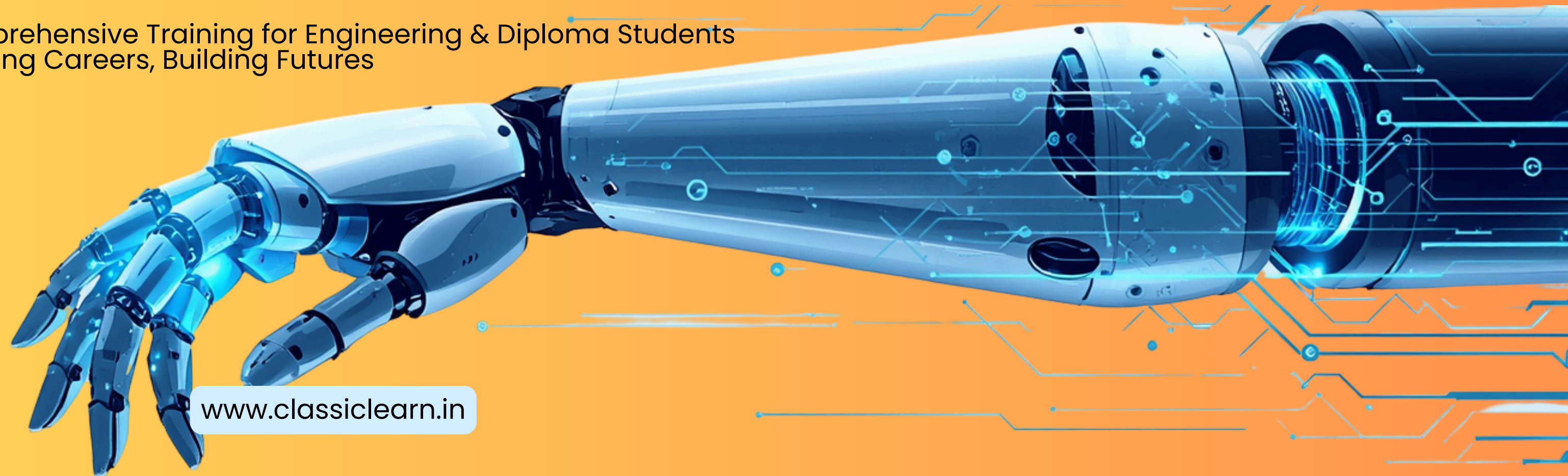




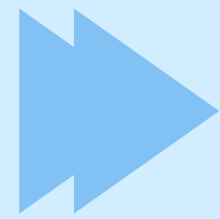
CLASSIC LEARN DATA SCIENCE + ROBOTICS BOOTCAMP

Comprehensive Training for Engineering & Diploma Students
Shaping Careers, Building Futures

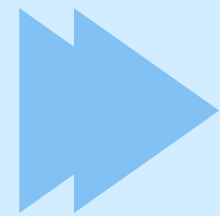


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PROGRAM OVERVIEW & CERTIFICATIONS



Two Flexible Learning Tracks: Choose the 3-Month Fast Track for intensive, accelerated learning or the 6-Month Professional Job-Oriented Program for comprehensive career preparation with in-depth industry exposure.



Certified for Success: Complete the program and receive recognized certifications that strengthen your resume, showcase your technical skills, and improve placement opportunities.

KEY BENEFITS



We're confident in our program!. Hands-on training with real kits and live projects ensures you learn by doing, not just watching.



Expert mentorship from industry professionals guides your learning journey. 100% Job Assistance includes resume building, interview prep, and placement support. Plus, internship opportunities with real-world projects and certificates.

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3-MONTH FAST TRACK SYLLABUS

Month 1: Programming + Data Science Foundations – Python fundamentals, NumPy, Pandas, Matplotlib, data analysis basics, and foundational mini projects.

Month 2: Robotics + Embedded Systems + IoT – Electronics basics, Arduino programming, sensor interfacing, ESP8266, Wi-Fi communication, and cloud integration.

Month 3: Computer Vision + Robotics Projects – OpenCV image processing, face and object detection, autonomous robot development, and final major project.

MONTH 1 – PROGRAMMING FOUNDATIONS



Module 1: Python Programming Fundamentals
Variables, data types, operators, conditionals, loops
Functions, lists, tuples, dictionaries, file & error handling
Practicals: Calculator program, Student Management System, Data processing scripts

Module 2: NumPy for Data Processing
Arrays, indexing, slicing, mathematical operations
Statistical functions for data analysis
Practicals: Sensor data processing, mathematical computations

MONTH 1 – DATA SCIENCE FOUNDATIONS (PART 2)



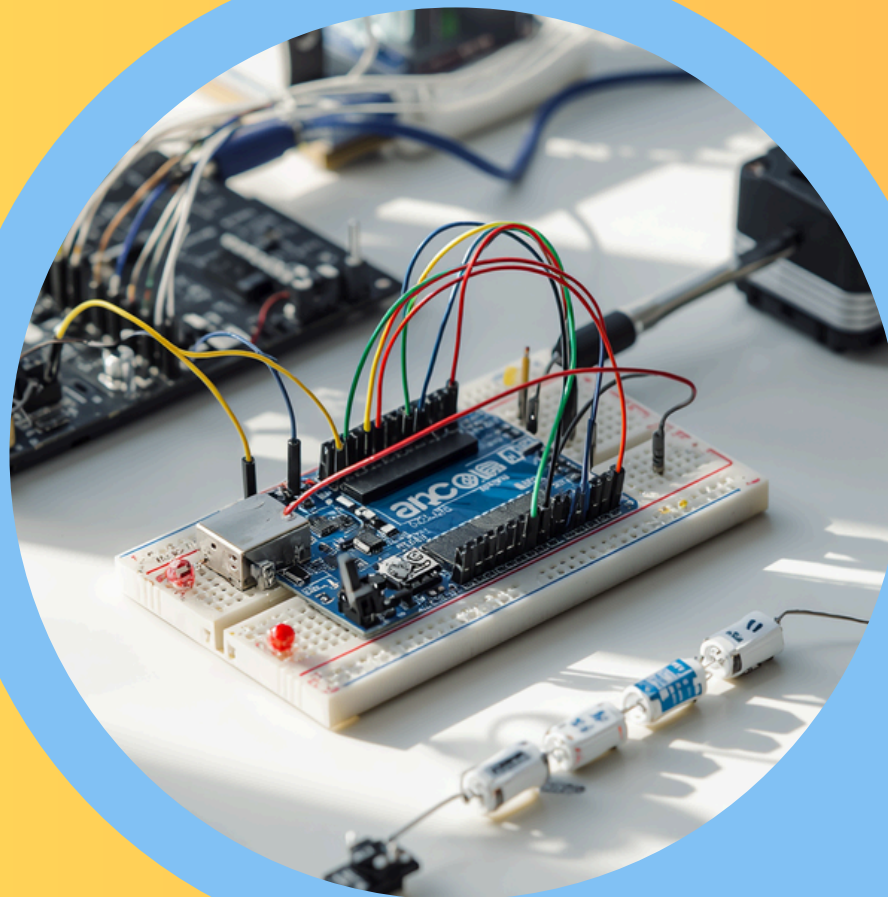
Module 3: Data Science Fundamentals

Data Science concepts, data collection, cleaning, and preprocessing techniques. Master data analysis with Pandas library for efficient data manipulation. Create compelling visualizations with Matplotlib for insights communication.

Practicals & Tools

Student data analysis, sales data analysis, robotics sensor data analysis projects. Tools covered: Python, NumPy, Pandas, Matplotlib for complete data science workflow mastery.

MONTH 2 – ROBOTICS + EMBEDDED SYSTEMS + IOT (PART 1)



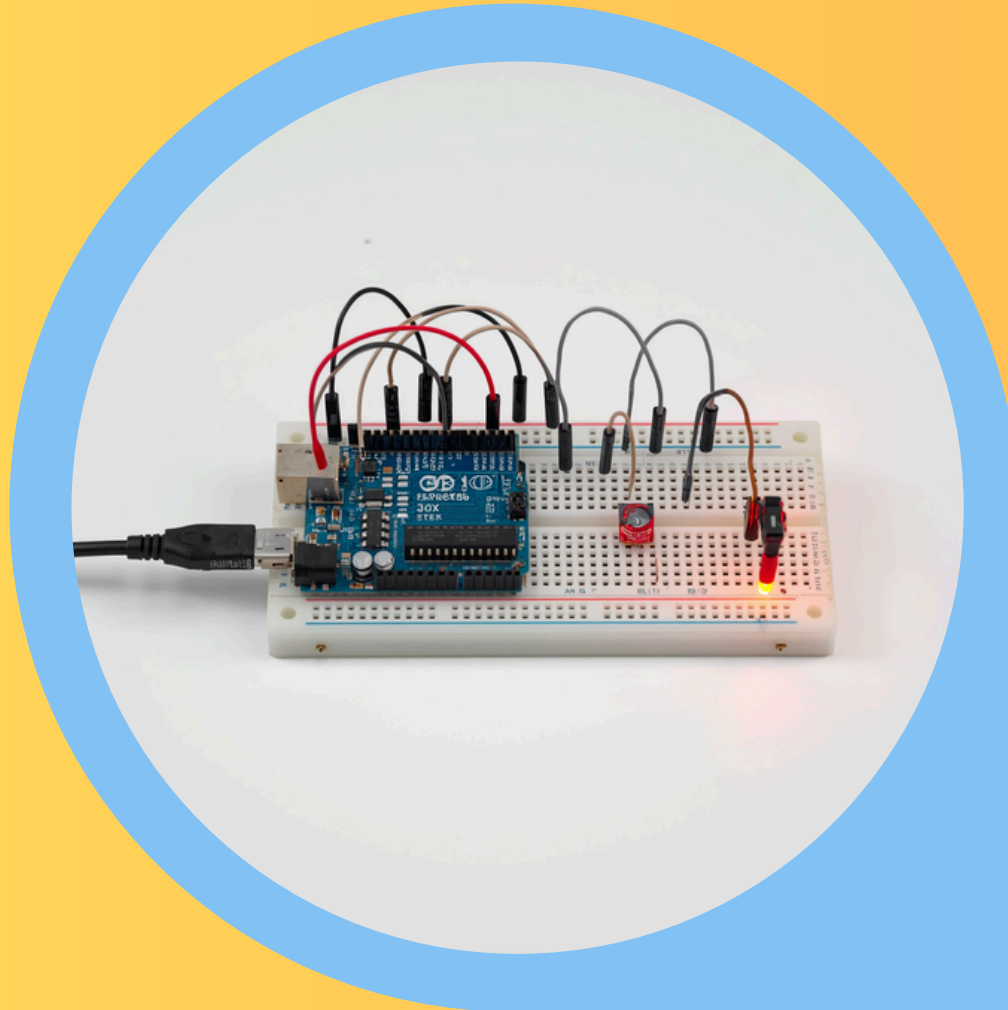
Module 4: Electronics & Embedded Systems

- Basics: Voltage, current, resistance, breadboard usage
- LED, buzzer, servo motor, DC motor interfacing
- Practicals: LED blinking, traffic light system, servo motor control

Module 5: Arduino Programming

- Arduino IDE setup, digital/analog IO, PWM
- Sensor integration and motor control
- Practicals: LED control, sensor-based projects, motor control projects

MONTH 2 – ROBOTICS + IOT (PART 2)



Module 6: Data Collection from Sensors

- Ultrasonic, DHT11 temperature, IR obstacle sensors
- Real-time data logging, CSV storage
- Practicals: Distance monitoring, temperature monitoring, data logger

Module 7: IoT & Cloud Integration

- ESP8266 programming, Wi-Fi communication, MQTT basics
- Cloud platforms, dashboard creation
- Practicals: IoT dashboard, remote sensor monitoring, cloud data logging

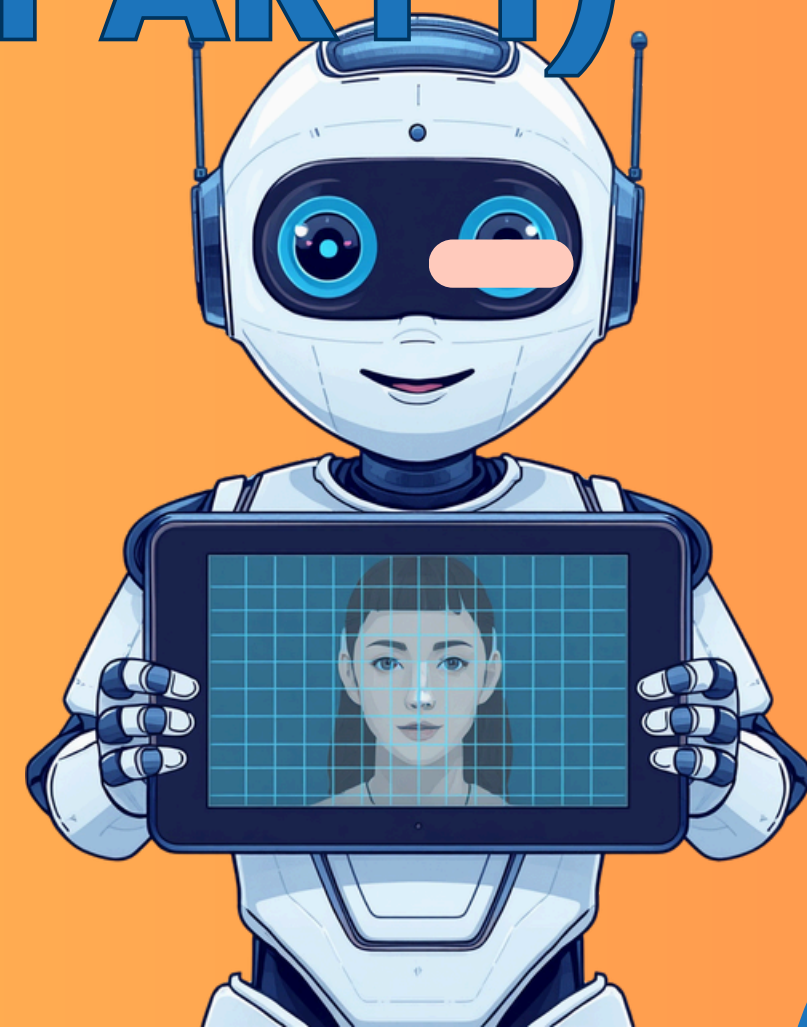
MONTH 3 – COMPUTER VISION + ROBOTICS PROJECTS (PART 1)

Module 8: Computer Vision with OpenCV

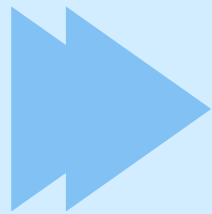
- Image processing basics: filters, transformations, edge detection
- Camera access and real-time video capture
- Face detection using Haar cascades and deep learning
- Object detection and recognition techniques
- Video processing and frame manipulation

Practicals:

- Face detection system with live camera feed
- Motion detection and alert system
- Object tracking across video frames

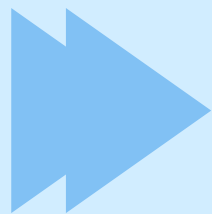


MONTH 3 – COMPUTER VISION + ROBOTICS PROJECTS (PART 2)



Module 9: Intelligent Robotics Systems

- Robot architecture & sensor-based navigation
- Obstacle avoidance & automation concepts
- Practicals: Autonomous robot, obstacle avoiding robot



Module 10: Major Projects

- Mini Projects: Smart temperature monitoring, sensor data logger, IoT dashboard
- Final Major Project Options: AI Surveillance Robot, Smart IoT Monitoring System, Intelligent Obstacle Avoiding Robot, Smart Home Automation System

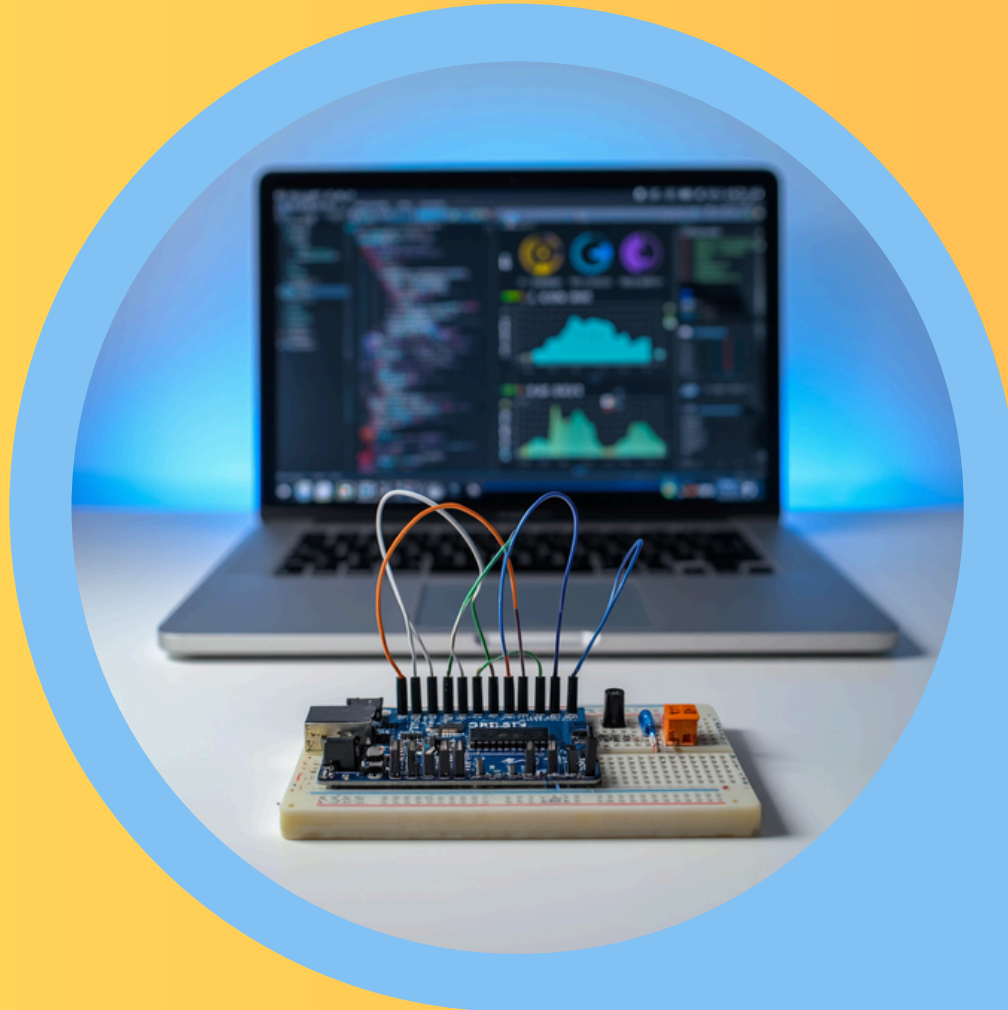
6-MONTH PROFESSIONAL PROGRAM OVERVIEW

Months 1-2: Programming Foundation & Data Science – Master Python fundamentals, NumPy, Pandas, Matplotlib, and Seaborn. Build data analysis skills with hands-on projects including Student Performance Dashboard.

Months 3-4: Embedded Systems & Raspberry Pi – Advanced Arduino programming, sensor interfacing, IoT with ESP8266, MQTT, and cloud connectivity. Raspberry Pi setup, Linux, GPIO, and edge computing applications.

Months 5-6: Machine Learning, Computer Vision & Industry Projects – Supervised learning with scikit-learn, OpenCV for image processing and face detection, autonomous robotics, and capstone industry projects.

MONTHS 1-3: FOUNDATIONS & EMBEDDED SYSTEMS



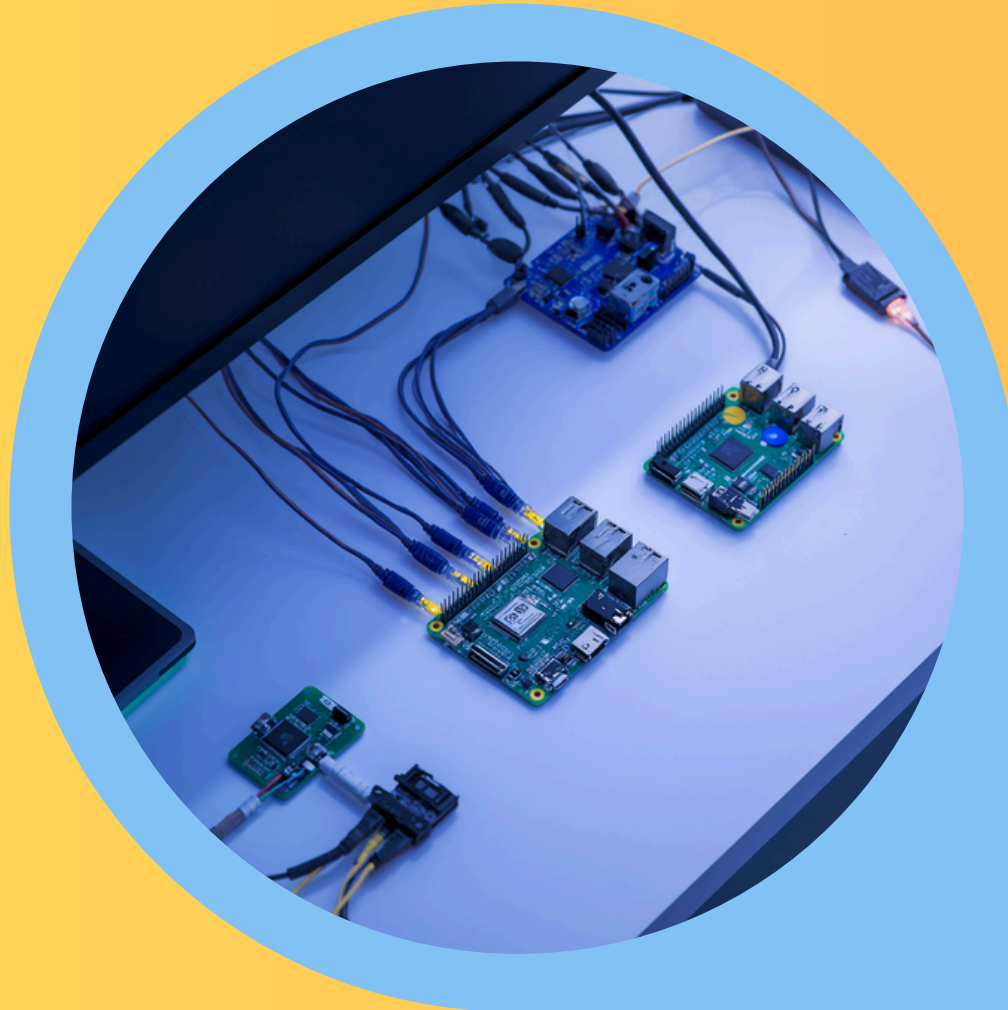
Month 1: Programming Foundation & Electronics Basics

- Python programming fundamentals, exception handling, NumPy basics
- Electronics fundamentals, Arduino basics, digital & analog IO
- Mini Project: LED Control System

Month 2: Data Science Fundamentals

- Data science workflow, data collection, cleaning with Pandas
- Data visualization with Matplotlib & Seaborn
- Mini Project: Student Performance Analysis Dashboard

MONTHS 4-6: ADVANCED TOPICS & INDUSTRY PROJECTS



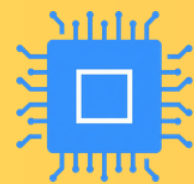
Month 4: Raspberry Pi setup, Linux basics, Python GPIO programming, sensor integration, and edge computing fundamentals. Mini Project: Raspberry Pi Data Logger.

Month 5: Machine learning intro, supervised learning with scikit-learn, OpenCV image processing, object and face detection. Mini Project: AI Face Detection System.

TOOLS & TECHNOLOGIES

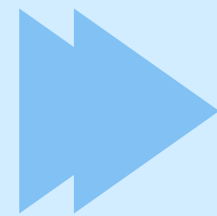


Programming & Data Science: Python, NumPy, Pandas, Matplotlib, Seaborn, Scikit-Learn for comprehensive data analysis, visualization, and machine learning capabilities.

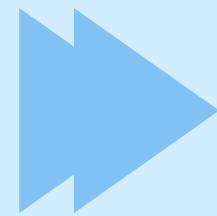


Hardware & Development Tools: Arduino UNO, ESP8266 NodeMCU, Raspberry Pi 4, OpenCV, MQTT, ThingSpeak Cloud, VS Code, and Jupyter Notebook for hands-on embedded systems and IoT development.

ASSESSMENT PATTERN & COURSE OUTCOMES



Assessment Breakdown: Assignments – 20% | Data Science Project – 30% | Robotics Project – 40% | Viva & Presentation – 10%. Comprehensive evaluation ensures practical skill mastery and project excellence.



Course Outcomes: Proficient Python programming & data analysis | IoT system design & sensor interfacing skills | Machine learning & computer vision expertise | Intelligent robotics development capabilities | Industry-ready portfolio & job placement support.

WHO SHOULD JOIN?



School Students with Strong Technical Interest: Students who have good analytical and computer skills and want to build an early career foundation in Data Science, Robotics, and Artificial Intelligence can greatly benefit from this program.



Engineering Students (All Branches): Whether you're in Computer Science, Electronics, Mechanical, or any other engineering discipline, this bootcamp equips you with cutting-edge skills in Data Science, Robotics, and AI that complement your technical foundation.



Diploma Students & Career Switchers: Perfect for diploma holders and professionals looking to transition into high-demand tech roles. No prior experience needed – we take you from beginner to industry-ready!

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THANK YOU!

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Thank you for your interest in Classic Learn Data Science + Robotics Bootcamp! We are excited to help you embark on your journey into the world of Data Science, Robotics, and AI. Our team is here to answer any questions you may have. Let's build your future-proof career together!



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