#### SREE VIDVANIKETHAN Engineering College (Autonomous)

#### SREE VIDYANIKETHAN ENGINEERING COLLEGE

#### (Autonomous)

Sree Sainath Nagar - 517 102, Tirupati

#### Department of Electronics and Communication Engineering

## One Week Refresher Course on "Linear and Digital IC Applications Lab"

Name of the Event

: One Week Refresher Course on "Linear and Digital IC

Applications Lab"

Conducted by

: Department of Electronics and Communication Engineering

**Event Organizer** 

: Ms. K. Neelima, Assistant Professor

**Schedule of the Event** 

: 01-06 March, 2021

**Target group** 

: Faculty of ECE, EEE and EIE

#### **Event Objectives:**

- 1. To impart knowledge in Linear and Digital IC Applications.
- 2. To develop skills in analyzing, modeling and implementing applications using ICs.
- 3. To inculcate attitude towards solving complex engineering problems in the development of Board level Designs for various applications.

#### **COURSE OUTCOMES:**

After successful completion of the Event, the participants will be able to:

- CO1. Apply fundamental knowledge in
  - Understanding the functionality of ICs.
  - Identify the Limiting factors of software implementation of ICs and their Applications.
  - Creating new designs using ICs to solve problems of ASIC Design.
- **CO2.** Analyze the functioning of ICs and their applications.
- CO3. Design solutions for complex implementations for applications using various ICs.
- **CO4.** Use Xilinx ISE 14.5 Tools to develop the applications of Digital ICs and assess the performance of the design.

CO - PO Mapping:

	PO1	PO2	PO3	PO5
CO1	٧			
CO2		٧		
CO3			٧	
CO4				٧

#### **Event Description:**

Integrated circuit (IC), is a chip or microchip, is a semiconductor wafer on which a thousand or millions of tiny resistors, capacitors, and transistors are fabricated. An IC can be a function as an amplifier, oscillator, timer, counter, computer memory, or microprocessor. A linear integrated circuit (linear IC) is a solid-state analog device characterized by a theoretically infinite number of possible operating states. It operates over a continuous range of input levels. A digital IC has a finite number of discrete input and output states. The implementation of designs using ICs has many advantages like they are commercially Available, Easy to develop as it ca derived by interconnecting components, it offers flexibility in switching alternative designs, scalable to higher order designs, it can produce high performance circuits as ICs can switch faster and they are cost effective due to advancements in IC Technology. The linear ICs are developed on Bread Board while the digital ICs are modeled in Verilog HDL and their performance is evaluated in Xilinx ISE Tools for Spartan3E FPGA.

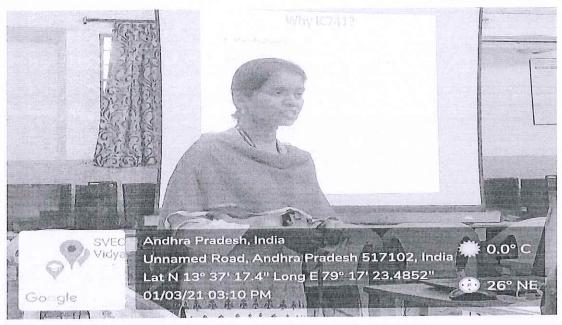
#### **Training Provided on**

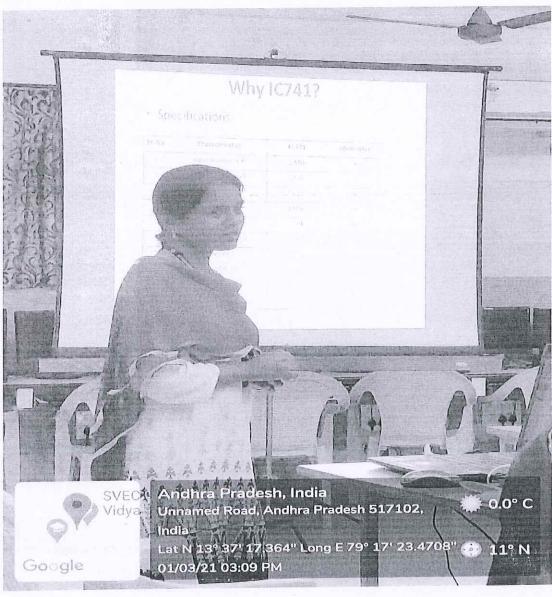
- ✓ Introduction to ICs.
- ✓ Linear ICs IC741 and IC555 applications like RC Phase Shift Oscillator, Instrumentation Amplifier, Integrator and Differentiator, Filters, Multivibrators, DAC etc are verified on Bread Board.
- ✓ Digital ICs like IC74148, IC74X181, IC74X194, IC74x151, etc are studied and are modeled in Verilog HDL. The experiments for Applications using these ICs like ALU, Barrel Shifter, Floating Point Encoder, Dual Priority Encoder, Universal Shift Register, Self Correcting Ring Counter with circulating 1 and 0, 3-Bit Linear Feedback Shift Register, etc are modeled in Verilog HDL. Their Functionality is verified in Xilinx ISE 14.5 Tool using ISIM and their performance is evaluated for Spartan3E FPGA.

Total Number of Faculty Registered : 21

Total Number of Faculty Attended : 21

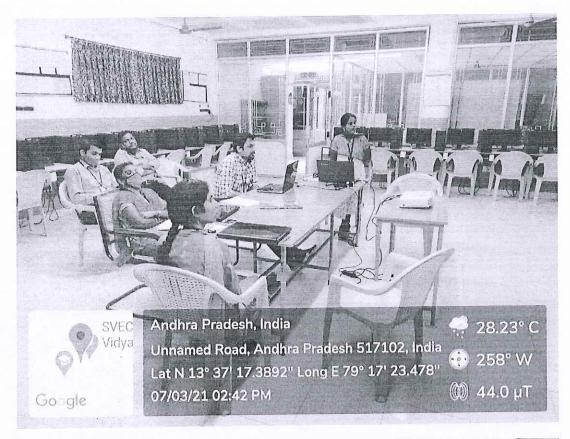
#### **Geotagged Photos:**















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### SREE VIDYANIKETHAN ENGINEERING COLLEGE

SREE VIDYANIKETHAN Engineering College (Autonomous) Accredited by NAAC with 'A' Grade (Autonomous) Sree Sainath Nagar, A. Rangampet – 517 102

## Department of Electronics and Communication Engineering

## One Week Refresher Course on "Linear and Digital IC Applications Lab"

(01-06 March, 2021)

#### Registration Form

SI. No.	ID No.	Name of the Faulty	Department	Signature of the Faculty
1.	Suecee 118	SR SUVARNIKA-	ECE	211
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3.	Suececell	B. Ashreetha	ece	AU
4.	Svecece 134	P.L.Lahari	ECE	Pele
5.	Suecece 11	M. Bharathi	ECE	H. 18 th
6.	SVECECE80	Kaustubh Kumar shukla	ECE	din_
7.	SVFCECE 133	G. SANDHYAKUMARI	ECE	G. Sanlyali
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## SREE VIDYANIKETHAN ENGINEERING COLLEGE (Autonomous)

Sree Sainath Nagar, A. Rangampet – 517 102

Department of Electronics and Communication Engineering

Organizes

# One week refresher course on "Linear and Digital IC Applications Lab"

(01-06 March, 2021)

Target Group: Faculty of ECE, EEE & EIE

**Resource Persons** 

Ms. K. Neelima, Assistant Professor

Department of ECE

Timing: 2:00 PM to 5.00 PM Venue: Room No.: 202