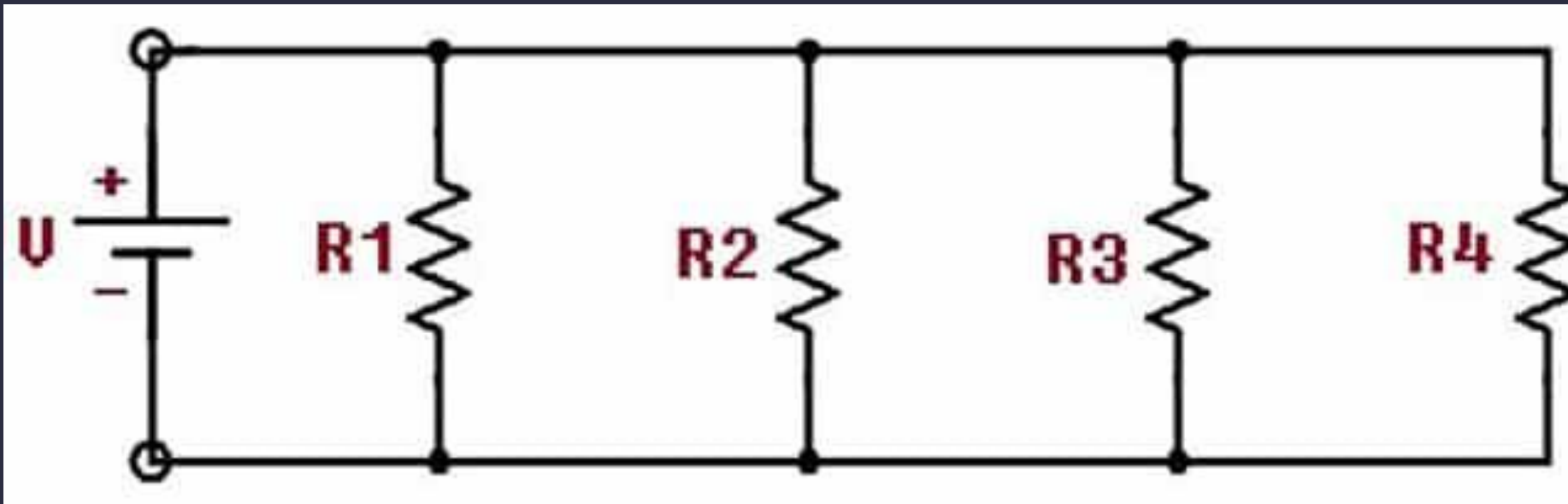
Course Plan

Ohm's Law

Course Plan

Series Circuits

-

Parallel Circuits
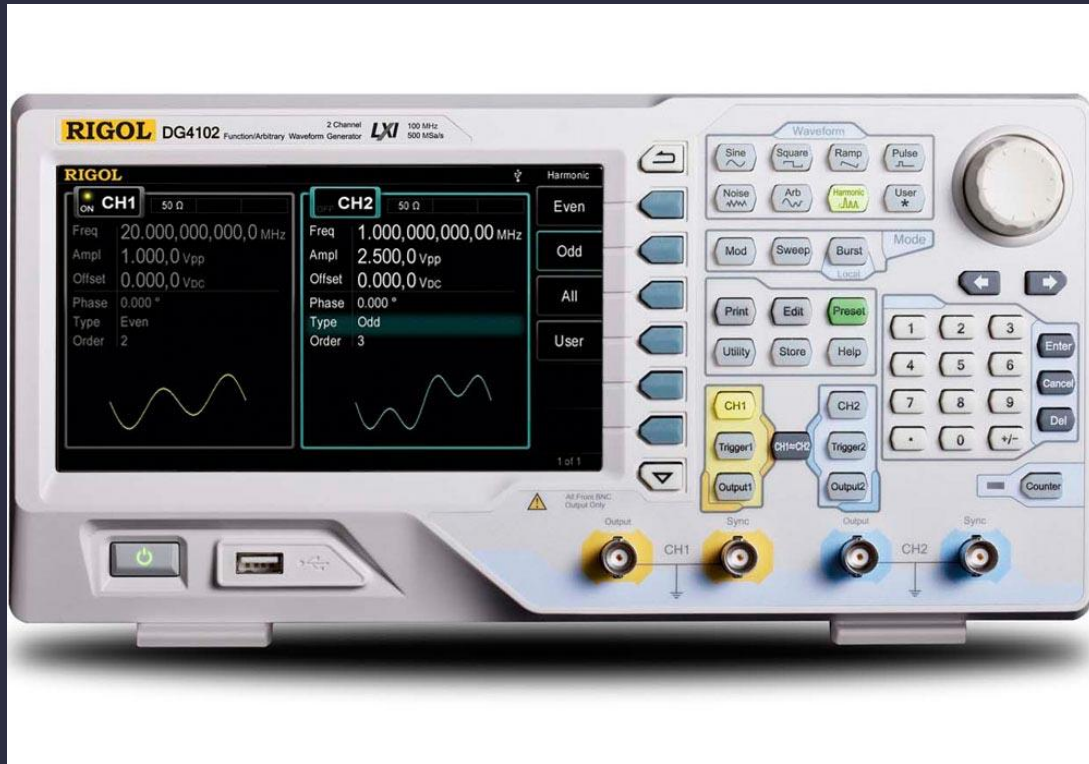
Capacitance
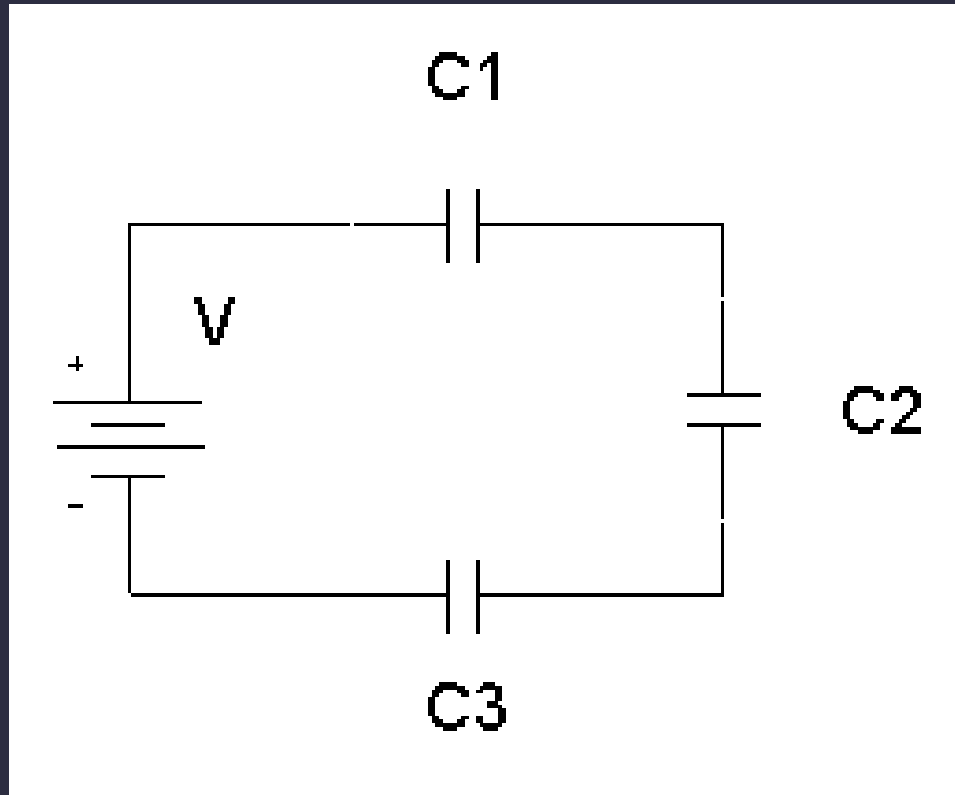
Course Plan

Debugging

Hardware Verification Methods (HVM): Classes
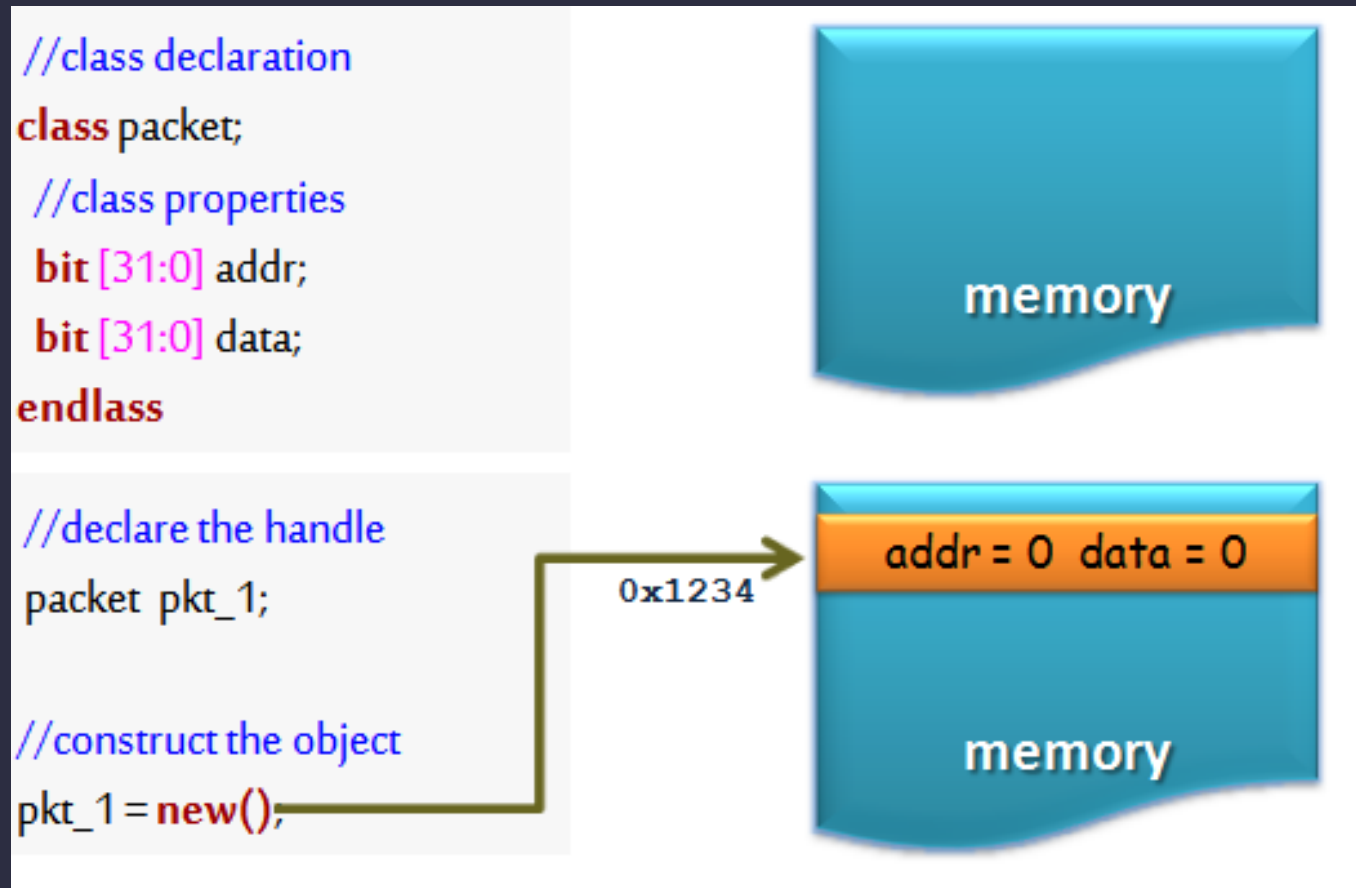
Course Plan

FB-CPU System Verilog TB
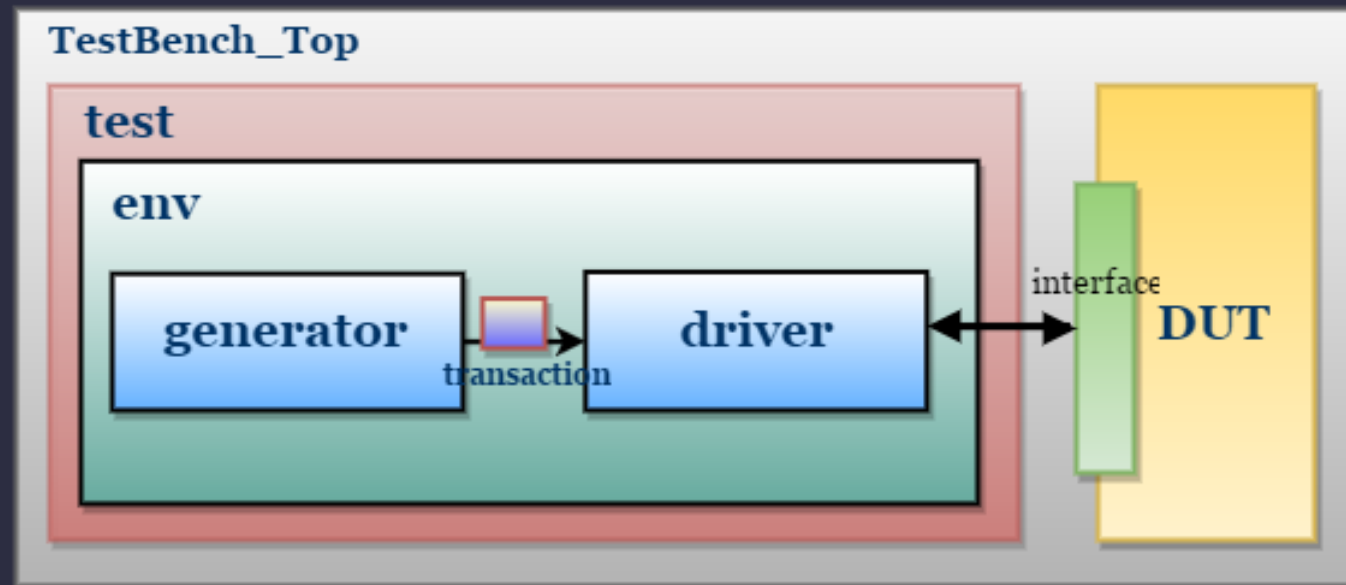
Course Plan

HVM : Inheritance
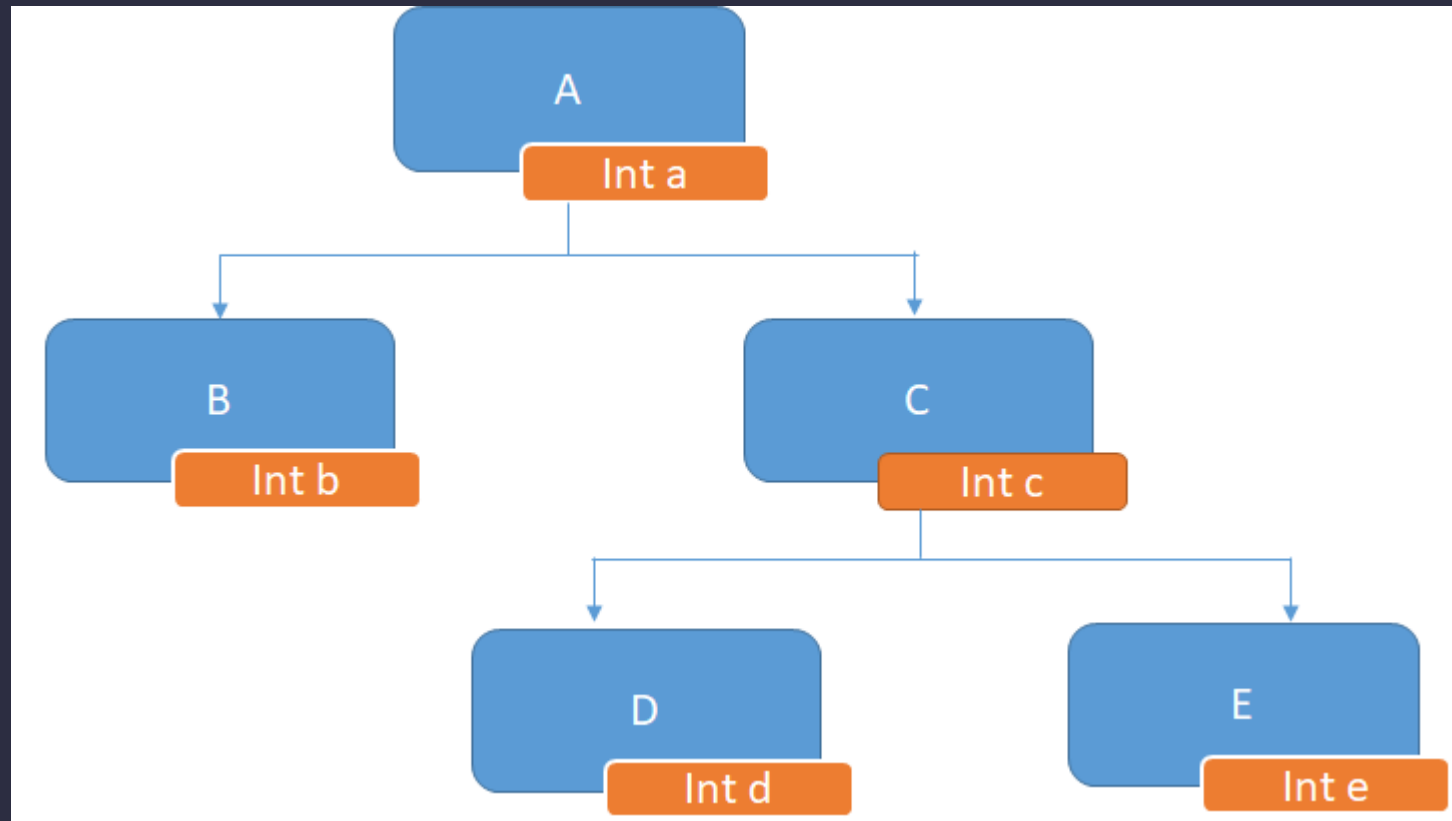
Course Plan

HVM: Variable Types

Data-type	2-state/4-state	# Bits	signed/unsigned	C equivalent
reg	4	>= 1	unsigned	
wire	4	>= 1	unsigned	
integer	4	32	signed	
real				double
time				
realtime				double
logic	4	>= 1	unsigned	
bit	2	>= 1	unsigned	
byte	2	8	signed	char
shortint	2	16	signed	short int
int	2	32	signed	int
longint	2	64	signed	long int
shortreal				float

Course Plan

HVM: Interfaces
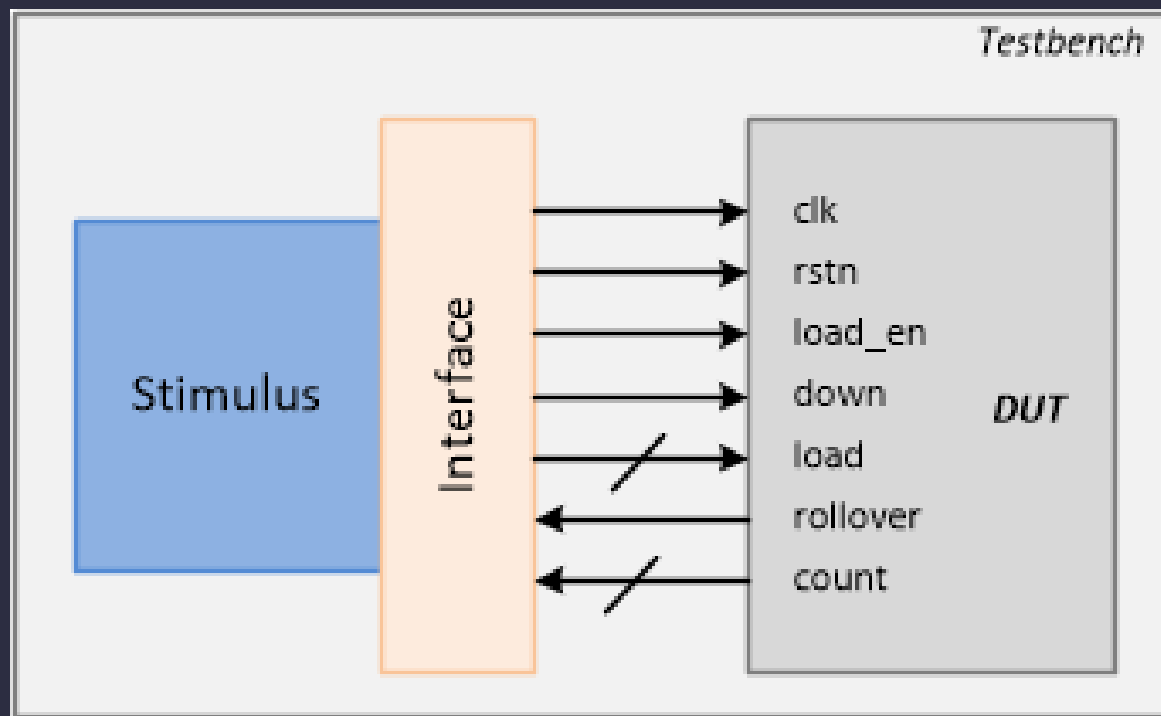
Course Plan

HVM: Randomization

Course Contents

Website: levent.tc

Courses> Electronic Circuits

Course Contents

Course Page Content;

- Syllabus
- Course Schedule
- Course Notes
- Homeworks
- Projects
- Exams
- LMS and Piazza
- Notes
- Feedback

Course Contents

Syllabus;

Lesson hours;

Monday 13.00-17.00

Office Hours;

Dr. Vecdi Emre Levent - Monday 17.00-18.00

Assistant. Ezgi Çakmak - Tuesday 16.00-17.00, Friday 16.00-17.00

Course Contents

Syllabus;

Between 2-3 homework will be given.

Class attendance is compulsory at a rate of 80%.

Evaluation weights

Delivery time for assignments and quizzes

for every passing hour

5 points will be deducted.

Activities	Percentages
Midterm	%20
Homework / Quiz	%10
Lab	%15
Projets	%30
Final	%25
Bonus	Up to 5 points

Course Contents

Syllabus;

Grades

Point	Weight	Letter Grade
90-100	4.00	AA
85-89	3.50	BA
80-84	3.00	BB
75-79	2.50	CB
65-74	2.00	CC
50-64	1.50	DC
45-49	1.00	DD
0 -44	0	FF

Course Contents

Syllabus;

Expected effort

190 hours in total effort is expected.

Counnt	Hour	#Times	Total
Preparation	2	14	28
Repetition	2	14	28
Homeworks	4	6	24
Project	48	1	48
Course	4	14	56
Midterm and Fİnals	3	2	6

Course Contents

Academic honesty

Course Contents

Course schedule

Week	Topic	Date
1	Giriş	
2	Elektriğe Giriş ve Dirençler	
3	Ohm Yasası	
4	Seri Devreler	
5	Paralel Devreler	
6	Kapasitans	
7	Hata Ayıklama	
8	**Vize**	Sınav Haftası
9	Donanım Doğrulama Metodları (DDM): Sınıflar	
10	FB-CPU System Verilog TB	
11	DDM: Kalıtım	
12	DDM: Değişken Türleri	
13	DDM: Arayüzler	
14	DDM: Rasgeleleştirme	
15	**Final ve Proje Sunumları**	Sınav Haftası

Course Contents

Homeworks;

The assignments to be given and their solutions will be shared on the homework page.

Projects;

Projects to be completed by each student will be announced at the end of the term.

Course Contents

Exams;

Sample questions and solutions of exams will be shared for midterm and final exams.

Course Contents

Piazza;

The Piazza system is a classroom question and answer platform. Whenever you have a topic about lecture, homework or exams, you can write on this platform. The questions you write are seen by teachers and students. You can also help each other measuredly through this platform.

Course Contents

Grades;

On the Grades page, all the grades you have collected in the course are given.

You can see how many points you have collected from midterm, homework, quiz, lab, final and bonuses by browsing through the pages.