



DURATION
30 Days

EMBEDDED SYSTEMS & IOT

COURSE & CAREER GUIDE · 2026

Junior **Robotics** Master Program

Course Details & Career Growth Guide

A beginner-friendly introduction to electronics, Arduino, sensors and robotics.

60 Training Hours

5 Modules

3 Hands-On Projects

Career Roles & Salary Ladder

Placement Support

CONTENTS

What's Inside

INTRODUCTION

About IPCS Global & the Embedded Systems & IoT Stream	3
Industry Outlook & Where You Can Work	4

PART A — COURSE DETAILS

Program Overview, Key Facts & Eligibility	5
The Full Syllabus	6
Module-by-Module Topics	6
Tools, Projects & Assessment	6

PART B — CAREER GROWTH

Job Roles You'll Be Ready For	7
Growth Ladder & Salary Progression	8
Skills, Certifications & Upgrade Path	8

TRAINING, CERTIFICATION & PLACEMENT

How We Train, Certification & Career-Readiness	10
How IPCS Global Gets You Hired	11
Why IPCS Global & Meet Our Team	12
Frequently Asked Questions	13
Contact & How to Enrol	14

Programme Highlights

60 Hours

30 Days of structured,
practical training

3 Projects

Hands-on work you can
show employers

Certified

Govt.-accredited (NSDC)
+ IPCS

Placement

100% placement
assistance & career-
readiness

IPCS Global — Since 2008

IPCS Global began in 2008 as a specialised industrial automation training and services provider and has grown into one of India's leading technical and digital skills institutes, with 50+ branches across India and the GCC. Our Coimbatore centre in Peelamedu combines classroom teaching with hands-on labs, and every learner is coached in communication, aptitude and interview readiness alongside technical skills.

18+

YEARS

15,000+

PROFESSIONALS TRAINED

50+

BRANCHES

100%

PLACEMENT ASSISTANCE

About the Embedded Systems & IoT Stream

Embedded systems power everything from smart devices and medical equipment to electric vehicles. Our programmes cover Embedded C, nine microcontroller families, RTOS, Embedded Linux, IoT, automotive protocols and PCB design — with 100% hands-on hardware training.



ISO 9001:2015 Certified

Audited, consistent training quality.



TÜV SÜD Cooperation Partner

Partner of the German testing & certification body.



NSDC Approved Partner

Approved training partner under Skill India.



Inside the IPCS Global Coimbatore training centre.

Why Embedded Systems & IoT, Why Now

The demand behind this programme — and the industries that hire our graduates.

- 1 Electronics is booming in India**
Government incentives for electronics manufacturing, semiconductors and EVs are expanding embedded jobs across design centres and product companies.
- 2 Everything is becoming connected**
Consumer devices, medical equipment, vehicles, appliances and industrial machines all run on firmware — and increasingly connect to the cloud.
- 3 EV and automotive growth**
Electric vehicles and connected cars need engineers skilled in CAN, diagnostics, RTOS and battery management systems.

Where You Can Work

- 1 Consumer electronics & IoT product companies**
- 2 Automotive & EV (OEMs and Tier-1 suppliers)**
- 3 Medical devices**
- 4 Industrial automation & robotics**
- 5 Semiconductor & design services**
- 6 Defence & aerospace electronics**

Three Ways to Build Your Career

Full-Time Job

Join a company with placement support behind you — stability and structured growth.

Job + Freelance

Hold a job while taking side projects to build income and a broader portfolio.

Remote & Global

Embedded skills are in demand in Germany, Japan, the US and the GCC. Many Indian engineers work on global projects from Bengaluru, Chennai, Coimbatore, Pune and Hyderabad design centres.

SCHOOL STUDENTS

Junior Robotics Master Program

A beginner-friendly introduction to electronics, Arduino, sensors and robotics.

30 Days

60 Hours

5 Modules

3 Projects

Classroom + hands-on lab

Part A · Course Details

Program Overview

A fun, hands-on programme that introduces young learners to electronics, digital logic, Arduino programming, sensors and communication, using virtual labs like Proteus, Wokwi, Tinkercad and Fritzing before building real circuits.

DURATION

30 Days

TRAINING HOURS

60 Hours

MODULES

5 Structured Modules

MODE

Classroom + hands-on lab

BATCHES

Weekday · Weekend · Fast-track

CERTIFICATION

**Govt.-accredited (NSDC) +
IPCS**

Who Should Join

- ✓ School students (Class 8–12)
- ✓ First-year college students
- ✓ Parents looking for a STEM programme
- ✓ Absolute beginners

What You'll Be Able To Do

- ✓ Understand basic and power electronics
- ✓ Build circuits in virtual and real labs
- ✓ Program an Arduino
- ✓ Build simple sensor-driven robots

Eligibility: No prior knowledge needed. Curiosity required!

The Full Syllabus

5 modules, 60 hours.

01	Basic Electronics & Power Electronics	12 Hrs
02	Digital Electronics Fundamentals	10 Hrs
03	Microcontroller & Arduino Programming	18 Hrs
04	Sensors, Peripherals & Communication Basics	12 Hrs
05	Circuit Simulation & Virtual Labs	8 Hrs

Total Training Duration

60 Hours

Module-by-Module Topics

MODULE 01

12 Hrs

Basic Electronics & Power Electronics

- Voltage, current & components
- Batteries & power supplies

MODULE 02

10 Hrs

Digital Electronics Fundamentals

- Logic gates
- Binary numbers

MODULE 03

18 Hrs

Microcontroller & Arduino Programming

- Arduino basics
- LEDs, buttons & motors
- Simple robot logic

MODULE 04

12 Hrs

Sensors, Peripherals & Communication Basics

- IR, ultrasonic & light sensors
- Bluetooth control

MODULE 05

8 Hrs

Circuit Simulation & Virtual Labs

- Proteus, Wokwi, Tinkercad, Fritzing

Tools, Projects & Assessment

Tools & Technologies You'll Use

Arduino UNO

Tinkercad

Wokwi

Proteus

Fritzing

Robot kit

■ Projects You'll Build

- 1 **Line-follower robot**
- 2 **Obstacle-avoiding robot**
- 3 **Bluetooth-controlled car**

■ How You'll Be Assessed

- 1 **Module Assessments**
Practical and theory checks at the end of each module.
- 2 **Project Reviews**
Trainer review of your mini projects and final project.
- 3 **Certification**
Issued on meeting assessment and attendance criteria.

Certification: Government-accredited (NSDC) certificate + IPCS Global course certificate + Internship Certification.

PART B · CAREER GROWTH

Where Junior Robotics Master Program Can Take You

Job roles, a realistic growth ladder with salary ranges, and the skills to keep growing.

■ Where This Journey Can Lead

- 1 **Young Maker / Innovator**
Builds projects for school exhibitions and competitions.
- 2 **Robotics Competition Participant**
Competes in robotics and STEM contests.
- 3 **Future Embedded Engineer**
Designs smart electronic products.
- 4 **Future Robotics Engineer**
Builds robots and automation systems.
- 5 **Future IoT Developer**
Creates connected smart devices.
- 6 **Future Tech Entrepreneur**
Turns ideas into products.

For parents & students: this programme builds curiosity and a strong foundation early. Salary figures apply only once a learner completes higher studies and begins a professional career.

■ Pathway From Young Learner to Engineer

STAGE 01 SCHOOL	Young Maker Build Arduino projects and join STEM competitions.	
STAGE 02 COLLEGE	Engineering / Diploma student Choose ECE, EEE, Mechatronics or CSE and keep building.	
STAGE 03 FINAL YEAR	Embedded / Robotics Intern Gain internship and project experience.	
STAGE 04 CAREER START	Embedded / Robotics Engineer Start a professional career in electronics.	₹3 – 5 LPA

■ Skills to Add Next

- ✓ Python basics
- ✓ 3D design & printing
- ✓ Advanced Arduino & ESP32
- ✓ Basic C programming
- ✓ Problem-solving & teamwork

■ Certifications to Target

- ✓ IPCS Junior Robotics certificate
- ✓ Robotics olympiads & competitions
- ✓ School science exhibitions
- ✓ Next: Embedded C Programming (ECP)

■ Upgrade Path at IPCS Global

1	Embedded C Programming (ECP)
2	Certified Embedded Professional (CEP)



■ Tips for Parents & Students

- ✓ Keep building small projects at home — consistency matters more than complexity.
- ✓ Take part in school science fairs and robotics competitions.
- ✓ Learn basic C and Python alongside school studies.
- ✓ Choose ECE, EEE, Mechatronics or CSE in higher studies to turn the hobby into a career.

How We Train & Certify

Technical skill gets you noticed — presentation, confidence and communication get you hired.
Career-readiness runs alongside the syllabus, not after it.

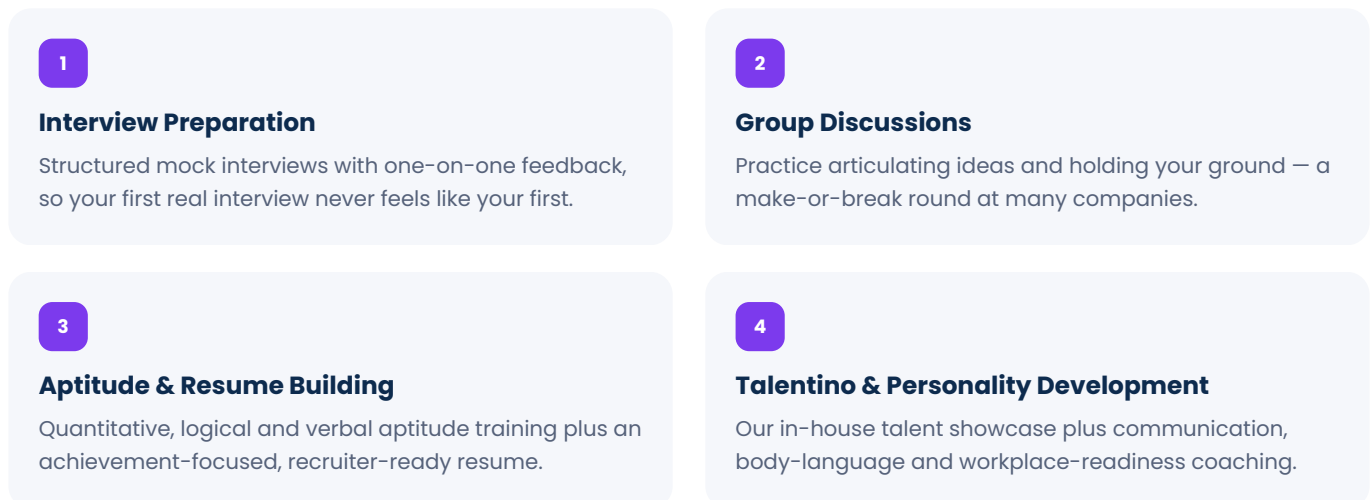
Our Learning Method



Your Certifications

- Government-Accredited Certification**
 IPCS Global is an NSDC approved training partner. On successful completion you receive a government-accredited certificate that validates your technical and practical skills.
- IPCS Global Course Certificate**
 Issued by an ISO 9001:2015 certified institute on successful completion of assessments and projects.
- Internship Certification**
 Documents your hardware projects and lab work — verifiable experience for your resume.

Career-Readiness Track



How IPCS Global Gets You Hired

Every learner goes through a structured career-readiness track alongside the course, supported by our dedicated placement cell.

1

Dedicated Placement Cell

Interview drives, industry referrals and follow-up until you are placed – not just until the course ends.

2

Resume & Portfolio

One-on-one sessions to build a recruiter-ready resume and a project portfolio that proves your skills.

3

Aptitude & GD Training

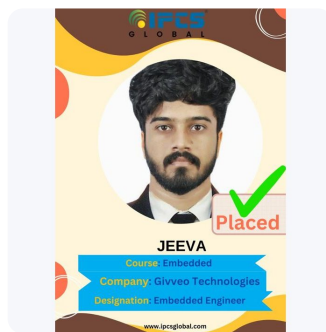
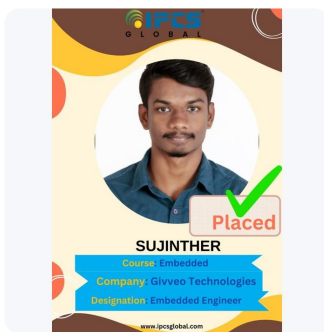
Quantitative, logical and verbal aptitude plus group discussion practice.

4

Mock Interviews

Simulated technical and HR panels so the first real interview never feels like the first.

Recent IPCS Coimbatore Placements



A selection of recent placements across IPCS Global Coimbatore programmes.

Global opportunity: Embedded skills are in demand in Germany, Japan, the US and the GCC. Many Indian engineers work on global projects from Bengaluru, Chennai, Coimbatore, Pune and Hyderabad design centres.

Why IPCS Global



18+ Years of Training Excellence

A track record since 2008, refined across 15,000+ professionals trained.



ISO 9001:2015 Certified

Audited, consistent training quality — every batch, every time.



Recognised Partnerships

TÜV SÜD cooperation partner and NSDC approved training partner.



Dedicated Placement Cell

Industry tie-ups, interview drives and follow-up until you are placed.



Real Labs, Real Projects

Industry-grade equipment and live projects — proof of work, not just a certificate.



50+ Branches, One Standard

Across India and the GCC, with weekday, weekend and fast-track batches.

Meet Our Coimbatore Team



Trainers, mentors, counsellors and placement coordinators at IPCS Global Coimbatore — working with every learner from the first class to final placement.

Frequently Asked Questions

Quick answers to the questions learners and parents ask us most. For anything else, call or visit the Coimbatore branch.

Q. Do I need prior experience to join?

Most programmes start from the fundamentals. Each programme lists its eligibility — our counsellors will confirm the right starting point for your background.

Q. Are classes held online or in the classroom?

Classroom + hands-on lab. Talk to our counsellors about the best option for your programme.

Q. What batch timings are available?

We run weekday, weekend and fast-track batches, so students and working professionals can both find a schedule that fits.

Q. Is placement guaranteed?

We provide 100% placement assistance — resume building, aptitude and GD training, mock interviews and interview drives through our dedicated placement cell. Final selection depends on each learner's performance, attendance and interview results.

Q. What certificate will I receive?

Government-accredited (NSDC) certificate + IPCS Global course certificate + Internship Certification.

Q. Can I attend a class before enrolling?

Yes. Book a free demo session to meet the trainers, see the labs and experience a live class before you decide.

Q. What are the course fees?

Fees depend on the programme and batch type. Please contact the Coimbatore branch for the current fee structure and any available offers.

Q. Can working professionals join?

Yes. Weekend and fast-track batches are designed for people who are working or studying alongside the course.

LET'S START THE CONVERSATION

Your Career in **Embedded Systems & IoT** Starts Here

Book a free demo class, meet the trainers and see the labs — our counsellors will help you pick the right programme and batch.

Visit Us

Address #12, 2nd Floor, Swathi Towers,
Sowripalayam –
Masakalipalayam Road, Opp.
GRG Matriculation School,
Periyar Nagar, Peelamedu,
Coimbatore, Tamil Nadu –
641004

Get In Touch

Phone +91 80860 96664
Email bmcbe@ipcsglobal.com
Web www.ipcsglobal.com
Batches Weekday · Weekend · Fast-track

Book Your Free Demo Session Today

Walk in, call or write to us — meet the trainers, see the labs, and get counselling on the right course and batch before you enrol.

How to Enrol

1

Contact Us

Call, WhatsApp or walk in to our Peelamedu centre.

2

Free Demo

Attend a live class and see the labs.

3

Choose a Batch

Weekday, weekend or fast-track.

4

Enrol & Start

Simple, guided enrolment.