



COURSE BROCHURE

Certified Robotics & Embedded System Professional | CRESF

Introduction to the Course

Robotics is an interdisciplinary research area in engineering and related fields. The branch of robotics makes use of robots i.e. intelligent machines which can help humans in their day-to-day life.

An **Embedded System**, on the other hand is a combination of computer processor, memory and peripheral input/output devices. **Robotics and Embedded System** are very much intertwined with each other. One complements the other in the functioning of any robotic system.

Mostly the **Embedded Systems Programming** takes place in the **C Programming Language**. Nowadays, **Python** is also used for programming the embedded system or microcontroller, which in turn controls the robot.

With the research and development gradually increasing in this field, the urge to learn about **Robotics and Embedded System** has increased within the people.

For these reasons, the **Certified Machine Learning Professional | CMLP** training course by **IEM Labs** has become so popular in Kolkata and other places. You will be trained by industry professionals who have been working in this field for the last 8-10 years.

Why to choose IEM Labs?

What makes this course much more exciting is that we provide **hands - on training** procedure through projects and practical based classes throughout the entire curriculum of the course.

We at **IEM Labs** provide both **Online** (through platforms like "**Google Hangout Meet**", "**Go to Meeting**", "**Zoom**", etc) and **Offline** mode classes. The most beneficial point for a student to get trained by **IEM Labs** is "**One Year Lab Access**", i.e. every student from the date of admission will have access to our "**Online Virtual Lab**" for practising and getting all notes, pre-recorded videos and tools according to their course for one year absolutely free of cost.

About the Course

Course Type - Basic

Eligibility Criteria: -

- No prior knowledge required.
- Minimum System Configuration Required: -
 - Intel i5 processor
 - 8gb Ram
 - 1tb Hard disk

Batch Size - 5 students maximum.

Course Duration - 40 hours i.e. 2 classes every week.

Course Fee: -

- Online: 14000 INR + 18% GST + 5000 INR (Take - Away Kit)
- Offline: 13000 INR + 18% GST + 5000 INR (Take - Away Kit)

Training Location: -

- Offline - Kolkata
- Online - Any

Gradation System of IEM Labs

- E Excellent (90% - 100% Marks)
- A+ Very Good (80% - 89% Marks)
- A Good (70% - 79% Marks)
- B+ Average (60% - 69% Marks)
- B Fair (50% - 59% Marks)
- C Fail (Below 50% Marks)

Course Content

- Module - 1: Atmel AVR Microcontroller Basics
- Module - 2: Programming AVR in C language
- Module - 3: Programming AVR in Python language
- Module - 4: Concept of Machine Learning
- Module - 5: Wireless Communication
- Module - 6: Motors Interfacing & Amp; control
- Module - 7: Robot Making
 - Line Follower Robot
 - Self-Balancing Robot
 - Obstacle Avoidance Robot
 - Maze solving Robot
 - Mobile Controlled Robot
 - Motion Gesture Recognition Robot
 - Voice Recognition System (VRS) Robot
 - Edge Detection Robot

Frequently asked questions (FAQ's)

1. What must be the minimum age for doing this course?

Answer - There is no minimum age requirement for doing this course.

2. What must be the minimum qualification required for doing this course?

Answer - There is no minimum qualification required if the student meets the **Eligibility Criteria**.

3. Will I get any course material?

Answer - Yes, all materials are available on our online virtual lab, you can access them fully upto 1 year from the date of admission.

4. Will I get a certificate after this course?

Answer - Yes, certificate (hardcopy/softcopy) will be provided after the course which will consist of a grade provided by the assigned trainer as per the final project submitted.

5. In which language classes will be conducted?

Answer - Classes will be conducted mainly on English, Hindi & Bengali, mainly it will depend on majority criteria.

6. Is this for professionals, students or both?

Answer - This course is both for Professionals and Students.

7. Will there be any exam or project?

Answer - Yes, there will be 3 exams through the whole course duration and 1 project to be done after the course completion based on which Grade for certificate will be provided.

8. Will I have to carry my own laptop or it will be provided?

Answer - It is recommended that the student carry his/her own system because it makes their self-practise easier. In case of emergency laptop/desktop can be provided by us.

9. What kind of jobs roles can I apply after doing this course?

Answer - You can apply for any job roles related to **Robotics & Embedded Systems**.

10. Can I apply for an Internships at IEM Labs? What will be the selection criteria and procedure?

Answer - After completion of minimum 2 courses you can apply for an Internship. There will be a technical interview, based on the reports from Faculty and Technical Interview selection will be granted.

11. Are the Internships paid?

Answer - Yes, the Internships are "***Paid Internships***".

12. My question is not enlisted here, whom can I contact?

Answer - Feel free to get in touch with us at: -

- Email: iema@iemlabs.com
- Phone: India: +91 9163198148 | Canada: +1-604-431-979