

# netsui



100% JOB  
ABSORPTION  
TRAINING  
PROGRAM

# ADVANCED EMBEDDED SYSTEMS PROGRAM



CERTIFIED OFFLINE  
COURSE



INTERNATIONAL  
PROJECT



EXPERT TRAINERS

[www.netsuilabs.in](http://www.netsuilabs.in)

# ABOUT US



## **Netsui Labs - Pioneers in Advanced Embedded Systems and Analytics Training**

Established as a premier institute with over 12 years of rich experience, Netsui Labs stands at the forefront of providing unparalleled training in Advanced Embedded Systems and Analytics in Chennai. Our legacy is built on a commitment to excellence, practical knowledge, and fostering career growth for individuals aspiring to make their mark in the dynamic IT industry.



# 100% ABSORPTION INTO ZESTLOGICS

Netsui Labs takes pride in announcing a groundbreaking "100% Absorption" into its parent company, Zestlogic Systems. Thus ensuring 100% employment for the candidates. Aligned with our vision of empowering individuals with practical knowledge, Zestlogic facilitates a transition into the IT field, offering opportunities for career growth and success. This approach ensures that Netsui Labs candidates have a direct career path with Zestlogic Systems.

# FEATURES



**TRAINING &  
MENTORSHIPS  
BY INDUSTRY EXPERTS**



**COURSE COMPLETION  
CERTIFICATE**



**INTERNATIONAL  
PROJECTS**



**WELL-EQUIPPED LABS**



**INTERACTIVE  
LEARNING**



**COMPREHENSIVE  
CURRICULUM**



**100% JOB  
GUARENTEED**



**EXPERIENCE WITH REAL-TIME  
INDUSTRY PROJECTS**



**4 MONTH OFFLINE  
SESSIONS**

Column, bar, and pie charts compare values in a single category, such as the number of products sold by each salesperson. Pie charts show each category's value as a percentage of the whole.

Fundraiser Results by Salesperson

PARTICIPANT	UNITS SOLD
Andy	11
Chloe	15
Daniel	9
Grace	14
Sophia	21

# ABOUT THE PROGRAM

- Andy
- Chloe
- Daniel
- Grace
- Sophia

Our Advanced Embedded Systems Program, meticulously crafted for both professionals and enthusiastic learners, is designed to provide an unparalleled depth of understanding and hands-on experience on embedded systems.

Our program seamlessly integrates theoretical knowledge with practical application, providing participants with a comprehensive understanding of the ever-evolving landscape of embedded systems. This curated blend equips individuals with the skills to navigate complexities, fostering innovation and problem-solving in real-world scenarios.

Elevate your expertise through an immersive learning experience that seamlessly integrates theoretical knowledge and practical application. Our program provides a comprehensive understanding of the ever-evolving landscape of embedded systems, equipping you with the skills to navigate complexities, foster innovation, and solve real-world scenarios.

# KEY TOOLS



# MODULES

## INTEGRATED DEVELOPMENT ENVIRONMENTS

- **Eclipse:** An open-source IDE that supports various programming languages and is widely used in embedded system development.
- **Keil uVision:** A popular IDE for microcontroller development, supporting various microcontroller architectures.
- **IAR Embedded Workbench:** An IDE that supports a wide range of microcontrollers and offers powerful debugging features.

## COMPILERS

- **GCC:** A collection of compilers for various programming languages, including C, C++, and assembly language, widely used in embedded systems development.
- **ARM Compiler:** Specifically designed for ARM architecture-based microcontrollers and processors.

## DEBUGGERS

- **GDB:** A portable debugger that supports multiple programming languages and various processor architectures.
- **JTAG:** Hardware tools that allow low-level debugging and programming of embedded systems through the JTAG interface.

## PERFORMANCE PROFILING TOOLS

- Tools like gprof and Valgrind help analyse the performance of embedded applications, identifying bottlenecks and optimizing code.

# SIMULATORS AND EMULATORS

- **QEMU:** A generic and open-source machine emulator and virtualize that can emulate various architectures, including ARM and MIPS.
- **Proteus:** A simulation and design software tool that simulates embedded systems, allowing developers to test their designs without the need for physical hardware.

# VERSION CONTROL SYSTEMS

- **Git:** A widely used distributed version control system that helps track changes in the source code, collaborate with teams, and manage different versions of the software.

# HARDWARE DESCRIPTION LANGUAGES

- **VHDL and Verilog:** HDLs used for designing digital circuits and FPGA (Field-Programmable Gate Array) configurations.

# REAL-TIME OPERATING SYSTEMS

- **FreeRTOS:** A popular open-source real-time operating system kernel designed for embedded systems.
- **RTOS-specific development tools:** Tools like CMSIS-RTOS, SEGGER embOS, and Micrium uC/OS are used to develop applications for real-time operating systems.

# COMMUNICATION PROTOCOLS

- **SPI, I2C, UART:** Common communication protocols used in embedded systems, often requiring protocol analyzers and debuggers for development and troubleshooting.



# MODELLING AND DESIGN TOOLS

- **MATLAB:** Widely used for modelling, simulation, and control system design, often integrated with embedded system development processes.
- **UML Tools:** Tools like Enterprise Architect and IBM Rational Rhapsody are used for visual modelling and design of embedded systems.

# POWER CONSUMPTION ANALYSIS TOOLS

- Tools like PowerAnalyzer and PowerTrace+ help developers analyse and optimize power consumption in embedded systems, crucial for battery-powered devices.