InternsForge

Embedded System

About Us

InternsForge is the bridge that takes you from books to the on-field application of any and everything you want to learn. You should be trained to apply all your learnings in the real world right from the start. This not only makes your learning process a lot more fun but sets you apart from the dense competition through your exceptional skills from our holistic learning approach.

"We're not here to just teach; we're here to transform"

- 30,000+ Students Turned Industry-Ready Professionals
- 4.5+ Star rating on Google from 325+ Happy customers
- Have our presence in over 4000+ colleges including top IITs, IIMs, NITs, IIITs etc
- Students from InternsForge are working in Top MNCs like IBM, Accenture, Innodata Cognizant etc

EMBEDDED SYSTEM

What is Embedded System ??

"Welcome to the world of embedded systems, where even your toaster has a brain! Picture this: tiny computers lurking in everything from your coffee maker to your car, quietly making decisions you didn't even know needed to be made. It's like a secret society of silicon chips conspiring to make our lives easier, or occasionally, to play a prank or two. After all, who hasn't had their printer suddenly develop a sense of humor and decide to print out a hundred copies of that embarrassing email? Ah, the wonders of embedded systems!"

So buckle up, my friends, because we're about to dive headfirst into a world where even the most mundane objects have a secret life of their own, where embedded systems reign supreme and the possibilities are as endless as they are entertaining. Welcome to the wild and wonderful world of embedded systems—where the jokes are as embedded as the systems themselves!

Scope of Embedded System ??

Congrats!! 🥳
You just made a great choice

Did You Know ??

- The global embedded system market was valued at approximately **$92.29 billion in 2020** and is projected to reach over **$131.7 billion by 2027,** growing at a **CAGR of around 5.1% from 2020 to 2027.** Embedded systems find applications in various industries including **automotive, consumer electronics, healthcare,**
- **industrial automation, aerospace, and defense.** The embedded system market is highly competitive, with key players including **Intel Corporation, Renesas Electronics Corporation, Texas Instruments Incorporated, NXP Semiconductors N.V., and ST Microelectronics N.V**

Are We Really Different ??

‘This is NOT a Course, This is a Commitment”

The internet is full of online courses- free as well as paid, college students have access to top professors and high quality study materials.
Still our unemployment ratio continues to grow.
At the same time, the stress and worry faced by today’s college students reach the sky!

“ Now it’s time to leave all your worries up to us and experience a transformed way to learning ”

4 Gaps That We Fill for You

1 Learn From Your Idols

- **Learn from Your Idols Currently Working At Your Dream Jobs**

  You are already getting trained by top quality college professors, now time to cover the gap between theory and actual industry work. Get trained by professionals working at your dream jobs, get inspired, get guided, and get ready to reach your dreams.

- **Interactive-Live Classes**

  90% of the students never finish the online courses they enroll in. Get ready of an entirely different experience, where you learn while interacting with your mentors in a motivational environment where you can't wait for the next session. Get Inspired! Get Going!

2 Certifications

- **Course Completion Certificate & Project completion certificate in collaboration with E-Cell IIT Indore**

  At the end of course you will get some time to submit your project report. After submission of your project report you will get a course completion certificate and project completion certificate in collaboration with E-Cell IIT Indore.

- **Internship certificate from our partnered companies :**

  We have some of our partnered Companies like Datex, Corevo, Smart swift Innovation etc which operates in different type of technologies. You will get a chance to work on some live-projects from these companies and after the completion of project and submission of project report; you will be awarded with an internship certificate from these companies.

3 Experience Working on Live Industry Level Projects

- **4 Live Industry Level Projects**

  There is a humongous difference between learning from your classroom, books, notes vs. having industry experience where you know the current industry demands and are an expert at fulfilling those demands.

  At InternsForge we make sure that your learning runs parallel to the applications of your learning, i.e right from the start till the end you are consistently applying everything you are learning in form of 4 main projects that are going on in the current industry

- **Projects Assigned and Guided by Industrial Mentors**

  Since the purpose of this program is to get you industry ready. You will be assigned projects through your mentors who are working in the industry. You get to work on the projects that are highest in demand as per the industry requirements of the time you are taking the course.

  You get consistent guidance from your mentors with additional doubt clearing sessions as per your demand for the smooth running of your projects.

ROADMAP

Orientation Session

Within the first week of initial payment you will have your first orientation session where you will get an in-depth introduction to our process.

Introduction Webinar

Between 20 to 25th of the month, you will have your introduction webinar where you will get expert insights on the scope of the subject and your growth graph with the selected career.

2 Months of Intensive Training

Then we will start your 25+ hrs of intensive training. Where we make sure you are industry-ready.

During 2 Months of Intensive Training

During your training the following will be covered:

- 25+ hrs of interactive-live sessions with industry experts
- 2 Industry Level Projects

After Completion of training:

Upon submission of project report You will get:

- A course completion certificate from
- InternsForge A project completion certificate from InternsForge in collaboration with E-cell of IIT Indore
- An internship certificate from our partnered companies

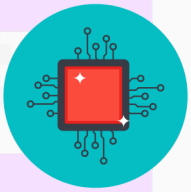
"The best version of you all set to conquer your Dreams"

Curriculum

MODULE 1

Introduction of Microprocessor & Microcontroller:

- ***Introduction of Architecture of Microprocessor & Microcontroller***



MODULE 2

Introduction of embedded system & Features of embedded system:

- ***Application of embedded system***
- ***Practical Examples***
- ***Characteristics***
- ***Types of Embedded Systems***

MODULE 3

Hardware Software Co-design:

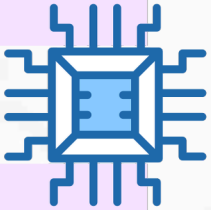
- ***Challenges in embedded computing design***
- ***Co-design Process***
- ***Why co-design***
- ***Architecture***

Curriculum

MODULE 4

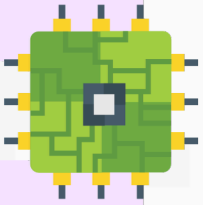
Introduction to ATmega/Arduino:

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



MODULE 5

Register map ATmega328, Arduino C functions vs register commands



MODULE 6

Introduction to simulation software/editors:

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

Curriculum

MODULE 7

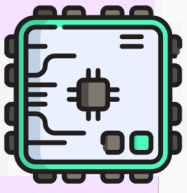
Basics Programs with Atmega/Arduino:

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

MODULE 8

Basics Programs with Atmega/Arduino:

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



MODULE 9

Advanced Programming: Interfacing 8 LEDs with a single port of ATmega/Arduino and displaying 10+ different patterns:

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

Curriculum

MODULE 10

Use of millis function instead of delay and its advantages

MODULE 11

Advanced Programming: Seven Segment Display Theory and Practical:

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

MODULE 12

Liquid Crystal Display theory and practical:

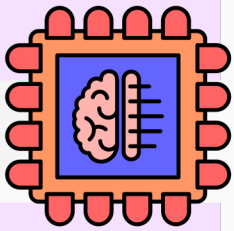
- ***Concept of LCD***
- ***Internal architecture of LCD with pin configuration***
- ***Internal registers of LCD***
- ***Algorithm to send data and command to LCD from Microcontroller***
- ***Difference between 4-bit and 8-bit LCD operation***
- ***Hex commands of LCD***

Curriculum

MODULE 13

Advanced Programming: Interfacing LCD with Arduino to:

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



MODULE 14

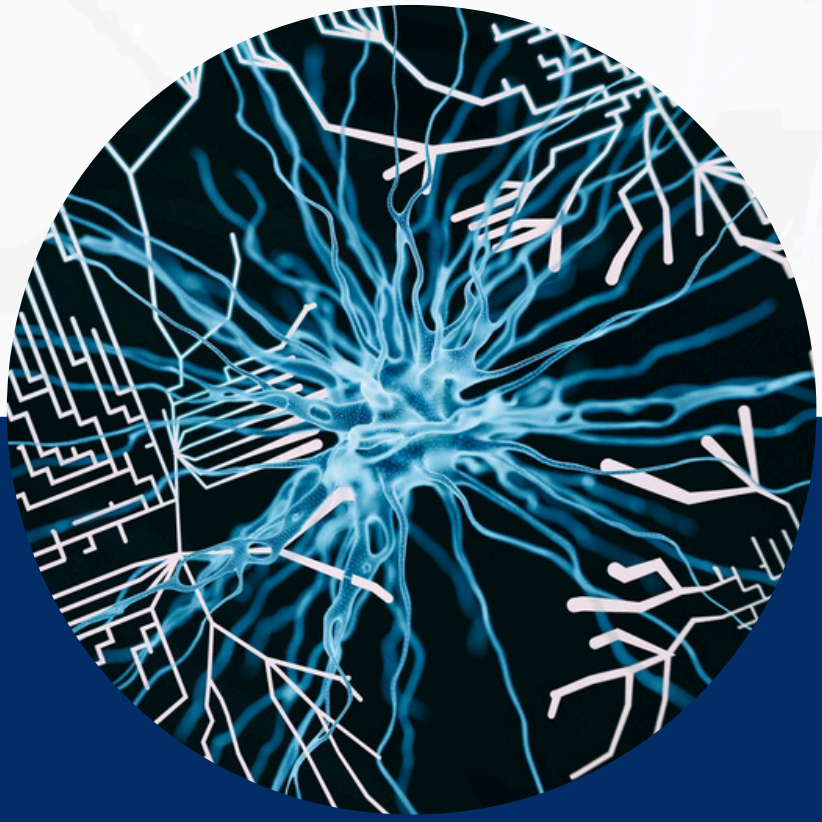
Introduction to motors and actuators :

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

Projects:

1. Interfacing LDR and displaying the light intensity data on LCD
2. Designing a traffic light controller using LEDs and Seven Segment
3. Interfacing temperature sensor and displaying the readings on LCD
4. Interfacing LEDs, LCD and Motor: all the same time to Arduino/ATmega

THANK YOU



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