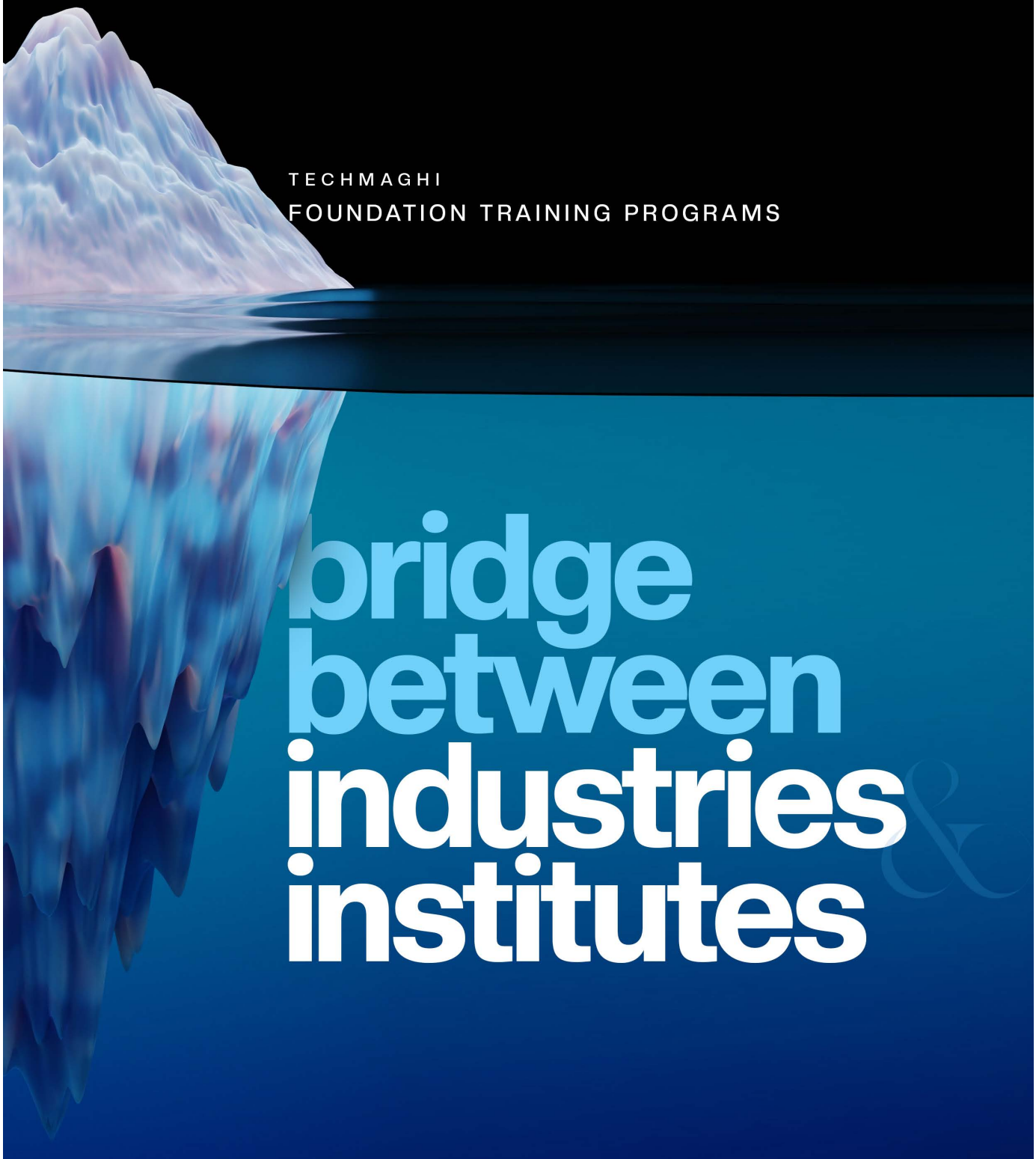
TECHMAGHI



TECHMAGHI

FOUNDATION TRAINING PROGRAMS

bridge between industries & institutes

www.techmaghi.com

TECHMAGHI & WHY?

TECHMAGHI is a Government of India DPIIT recognised, ISO-certified (9001:2015) Edu-Tech Start-up located at Kerala Start-Up Mission, Kalamassery, Kochi. We are now students' most loved training providers that offer a platform to explore their curious minds fuelled by adaptive, engaging and effective training with industry experts, thus bridging the gap between institutes and industries.

50,000+
students skilled

4.5
star rated by students

500+
institution participation

- Personalised Mentorship
- Top of the field expert faculties
- Several industrial on-sites & Labs across the country.
- Placement Trainings and Assists
- Placement Drives & Job Fairs

Recognized by

#startupindia · KERALA STARTUP MISSION · ISO · MSME MICRO, SMALL & MEDIUM ENTERPRISES OUR STRENGTH

BENEFITS & SUPPORT

Hybrid Way of Learning

Internship Certificate valid in all Universities

Internationally valid Training Certificate

- **Scholarship worth 10 Lakhs.**
- Hands-on Experience.
- Complimentary Workshop and Webinar (Association with Techmaghi and IITs.)
- Resume Making Session
- Linkedin Profiling Session
- Mock Interview Sessions(Optional)
- 3 - 6 Months Access To Content (Learn anywhere anytime)
- All platform access (Android, iOS, Windows, Ubuntu)
- 1-1 Mentor Assistance
- Industrial Case Studies and Real world project exposure.

TOP INDUSTRIAL MENTORS

Sajith Kumar

- **15+ Years of Experience** in Information Systems, Power Electronics, Fuel systems, Power system Automation, AC/DC Drives and its application and Electric towage machinery
- **Adjunct professor** at the **Birla Institute of Technology and Sciences (BITS), Pilani.**
- **Founder/CEO of ReynLab.**
- Consultant
  - » **OLA Electric.**
  - » **Mahindra Electric**
  - » **Simple Energy**

Rajan Joseph

- **Director (Rtd.) KSEBL.**
- **35+ Years of experience** in Power Systems, Power Distribution, Control Systems, Energy Management.

Neel Mathews

- **Chief Engineer(Rtd.)** at Mahindra Electric.
- Led product development team at **Mahindra Reva Electric Vehicle Pvt Ltd.**
- **30+ years of experience** in areas such as Electronic hardware design, power electronics, EMI/EMC compliance and testing.
- Architected **scalable battery management system (BMS).**

Prasad M P

- Expert in **Advanced Engineering and Prototyping.**
- Led the vehicle integration for the Electric vehicles division at the **Renault-Nissan-Mitsubishi Technology Centre**. Highly skilled in Tech-marketing, Supply chain management, Clean energy, Future Mobility and R&D.
- Currently the **President of Agnito Insights**, a research, advisory and consulting firm with expertise in data sciences, clean energy and future mobility solutions.

Eldho Thomas

- **Chairman, The Leela Electric Group.**
- **25+ Years of Experience.**
- Class A' Electrical Contractors doing Design Planning, Implementation of Electrical Installation such as Factories, Hospitals, Shopping Malls, High Rise Buildings.

01 Electric Vehicles

02 ECU Tuning Program

03 Advanced Driver Assistance System (ADAS)

04 Automotive Diagnostics

05 Electrical System Design

06 Interior Design

07 AutoCAD 2-D and 3-D

08 Introduction to Java

09 Android App Development

10 Digital Marketing

11 iOS App Development
Coming soon

12 Full stack development
Coming soon

01

Electric Vehicles

Electric Vehicles

EVs can cause significant impacts on the environment, power system, and other related sectors. Electric vehicles (EVs) market is expected to be worth around at least INR 475 billion by 2025. The penetration of electric two-wheelers is projected to reach up to 15% by 2025 from 1% currently.

An ever in-demand field which gives you working knowledge on all Subsystems. This training will help you better understand design & analysis of commercial and race vehicles.

- Be A Part Of The Ever Evolving Industry That Serves Billions!
- Learn Skills Like Calculations, Design, Simulations, Etc
- Better Prepare For Undergrad Competitions Like SAE Baja, Supra
- A Good Starting Point For Higher Studies And R&D

Benefits

- On-Hand Training at KSUM.
- On-Site Training at Reyn Lab Chennai/Kerala.
- 3-5 Month Course access for 2 Month Training.
- Internship opportunities upto 15 days.
- Scholarship Exams and access to Advanced Training.

Roles in Industry

80% of Core Jobs in the Automotive Industry are related to Vehicle Dynamics(VD). Not only Automotive, many mechanical industries have related roles. You can work in following roles with VD skills

- EV System Engineer
- EV Safety Engineer
- EV powertrain Engineer
- Battery Thermal Engineer
- Battery Design Engineer
- Battery Structure CAE Engineer
- Battery Management Systems Engineer
- Battery Thermal Management Engineer

Curriculum

MODULE 01

Foundation concepts in Electrical and Electronics field

- Understanding current and voltage
- Electrical Characteristics
- Electrical Work, Energy and Power
- Types of components
- Basic Electrical Components
- IC's and Advanced Circuits

MODULE 02 : CONTROL SYSTEMS

Introduction to control systems

- Control Systems in simple terms
- System
- Target
- Natural behaviour of a system
- Controlled behaviour of a system

Controller

- Introduction to Controller
- Lookup tables
- Feedback
- Open-loop vs Closed-loop
- Introduction to types of controllers
- Sensors for physical systems
- Trade-off b/w cost and performance
- Classification of sensors
- Speed sensors
- Pressure sensors
- Temperature sensors
- Sensor communication

Signals

- Introduction to Signals
- Signal Processing
- Signal Noise
- Conditioners
- Summary

Building a simple Control system

- Input and Response of a system
- Identifying control inputs
- Types of controls

- Types of Systems based on number of I/O
- Types of System honed on I/O relationship
- Linear systems
- Nonlinear systems
- Time-Variant & In-variant systems
- LTI system
- System behaviour
- Practical example for controlling system behaviour

MODULE 3

Why the Electric Vehicle Industry

- EV Industry: Present and Future
- e-Mobility
- Career opportunities
- Course overview
- Introduction to EV Architecture
- Interpretation of Acceleration
- Physical significance of Torque
- Rolling radius of wheel
- Relation between rolling radius and acceleration
- Estimation of Torque required
- Torque multiplication
- Principle behind Gears
- Components of an Electric Vehicle

Prime Movers - Electric Motors

- Electric Motors introduction
- Functioning of Electric Motors
- Energy and Power
- Instantaneous and Average Power
- Tutorial: Energy and Power

Energy Sources

- Electrical energy sources
- Mechanical energy sources
- Principle of Batteries
- Principle of Capacitors
- Tutorial: Energy math
- Using Excel for Energy math
- Energy Math applied to EV scenario
- Introduction to Battery Packs
- Battery Pack capacity and sizing
- Sizing calculation
- Battery parameters
- C-rate
- Charging systems
- Charging system standards

Control Systems

- An overview of control systems
- Control system applications
- Torque control
- Various control systems in EV

Hands on Training (Reyn Lab Chennai/Kerala)

- Demonstration of EMS Calibration for Electric Vehicle
- Battery pack building exercise with Spot welder & dummy cells
- Battery characterisation with EV Pro charger and data logger
- Motor characterisation with Motor Dyno
- Demonstration of Protection circuit
- Demonstration of BMS circuit

02

ECU Tuning Program

ECU Tuning

Contrary to popular belief that ECU tuning or Remap has only motorsports applications, this is a science that has widespread applications. “Calibration” of control systems has applications in automotive, industrial, and mechatronics domains as well.

Roles in Industry

This ever-evolving industry presents opportunities for students with interests ranging from Mechanical, Electrical, Designing, or Simulation interests via the following roles.

- Tire Design Engineer
- Chassis CAE Engineer
- Brakes Design Engineer
- Chassis Design Engineer
- Suspension Design Engineer
- Steering Design Engineer

Benefits

- On-Hand Training at KSUM.
- On-Site Training at Reyn Lab Chennai/Kerala.
- 3-5 Month Course access for 2 Months Training.
- Access to Virtual Dyno.
- Scholarship Exams and access to Advanced Training.
- Internship opportunities upto 15 days.

Curriculum

MODULE 01

- What is an Engine
- Air Fuel Ratio and what happens when it
- changes
- Lambda, Excess Air Ratio
- Different Types of Fuels
- How is Fuel Injected
- How is Fuel Burnt
- Emissions
- Emissions Control

MODULE 02

- Air Path Systems Overview
- Throttle Body
- Intake Manifold
- Fuel Path Systems Overview
- Fuel Pump
- Fuel Injector and Rail
- Spark Devices
- Spark Plug

MODULE 03

- Maths and Physics Modules

MODULE 04

- Pumping losses
- Volumetric Efficiency
- Scavenging and factors affecting it
- Calculating Air Mass in Engines
- Calculating power output
- Ways to increase Volumetric Efficiency

MODULE 05

- Fuel Theory - How fuel burns
- Homogenous Burning
- Stratified Burning
- Flame Propagation
- Thermal Losses

MODULE 06

- Spark Theory Fundamentals
- Effect of pressure - Pressure to Torque relation
- How torque is varied in SI Engines
- Torque characteristics of a SI Engine
- Varying torque in FI Engines

MODULE 07

- Electronic Control Fundamentals
- How ECU controls engine
- Types of Operation - Open Loop and Closed Loop.
- Closed Loop Implementation - PID Control
- PID Control in detail
- Open-loop control Lookup tables

MODULE 08

- How does the ECU Know - Sensors
- How does the ECU Control – Actuators
- How do sensors and actuators communicate?
- Wiring Methodology
- Protection Devices - Fuses
- Protection Devices - Relays
- Reading wiring diagrams
- Types of signals
- Analog to Digital converters problems with
- ADC

MODULE 09

- Driving Conditions
- Alpha N Control Strategy
- Assumptions and shortcomings
- Tuning for Alpha N
- Virtual Dyno Demo

MODULE 10

- Using Tuner Studio

Hands on Training (Reyn Lab Chennai/Kerala)

- Wiring back probe on KTM Bike
- Powertronics tuning on Bike
- Speeduino setup & tuning in Vehicle
- Race Dynamics standalone ECU tuning in Vehicle

03

Advanced Driver Assistance System (ADAS)

Why learn about Self Driving Cars?

To train you for Multi-billion dollar industries like Autonomous Vehicles, Artificial Industry, Computer Vision.

- Be Industry and future-ready with the latest technologies.
- Learn Multiple skills like AI, IoT, and Computer Vision.
- A disruptive industry that will open up millions of jobs.
- Entry Point for R&D and Higher Education.

Roles in Industry

These are the roles that are sought after by not only Automotive But almost all top technology companies across the globe:

- Autonomous Vehicle Engineer
- IoT Developer
- AI Engineer
- Computer Vision Engineer

Benefits

- On-Hand Training at KSUM.
- On-Site Training at Reyn Lab Chennai.
- 3-5 Month Course access for 2 Months Training.
- Internship opportunities upto 15 days.
- Scholarship Exams and access to Advanced Training.

Curriculum

MODULE 01

Introduction

- Why we need a safety system
- Crash causation
- Accident statistics by vehicle type
- Common causes of car accidents
- Safety systems
- Types of safety system

MODULE 02

Advanced Driver Assistance Systems

- What is ADAS
- General block diagram
- Levels of automation
- Terminology:
  - » Ego vehicle
  - » Ego coordinate system
  - » Target vehicle
  - » Target coordinate system
  - » Sensors and Sensor Coordinate System
- ADAS – More about it

MODULE 03

Sensors in ADAS

- Ultrasonic Sensors
- Automotive Radar
- Lidar
- Camera
- Global Navigation Satellite System
- (GNSS)
- Global Positioning System (GPS)
- Inertial Measurement Unit (IMU)
- Automotive Dynamic Motion Analyzer
- Sensor Fusion, Sensor Data

MODULE 04

Machine Learning and Deep Learning in ADAS

- Introduction
- Decision Making Algorithms
- Artificial Intelligence and Machine Learning
- Data Fusion
- ML vs DL vs AI
- Neutral Network
- DL Algorithms
- OpenCV
- TensorFlow & Keras
- Decision Making

MODULE 05

ADAS Safety System

- Adaptive Cruise Control (ACC)
- Rear Cross Traffic Alert System
- Blind Spot Detection

- Parking Assistance System
- Lane Departure Warning
- Driver Monitoring System
- Daisy Chaining.

MODULE 06

ADAS Testing

- ADAS development process using
- V-Model
- Functional Testing
- Virtual Environment for ADAS Testing
- Software in the loop (SIL)
- Hardware in the loop (HIL)
- Driver in the loop (DIL)
- Vehicle in the loop (VIL)

Hands on Training (Reyn Lab Chennai/Kerala)

- Ultrasonic sensor demonstration
- Drive By Wire ETB Test demonstration
- Steer By Wire Steering Test demonstration
- CAN communication demonstration
- ADC converter for steering and throttle Demonstration

04

Automotive Diagnostics (Electrical & Electronics)

Automotive Diagnostics

Modern automobiles are not simple mechanical systems but a combination of mechanical and electronic systems. Diagnostic techniques of traditional mechanics will no longer work in present day automobiles.

Benefits

- On-Hand Training at KSUM.
- On-Site Training at Reyn Lab Chennai/Kerala.
- 3-5 Month Course access for 2 Months Training.
- Internship opportunities upto 15 days.
- Scholarship Exams and access to Advanced Training
- Personalised training
- Hands-on training with experts.
- Perfect for Automobile enthusiasts.
- Career and placement training.

Curriculum

MODULE 01

Introduction

- Introduction to Automotive Diagnostics
- Common Ground
- Everycircuit Access
- Voltage, Current and Resistance
- Ohm Law
- Fuses
- Diodes
- Transistors and its type and applications
- Virtual Lab Ohm Law
- I2R Losses
- Follow-up Quizzes.

MODULE 02

Concepts of Load, Power and Ground

- Definition of Load, Power and Ground
- Diagnostics Procedure
- Types of Faults
- Open Circuit - How it presents itself
- Short to ground - How it presents itself
- Short to Positive - How it presents itself
- How it can happen
- Follow-up Quizzes.

MODULE 03

Automotive Wiring

- Introduction to Automotive Wiring
- Diagram and Explanation
- Symbols used in automotive wiring diagram
- Current track diagram
- How to read the current track diagram with example
- Hands-on exercises.

MODULE 04

Hands on Training (Software)

- V, L and R Exercise - EveryCircuit Simulator
- Ohm Law - Virtual Lab
- Automotive Cooling System - Virtual Lab

Hands on Training (Reyn Lab Chennai/Kerala)

- Sensor Identification and Tracing
- Identify Short Circuit with Multimeter
- Waveform Identification with Oscilloscope
- Scanning With VCDS
- Data Based Diagnostics
- Demonstration Of Prognostics
- Demonstration Of Coding

05

Electrical System Design

Electrical System Design

This training program will help you understand the structure of electrical grids and provide you with a better understanding of how the entire electrical system works. Electrical System Design training is crucial in a wide range of industries ranging from power industries, oil and gas, water utilities, process plants, mining, pharmaceuticals, manufacturing and defence.

Benefits

Site visit at Substation

Site visit at Generating Stations

Site visit with electrical contractors with their projects

- Internship opportunities at real world projects.
- Career oriented placement training.

Curriculum

Introduction

- What is Electrical Engineering / Role of Engineer

MODULE 01

Basic Electricals

- Electrical Terms
- Characteristics and Uses
- Laws of Resistivity
- Ohm's Law
- Krichoff's Law

MODULE 02

Electricity and Magnetism

- Relationship between Electricity and magnetism
- Production of EMF
- Dynamically Induced EMF
- Statically Induced EMF

MODULE 03

AC Fundamentals

- AC Generation
- Waveforms, Cycle, Frequencies
- Phase Difference, RMS Value, Average Value, Max Value
- Electricity Transmission
- Electricity Distingution

MODULE 04

AC Circuits

- AC through pure resistance
- AC through Inductor
- AC through Capacitor
- AC through pure resistance
- AC through Inductor
- AC through Capacitor
- AC series Circuit
- R,L,C circuits
- RLC Circuits
- AC parallel circuits

MODULE 05

Polyphase Systems

- Polyphase sequence
- Star connection
- Delta Connection
- Voltage - current- power - power factor calculations
- Power factor improvement
- Power Measurement
- Active Power
- Reactive Power
- 3-Phase System
- 3-Phase, 4-Wire system

MODULE 06

Transformers

- Working
- Single Phase Transformer
- Turns Ratio
- Transformation Ratio
- 3-Phase Transformer
- Star Connection
- Delta Connection
- Testing of Transformers
- Parallel Operations

MODULE 07

AC Motors

- Single Phase Motor
- Motor Types
- Working
- Single Phase Motor
- Motor Types
- Working
- 3-Phase Motors
  - » Working
  - » Types
- Starting methods and starters
- Speed control
- Industrial Drives

MODULE 08

Alternator

- Working Principle
- Stator and Rotor construction
- Excitation and Speed

MODULE 09

DC Machines

- DC Generators
  - » Parts
  - » Working
  - » Types and Characteristics
- DC Motor
  - » Parts
  - » Working
  - » Types and Characteristics

MODULE 10

Domestic Wiring

- Estimation
- Execution

MODULE 11

Industrial Projects

- Design
- Execution

MODULE 12

Project

- Design a domestic electrical system with given constraints
- Design an Industrial Electrical System with given constraints.

MODULE 13

Basics of Electrical AutoCAD

MODULE 14

Site Visit

06

Interior Designing

Interior Designing

If you believe that you have a creative, futuristic, imaginative, and artistic approach to the things around you, then you can definitely think of interior designing as a career path. Taking an interior designing course will help you professionalise your creative skills.

Benefits

- Live doubt-solving sessions
- Live masterclass by reputed speakers in the field of interior design and architecture
- On-Hand Training at KSUM on 2D and 3D software
- Live onsite training at Interior Design sites
- 3-5 Month Course access for 3 Months Training
- Live case studies of interior projects
- Interior design project development and presentations
- Suitable for interior and product design enthusiasts with no design background
- Covers foundation concepts and professional practice basics in interior design

Curriculum

MODULE 01

Fundamentals of Design

- Theory of interior design
- Elements of Interior Design and Application
- Principles of Interior Design
- Space planning and Anthropometry
- Anthropometry and Ergonomics

MODULE 02

Design development and introduction to Interior Graphics

- Presentation Techniques
- Working Drawings
- Estimation in Interior Designing
- Architectural Space
- Design Concept
- Minor Project I

MODULE 03

Furnishing and product design

- Lighting Design
- Furniture and Furnishing
- Accessories
- Soft Furnishing

MODULE 04

Building construction and materials

- Foundation
- Masonry
- Surface finishes
- Building components and elements
- Interior Materials
- Building material and application

MODULE 05

Building services

- Water supply and sanitation
- Acoustics &Sound insulation

MODULE 06

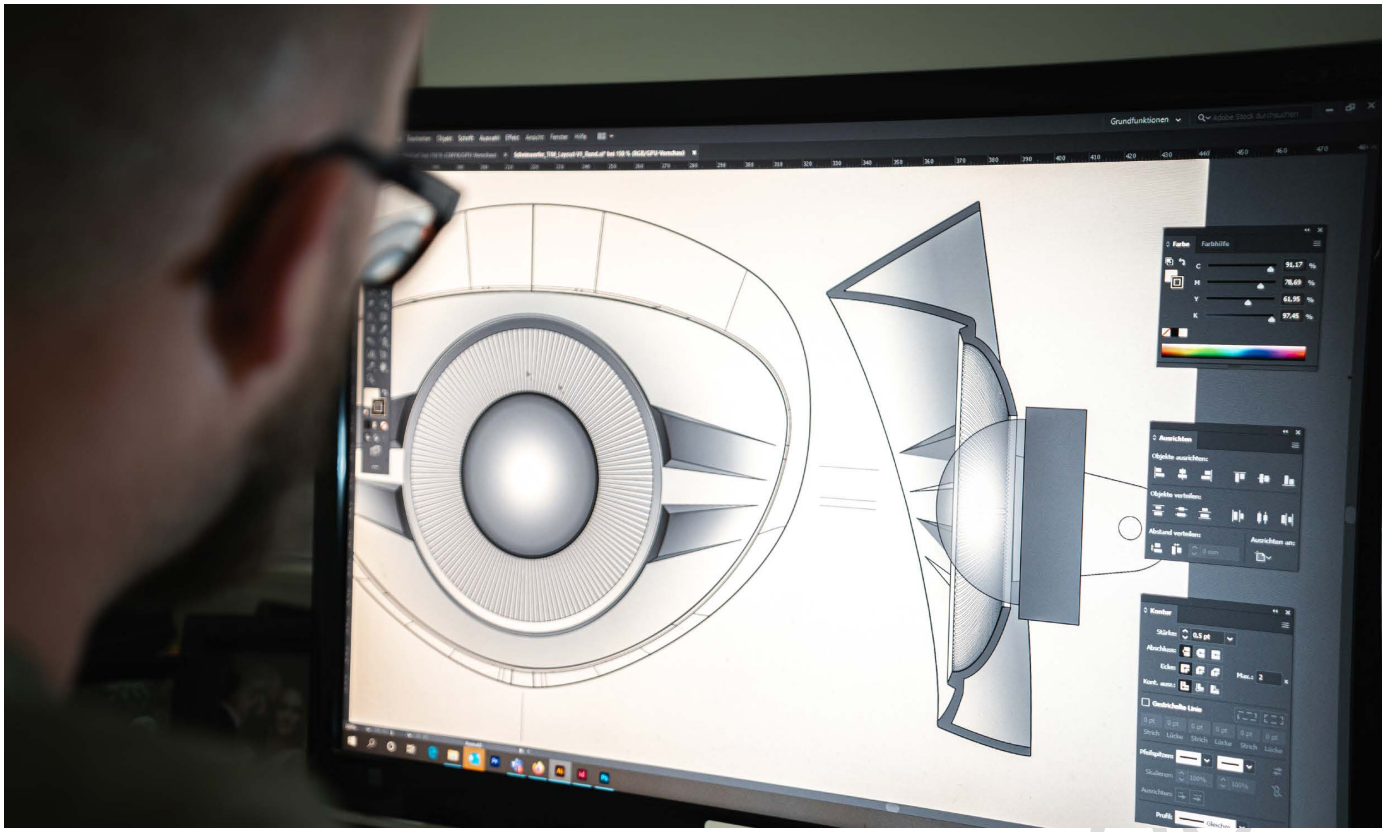
Professional project design development through software practice

- Major Interior project design
- 2D software – **AutoCAD**
- 3D software – **Sketchup**
- Presentation software - **Adobe Photoshop**

MODULE 07

Workshop and Onsite Visit

- One day offline workshop for 2D, 3D and presentation software
- Site visit



08

AutoCAD 2D and 3D

AutoCAD

The training equips you with CAD skills, which you can use to achieve various goals. You will learn various civil engineering design skills. The course also helps you learn essential architecture skills. You will also learn various technical skills, including drawing using software tools. The course helps prepare you for a career in civil and architectural domains.

Benefits

- Live doubt-solving sessions
- Live masterclass by Experienced Faculties
- On-Hand Training at KSUM on 2D and 3D software
- 3-5 Month Course access for 2 Months Training
- 10 day live Internship Opportunities across the course
- Internationally Valid Certificates

Curriculum AutoCAD 2D

MODULE 01

- Getting familiar with AutoCAD
- Introduction
- AutoCAD User Interface
- Coordinate System
- Navigation Tools
- Limits and Units
- Creating a Template
- Drafting Settings
- Mouse control
- Making Selections

MODULE 02

- Drawings
- Lines
- Circles
- Arc
- Ellipses
- Rectangle
- Polygons
- Polyline
- Editing Polylines Spline
- Spline to Polyline Donuts and Helix Construction Line Ray
- Multiline
- Point
- Point Style and Size

MODULE 03

- Modifying Tools
- Move
- Copy command Rotate command Offset command Mirror
- Scale
- Trim and extend Erase
- Oops
- Explode
- Stretch command Break
- Join
- Fillet and chamfer Lengthen

MODULE 04

- Status Bar Toggles
- Grid
- Object Snap
- Object Snap Tracking
- Polar and Ortho mode
- Adding angles in Polar mode
- Dynamic input
- Background colour

MODULE 05

- Drawing tools
- Array
- Divide and measure
- Id command
- Finding Distance, Radius, angle, and area AutoCAD calculator
- Started with quick calc
- Regen and redraw

MODULE 06

- Hatching objects
- Hatch, Gradient and Boundary
- Hatch Edit

MODULE 07

- Layers
- Creating and assigning layers, using layer properties manager, Quick access layer tools, Hiding and isolating objects, Match properties
- Line types

MODULE 08

- Dimensioning and annotation
- Dimensions
- Dimension Style Manager
- Continue and Baseline dimensions
- Quick dimensions

- Multileader
- Multileader operations
- Multileader styles
- Block multileader

MODULE 09

- Working with text and tables
- Single line text
- Creating text style
- Multiline text
- Table
- Creating table style

MODULE 10

- Design centre
- Tool palette and blocks
- Design centre
- Tool palettes
- Blocks

MODULE 11

- Print and Publish
- Plot scales and paper sizes Print & plotting setup, page setup AutoCAD to PDF
- PDF to AutoCAD
- Function keys

MODULE 12

- Industrial Projects

AutoCAD 3D

MODULE 01

- 3d interface
- World coordinate system

MODULE 02

- Box
- Cylinder
- Cone
- Sphere
- Pyramid
- Wedge
- Torus
- Extrude
- Loft
- Revolve
- Sweep
- Polysolid
- Presspull

MODULE 03

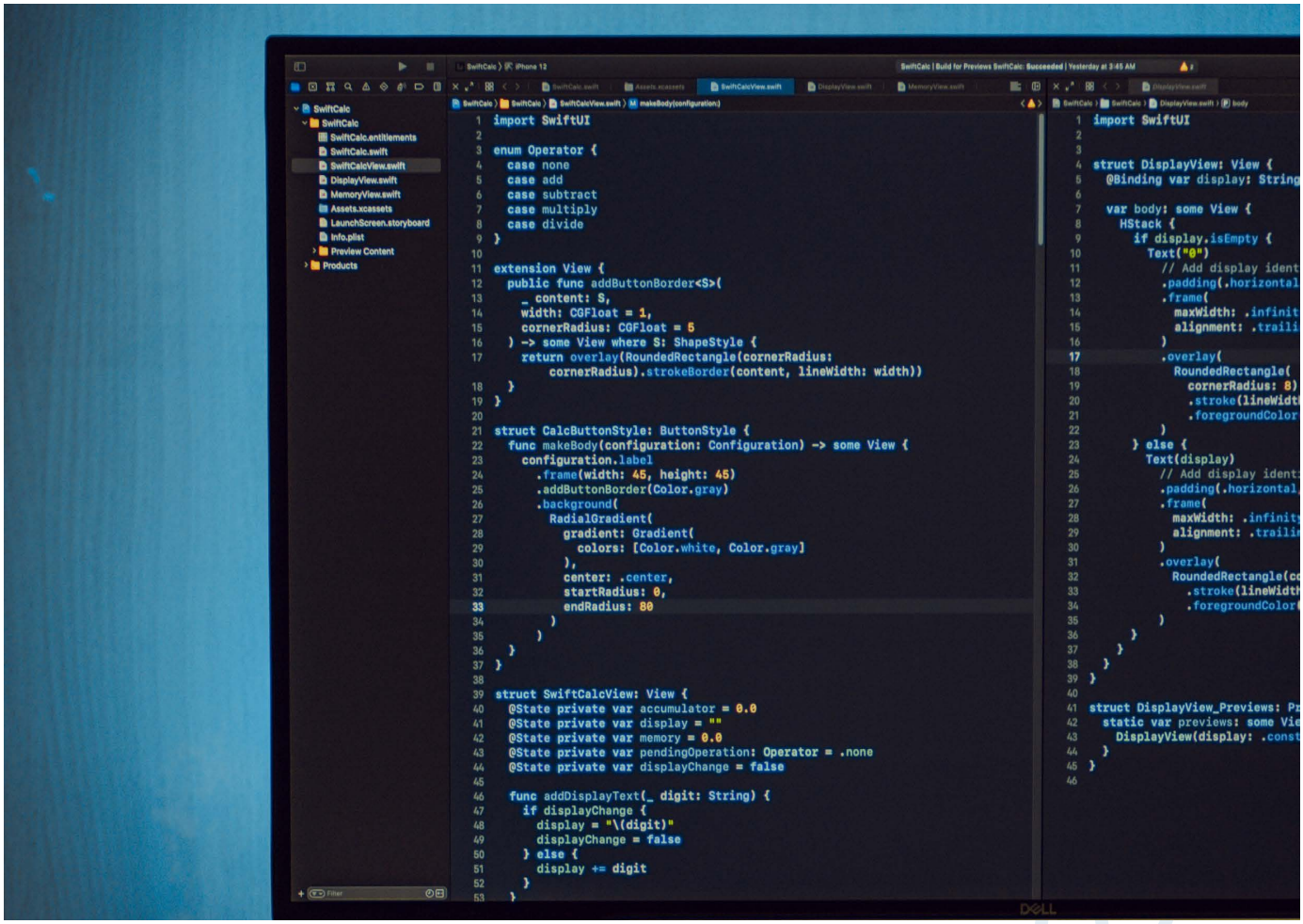
- Smooth object
- Smooth more
- Smooth less
- Mesh refine

MODULE 04

- Solid union
- Solid subtract
- Solid intersect
- Interfere
- Slice
- Thicken
- Extract edges
- Imprint
- Color edges
- Copy edges
- Extrude faces
- Taper faces
- Move faces
- Copy faces
- Offset faces
- Delete faces
- Rotate faces
- Colour face

MODULE 05

- Industrial Projects



Introduction to Java

Java

Java is top among the computer languages used for developing web, mobile & desktop applications. Java is based on the Object-Oriented Programming Systems (OOPS) concept. Those who are looking for a better programming career can learn Java to increase their skills and knowledge. After completing this course, the candidates can develop web and software applications and understand the entire Java Web application structure.

Benefits

- Live Masterclasses from Industry Experts
- Live Doubt Solving Sessions
- Placement Assistance
- 10 - 15 Days Internship Opportunities
- Internationally Valid Certificate

Curriculum

MODULE 01

Introduction

- What is Java?
- History of Java
- Methods & Classes
- Features of Java
- Java program execution
- Anatomy of Java

MODULE 02

Installation

- Java Installation
- Eclipse Installation

MODULE 03

Data Types

- Primitive Data Types
- Non-Primitive Data Types

MODULE 04

Java Tokens

- Keywords
- Identifiers
- Constants
- Special Symbols
- Operators

MODULE 05

First Java Program

- Welcome to Java Program
- Description of Java sample program

MODULE 06

Arrays

- Understanding Arrays
- Coding using Arrays

MODULE 07

Operators

- Arithmetic & Unary Operators
- Comparison Operators
- Logical Operators
- Conditional Operators
- Bitwise Operators

MODULE 08

Control Statements

- IF Statement & Ternary Operator
- Nested IF Statement
- Switch statement
- Two-dimensional Arrays
- Multidimensional Arrays
- While Loop
- Do While Loop
- For Loops
- Enhanced For Loops
- Nested For Loops

MODULE 09

Collections

- Introduction
- Arraylist
- LinkedList
- HashSet
- TreeSet
- Map
- HashMap
- TreeMap

MODULE 10

Stacks

- Introduction
- Stacks
- Queue

MODULE 11

Classes

- Introduction
- Constructors
- Types of access modifiers like private, default, protected, and public
- Types of non-access modifiers like abstract, final, native, static etc.

MODULE 12

Streams

- Introduction
- Streams
- Stream Filtre
- For Each
- Streams Reduce

MODULE 13

Access Modifiers

- Introduction
- Public, Private & Protected Modifiers

MODULE 14

OOPS

- Inheritance
- Encapsulation
- Abstraction
- Interface
- Multiple Inheritance
- Method Overloading
- Method Overriding

MODULE 15

Static Class

- Static Class
- Static Nested Class
- Inner Class

MODULE 16

Packages

- Create package
- Benefits

MODULE 17

Recursion

- Introduction
- Recursion

MODULE 18

Method Recalling

- Different Methods
- Calling a Method
- Pass by Value
- Pass by Reference

MODULE 19

Exceptions

- Java Exceptions
- Try Catch Block
- Finally Block

MODULE 20

Equals & Hashcode

- Equals
- Hashcode

MODULE 21

Comparable

- Sort collections
- Object Sorting
- Comparable Interface
- Comparators

MODULE 22

ATM Machine Interface

- ATM Machine Sample Program

MODULE 23

Calculator Application

- Calculator Sample Program

09

Android App Development

Why App Development?

Mobile app development is essential for today's businesses. Mobile apps have transformed the way we perform business. Such apps have eased the customers to get business details faster and simultaneously stay connected and updated with their favourite brands and offers. Apps are important for expanding the business reach while delivering related and massive exposure to the brand.

Benefits

- Live Masterclasses from Industry Experts
- Live Doubt Solving Sessions
- Placement Assistance
- 10 - 15 Days Internship Opportunities
- Internationally Valid Certificate

Curriculum

MODULE 01

Introduction

- About Mobile App Development
- Types of Mobile Applications
  - Native apps
  - Mobile web apps
  - Hybrid web apps
  - Progressive web apps

MODULE 02

Setup the Environment for Java & Android

- Introduction
- Setup
  - Install JDK
  - Install Android Studio (IDE)
  - Install Virtual Device

MODULE 03

Java Essentials

- Variables
- Operators
- Loops
- Arrays
- Conditional Statements
- Collections in Java Concurrency
- Exception Handling
- Singleton Pattern
- Java Code Challenge

MODULE 04

Object-Oriented Concepts

- Classes
- Interfaces
- Inner & Abstract Classes
- Inheritance & Polymorphism

MODULE 05

Design Model Layouts for Mobile App

- User Interface Elements
- Different Layouts
- XML Files
- ListView & Spinner
- Images
- Fonts
- Material Design
- Snack Bars & Card Views
- RecyclerView
- Sample App Screen Design

MODULE 06

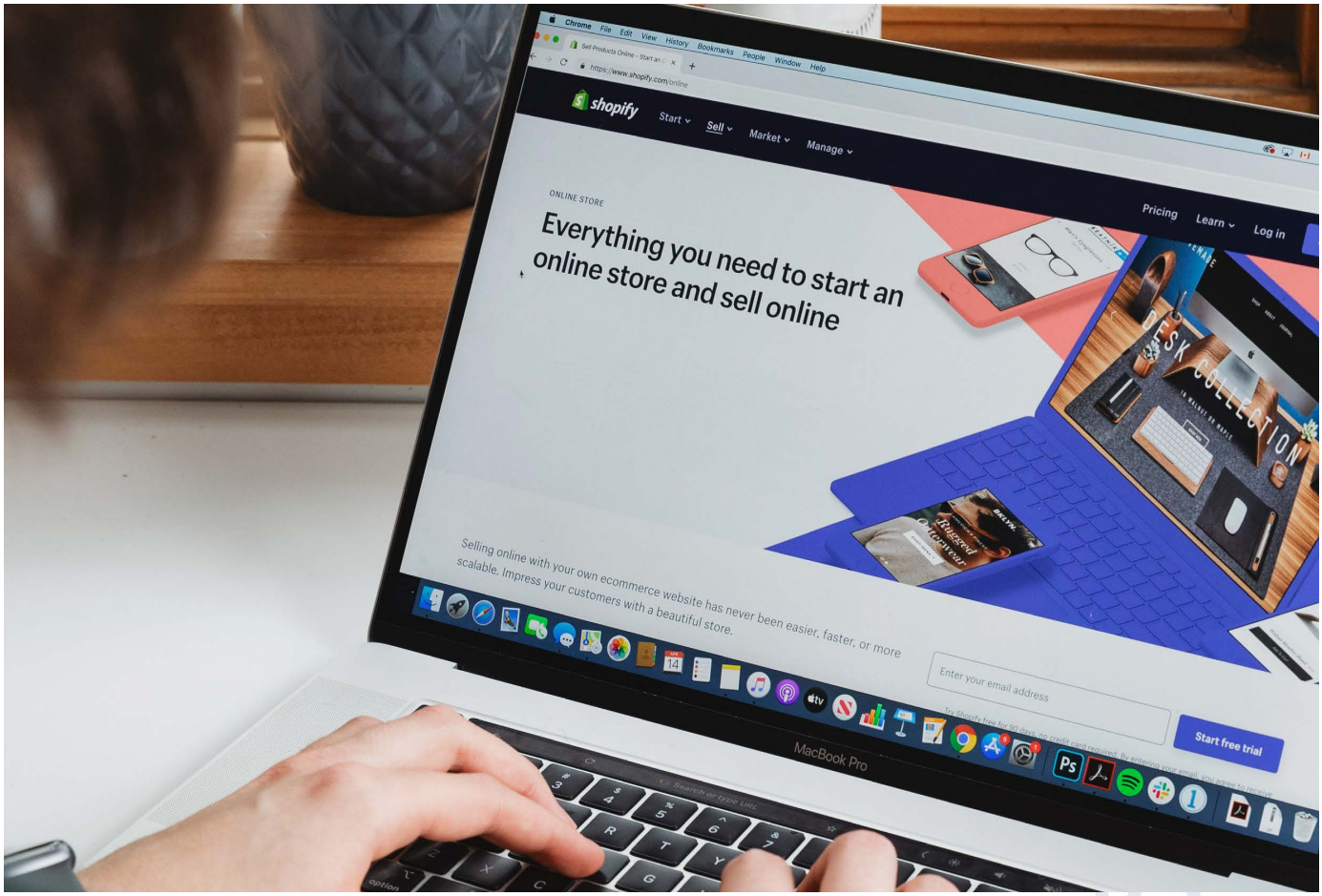
Android Application Development

- Start New Project
- Project Configuration
- Project Structure
  - Layout & Java Files
  - Static Resources Files
  - Manifest File
- Create APK File
- Android Profiler
- Create a Sample Application

MODULE 07

Real World Application Development

- App Development
- Summary



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Digital Marketing

Digital Marketing

Digital marketing **lets you communicate with your customers in real-time.** More importantly, it lets them communicate with you. Think about your social media strategy. It's great when your target audience sees your latest post, but it's even better when they comment on it or share it.

Roles in Industry

- Digital Marketing Manager
- Search Engine Optimizer
- Social Media Marketer
- Content Marketer
- Email Marketer
- SEM Specialist
- AR-VR Developer

Benefits

- Live Masterclasses from Industry Experts
- Live Doubt Solving Sessions
- Placement Assistance
- 10 - 15 Days Internship Opportunities
- Internationally Valid Certificate

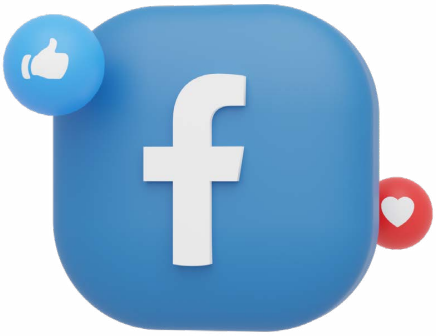
Curriculum

MODULE 01

Introduction to Social Media Marketing

FACEBOOK

- Facebook Introduction
- Facebook Page Setup & Optimization
- Facebook Page Insights
- How to assign a New Page Role
- How to create Business Manager Account
- Facebook Campaign Objectives
- Lead Generation Ads in Facebook
- Types of Facebook Audience
- Facebook Pixel



INSTAGRAM

- Instagram Introduction
- Types of Instagram Accounts
- Instagram Business Account Setup
- Types of Instagram Ads
- Instagram Ads
- How to generate Instagram Hashtags

LINKEDIN

- LinkedIn Introduction
- How to create a LinkedIn Profile
- LinkedIn Interface
- LinkedIn Groups & Jobs
- LinkedIn Company Page Setup
- Steps to Optimise LinkedIn Company Page
- LinkedIn Ads

YOUTUBE

- YouTube Introduction
- YouTube Channel Creation and Optimization
- How to upload video on YouTube
- YouTube SEO
- YouTube Monetization
- YouTube Analytics
- YouTube Channel and Google Ads Account Linking

TWITTER

- Twitter Introduction
- Twitter Account Setup & Optimization

PINTEREST

- How to create Pinterest Account (Business Account)
- How to create pins on Pinterest
- How to create board on Pinterest

MODULE 02

Email Marketing

- Email Marketing Introduction
- How to create an Email Marketing
- Email Marketing Reports

MODULE 03

Website Creation

- Website Creation Introduction
- What is Web Hosting
- Types of Web Hosting
- How to purchase a domain and hosting?
- WordPress Overview Dashboard
- How to build a WordPress Website

MODULE 04

Search Engine Optimization

- SEO Introduction
- SEO Hats
- Keyword Research Part 1, 2
- On- Page SEO
- SEO Plugin: Yoast SEO Part 1, 2, 3
- Robots.txt Part 1, 2
- Google Analytics Part 1, 2, 3
- Google Search Console Part 1, 2
- Sitemap
- Duplicate Content Part 1, 2
- Technical SEO
- Off Page SEO Part 1, 2, 3
- Local SEO Part 1, 2, 3
- SEO Audit

MODULE 05

Google Ads

- Google Ads Introduction
- Google Ads Account Setup
- Keyword Match Types
- Google Ads Search Campaign
- Google Ads Video Campaign

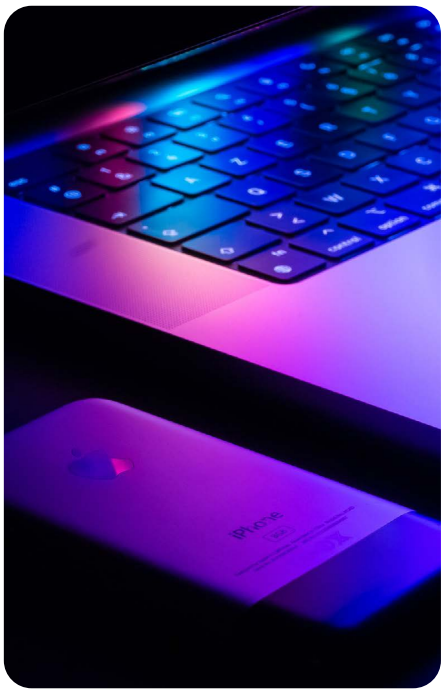
MODULE 06

Introduction to Content Marketing

MODULE 07

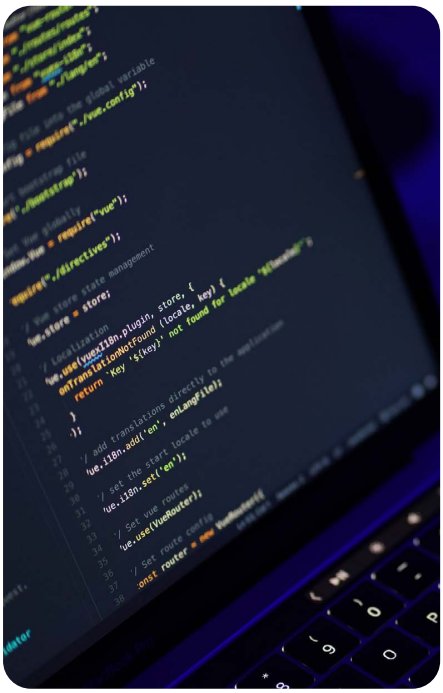
Introduction to Affiliate Marketing

Courses Launching Soon



COMING SOON

iOS App Development



COMING SOON

Full-Stack Development

Fee & Payment

Course fee (Limited time offer)

~~Rs. 15,000/-~~

Rs. 8500/-

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