



Late Shri. Vishnu Waman Thakur Charitable Trust's

## VIVA Institute of Technology

Approved by AICTE, New Delhi, DTE, Government of Maharashtra, Affiliated to University of Mumbai  
At- Shirgaon, Post-Virar (E.), Tal-Vasai, Dist-Palghar – 401 305.

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### Department of Electronics and Telecommunication Engineering

<b>Course Name:</b>	<b>Skill based Laboratories</b>
<b>Name of the Faculty:</b>	<b>Mrs. Meena Perla.</b>
<b>Designation:</b>	<b>Assistant Professor</b>
<b>Organization/Institution:</b>	<b>Viva Institute of Technology</b>
<b>Date:</b>	<b>3rd-7th Jan 2022</b>
<b>Time:</b>	<b>9.00 am – 4.30 pm</b>
<b>Number of Students:</b>	<b>74</b>

#### Programme Summary:

Electronics & Telecommunication Engineering Department of VIVA Institute of Technology organized a 30 hours' certificate course on “**Skill based Laboratories**” from **3rd-7th Jan 2022** conducted by **Mr s. Meena Perla.**

The objective of the Hands-on Skill based Laboratories for EXTC Engineering training program is to learn to create tools with skill lab software's that will help to implement new ideas and solve difficult problems. Learning of Linux, Raspberry Pi, and FPGA will help to apply our research to interesting and challenging real-world problems. This STTP provides comprehensive coverage of Skill based Lab and its applications while providing opportunities for Hands-on practicals.

The purpose of this STTP is to have discussions on various ways in which these software tools can be used to carry out research.

Topics Covered in STTP on “Skill based Laboratories”

- History and Introduction to Linux Operating System
- Linux commands and shell scripting
- Loping Structure & Shell Loop Control
- Introduction to Raspberry Pi with timeline and model
- Rpi board details & OS Installation
- Introduction to Basics of FPGA/CPLD
- RTL Design
- Combinational and Sequential circuit design simulation
- FPGA Design and Implementation
- Interfacing of FPGA Board
- Interfacing with Sensors, Actuator, Telegram & Camera



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- Project demonstration using Raspberry Pi
- Introduction to Arduino and how it works
- Implement embedded systems with different sensors and peripherals as IoT.
- Program Arduino using Arduino IDE for real life applications

As new developments are introducing in industry day by day demanding expertise in these software, it was felt necessary that the student also become competent in the said field.