



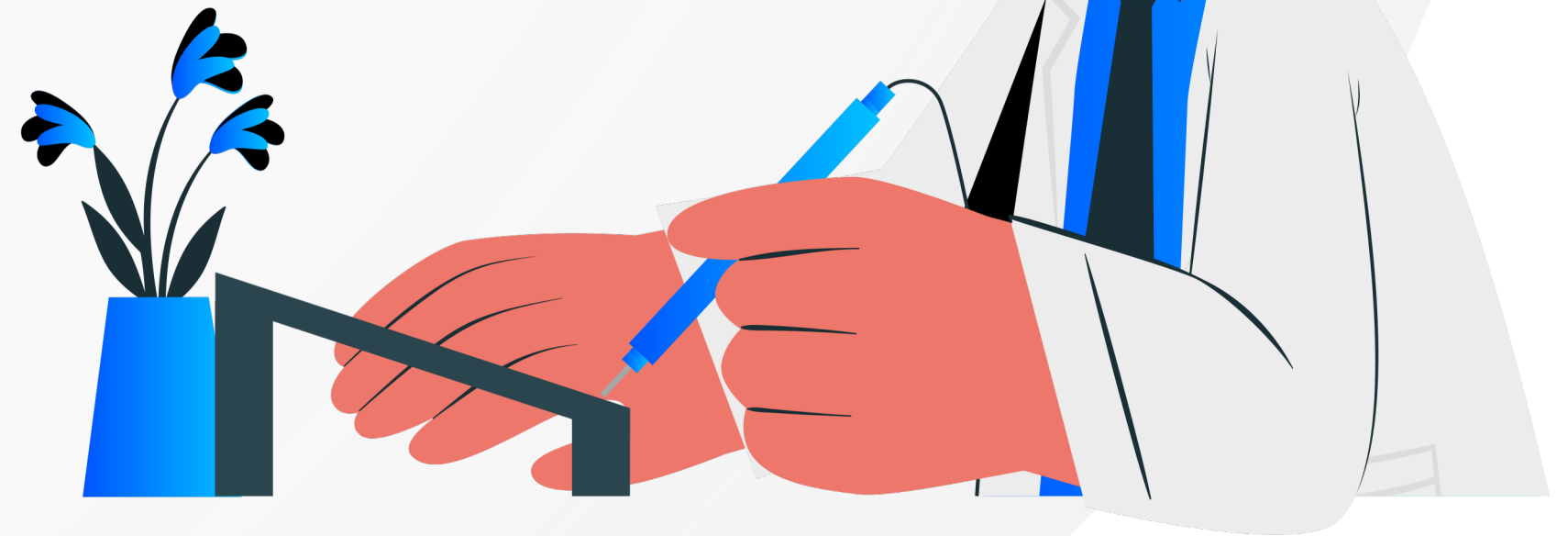
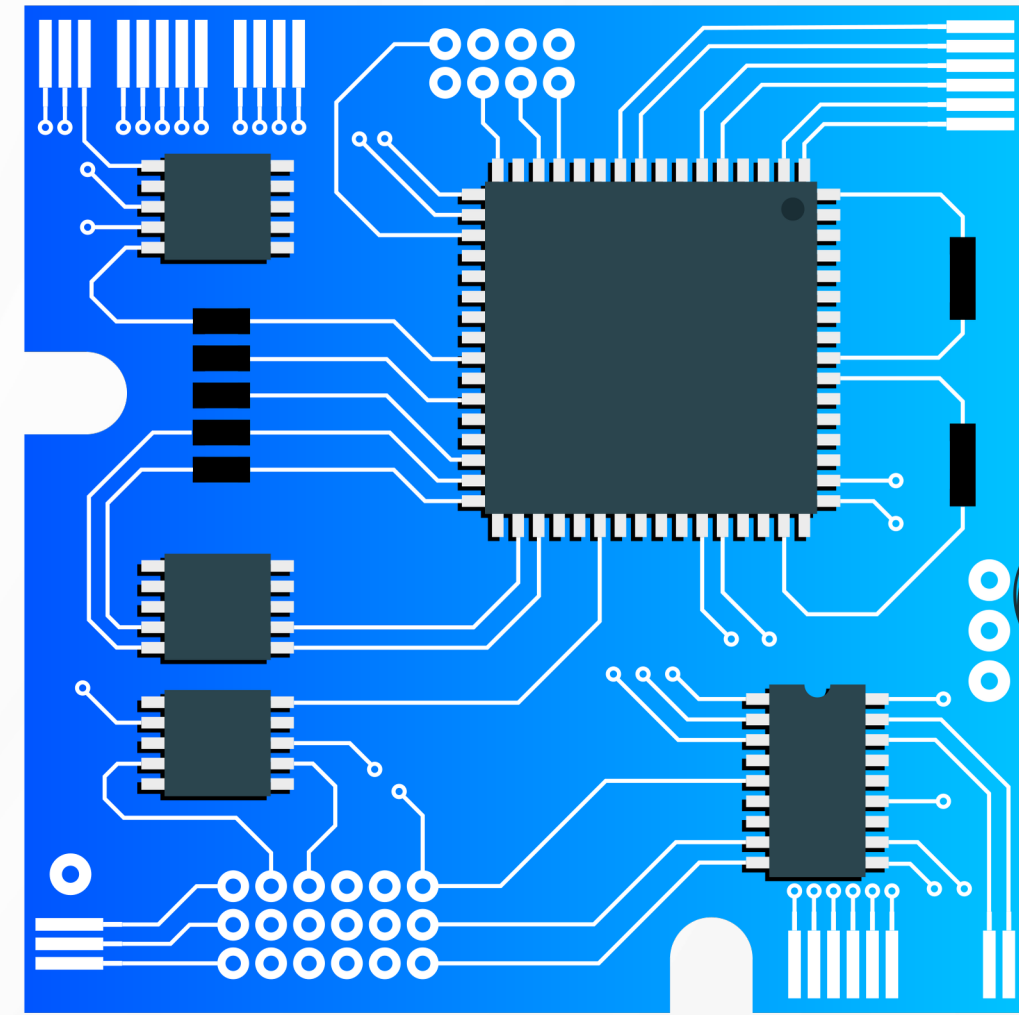
EDUFYI TECH SOLUTIONS

EMBEDDED SYSTEMS

PROGRAM TYPE

PROFESSIONAL

Our Alumni work at



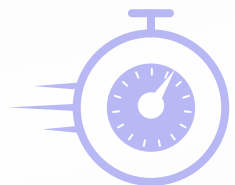
WHO ARE WE?

At **Edufyi Tech Solutions**, we are dedicated to transforming the educational journey for college students by offering cutting-edge virtual internships and comprehensive training programs. Our approach combines industry mentorship with practical experience, providing each student with six real-time and capstone projects per course or domain. These projects are designed to equip students with the skills and experience needed to secure their dream jobs upon graduation



WHY CHOOSE US?

Our unique features are:



Choose your Speed,
Master the Skills



Industry Project
Playground



Resume Building & Aptitude
Grooming



Learn from Industry Mentors
from MNCs & Startup Founders



100% Placement
Assistance



Exclusive R&D
learning content
from leading MNCs



Unlimited
Mocks
& GDs



24*7
Dedicated
Support



Wipro Dice ID
Accredited
Globally Recognized
Certifications



Get your
Internship with
150+ Companies



1:1 Counselling
Sessions



Additional
Certifications from
Microsoft, Cisco, IBM,
Adobe, etc



Certified
Bootcamps
& Webinars



Lifetime
Personalized Learning
Management System
(LMS)



Access recorded
lectures Anytime,
Anywhere!!



Skill Up & Cash In
with Performance
Based Stipend



Mentorship by
industry experts
via live sessions

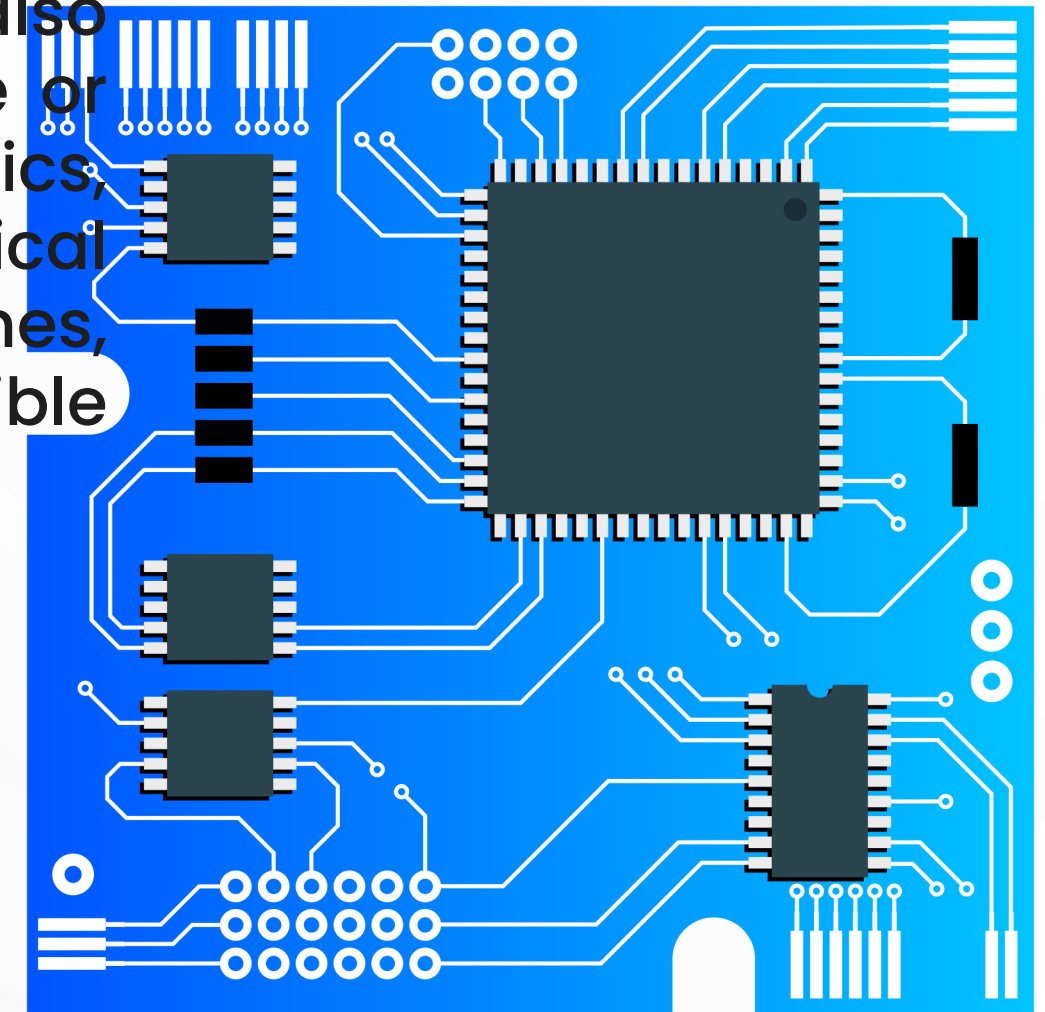


Access
to our
Hiring Partners



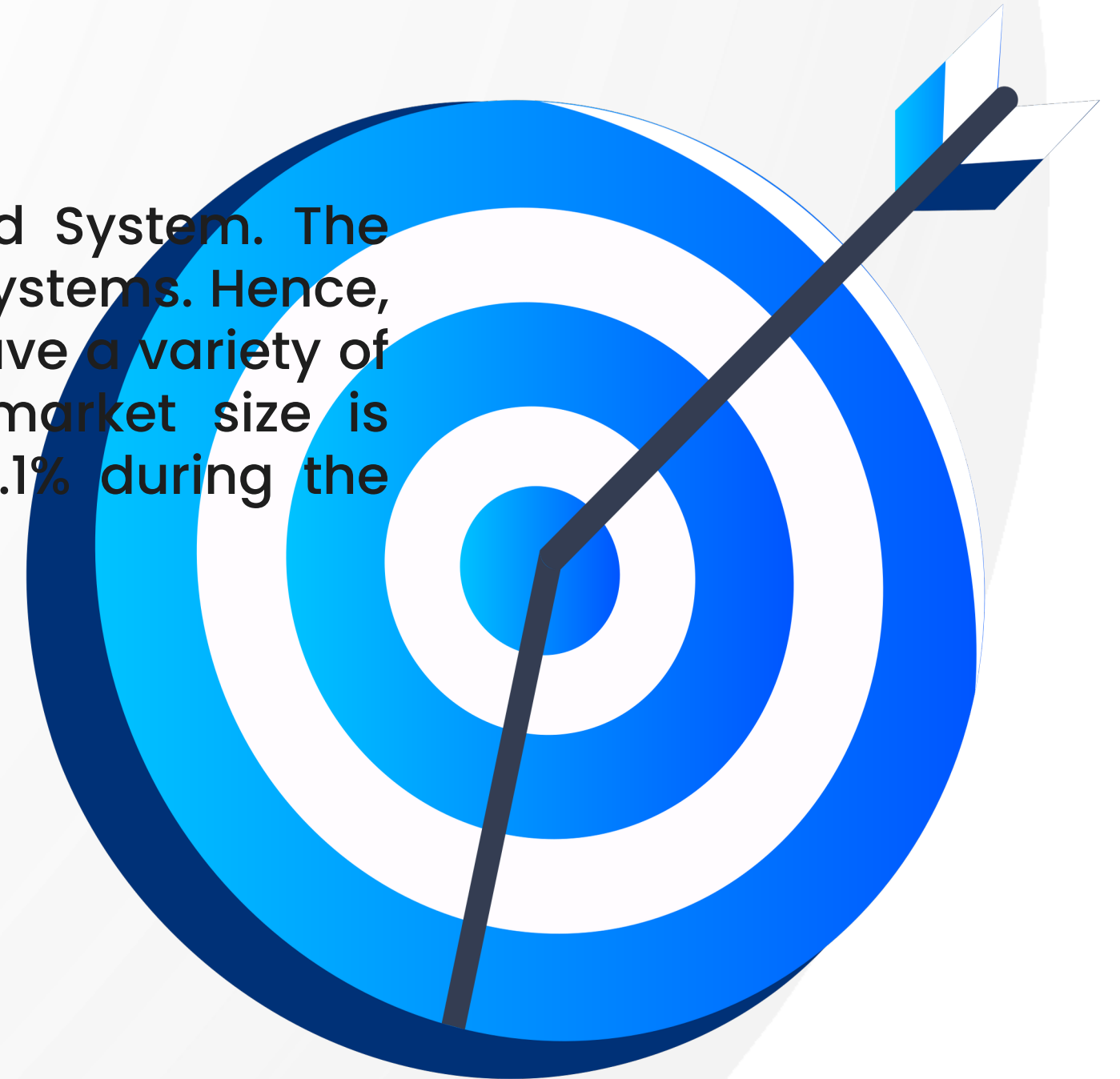
WHAT IS EMBEDDED SYSTEM?

An **Embedded System** is a combination of computer hardware and software designed for a specific function. Embedded systems may also function within a larger system. The systems can be programmable or have a fixed functionality. Industrial machines, consumer electronics, agricultural and processing industry devices, automobiles, medical equipment, cameras, digital watches, household appliances, aeroplanes, vending machines and toys, as well as mobile devices, are possible locations for an embedded system.



SCOPE OF EMBEDDED SYSTEM

In the future, every electronic machine will use an Embedded System. The advent of Artificial intelligence will boost the use of Embedded systems. Hence, the Future of Embedded system technology is bright. You will have a variety of options in the embedded system. The embedded system market size is expected to reach **USD 116.2 billion** by 2030 at a CAGR of 16.1% during the forecast period.



CAREER OPPORTUNITIES

- Market Research Analyst
- Business/Analytics translator
- Data Analyst
- Application Architect
- Category Manager
- Analyst – Business Intelligence



HOW CAN YOU START YOUR JOURNEY IN EMBEDDED SYSTEMS?

Enroll in our specialized program, learn from industry experts, get guaranteed internships, job opportunities and work on [6 Advance Industry](#) based projects. Accelerate your career with Edufyi's specialized certified program in Embedded systems in collaboration with leading IITs and growing startups. Learn the basic amalgamation of software and hardware along with designing a Microprocessor to perform functions within a larger Electrical or Mechanical system and get job-ready with Internships, live sessions, and capstone projects.

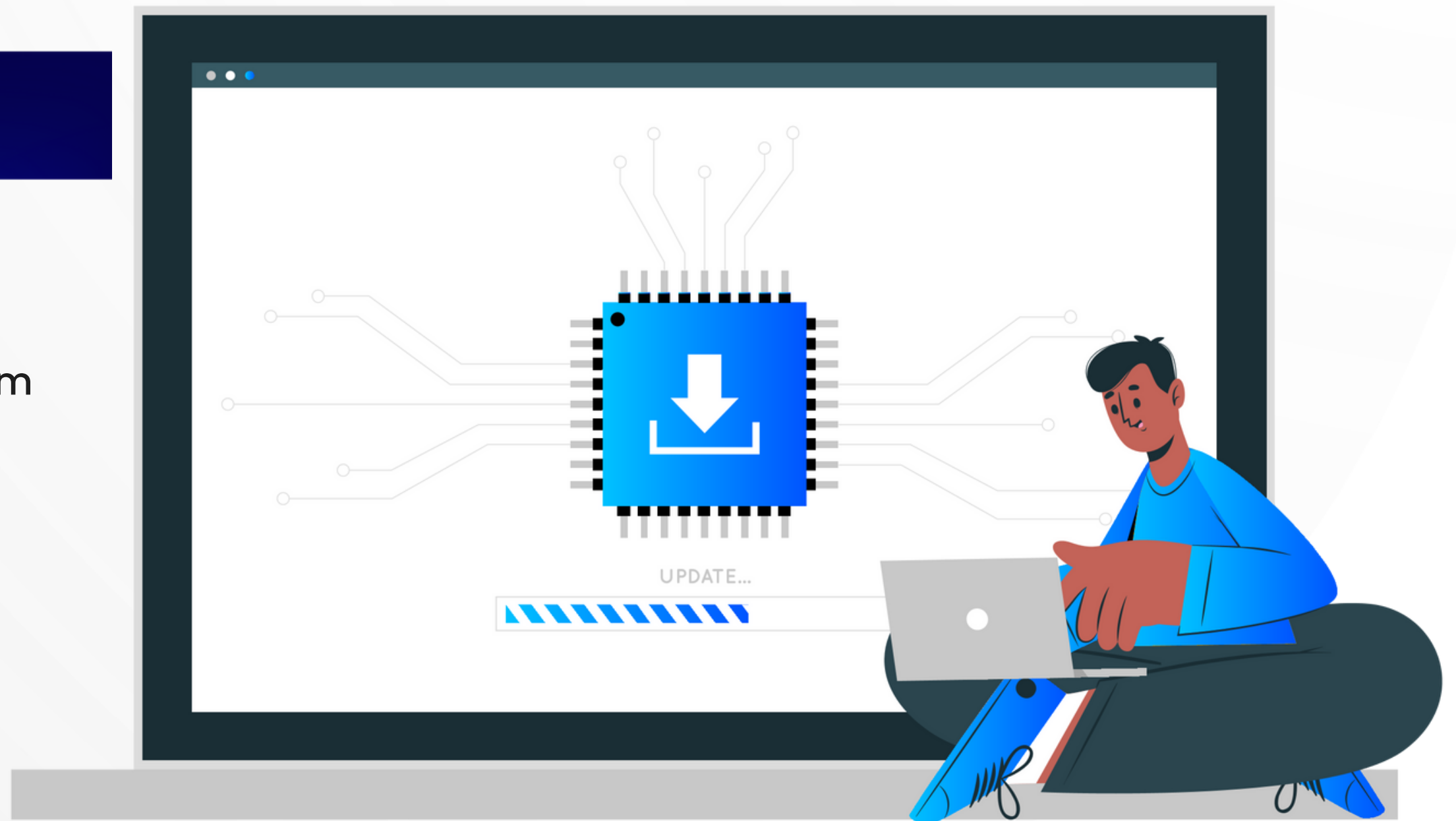


SPECIALISED PROGRAM CURRICULUM

INDUSTRIAL TRAINING

● Session 1

- Introduction to embedded robotics system
- What is Robotics
- 3 Laws of Robotics
- Working of Robot
- Sense
- Think
- Act



● Session 2

- Getting started with Embedded System
- Introduction to Embedded System
- Examples of Embedded System
- Classification of Embedded System
- Small Scale Embedded System
- Medium Scale Embedded System
- Sophisticated Embedded System

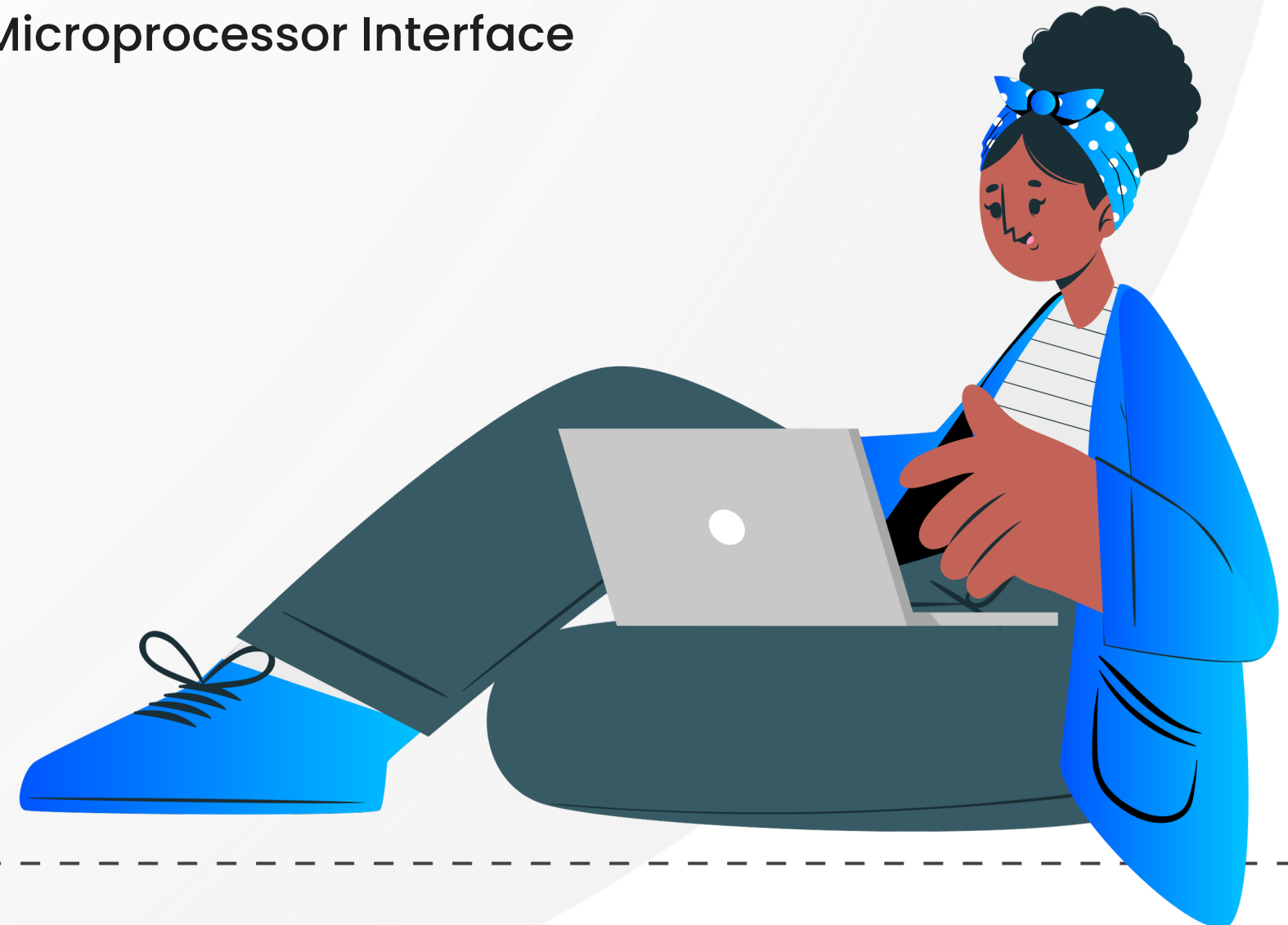
● Session 3

- Understanding different purpose
- General Purpose Computer Vs Embedded System
- General Purpose Computer
- Dedicated Purpose Embedded System

● Session 4

- Understanding Microprocessor
- Introduction to Microprocessor
- Microprocessor Application
- Graphical Demonstration of CPU
- Central Logic Arithmetic Logic
- Unit Internal Registers Internal
- System Bus Types of Internal
- System Bus Working of ALU
- Microprocessor Interface

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● Session 5

- Difference between microcontroller and microprocessor
- Microcontroller vs Microprocessor
- Architecture
- Application
- Size, Cost, Power
- Purpose
- Processing Power
- Most Suitable purpose

● Session 6

- Communication with embedded system UART
- Introduction to UART
- Serial vs Parallel
- Serial Communication
- Parallel Communication
- Asynchronous vs Synchronous

● Session 7

- UART Protocol
- UART Connection
- Data Synchronization in UART
- BAUD Rate
- UART Framing
- UART Configuration
- UART Disadvantages
- UART Functional Block Diagram – STM32F4
- BAUD rate calculation



● Session 8

- I2C Protocol
- Introduction to I2C
- I2C Evolution
- I2C Schematic
- BJT
- MOSFET
- I2C Node
- I2C Concepts
- Arbitration
- Clock Stretching
- Advantages of I2C
- Disadvantages of I2C

● Session 9

- Installation of Arduino IDE
- Arduino CC
- Arduino Web Editor
- Arduino IDE installation
- Arduino Cloud

● Session 10

- Introduction to Arduino IDE
- Components of Arduino IDE
- How to run a code
- How to save a code
- Sketch Option
- Library Manager
- Tools Option
- Serial Monitor & Serial Plotter
- Help Option

● Session 11

- Codes explanation and syntax
- Syntax
- Void setup syntax
- Void loop syntax
- Syntax Error
- Define Function

● Session 12

- Building first codes Code to
- blink a LED Choosing an
- example code Understading
- the code Verifying the code
- components Digital Write
- Function

● Session 13

- Introduction to arduino
- Different types of Arduino
- Arduino UNO
- Compnonents of Arduino UNO
- Digital Pin vs Analog Pin
- How Project works

● Session 14

- Different types of Arduino
- Introduction to Arduino Boards
- Function of Arduino Boards
- Why Arduino Boards
- Advantages of Arduino Boards
- Features of Arduino Boards



● Session 15

- Virtual platform introduction
- Tinkercad
- Features of Tinkercad
- Circuits
- Creating a Circuit in Tinkercad
- Block Coding
- Block + Text Coding
- Text Coding
- Simulation
- Sharing the final design
- Other Platforms for Arduino programming

● Session 16

- Connection with arduino
- How to implement connection
- Adding Arduino with LED
- How to connect different components to Arduino
- Creating a wire connection
- Running the Simulation

● Session 17

- Coding Arduino with Virtual Platform
- Rules of Block Coding
- On Start block
- Forever block
- Defining the PIN Number
- Comparing output with the desired result
- Rules of Block + Text Coding
- Connecting the Leds
- Rules of Text Coding
- Using DigitalWrite Function



QUIZ

ADVANCE INTERNSHIP PROJECTS

Project 1

Project 2

Project 3

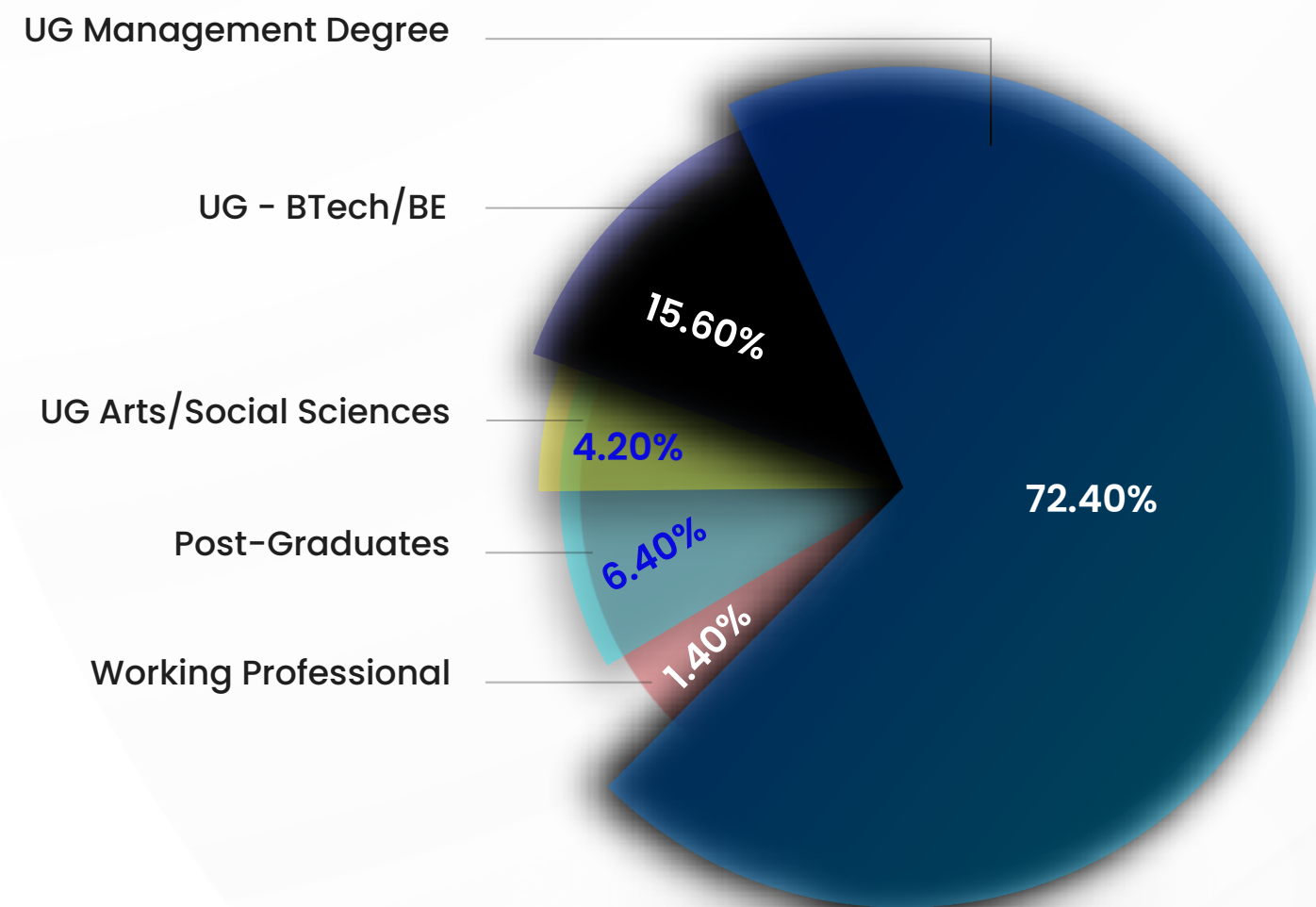
Project 4

Projects 5

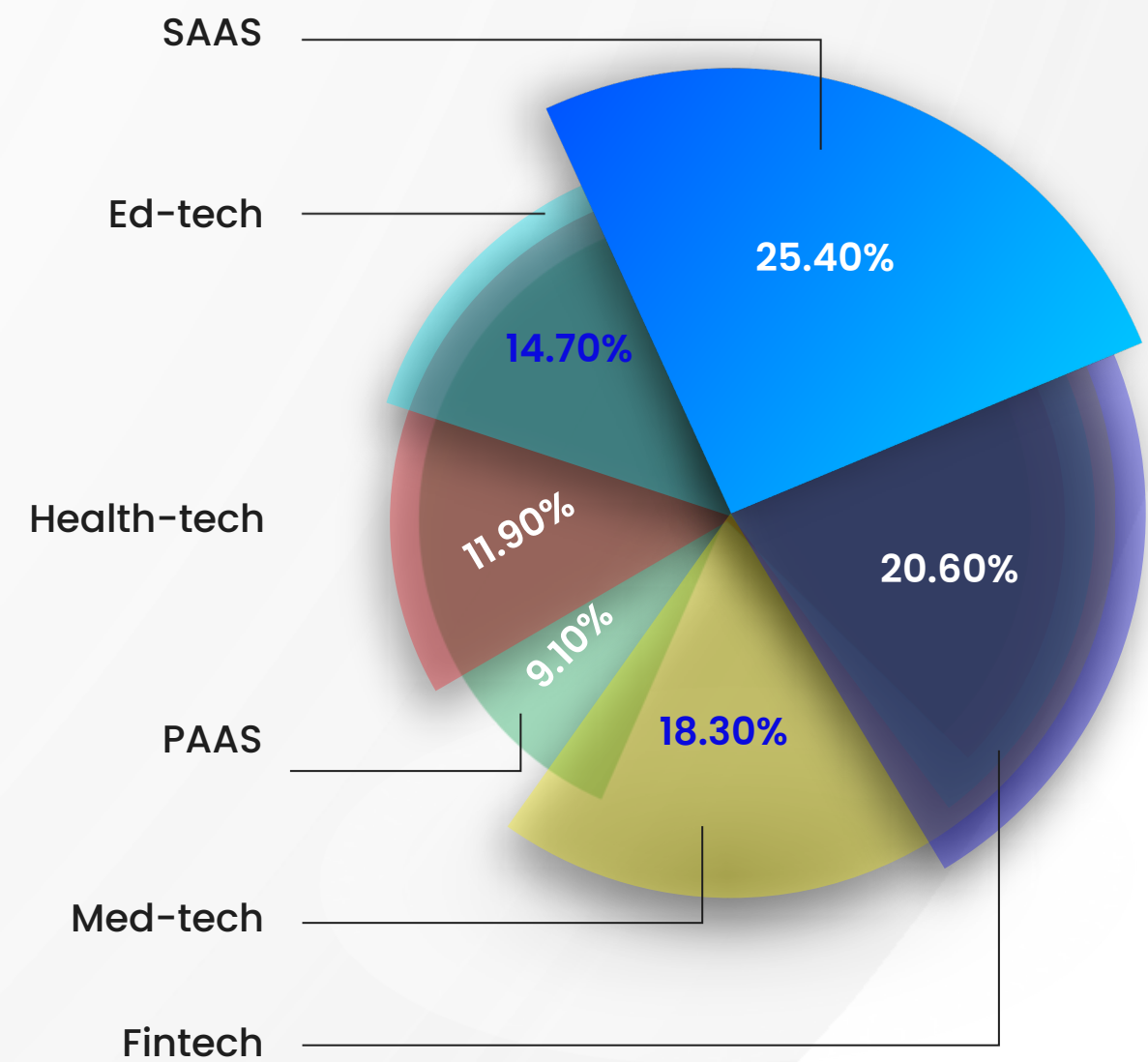
Projects 6



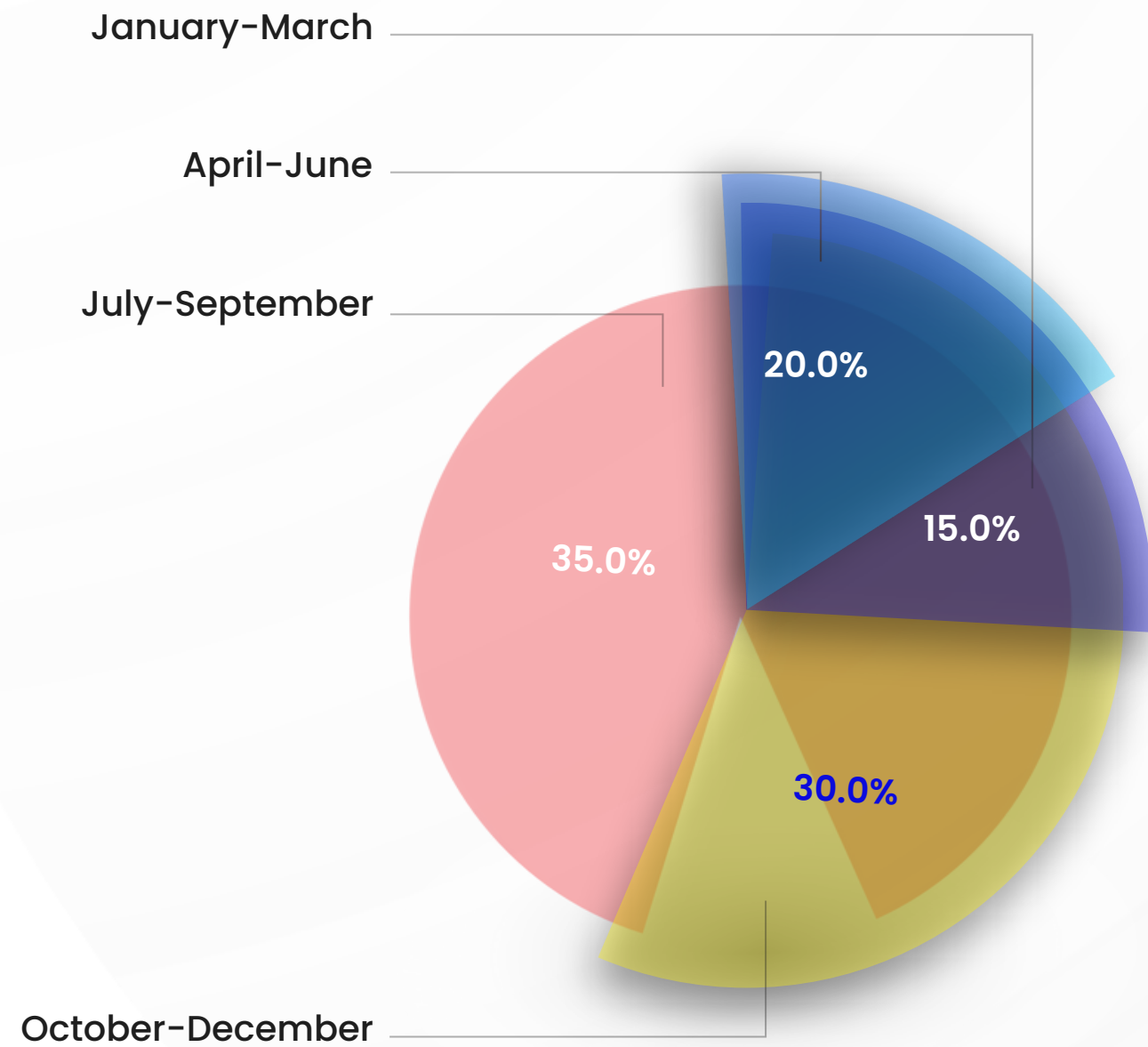
LEARNER'S BACKGROUND



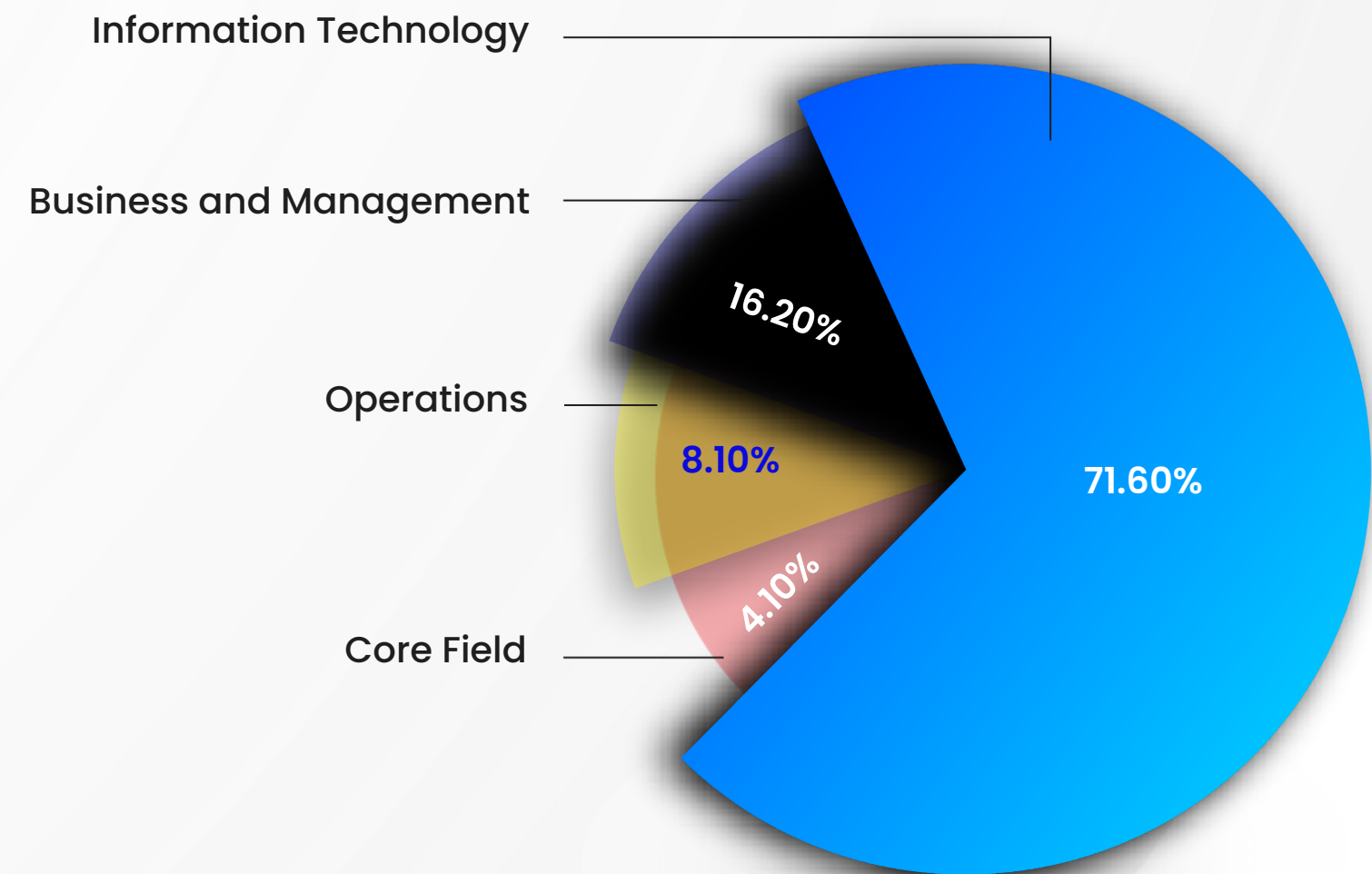
PLACEMENTS RATIO OFFERED AS PER INDUSTRY



QUATERLY PLACEMENT ANALYSIS REPORT



OFFERED PROFILES & FIELDS VIA EDUFYI



WIPRO DICE ID ACCREDITED CERTIFICATIONS



PROFESSIONAL MNC CERTIFICATIONS



OUR AUTHORISED CERTIFICATION PARTNERS



ADOBE



MICROSOFT



QUICKBOOKS



AUTODESK



CISCO



ESB



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