DIGITAL ELECTRONICS:

INTRODUCTION TO DIGITAL ELECTRONICS

SNS COLLEGE OF ENGINEERING

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An Autonomous Institution

Accredited by NAAC – UGC with 'A' Grade

Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

INTRODUCTION TO DIGITAL ELECTRONICS

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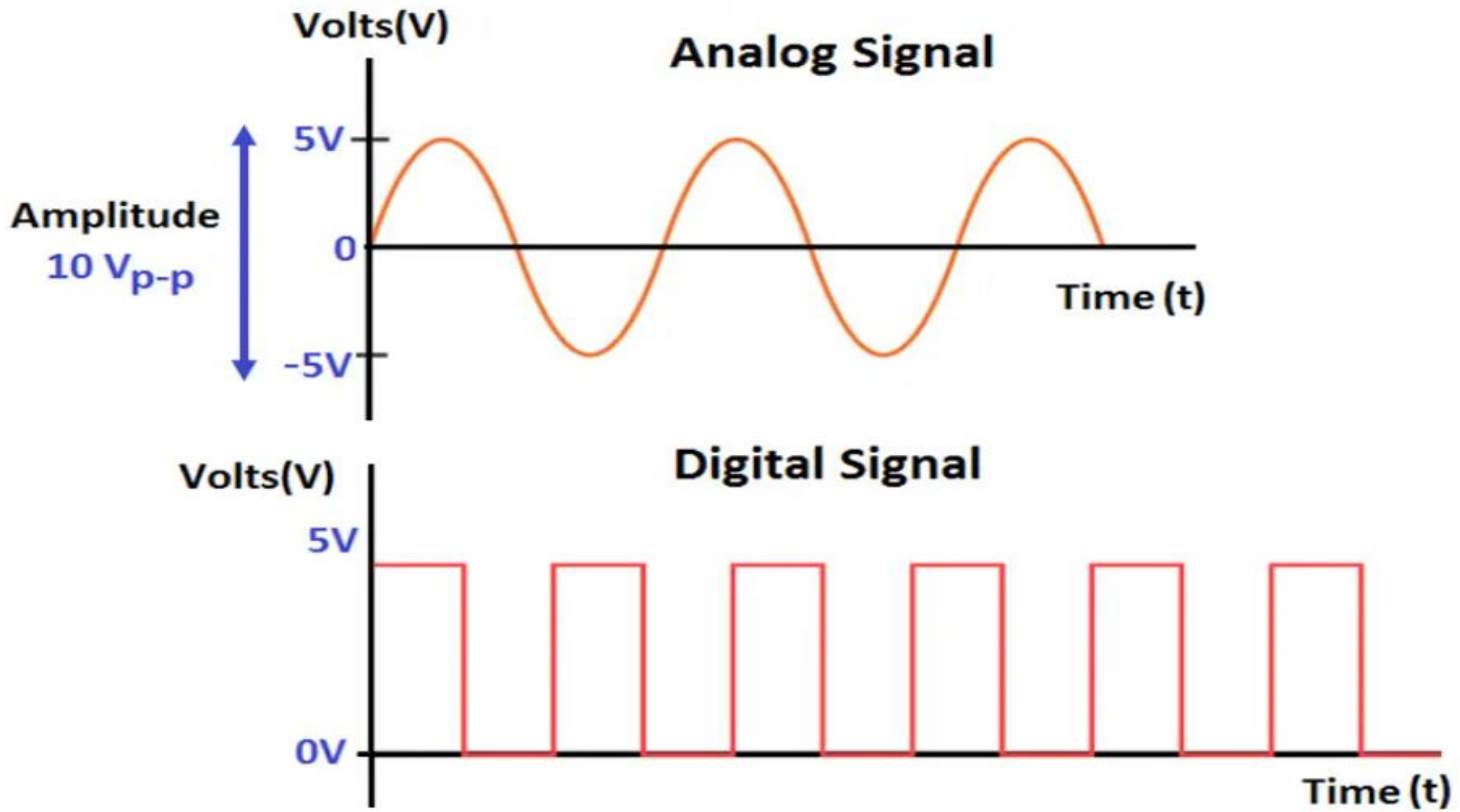
Analogue

Digital

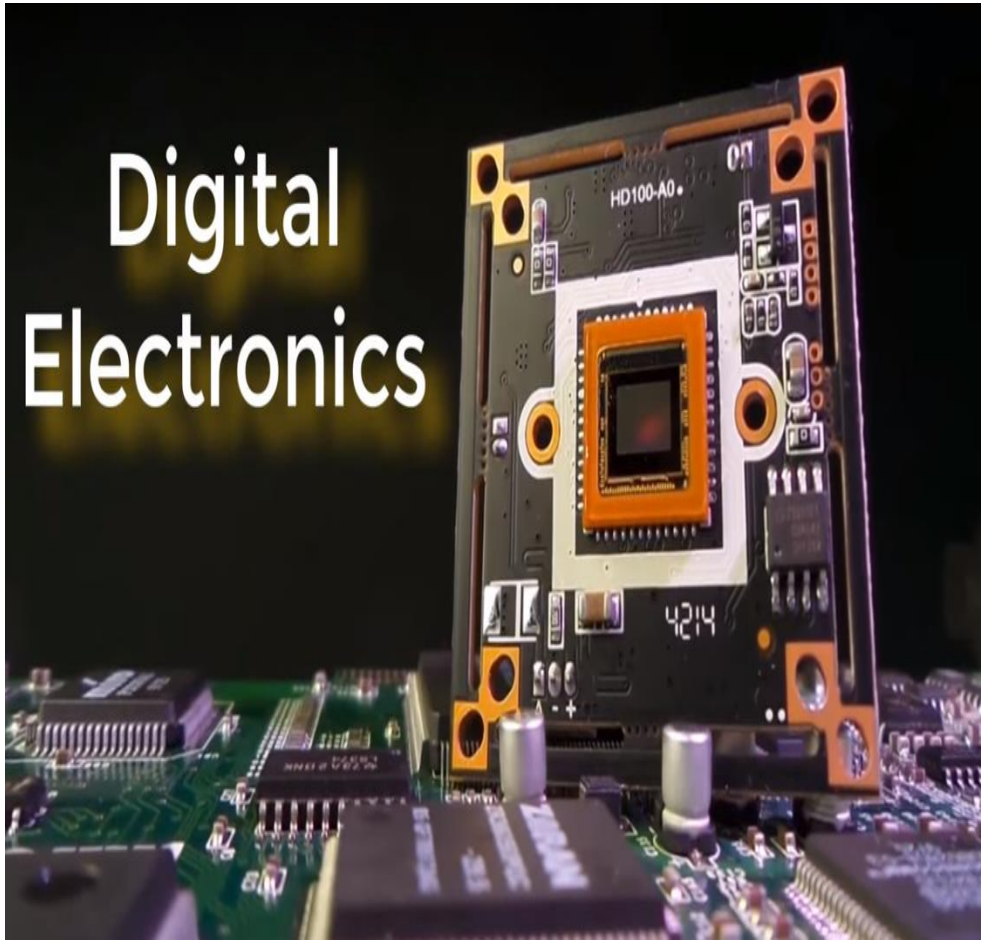
SIGNALS

Types of Signals



WHAT IS DIGITAL ELECTRONICS?

- Digital electronics is a field of electronics involving the study of digital signals and the engineering of devices that use or produce them.



Advantages of Digital Signals over Analog Signals

Analog Signals	Digital Signals
Analog signal is continuous and time varying.	Digital signal have two or more states and in binary form.
Troubleshooting of analog signals are difficult.	Troubleshooting of digital signals are easy.
An analog signal is usually in the form of sine wave.	An digital signal is usually in the form of square wave.
Easily affected by the noise.	These are stable and less prone to noise.
Analog signals use continous values to represent the data.	Digital signals use discrete values to represent the data.
Accuracy of the analog signals may be affected by noise.	Accuracy of the digital signals are immune from the noise.
Analog signals may be affected during data transmission.	Digital signals are not affected during data transmission
Less Reliable	Digitals Signals are highly reliable
Components like resistors, Capacitors, Inductors, Diodes are used in analog circuits.	Components like transistors, logic gates, and micro-controllers are used in Digital circuits.

Assessment

1. Give some examples of Digital devices

2. Give some examples of Analog Devices

IDENTIFY ANALOG AND DIGITAL DEVICES


Thank
you