



**11 Jun-19 Jul 2018**

## **Summer School on Digital System Design using VHDL**

### **Week 1:**

- \* Introduction to DSD
- \* Review of Number System
- \* Review of Combinational and Sequential Circuits

### **Week 2:**

- \* Introduction to VHDL
- \* Types of Modeling used in VHDL
  - \* Data Objects, Operators
- \* Other Programming Concepts

### **Week 3:**

- \* Design and Testing of Combinational Circuits
- \* Logic Gates, MUX, DEMUX, Priority Encoders, etc.

### **Week 4:**

- \* Design & Testing of Sequential Circuits
- \* Flip-flops, Registers, Counters, Memory, Multipliers, Etc.

### **Week 5:**

- \* Project: Dice Game
- \* Design of various Digital Systems: ALU, Traffic Light Controller, Digital Filters, Keypad Debouncer & Encoder

### **Week 6:**

- Project Work
  - \* Logistic Transportation System
  - \* Soft-Drinks Machine
  - \* Gray to Binary Code Converter

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**Venue: Dronacharya College of Engineering, Guragon**