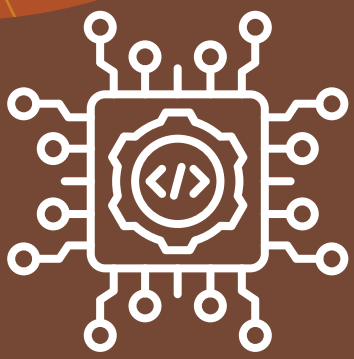
Adyapan School

Embedded Systems



Duration - 2 months

Industry
Certification

Skill India
Skill India Certified

N·S·D·C National Skill Development Corporation
Transforming the skill landscape

250+
Partner Companies

Adyapan School

From circuits to code Master Embedded Eystems.

From circuits to intelligent devices - become industry-ready.

This immersive Embedded Systems program takes you beyond foundational concepts into real-world hardware-software integration. Learn microcontrollers, interfacing, real-time systems, and firmware development through hands-on projects and guided labs. With a strong focus on practical implementation and industry applications, you'll graduate with the ability to design embedded solutions, develop efficient firmware, and build reliable, high-performance electronic systems with confidence.

8	30+	20,000+
MODULES	PROGRAM OFFERINGS	STUDENTS

250+ PARTNERED COMPANIES

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adyapanschool.com

Adyapan School

ABOUT ADYAPAN SCHOOLS

Where education meets real-world impact

Not just a course — a platform to launch your career.

Adyapan Schools was built with a single conviction: learning works best when it happens in the real world. We partner with top companies, mentors, and industry platforms to ensure every student graduates with a portfolio of work that speaks louder than a certificate.

Our programs combine rigorous coursework with live client projects, giving you the skills and proof-of-work that employers actually want.

MISSION

To equip ambitious learners with practitioner-level digital marketing skills through mentor-led, project-based education that bridges the gap between learning and earning.

VISION

To be India's most trusted launchpad for the next generation of marketing leaders — defined not by degrees but by the real work.

Adyapan School

Everything you need to grow fast

PROGRAM HIGHLIGHTS

Live Industry Projects

Work on campaigns for real brands alongside your coursework. Build portfolio projects that prove your expertise to employers.

1-on-1 Mentorship

Dedicated mentors from Google, Microsoft, Mastercard and more. Get personalized guidance and industry connections.

AI-Powered Marketing

Learn cutting-edge AI tools alongside evergreen fundamentals. Stay ahead of the curve in a rapidly evolving landscape.

Dual Certification

Earn both a Course Completion and Internship Certificate — accredited by Skill India Digital Hub and NSDC.

Internship Guarantee

Graduate with an internship completion certificate from a live brand project. Concrete, resume-ready proof of work.

Industry Network

Join a network of alumni at Amazon, Google, Adobe, Microsoft. Access exclusive hiring events and referral opportunities.

Adyapan School

CURRICULUM

8 weeks. 8 modules. Infinite impact.

WEEK 1

Introduction to Embedded Systems

- Discussion of Curriculum
- What are Embedded Systems and their types
- Architecture and components (CPU, Memory, I/O, Sensors)
- Programming languages used (C, C++, Assembly)
- Setting up the microcontroller development environment

WEEK 2

Communication & Sensor Interfacing

- Serial communication fundamentals (UART, SPI, I2C)
- Interrupts and Timers
- Concepts and real-time applications
- Interfacing peripherals and sensors

WEEK 3

Real-Time Operating Systems (RTOS)

- Introduction to RTOS — tasks, priorities, scheduling
- Overview of FreeRTOS architecture
- Debugging and troubleshooting in embedded environments
- Communication Protocols: CAN, BLE, Wi-Fi

CURRICULUM

8 weeks. 8 modules. Infinite impact.

WEEK 4

Input Devices & Sound Systems

- Fillet & Chamfer for edge finishing
- Shell Command and Draft Features
- Multi-section Solids for complex geometry
- Parameterization and design intent best practices
- Practice models combining all Part Design tools

WEEK 5

Hands-on with RTOS & Interfacing

- Setting up and running applications on FreeRTOS
- Task management and synchronization
- Embedded interfacing techniques using SPI and I2C
- Outcome-Driven Lab: SPI-based External Device Control
- Wireless communication (Bluetooth, Wi-Fi) fundamentals
- Secure communication in embedded systems

WEEK 6

Wireless Communication & IoT Integration

- IoT overview and embedded system connectivity
- Cloud-based data transfer and the MQTT protocol
- Using APIs for IoT dashboards
- Implementing real-time data monitoring systems
- Data security and encryption for IoT devicesx

CURRICULUM

8 weeks. 8 modules. Infinite impact.

WEEK 7

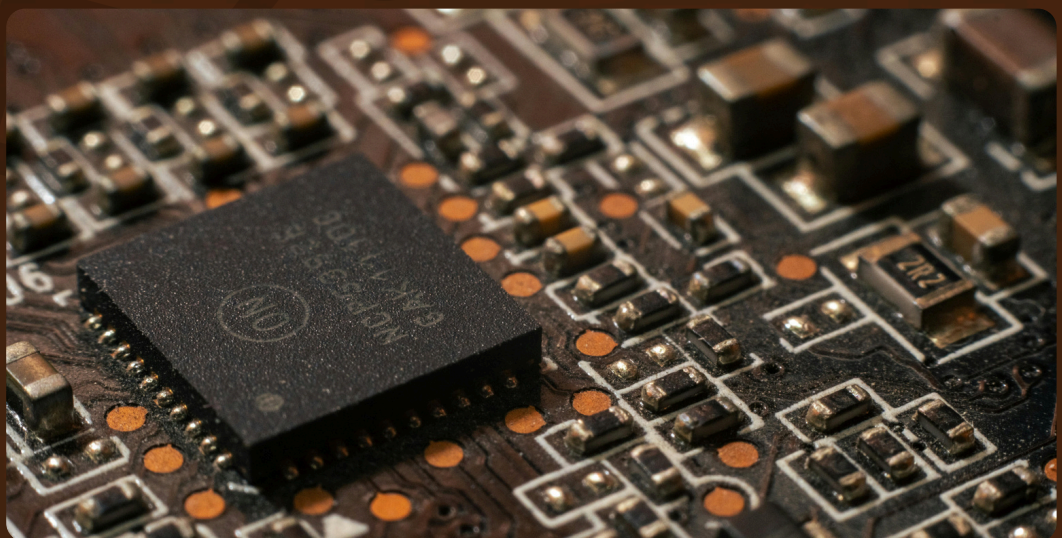
Debugging, Security & Optimization

- Embedded debugging tools and simulators
- Secure bootloaders and firmware update processes
- Optimizing code for performance and memory
- Secure communication using encryption protocols (AES, RSA)

WEEK 8

Project & System Integration

- Final integration of hardware and software components
- Designing a complete embedded IoT system
- Testing and deployment procedures
- Project documentation and presentation



Adyapan School

WHO THIS IS FOR

This course is perfect for

- Students & Career Starters
- Aspiring Embedded Systems & Firmware Engineers
- CS, Game Development & Multimedia Students
- ECE, EEE & Instrumentation Engineering Students
- Developers Transitioning to Low-Level & Hardware Programming
- IoT, Robotics & Real-Time Systems Enthusiasts

CERTIFICATIONS

ALUMNI NETWORK

Our alumni work at world-class companies

Amazon | Adobe | Google | Autodesk | Microsoft | Deloitte

Your career switch is one click away.

Ready to begin? Apply at adyapanschool.com or email us at support@adyapan.com

Apply Now