



Transforming Aspirations into Achievement

# EMBEDDED SYSTEMS

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**Master Embedded Systems with Expert Guidance!**

**SELF-PACED | MENTOR LED | PROFESSIONAL**





A Brief Story About The Company



# ABOUT US

Our team is dedicated to empowering students with the skills needed to thrive in today's ever-evolving job market. We believe that staying ahead requires continuous skill development to meet industry demands.

At innoKNOWVEX, we bridge the gap between current capabilities and the expertise sought by leading organizations. Our platform offers industry-specific training in a professional setting, equipping students with the knowledge and practical skills essential for securing employment in their chosen fields.



# About the Program

InnoKnowvex Edu Tech's 3-month program includes two months of industrial training with experts through live sessions & recorded materials.

The final month involves an individual project and a major project with affiliated companies, offering industry exposure and MNC work experience. This program prepares interns for successful careers in the field.

## Modes of Training

### ★ SELF PACED

- Recorded Sessions with doubt-clearing opportunities
- Lifetime access to study material
- Training Certification+Internship Opportunity

### ★ MENTOR LED

- Live interactive sessions with doubt clearing
- Lifetime access to recordings
- Training Certification+Internship Opportunity

### ★ PROFESSIONAL

- Live interactive sessions with doubt clearing
- Lifetime access to recordings
- Training Certification+Internship Opportunity+placement assistance



## FIRST TWO MONTHS

- Comprehensive industrial training from experts
- Live interactive sessions
- Lifetime access to session recordings
- Hands-on practice
- Mini-projects and exercises
- Real time engagement
- Immediate feedback
- Supportive learning environment
- Mentorship and peer collaboration
- Solid foundation
- Real-world projects in the internship phase

## THIRD MONTH

### Two key projects:-

1. Minor project focused on implementing and evaluating their skills independently.
2. Major collaborative project, providing industry exposure and experience in a multinational corporation environment.

**\*Interns work on real-world challenges under the guidance of experienced professionals, gaining valuable insights into industry practices while refining their technical skills. This hands-on experience prepares them for successful careers, giving them a competitive edge in the job market.**



# Explore the **CAREER PATHS**

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Embedded  
Systems  
Engineer

Firmware  
Developer

Hardware  
Design  
Engineer

IoT  
Hardware  
Developer

Robotics  
Engineer

Automation  
Engineer

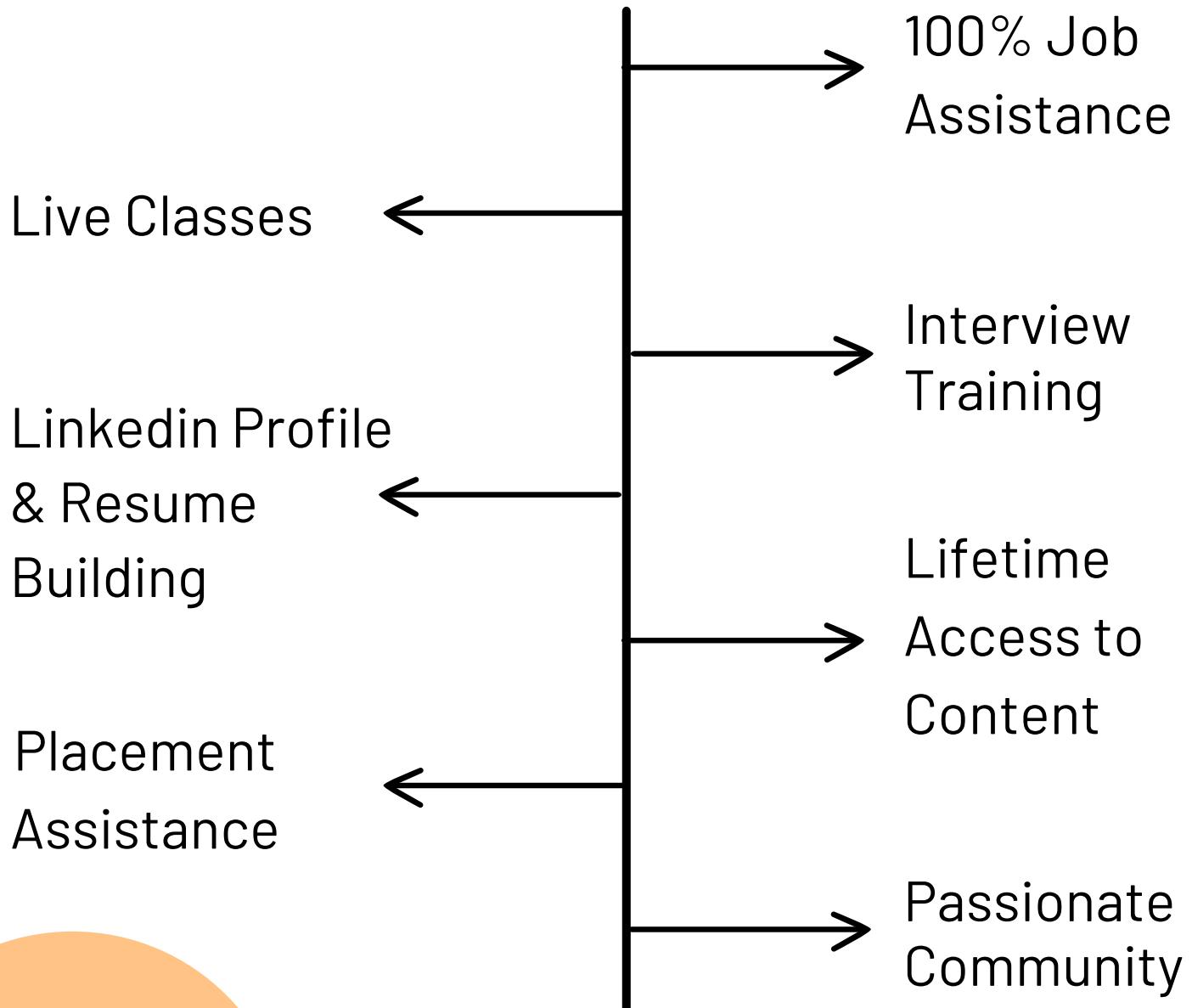
Electronics  
Product  
Developer

System  
Integration  
Engineer

Technical  
Trainer

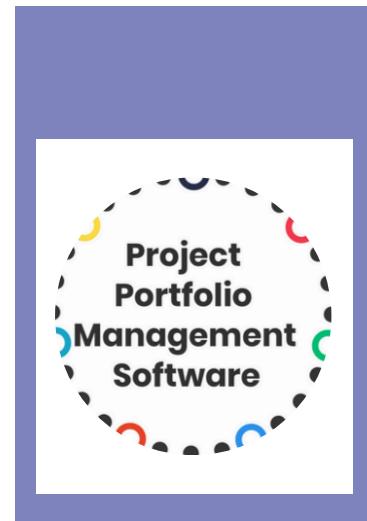


# WHY US?



# TOOLS

## You will learn





# KEY HIGHLIGHTS OF PROGRAM

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Real Hardware

Simulation Tools

Register-Level  
Programming

Advanced Pattern  
Programming

LCD  
Control

Customization

Timer-Based  
Programming

Actuator  
Interfacing

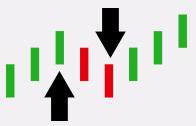
Mini Projects with Real  
Components

Hardware-Software  
Co-Design Concepts

Industry-Relevant  
Skillset

Serial Communication  
Mastery

# Course Curriculum

|   |   |           |
|---|---|-----------|
|    | <b>Week 1- Introduction of embedded system</b>  | <b>01</b> |
| <input type="checkbox"/> Application of embedded system                             |   |           |
| <input type="checkbox"/> Practical Examples, Characteristics                        |   |           |
| <input type="checkbox"/> Types of Embedded Systems                                  |   |           |
|   |   |           |
|  | <b>Week 2- Hardware Software Co-design</b>  | <b>02</b> |
| <input type="checkbox"/> Challenges in embedded computing design                    |   |           |
| <input type="checkbox"/> Co-design Process  |   |           |
| <input type="checkbox"/> Why co-design  |   |           |
| <input type="checkbox"/> Architecture   |   |           |
|   |  |           |



## Week 3 - Introduction to ATmega/Arduino

03

- Arduino Boards, which Arduino is best?**
- Memory map of Arduino, pin configuration**
- ATmega328 features**



## Week 4 - Register map ATmega328

04

- Arduino C functions vs register commands**



## ★ RESUME BUILDING WORKSHOP



## Week 5 - Introduction to simulation software/editors

05

- Proteus: know-how**
- TinkerCAD introduction**





## Week 6- Basics Programs with Atmega/Arduino

06

- LED interfacing in proteus and TinkerCAD**
- Controlling LED with a Switch**



## Week 7 - Basics Programs with Atmega/Arduino

07

- LED with serial-port**
- LED with switch + serial port**





## Week 8 - Advanced Programming

08

- All on-off, First four, on-off Odd-Even
- Left-shift and right-shift
- Curtain effect: left and right, Converge and Diverge



## SOFT SKILL DEVELOPMENT WORKSHOP



## Week 9 - Advanced Programming

09

- Concept and types of segments
- Interfacing with Arduino/ATmega
- Single-Digit, 2-digit and 4-digit
- Controlling each stripe of seven segment





## Week 10 - Liquid Crystal Display theory and practical

10

- Concept of LCD**
- Valuation of a Start up**
- The internal architecture of LCD with pin configuration**
- Algorithm to send data and commands to LCD from Microcontroller**



## Week 11 - Introduction to motors and actuators

11

- Interfacing different types of motors**
- About Arduino/ATmega**



## Week 12 -Interfacing LCD with Arduino to:

12

- Displaying various patterns and Effects**
- Process of creating custom characters on LCD**
- Hex commands of LCD**





# CERTIFICATIONS





*Pricing*

# PLAN

**Live Sessions>**

**Get real-time Assistance**

**₹2,500**

**Self Paced>**

**Learn at your own pace**

**₹2,500**



# OUR COLLABORATIONS

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Capgemini

IBM

wipro

accenture

meesho

SWIGGY

Razorpay

PhonePe

boAt



# COMPANY DETAILS

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