INDUSTRIAL TRAINING / INTERNSHIP BROCHURE

INDUSTRIAL TRAINING / INTERNSHIPS

MICRO, SMALL & MEDIUM ENTERPRISES
सूक्ष्म, लघु एवं मध्यम उद्यम

N·E·A·T
प्रौद्योगिकी के लिए राष्ट्रीय शैक्षणिक सहयोग
National Educational Alliance for Technology
AICTE – MINISTRY OF EDUCATION

ISO 9001:2015

Participant	Program Type		
Students	Industrial Training	Internship	Industrial Training and Internship
Faculties	Industrial Training	FDP	Industrial Training and Internship

Call us on 9831235020

[Duration - 2 / 3 / 4 / 6 / 8 / 12 / 16 Weeks]

Email info@asd.org.in

Technology Stack

N·E·A·T
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AICTE NEAT Cell Evaluated

MICRO, SMALL & MEDIUM ENTERPRISES
सूक्ष्म, लघु एवं मध्यम उद्यम
OUR STRENGTH • हमारी शक्ति

Ministry of MSME, Govt. of India

Academy of Skill Development

[ISO 9001:2015, MSME, GOVT. REGISTERED, AND A NON-PROFIT TRUST REGISTERED WITH GOVT. OF WB U/S 60 AND RULE 69, REG. NO. 190307248]

Head Quarter: Module 132, SDF Building, Salt Lake, Block GP, Sector V, Kolkata - 700091

Admission Form: https://asd.org.in/application-form.php

INDUSTRIAL TRAINING / INTERNSHIPS

INDUSTRIAL TRAINING AND INTERNSHIPS

Develop SKILLS for the Industry

- Do you want to upgrade and upskill to the latest Industrial tools?
- Do you want your resume to look more attractive?
- Do you want to put an ASD-certified badge on your resume?
- Do you want to work on Industry projects?
- Do you want to be more employable?

ASD Internship is the platform to enhance your skills

Highlights of the Internships:

- LIVE PROJECTS
- AGILE APPROACH
- SUBJECT EXPERTS FROM THE INDUSTRY
- INTERACTION WITH PEOPLE FROM THE INDUSTRY
- ACCOMMODATIVE SCHEDULE
- LIVE ONLINE INTERNSHIP
- LIVE SESSIONS
- CLASS RECORDINGS SHARED AFTER EACH SESSION

Certification:

All **INTERNS** will earn **six certificates after completion. ASD certificates are accepted by all universities and companies:**

Internship Confirmation Letter

Internship Certificate

Industrial Training Certificate

Internship and Project Letter

Attendance Certificate

Completion Certificate

INDUSTRIAL TRAINING / INTERNSHIPS

OPEN FOR STUDENTS AND FACULTIES OF ALL DEPARTMENTS

(CSE, ECE, IT, ME, CE, EE, EEE, EIE, BT, AEIE, ChE, BME, BCA, MCA, MSc, BSc, Diploma, etc.)

Limited Seats – First Come First Serve

MODULES TO BOOST YOUR PROFILE

INTERNSHIP DOMAINS

(Click on the links below to view the contents)

1. MATLAB AND ITS APPLICATIONS (PROJECT-BASED)
2. AUTOCAD 2D AND 3D (PROJECT-BASED)
3. SOLIDWORKS (PROJECT-BASED)
4. ANSYS (PROJECT-BASED)
5. DATA SCIENCE, AI, MACHINE LEARNING USING Python (PROJECT-BASED)
6. FULL STACK DEVELOPMENT USING MEAN STACK (PROJECT-BASED)
7. FULL STACK DEVELOPMENT USING MERN STACK (PROJECT-BASED)
8. INTERNET OF THINGS (IOT) (PROJECT-BASED)
9. INDUSTRIAL AUTOMATION USING PLC AND SCADA (PROJECT-BASED)
10. DIGITAL MARKETING (PROJECT-BASED)
11. ADVANCED EXCEL(PROJECT-BASED)
12. STAAD.PRO (PROJECT-BASED)
13. CHEMCAD (PROJECT-BASED)
14. 3DS MAX (PROJECT-BASED)
15. ELECTRICAL SYSTEM DESIGN WITH CAD (2D AND 3D) (PROJECT-BASED)
16. PROFESSIONAL JAVA AND ITS APPLICATIONS (PROJECT-BASED)
17. PYTHON PROGRAMMING AND ITS APPLICATIONS (PROJECT-BASED)
18. PROFESSIONAL C++ (PROJECT-BASED)
19. PROFESSIONAL C (PROJECT-BASED)
20. CNC PROGRAMMING (PROJECT-BASED)
21. ADVANCED AUTOMOBILE APPLICATION IN COLLABORATION WITH AUTHORIZED TATA MOTORS WORKSHOP (PROJECT-BASED)
22. FULL STACK DEVELOPMENT WITH JAVA [SPRING BOOT] (PROJECT-BASED)
23. CLOUD COMPUTING WITH AMAZON WEB SERVICES (PROJECT-BASED)
24. REVIT (PROJECT-BASED)
25. CYBER SECURITY AND ETHICAL HACKING (PROJECT-BASED)
26. MOBILE APP DEVELOPMENT WITH FLUTTER (PROJECT-BASED)
27. FULL STACK DEVELOPMENT USING PYTHON AND DJANGO
28. FULL STACK DEVELOPMENT WITH PHP AND MYSQL (PROJECT-BASED)
29. GENERATIVE AI AND PROMPT ENGINEERING (PROJECT-BASED)
30. VLSI BASED IC DESIGN (PROJECT BASED)
31. WEB DESIGNING USING HTML 5, CSS3, JAVASCRIPT, BOOTSTRAP (PROJECT BASED)

INDUSTRIAL TRAINING / INTERNSHIPS

ACADEMY OF SKILL DEVELOPMENT

CERTIFICATION

All Interns will receive 6 certificates (Click on the links below to view the sample certificate):

1. **INTERNSHIP CONFIRMATION LETTER (Issued after enrolment in the INTERNSHIP)**
2. **INDUSTRIAL INTERNSHIP CERTIFICATE**
3. **INDUSTRIAL TRAINING CERTIFICATE**
4. **INTERNSHIP AND PROJECT LETTER**
5. **ATTENDANCE CERTIFICATE**
6. **COMPLETION CERTIFICATE**

IT - ITeS SSC

INDUSTRIAL TRAINING / INTERNSHIPS

MATLAB AND ITS APPLICATIONS (PROJECT BASED)		
No	**Topics**	**Description**
1	**Introduction to MATLAB**	• Overview of MATLAB Interface • MATLAB Environment (Command Window, Editor, Workspace, Path) • Basic Syntax and Commands • Variables and Data Types • Arrays and Matrices • File Operations (Saving, Loading, and Managing Scripts)
2	**Basic Programming Constructs**	• Scripts and Functions • Conditional Statements (if, switch-case) • Loops (for, while) • Input and Output Handling • Error Handling and Debugging

3	**Data Visualization**	• Plotting 2D Graphs
		  ○ Line, Bar, and Scatter Plots
		  ○ Subplots and Annotations
		• 3D Plotting
		  ○ Surface, Mesh, and Contour Plots
		• Customizing Plots (Labels, Titles, Legends, Grid)
		• Animation and Real-Time Plotting

4	**Mathematical Foundations**	• Linear Algebra Operations • Solving Equations (Linear, Nonlinear) • Calculus (Differentiation, Integration) • Numerical Methods (Root Finding, Interpolation, Curve Fitting) • Signal Processing Basics (Filtering, Fourier Transform)

5	**Domain-Specific Applications**	Electronics and Electrical Engineering
		• Signal Processing
		  ○ FFT, Filtering, Convolution
		  ○ Sampling and Reconstruction
		• Circuit Analysis
		  ○ Solving Linear Circuits
		  ○ Laplace Transform for Circuit Analysis
		• Power Systems
		  ○ Load Flow Analysis
		  ○ Harmonics Analysis
		• Control Systems
		  ○ Transfer Functions and State-Space Models
		  ○ Bode, Nyquist, and Root Locus Plots
		  ○ PID Controller Design
		Mechanical Engineering
		• Mechanics and Dynamics
		  ○ Rigid Body Simulation
		  ○ Vibration Analysis

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		• Finite Element Analysis (FEA)
		  ○ Basics of FEA Using MATLAB
		• Thermodynamics and Fluid Dynamics
		  ○ Heat Transfer Simulation
		  ○ Flow Analysis
		• Robotics and Mechatronics
		  ○ Kinematics and Dynamics of Robotic Arms
		  ○ Path Planning and Trajectory Generation
		• Control Systems for Mechanical Systems
		  ○ Feedback Control Design
		  ○ Model Predictive Control (MPC)

6	**Advanced Topics**	• Simulink Introduction
		  ○ Basics of Block Diagrams
		  ○ Electrical and Mechanical System Modeling
		  ○ Simscape for Multi-domain Systems
		• Optimization Techniques
		  ○ Linear and Nonlinear Optimization
		  ○ Genetic Algorithms and Other Heuristic Methods
		• Machine Learning with MATLAB
		  ○ Regression and Classification
		  ○ Neural Networks and Deep Learning Basics

7	**Real-World Applications**	• Case Studies in Electronics, Electrical, and Mechanical Engineering
		• Projects and Mini-Projects:
		  ○ MATLAB-Based System Design
		  ○ Real-Time Data Analysis
		  ○ Simulation and Modeling Challenges

13	**Project**	• Project work and report writing

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AUTOCAD 2D AND 3D (PROJECT BASED)	
No	**Topics**
1	**Introduction of AutoCAD** 1.1 Introduction, Advantage, and applications
2	**Coordinate system** 1.1 Types of Coordinate System 1.2 Use of the Mouse button
3	**Draw Instructions** 1.1 Line 1.2 Circle 1.3 Polygon 1.4 Arc 1.5 Ellipse 1.6 Polyline
4	**Modify** 1.1 Copy 1.2 Move 1.3 Mirror 1.4 Array 1.5 Offset 1.6 Trim 1.7 Chamfer 1.8 Fillet 1.9 Break 1.10 Rotate
5	**Introduction of 3D** 1.1 Introduction to 3D 1.2 Isometric View
6	**Surface drawing** 1.1 Edge Surface 1.2 Tab Surface 1.3 Rule Surface 1.4 Revolve Surface
7	**Solid drawing** 1.1 Extrude 1.3 Wedge 1.3 Cone 1.4 Pyramid 1.5 Torus 1.6 Cylinder 1.7 Press Pull
8	**Modify** 1.1 3D Mirror 1.2 3D Rotate 1.3 3D Move 1.4 3D Array
9	1.1 Render and light effect, Apply material color
10	Project work and documentation

INDUSTRIAL TRAINING / INTERNSHIPS

SOLIDWORKS (PROJECT BASED)	
No	**Topics**
1	INTRODUCTION INTRODUCTION OF SOLIDWORKS APPLICATION AND ADVANTAGE
2	PART DESIGN Concept of plane Convert entities LINE RECTANGLE CIRCLE SPLINE TRIM ARRAY MIRROR
3	SOLID DESIGN EXTRUDE (Assignments) REVOLVE (Assignments) EXTRUDE CUT (Assignments) REVOLVE CUT (Assignments) SWEEP (Assignments) SWEEP CUT (Assignments) SHELL (Assignments) DIFFERENT TYPES OF GEAR DESIGN SPARK GEAR (Assignments) BEVEL GEAR (Assignments)
4	ASSEMBLE DESIGN FUNCTION OF MATE MECHANICAL MATE SCREW (Assignments) GEAR (Assignments) EXPLODED VIEW ANY 3D OBJECT (Assignments)
5	DRAWING DRAFTING OF 3D DESIGN DRAFTING OF PAGE SETUP DIFFERENT TYPE OF VIEW
6	Project work and documentation

INDUSTRIAL TRAINING / INTERNSHIPS

ANSYS (PROJECT BASED)	
No	**Module**
1	Introduction for ANSYS Advantage of ANSYS Application of ANSYS
2	Static structural analysis and its applications Different types of Beam analysis Different types of spring (Helical and Leaf spring)
3	Steady-state thermal analysis and its applications Heat sink analysis Piston analysis
4	Explicit Dynamics analysis and its applications based on velocity Base on gravity
5	Fluid flow (CFX) and its applications Internal water flow analysis of a pipe External airflow analysis (cross-section area of an object) Heat transfer through a pipe
6	Fluid flow (fluent) and its applications Internal water flow analysis of a pipe (cross-section area) External water flow analysis of any object (cross-section area) External airflow analysis of a car body Airfoil analysis of cross section area of an object (cross-section area)
7	Project work and documentation

INDUSTRIAL TRAINING / INTERNSHIPS

DATA SCIENCE, AI, MACHINE LEARNING USING Python (PROJECT-BASED)	
Modules	**Topics**
Module 1	Introduction to Python & Data Science Python for Data Science Data Visualization in Python Data Analysis Using SQL (Optional) Data Analysis in Excel (Optional) Analytics Problem Solving (Optional) Math for Machine Learning
Module 2	NumPy Basics: Arrays and Multidimensional NumPy Attributes and Functions Creating Arrays from Existing Data Creating Array from Ranges Indexing and Slicing in NumPy Advanced Slicing in NumPy Nditer Function and Broadcasting Array Manipulation Functions NumPy Trigonometric Functions NumPy Arithmetic Functions NumPy Power and Reciprocal Functions NumPy Power and Mod Functions Numpy Multidimensional Matrix
Module 3	Getting Started with Pandas Getting Started with Pandas Dataset Description (Loan Prediction, Big Mart Sales) Read & Write Data using Pandas Reading Excel & CSV files Pandas Dataframes What are Pandas Dataframes & their operations? DataFrames and basic operations Data Exploration using Pandas Basic Descriptive Statistics using Pandas Data Manipulation using Pandas Handling Missing Values Aggregating data using Pandas
Module 4	Data Collection and Data Extraction Generate data frame from database Extract data from JSON Extract data from different formatted data and different formatted file Working with AWS cloud data Use of Data Lakes in AWS cloud
Module 5	Understanding Data Visualization Matplotlib library Bar Charts Line Charts Scatter Plots Exploring Two-dimensional data Exploring many dimensions Bubble charts representation Visualizing the content of a 2D array Adding a colormap legend to the figure Visualizing contour lines

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	Plotting log charts for research Generating a PNG picture Generating PDF documents
Module 6	Regression Scikit-Learn EDA Correlation Analysis and Feature Selection Linear Regression with Scikit-Learn Five Steps Machine Learning Process Robust Regression Evaluate Regression Model Performance Multiple Regression Regularized Regression Polynomial Regression Dealing with Non-linear Relationships Feature Importance Data Preprocessing Variance-Bias Tradeoff Learning Curve Cross Validation CV Illustration
Module 7	Classification Logistic Regression Introduction to Classification K-Nearest Neighbor Understanding MNIST SGD Performance Measure and Stratified k-Fold Confusion Matrix Precision, Recall F1 Precision-Recall Tradeoff Altering the Precision-Recall Tradeoff ROC
Module 8	Support Vector Machine (SVM) Concepts Linear SVM Classification Polynomial Kernel Radial Basis Function Support Vector Regression
Module 9	Tree Introduction to Decision Tree Training and Visualizing Visualizing Boundary Tree Regression, Regularization, and Overfitting Gini Impurity or Entropy?
Module 10	Ensemble Learning Methods Introduction Bagging

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	Random Forests and Extra-Trees AdaBoost Gradient Boosting Machine XGBoost Installation XGBoost
Module 11	Dimensionality Reduction Concept PCA Introduction Kernel PCA Kernel PCA Demo LDA vs PCA
Module 12	Unsupervised Learning Techniques Clustering K-Means Limits of K-Means Using Clustering for Image Segmentation Using Clustering for Preprocessing Using Clustering for Semi-Supervised Learning DBSCAN
Module 13	Natural Language Processing (NLP) Lexical Processing Syntactic Processing Syntactic Processing - Assignment Semantic Processing Case Study: Sentiment Analysis Market Basket Analysis
Module 14	Project work and documentation

INDUSTRIAL TRAINING / INTERNSHIPS

FULL STACK DEVELOPMENT USING MEAN STACK (PROJECT-BASED)	
Modules	**Topics**
1	Introduction to NODEJS Application Introduction to NODE.JS Asynchronous JavaScript Concept The importance of being asynchronous Introduction to Setting up a Node.js Environment Run your first NODE.JS Application The Node.js process Working in REPL Node JS Console
2	File System& File Streaming Working with a built-in module Concept of File System Module Reading Directories Reading Files Working with Streams Readable stream & Writable stream
3	Building servers Creating servers with HTTP Receiving data Handling GET, POST, PUT, and DELETE requests Sending requests
4	Introduction to ExpressJS Introduction to using the Express framework to set up a web server Routes, rendering, layouts, URL building, express servers Configuration Views Middlewares
5	Installation of Mongo Database Store data with Mongoose and MongoDB Mongo Db connection with ExpressJs framework Sample CRUD (Create, Read, Update, Delete) operation in express
6	Introduction to Angular Angular 8 v/s 7 v/s 6 v/s AngularJS Setup of NodeJS and Angular NodeJS Introduction (NPM) Angular CLI Difference between TypeScript and JavaScript How does Angular get started? First Angular App
7	Components Overview Introduction to Components Creating components Role of AppModule & Component Declaration Working with Component templates Working with Component Styles Understanding Component Selector
8	Data binding and Event Binding, Directives Introduction to Modules & Data Binding What is

INDUSTRIAL TRAINING / INTERNSHIPS

	Interpolation Property & Event binding
9	Attribute Binding Class Binding Style Binding Two-Way Data Binding Binding to Custom Properties Splitting Apps into Components Property & Event binding overview What is ngIf,ngFor,ngSwitch?
10	Services & Dependency Injection, Routing Concept Introduction to Dependency Injection Why do we need Services? What is Routing? Why do we need a Router? Setting up and Loading Routes Navigating with Router Links Understanding Navigation Paths Styling Active Router Links Passing Parameters to Routes Fetching Route Parameters
11	Transport Output using Pipes Introduction to Pipes Why are Pipes useful? Using Pipes Parameterized Pipes Chaining Multiple Pipes Creating a Custom Pipe Parameterizing a Custom Pipe
12	Making HTTP Requests, HTTP Client Introduction to HTTP Requests How HTTP Requests Work in SPAs Sending Requests Introduction to HttpClient Unlocking the HttpClient Request Configuration & Response Requesting Events
13	Forms and Validation Template Driven Forms Reactive Forms
14	Project Work and Documentation

INDUSTRIAL TRAINING / INTERNSHIPS

FULL STACK DEVELOPMENT USING MERN STACK (PROJECT-BASED)	
Modules	**Topics**
1	**Introduction to NODEJS Application** Introduction to NODE.JS Asynchronous JavaScript Concept The importance of being asynchronous Introduction to setting up a Node.js Environment Run your first NODE.JS Application The Node.js process Working in REPL Node JS Console
2	File System& File Streaming Working with built-in module Concept of File System Module Reading Directories Reading Files Working with Streams Readable stream & Writable stream
3	**Building servers** Creating servers with HTTP Receiving data Handling GET, POST, PUT, and DELETE requests Sending requests HTTP streaming Working with TCP Working with Pipes Deals with JSON Data.
4	**Building APIs using modules, events, and packages** What is NPM Installing Packages Locally Adding dependency in package.json Installing packages globally Updating packages The EventEmitter API CommonJS Modules npm Packages (nodemon command,npm install command etc)
5	**Introduction to ExpressJS** Introduction to using the Express framework to set up a web server Routes, rendering, layouts, URL building, express servers Configuration Views Middlewares
6	**Installation of Mongo Database**
7	Store data with Mongoose and MongoDB. Mongo DB connection with ExpressJs framework.
8	**Mongo DB** Querying with Mongoose
9	**MongoDB CRUD operation using Express** Introduction to setting up a MongoDB database and connecting it to a Node.js server Sample CRUD(Create,Read,Update,Delete) operation in NODE.JS
10	**Authentication With Passport and JWT** Stateful vs. Stateless Authentication OAuth2 Passport JWT – JSON Web Tokens
11	**Advanced Topics** Node.js API design Error Handling Debugging Testing
12	**Introduction to ReactJS** Introduction Downloading and Installing ReactJS Understanding Virtual DOM
13	**Components in ReactJS**

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	Rendering data in ReactJS Applying CSS class and HTML content in the ReactJS Component lifecycle and state Understanding the state of React Creating multiple components in ReactJs Creating reusable components.
14	**Properties and Events** Working with properties Accessing Child properties Understanding events in ReactJS Exploring static methods
15	**Forms Components** Working with Forms in ReactJS
16	**Accessing DOM** Referring DOM nodes
17	Tooling Support Converting JSX to JS Using Gulp To compile and concatenate JSX files - I Using Gulp To compile and concatenate JSX files (Using Browserify) – II Component Communication Working with jQuery – Ajax DOM Event Listeners Inline Styles in ReactJS Using dangerously SetInnerHTML Major AddOns in React Two-Way Data Binding Clone Elements - [cloneWithProps Deprecated - Use React.cloneElement instead Using React.cloneElement Making use of classSet to apply Conditional Styles Making use of class names to apply conditional styling Animation using CSS Transition
18	Introduction to React Router Working with React Router Working with Links & Creating Nested Routes Refactoring Routes and Components
19	React and Remote Data Introducing Fetch Rendering Remote Data in Components
20	Project work and documentation

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INTERNET OF THINGS (IOT) (PROJECT-BASED)	
No	**Topics**
1	Introduction to IOT Scope, opportunity, application IOT PROTOCOL IoT Architecture Different IOT Devices Networking concept Introduction to Arduino Programming Introduction to Python programming
2	WiFi devices WiFi connection AT Command for WiFi access WiFi board setup (processor and controller) Programming with I/o ports Analog sensor interfacing Digital sensor interfacing LED and motor interfacing concept Load control using WiFi-based system
3	Introduction to cloud computing Working with different cloud services Local IOT Global IOT Introduction to HTML Basic HTML code for web design Data upload into the cloud WiFi-based device control
4	Introduction to MIT App Inventor App design using MIT app inventor
5	Project work and documentation

SL. No.	Topics
Module-1	IoT Basics, Protocols, Components
Module-2	Arduino basic programming/Python programming
Module-3	Different sensors and electronic components
Module-4	Thingspeak cloud services
Module-5	IoT cloud local and global cloud
Module-6	Analog, PWM, Digital pin coding
Module-7	Circuit Python vs Micro Python vs Arduino
Module-8	MIT App Inventor basics and App development
Module-9	Project
Module-10	Project
Module-11	Project
Module-12	Presentation

INDUSTRIAL TRAINING / INTERNSHIPS

INDUSTRIAL AUTOMATION USING PLC AND SCADA (PROJECT-BASED)	
Modules	**Topics**
1	Introduction Industrial Automation A. What is PLC? B. Brief History Of PLC
2	Actuation A. Manual B. Electrical C. Mechanical
3	Hardware with Assignment A. Toggle Switch B. Push Button C. Relay D. Contactor E. Sensor F. Timer
4	PLC In Details A. Siemens PLC B. PLC Modules C. PLC Software D. Creating Project
5	Programming logic (solving problems with Assignments) A. NO/NC B. SPDT, LATCHING C. MEMORYBIT D. COUNTER E. COMPARATOR F. TIMER G. Operation control of analog system
7	Familiar with Honeywell PLC A. Soft-master and how it works B. Pc to PLC Communication C. Master Logic PLC D. Applications
8	Introduction to SCADA A. Different SCADA Software and its application B. How it works in the automation industry C. Application through creating User project D. Communication and interfacing between PLC to PC system E. (SCADA Screen)
9	Creating Any Electrical Process Through Tag Management A. Direct Tagging B. C-Action SCADA Operation C. Object Hiding D. Flashing E. Digital Display SCADA Analog operation i. Analog operation, Creating a project window of analog signal, Data show analog ii. Assignment Based on an analog system, Valve Control System, Monitoring Process
10	Project work and documentation

INDUSTRIAL TRAINING / INTERNSHIPS

DIGITAL MARKETING (PROJECT-BASED)

Search Engine Marketing

- Understand & Create Customer Journey Keyword Research & Planning
- Search & Smart Display Campaigns

Social Media Marketing

- Facebook Marketing
- Instagram Marketing
- Twitter Marketing
- LinkedIn Marketing

Email Marketing

- How to write effective content
- How to increase leads through nurturing
- Email Marketing Strategies for B2B & B2C Businesses Drip Email Campaigns
- Best Email Templates for Communication

Web Analytics

- Understanding Google Analytics (Top Rated tool in the Industry)
- Website tracking through Google Tag Manager

Facebook & Instagram Marketing

- Facebook Pages and Post Best Practices Facebook Ads - Optimization and Reporting Face- book Messenger, Shop, Pixel
- Building Brand Awareness
- Driving Online Sales/Lead
- Project work and documentation

INDUSTRIAL TRAINING / INTERNSHIPS

ADVANCED EXCEL (PROJECT-BASED)

- Data filters: AutoFilter and advanced filters
- Sorting, Customize sorting
- Subtotals
- Cell level validations
- Specifying a valid range of values for a cell
- Specifying a list of valid values for a cell
- Specifying custom validations based on the formula for a cell
- Using data tables for data analysis
- Mastering PivotTables
- Using external data sources
- Multiple consolidation ranges
- Customizing PivotTable layout
- PivotTable advanced options
- Pivot Charts
- Workbook sharing, Tracking changes
- Merging workbooks
- Workbook and sheet protection
- Online collaboration (requires Microsoft NetMeeting and Microsoft Outlook)
- Scheduling meetings and web discussions
- Goal Seek
- Scenario Manager
- Creating and editing scenarios
- Merging scenarios
- Auditing
- Tracing precedents and dependents
- Tracing errors
- Managing add-ins
- Customizing toolbars and menus
- Customizing views
- Customizing calculations and iterations
- Settings, Creating custom lists
- Conditional formatting of cells
- Creating, managing, and merging styles for cell formatting
- Working with functions (based on your requirements)
- Financial functions, Date and time functions, Statistical functions, Lookup, and reference functions
- Database functions, Text manipulation functions, Logical functions
- Worksheet and cell information functions
- Project work and documentation

INDUSTRIAL TRAINING / INTERNSHIPS

STAAD.PRO (PROJECT-BASED)

Description

Our STAAD.PRO training course will give you all the knowledge needed to work on the STAAD.PRO software. This course will enable you to design any type of structure and share your synchronized model data with confidence among your entire design team, using STAAD.PRO. Ensure on-time and on-budget completion of your steel, concrete, timber, aluminum, and cold-formed steel projects, regardless of complexity. You can confidently design structures anywhere in the world using over 80 international codes, reducing your team's need to learn multiple software applications.

Expectations and Goals

- METHODS OF CREATING BEAM MODEL
- SPECIFYING MEMBER PROPERTIES
- SPECIFYING SUPPORTS
- SPECIFYING LOADS
- LOAD CASE TO BE USED IN DESIGN SPECIFYING
- DESIGN PARAMETERS SPECIFYING THE CODE
- VIEWING INPUT COMMAND FILE
- METHODS OF CREATING TRUSS MODEL
- METHODS OF CREATING RCC FRAME MODEL
- USING STRUCTURAL WIZARD SPECIFYING MEMBER
- PERFORMING ANALYSIS / DESIGN
- VIEWING OUTPUT FILES
- POST-PROCESSING TUTORIAL PROBLEMS
- PROJECT WORK

Prerequisites

- Anybody interested in STAAD.PRO can take this training. Knowledge of engineering drawing is needed.

Course Schedule

No	Topic
1	Introduction to Staad pro Why we learn staad pro Briefly about STAAD.PRO
2	Design Add space Add beam Add plate Creating model Applying many types of support Use rotation Use of pan
3	Material use Use of concrete in design Use of steel in design Calculation of thickness in design
4	Load Assigning the dead load Assigning the live load Assigning the load combinations Use of nodal load Use of member load Use of floor load Use of temperature Use of plate load
5	Design analysis Analysis the design Resolve any error in the design
6	Use codes Uses of Indian codes Use of bridge codes
7	Concrete design Parameters selection Using various types of commands
8	Structural wizard

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	Generate model Use rotation Use spin
9	Reports Generate the report of the full design
10	STAAD.PRO editor To change the load value & load direction
11	Project selection Project selection by individual or group
12	Project work and documentation

INDUSTRIAL TRAINING / INTERNSHIPS

CHEMCAD (PROJECT-BASED)

Description

CHEMCAD is a software suite for process simulation that broadens an engineer's capabilities and increases productivity. CHEMCAD helps engineers when facing the toughest chemical process models or addressing day-to-day challenges. This chemical process simulation software fits into the chemical engineering workflow and supercharges an engineer's efficiency and most sufficiently. It continues to evolve to meet the ever-expanding need of chemical engineers. CHEMCAD is designed to help you drive productivity and tackle the toughest chemical models

Expectations and Goals

- Process development.
- Equipment design.
- Equipment sizing.
- Thermophysical property calculations.
- Dynamic simulations.
- Process intensification studies.
- Energy efficiency/optimization.
- Data reconciliation.
- Process economics.
- Troubleshooting/process improvement.
- Microsoft Visual Basic.
- Operator training systems.
- Integrated solution generation.

Benefits

- All modules work within a single graphical user interface for seamless interaction
- Easily integrates into chemical engineering computing environment
- Highly customizable, flexible,, and affordable

Course Overview

- Overview of CHEMCAD functions
- Overview and navigation of the physical property database
- Adding a new component to the database
- Overview of thermodynamic options
- Building a flowsheet for design purposes
- Modeling an existing process
- Quantitative and qualitative use of simulation
- Using simulation for day-to-day tasks
- Using plant data in process flowsheets
- CHEMCAD for transient and static problems
- Simulation as an extension of your engineering thought process
- Modeling plant utilities (steam, process water, etc.)
- Course covers:
- Recycle loops
- Distillation
- Reactors
- Heat exchangers
- CHEMCAD controllers, CHEMCAD plots and reports
- Solid components
- Electrolytes
- Component binary interaction parameters (BIPs)

INDUSTRIAL TRAINING / INTERNSHIPS

3DS MAX (PROJECT-BASED)

Objectives of Our 3DS Max Design Courses

- Autodesk 3ds Max Interface and Workflow
- Assembling Files by importing, linking, or merging
- 3D Modeling with Primitives and 2D objects
- Using Modifiers to create and modify 3D objects
- Materials and Maps
- Autodesk 3ds Max Lighting
- Working with Cameras and Exposure Control
- Rendering using various renderers such as Scanline, ART, and Arnold
- Animation for Visualization

DETAILS OF SYLLABUS

Introduction to Autodesk 3ds Max:

- Overview
- Visualization Workflow
- The Autodesk 3ds Max Interface
- File Commands
- Viewport Display and Labels

Autodesk 3ds Max Configuration:

- Viewport Navigation
- Viewport Configuration and Settings
- Viewport Configuration and Navigation
- Object Selection Methods
- Units Setup
- Object Properties
- Copy, rotate, scale, move, etc.

Modeling From 2D objects:

- 3D Modeling from 2D Objects
- The Lathe, lattice Modifier
- 2D Booleans
- The Extrude Modifier
- 3D Boolean Operations
- Using Snaps for Precision
- The Sweep Modifier

2D shape & 2D shape modifier:

- Trim and extend
- Chamfer & fillet
- Outline, refine, insert
- Attach, weld, break, fuse
- Line, rectangle, circle, star, Arc, Text, etc.

3D modifier:

- Bend, Tapper, Twist, Wave, Squeeze, Skew, Noise etc.

Standard Primitives:

- Box, sphere, cylinder, plane, cone, etc.

Extended Primitives:

- Hedra, chamfer box, ring wave hose, etc.

Compound objects:

- Morph, scatter, blob mesh, shape merge, connect, pro cutter

Edit poly:

- BEVEL
- EDIT vertices, chamfer edge, connect edge, bridge, edit border, extrude edge, outline, flip
- Soft selection, create shape from selection, hinge from edge

Materials:

INDUSTRIAL TRAINING / INTERNSHIPS

- Understanding Materials and Maps
- Material Shaders
- Managing Materials
- General Materials
- Assigning Maps to Materials
- Opacity, Bump, and Reflection Mapping

Lighting and Cameras:

- Photometric Light Objects
- Arnold Lights
- Cameras
- Background Images

Exposure Control, Daylight, and Rendering:

- Daytime Lighting
- Rendering Options

Different types of 3D modeling

Project work and documentation

INDUSTRIAL TRAINING / INTERNSHIPS

ELECTRICAL SYSTEM DESIGN WITH CAD (2D AND 3D) (PROJECT-BASED)

No	Topics
1	**The basic concept of AutoCAD** Cartesian Co-Ordinate System 1.1 Absolute Co-Ordinate System 1.2 Relative Co-Ordinate System 1.3 Polar Co-Ordinate System
2	**Auto-cad 2d** 1.1 line 1.2 Circle 1.3 Polygon 1.4 Ellipse 1.5 Text 1.6 Point
3	**Using modify command** 1.1 Copy 1.2 Move 1.3 Mirror 1.4 Array 1.5 Offset
4	**Introduction of electrical circuit** 1.1 Introduction to project manager 1.2 Working with projects 1.3 Adding a drawing
5	**Inserting the various Electrical Equipment in OLD/SLD** 1.1 Designing of single-phase 1.2 3-phase diagram with control & power circuit 1.3 Inserting components 1.4 Inserting wires
6	**PLC modules** 1.1 Inserting PLC modules 1.2 Designing ladder logic using cad 1.3 Component tagging
7	**Schematic report** 1.1Generate a schematic report 1.2Generate a panel report
8	Project work and documentation

INDUSTRIAL TRAINING / INTERNSHIPS

JAVA AND ITS APPLICATIONS (PROJECT-BASED)

Description

This course on Java aims to provide learners with both classical and modern features of the language of Java and their practical use.

Expectations and Goals

Learning programming and core Java concepts Introduction to Inheritance, Threads, and Collections Deploy JDBC for connecting various applications Understand Method Overriding and Overloading Use Array and Hash Map for storing dynamic data Create Threads in Java by Implementing Runnable Interface. Work on live projects for hands-on experience.

Prerequisites
Anybody can take this Training Course to be a Java Developer.

Course Schedule

No	Topics
1	Object-Oriented Programming – Core Concepts
2	**Introduction to java** Primary components of a Java program: Class, Interface, Enum, and Annotation Writing, compiling, and running a Java program from the command line What is Java byte code? JVM and JRE Java bytecode interpreter and JIT compiler How to work with Eclipse, Netbeans, and IntelliJ IDE
3	**Class and Object** What is an object: object properties and operations What is a class How does a class describe properties of objects: private fields, accessor, and mutator methods How does a class describe operations using methods Method overloading The 'this' keyword
4	**Constructors** What is a constructor Default constructor Constructor overloading Constructor chaining
5	**Static or class variables and methods** Static variable Static method
6	**Some advanced class concepts** Static and non-static field initializers Static and non-static initialization blocks Order of initializations Private constructors and singleton class**
7	**Nested classes**** Static member nested classes Member inner classes Local inner classes Anonymous inner classes
8	**Packages in Java** Package concept and its advantages How to place a class inside a package How to import a class The default access modifiers Compiling and running java classes in packages: concept of java classpath Creating jar packed libraries in java** Java extension mechanism** Creating executable jar files**

INDUSTRIAL TRAINING / INTERNSHIPS

9	**Inheritance** What is inheritance: java inheritance mechanism Inheriting fields and methods from superclass Adding fields and methods in subclass Upcasting, downcasting, and instanceof operator Method overriding, dynamic binding, and runtime polymorphism Use of the 'super' keyword Constructor chaining using the 'super' keyword Inheritance and access modifiers Final classes Concept of single-rooted class hierarchy in Java: the 'Object' class
10	**Abstract classes and interfaces** Abstract method Abstract class Abstract class and inheritance Interfaces and its implementation Interfaces and multiple inheritance Interfaces and loose coupling Field declarations within an interface Marker interfaces Default implementation of methods within interface** Functional interfaces and lambda expressions**
11	**Exception handling** Why do we need exception handling in Java Exception handling mechanism in Java using try, catch, and finally Stack unwinding Difference between Exceptions and Errors 'Throwable' class Checked and unchecked exceptions Exception chaining Custom exceptions Catching multiple exceptions in Java ** Try with resources** Suppressed exceptions***
12	**Multithreading** Concept of processes and threads Multithreading by extending Thread class Multithreading by implementing Runnable interface The life cycle of a thread Thread synchronization: the concept of monitor, synchronized blocks, and synchronized methods Interthread communication by guarded blocks: wait, notify, and notifyAll Deadlock, starvation, and livelock** Lock objects** Executors**
13	**Generics** Why use Generics? Generic Types Raw Types Generic Methods Bounded Type parameters Generics, Inheritance, and Subtypes Type inference Wildcards Type Erasure Restrictions on generics
14	**Java collection framework** Introduction to Java collection framework Core collection interfaces and their implementations: Collection, Set, List, Queue, Deque, Map, SortedSet and Sorted-Map Aggregate operations: Reduction and Parallelism** Algorithms: Sorting, Shuffling, Routine data manipulation, Searching, Composition and finding extreme value
15	**Basic I/O** Concept of Input and Output in Java Byte Streams and Character Streams Buffered Streams Scanning and Formatting Command Line I/O Data and Object Streams File I/O: Nio.2**
16	**Annotations** Annotation Basics

INDUSTRIAL TRAINING / INTERNSHIPS

	Declaring an Annotation Type Predefined Annotation Types Type Annotations and Pluggable Type Systems** Repeating Annotations**
17	**Sub Language Commands** Data Definition Language (DDL) Data Retrieval Language (DRL) Data Manipulation Language (DML) Transaction Control Language (TCL) Database Security and Privileges (DCL) Oracle Pre-Defined Datatypes DDL Commands Create, Alter (add, modify, rename, drop)Columns, Rename, truncate, drop DML-Insert, update, delete DQL-SELECT Statements using WHEREclause Comparison and Conditional Operators Arithmetic and Logical Operators Set Operators (UNION, UNION ALL, INTERSECT, MINUS) Special Operators – IN (NOT IN), BETWEEN (NOT BETWEEN), LIKE (NOT LIKE), IS NULL (IS NOT NULL) Working with DML, DRL Commands
18	**JDBC** Introduction to JDBC JDBC architecture java.sql Package Connection, Statement, ResultSet Prepared Statement Callable Statement Scrollable and Updatable ResultSet Batch Updates ResultSetMetaData Simple Transaction Management Four Levels of JDBC drivers, their pros & cons Features of JDBC 3.0
19	**Java Swing Desktop application Java applets, Java Swing Swing control, Design GUI**
20	Project work and documentation

INDUSTRIAL TRAINING / INTERNSHIPS

Python AND ITS APPLICATIONS (PROJECT-BASED)	
No	**Topics**
1	**Introduction to Python** ● History of Python ● Using Python Interpreter ● The Interpreter and its Environment ● Using Python as a Calculator ● First Step towards Programming
2	**String Handling** ● Assigning Values to Variables ● Multiple Assignment ● Standard Data Types ● Python Strings ● Data Type Conversion
3	**Control Flow Tools** ● If/else ● Elif ● Iterative statement
4	**Function** ● Defining a Function ● Calling a Function ● Default Attribute Function
5	**Python Data Structures** ● Introduction to List ● Work on Tuples ● Sets ● Dictionary
6	**Module and Packages** ● Locating Modules ● Creating Modules ● Creating Packages ● Using Packages
7	**List, Set, Dictionary Comprehension** ● List Comprehension ● Set Comprehension ● Dictionary Comprehension
8	**Files I/O** ● Printing to the Screen ● Reading Keyboard Input ● The input Function ● Opening and Closing Files ● The open Function ● The file Object Attributes ● The close() Method ● Reading and Writing Files ● The write() Method ● The read() Method
9	**Introduction to OOP** ● Introduction to OOP ● Class and Objects ● Class Diagram ● Constructor

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10	**Encapsulation** ● Need for Encapsulation ● Private Attributes ● Getting Setter Methods
11	**Using Objects** ● Reference Variable ● Pass by Reference ● Self ● Need for Static ● Static Attributes ● Static Methods
12	**Inheritance** ● Need for Inheritance ● Overriding ● Super and Types
13	**Abstract Class** ● Need for Abstract ● Abstract Methods
14	**Exception Handling** ● Introduction ● Raise ● Custom Exception
15	**NumPy & Data Science** ● Arrays ● Array indexing ● Datatypes ● Array math ● Slicing and numeric functions ● Feature of NumPy in Data Science
16	**Pandas** ● How To Create a Pandas DataFrame ● How To Select an Index or Column From a DataFrame ● How To Add an Index, Row, or Column to a DataFrame ● How To Delete Indices, Rows, or Columns From a DataFrame ● How To Rename the Columns or Indices of a DataFrame ● Data Processing Using Pandas for Data Science
17	**Data Visualisation** ● Principles of Information Visualisation ● Basic Charting (line chart, Bar chart, Pie chart, etc.) using Matplotlib ● Graph customization, Annotation, and formatting ● Using Plotly & seaborn to generate images ● Image processing
18	**Project work and documentation**

INDUSTRIAL TRAINING / INTERNSHIPS

PROFESSIONAL C++ (PROJECT-BASED)	
No	**Topics**
1	Introduction Introduction to C++. Procedural vs. Object-Oriented Programming(OOP) Benefits of OOPs Different OOPs Features Basic Components of ++ Compiling and Executing C++ program
2	Fundamental of C++ Tokens, Keywords, Identifiers, and Constants Data Types, Type Compatibility, and Variables Operators in C++ Operator precedence Control Statement. Iteration and Loops
3	**Function in C++** Type of Function, Function Prototyping Call by Reference and Call by value Scope and Visibility of Variables in Functions Inline Function, Friend Function
4	**Variadic Function in C++** What is Variadic Function Use of Variadic Function Types of Variadic Function A C++ Program to implement a variadic function
5	**Basic Concept in OOPs** Objects and Classes Encapsulation Abstraction This pointer Polymorphism Inheritance Dynamic Binding Message Passing
6	**Object and Classes** Access Specifier Specifying a Class and Creating an Object-Defining Member Function A C++ program with Class
7	**Constructors and Destructors** Default Constructor, Parameterized Constructor, Copy Constructor, Dynamic Constructor Constructor Overloading How to define a Destructor
8	**Inheritance** Introductions and Benefits Access Specifiers Base and Derived Class Types of Inheritance Function Overriding
9	**Polymorphism** What is Polymorphism Run-time and Compile-time Polymorphism Function Overloading Operator Overloading Virtual Function
10	**Files and Exception Handling** Classes for File Stream Operations Opening and Closing a File File Modes, File Pointers Input-Output Operations Updating a File Types of Error and Exceptions Try-Catch-Throw mechanism
11	**Templates** Template Class Template Function Implementation of Templates using C++
12	**Standard Template Library (STL)**
13	Project work and documentation

INDUSTRIAL TRAINING / INTERNSHIPS

PROFESSIONAL C (PROJECT-BASED)	
No	**Topic**
1	**Programming Logic and Technique** Introduction to Programming language What is Procedural Programming Language Algorithm and Flow Chart Some examples using Flow Chart Deals with Expression Introduction to C What is Compiler and Interpreter
2	**C Language preliminaries** Data types (Primary, Secondary, User Defined) What is variable and constant Identifiers and Keyword Declarations and expressions Different C compilers(gcc/tcc)
3	**Input Output and Pre-Processor Statement** Pre-processor Directives getchar, putchar, scanf, printf gets, puts Header File and #include Different types preprocessor directives A small C program example
4	**Storage classes in C** What is storage class? Different types of storage Classes (Auto, static, register, extern) Different features of a variable(memory, default initial value, scope, lifetime)
5	**Operators and Control Statements** Different types of operators (arithmetic, logical, relational, etc.) If, else, else – if with some examples Conditional operator (? :) Switch case with example Use of Break, Continue
6	**Loop** What is iterations Different types of loops For, while, do-while with some examples Nesting of loops Pattern printing using nested for loop
7	**Array, String** What is array Different types of array (both 1D and 2D) Examples of 1D array, and 2D array (matrix addition) Introduction to character array and string
8	**Function** What is a function? Declarations, definitions, and calling of a function Arguments and parameters Recursive function Passing array to a function String library function
9	**Pointers** Definitions of pointer Declaring and accessing a pointer Passing pointer to a function Operations on a pointer, pointer arithmetic Pointer, and array
10	**Structures** What is a structure? Processing and accessing structure variable Array of structure Union, typedef Pointer to structure
11	**File** File handling in C Text file, binary file File creation, opening Reading and writing to a file File copy
12	**C99, C11, C17 specification additions**
13	Project Work and Documentation

INDUSTRIAL TRAINING / INTERNSHIPS

CNC PROGRAMMING (PROJECT-BASED)	
No	**Topics**
1	Overview of NC &CNC Machining System Fundamental Aspect of CNC Machine Control Major Units & Components of CNC Lathe and its function Major Units & Components of CNC Milling and its Function Demonstration of CNC Lathe & Milling Machine and its function
2	Feedback system used in CNC Lathe and CNC Milling Machine Axis Identification in CNC Machine Dimensioning System Types of Interpolation
3	Tools and Equipment used in CNC Lathe Tool and Equipment used in CNC Milling Fundamentals of Part Programming
4	Specification of CNC Lathe Reference points to be considered for programming & different operations Different codes used for Programming in CNC Lathe Tool Offset Different cycles used for programming in CNC Lathe Programming practice for CNC Lathe Practical training on CNC Lathe
5	Specification of CNC Milling Machine Reference points to be considered for programming & different operations Different codes used for Programming in CNC Milling Tool Offset Different cycles used for programming in CNC Milling Programming Practice for CNC Milling Practical Training on CNC Milling
6	Project work and documentation

INDUSTRIAL TRAINING / INTERNSHIPS

CLOUD COMPUTING WITH AMAZON WEB SERVICES (PROJECT-BASED)

Description

AWS Certification Training from us is designed to provide in-depth knowledge about AWS architectural principles and its services. Cloud computing jobs are hot commodities in IT, as more companies adopt the cloud. From managing big data to cracking down on security, a cloud career can head in several different directions.

Expectations and Goals

- Students can understand AWS Architecture and different models of Cloud Computing
- Compute Services: AWS EC2, Auto Scaling and Load Balancing, AWS Lambda, RDS, Cloudwatch
- Students can host a cloud-based static website

Prerequisites

Anybody interested in Cloud Computing can take this Training but one international credit/debit card mandatory to register with AWS Cloud.

Course Schedule

No	Topic
1	Introduction to Cloud Computing Different cloud service providers Cloud computing application and future scope Working with different instances(windows, Linux) Putty configuration EC2 volume, image Snapshot
2	Introduction to S3 S3 version Security AWS Cloud Watch Alarm SNS SMS Billing alert Corn expression, arn
3	IAM User, Role, Policy, group, MFA Cognito, CloudFront Route53 VPC Lambda
4	ELB Auto Scaling RDS Dynamo DB AWS IOT Machine Learning tool
5	Project work and documentation

INDUSTRIAL TRAINING / INTERNSHIPS

FULL STACK DEVELOPMENT WITH JAVA [SPRING BOOT] (PROJECT-BASED)

Description

This course offers hands-on experience with the major features of Spring and Spring Boot, which includes configuration, data access, REST, AOP, auto-configuration, actuator, security, and Spring testing framework to build enterprise and microservices applications. On completion, participants will have a foundation for creating enterprise and cloud-ready applications.

Expectations and Goals

By the end of the course, you should be able to meet the following objectives:

- Spring configuration using Java Configuration and Annotations
- Aspect-oriented programming with Spring
- Testing Spring applications using JUnit 5
- Spring Data Access - JDBC, JPA, and Spring Data
- Spring Transaction Management
- Simplifying application development with Spring Boot
- Spring Boot auto-configuration, starters and properties
- Build a simple REST application using Spring Boot, embedded Web Server and fat JARs or classic WARs
- Implementing REST client applications using RestTemplate
- Utilize Spring Boot enhancements to testing
- Spring Security
- Enable and extend metrics and monitoring capabilities using Spring Boot actuator

Prerequisites

Java Programming: The most basic building block of Android development is the programming language Java. To be a successful Android developer, you'll need to be comfortable with Java concepts like loops, lists, variables, and control structures.

Course Schedule

Module	Topic
Module 1	Spring Overview ● What is the Spring Framework? ● The DI Container ● The Spring Framework History and EcoSystem
Module 2	Java Configuration ● Java configuration and the Spring application context ● @Configuration and @Bean annotations ● @Import: working with multiple configuration files ● Defining bean scopes ● Launching a Spring Application and obtaining Beans
Module 3	More Java Configuration ● External properties & Property sources ● Environment abstraction ● Using bean profiles ● Spring Expression Language (SpEL)
Module 4	Annotation and Component Scanning ● Component scanning ● Autowiring using @Autowired ● Java configuration versus annotations, mixing. ● Lifecycle annotations: @PostConstruct and @PreDestroy ● Stereotypes and meta-annotations
Module 5	Inside the Spring Container ● The Spring Bean Lifecycle ● The BeanFactoryPostProcessor interception point ● The BeanPostProcessor interception point

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	• Spring Bean Proxies • @Bean method return types
Module 6	Introducing Aspect-oriented programming • What problems does AOP solve? • Defining pointcut expressions • Implementing various types of advice
Module 7	Testing a Spring-based Application • Spring and Test-Driven Development • Spring 5 integration testing with JUnit 5 • Application context caching and the @DirtiesContext annotation • Profile selection with @ActiveProfiles • Easy test data setup with @Sql
Module 8	JDBC Simplification with JdbcTemplate • How Spring integrates with existing data access technologies • Spring's JdbcTemplate • DataAccessException hierarchy
Module 9	Transaction Management with Spring • Transaction overview • Transaction management with Spring • Transaction propagation and rollback rules • Transactions and integration testing
Module 10	Spring Boot Feature Introduction • Introduction to Spring Boot Features • Value Proposition of Spring Boot • Creating a simple Boot application using Spring Initializer website
Module 11	Spring Boot – A closer look • Dependency management using Spring Boot starters • How auto-configuration works • Configuration properties • Overriding auto-configuration • Using CommandLineRunner
Module 12	Spring Boot – Spring Data JPA • Quick introduction to ORM with JPA • Benefits of using Spring with JPA • JPA configuration in Spring • Configuring Spring JPA using Spring Boot • Spring Data JPA dynamic repositories
Module 13	Web Applications with Spring Boot • Introduction to Spring MVC and request processing • Controller method signatures • Using @Controller, @RestController and @GetMapping annotations • Configuring Spring MVC with Spring Boot • Spring Boot packaging options, JAR or WAR
Module 14	RESTful Application with Spring Boot • An introduction to the REST architectural style • Controlling HTTP response codes with @ResponseStatus • Implementing REST with Spring MVC, @RequestMapping, @RequestBody and @ResponseBody • Spring MVC's HttpMessageConverters and automatic content negotiation
Module 15	Spring Boot Testing • Spring Boot testing overview • Integration testing using @SpringBootTest • Web slice testing with MockMvc framework • Slices to test different layers of the application

INDUSTRIAL TRAINING / INTERNSHIPS

Module 16	Securing REST Application with Spring Security ● What problems does Spring Security solve? ● Configuring authentication ● Implementing authorization by intercepting URLs ● Authorization at the Java method level ● Understanding the Spring Security filter chain ● Spring security testing
Module 17	Actuators, Metrics, and Health Indicators ● Exposing Spring Boot Actuator endpoints ● Custom Metrics ● Health Indicators ● Creating custom Health Indicators ● External monitoring systems
Module 18	Project work and documentation

INDUSTRIAL TRAINING / INTERNSHIPS

ADVANCED AUTOMOBILE APPLICATION IN COLLABORATION WITH AUTHORIZED TATA MOTORS WORKSHOP (PROJECT-BASED)

No	Topics
1	● Workshop technology and soft skill
2	● Basic Course on industry safety
3	● Automobile aggregates & pre-delivery inspection(PDI)
4	● Basic in IC engine & hands-on job on various heavy and small CL engines
5	● Advanced course on EDC electronic diesel control system & onboard diagnostic system
6	● Advanced course on CRDI system
7	● Tipping system
8	● Ac system
9	● Advanced course on various clutch system-hydraulic clutch, Mechanical clutch
10	● Advanced course on various transmission systems and hands-on job on heavy and medium transmission systems
11	● Advanced course on fully floating and semi-floating axles
12	● Hands-on job on different systems (Banjo and Salisbury)type inter-axle and wheel lock system
13	● Advanced course on air and vacuum-assisted hydraulic brake systems with ABS
14	● Hands-on job on mechanical and power steering system
15	● Advanced course on auto electrical, Body Electrical system, Starting system charming system
16	Project work and documentation

INDUSTRIAL TRAINING / INTERNSHIPS

REVIT (PROJECT-BASED)

Description

The course 'Autodesk Revit Bim training' is based on my personal experience as an Autodesk Authorized Instructor, it starts with a preliminary tutorial so that you can become familiar with the graphic interface of the program Autodesk Revit Architecture, and then we will learn how to set up a project from scratch, establish structural grid lines and reference lines and start setting up structural columns.

The next step will be installing walls, controlling their wall assembly, and learning how to customize elements, you will learn how to use the curtain wall tool and create slabs and stairs.

A tutorial focuses on roofs, building them, and giving the proper slope. Later you will learn how to use the area command, which will allow you to quickly and effectively calculate the area for your project and how to generate schedules and area takeoffs.

Expectations and Goals

If you are interested in automated drawing, design, or architecture, this is the right course for you! Drawing time will be radically reduced and more realistic.

Course Schedule

Module	Topic
Module 1	**Introduction** Introduction to Autodesk Revit Architecture, user Interface. BIM and Autodesk Revit Overview of the Interface Starting Projects Viewing Commands
Module 2	**Uses Of Basic Sketching and Modify Tools** Using General Sketching Tools Editing Elements Working with Basic Modify Tools Working with Additional Modify Tools Modifying Walls Adding Room Elements
Module 3	**Techniques for Working with Door and Windows** Inserting Doors and Windows Loading Door and Window Types from the Library Creating Additional Door and Window Sizes Creating Curtain Walls Adding Curtain Grids Working with Curtain Wall Panels Attaching Mullions to Curtain Grids
Module 4	**Extended Features about Working with Views** Setting the View Display Duplicating Adding Callout Creating Elevations and Sections **Concepts about Adding Components:** Adding Components Modifying Components **Extended Facts about Modeling Floors:** Modelling Floors Creating Shaft Openings Creating Sloped Floors

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Module 5	**Modeling Ceilings into Building Project:** Modelling Ceilings Adding Ceiling Fixtures Creating Ceiling Soffits **Application of Modeling Roofs:** Modelling Roofs Creating Roofs by Footprint Establishing Work Planes Building Roofs by Extrusi**on** **Modeling Stairs, Railing, and Ramps:** Creating Component Stairs Modifying Component Stairs Working with Railings Building Ramps
Module 6	**Techniques for Creating Construction Documents:** Setting Up Sheets Placing and Modifying Views on Sheets Printing Sheets **Annotating Construction Documents:** Working with Dimensions Work with Dimensions Working With Text Adding Detail Lines and Symbols Creating Legends **Adding Tags and Schedules:** Adding Tags Working with Schedules **Creating Details of The Project:** Setting Up Detail Views Adding Detail Components Annotating Details
Module 7	**Project work and documentation**

INDUSTRIAL TRAINING / INTERNSHIPS

CYBER SECURITY AND ETHICAL HACKING

Description

A Certified Ethical Hacker is a skilled professional who understands and knows how to look for weaknesses and vulnerabilities in target systems and uses the same knowledge and tools as a malicious hacker, but lawfully and legitimately the security posture of a target system(s). The CEH credential certifies individuals in the specific network security discipline of Ethical Hacking from a vendor-neutral perspective.

Expectations and Goals

The Purpose of the CEH credential is to:

- Establish and govern minimum standards for credentialing professional information security specialists in ethical hacking measures.
- Inform the public that credentialed individuals meet or exceed the minimum standards.
- Reinforce ethical hacking as a unique and self-regulating profession.

Prerequisites

- None

Course Schedule

Sl. No.	TOPIC
Module 1	Introduction to Ethical Hacking What is Cyber Security? What is Hacking? What is Ethical Hacking? Types of Hackers Hacking Concepts Ethical Hacking Concepts Penetration Testing Concepts
Module 2	Lab Setup Concept of Virtualization Virtualbox Installation Kali Linux .iso Installation Introduction to Kali Linux Linux File Structure Linux Environment Basic Linux Commands
Module 3	Networking Basics IP Address & Classes MAC Address Type of MAC Address Network Devices Network Topology Type of Networks OSI/TCP Model
Module 4	Website Fundamentals HTML Basics CSS Basics Java script Basics Components of URL GET & POST Method
Module 5	Footprinting & Reconnaissance Footprinting Concepts Website Footprinting Network Footprinting Competitive Intelligence Footprinting Tools Footprinting Penetration Testing

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Module 6	Scanning Networks Concept of Network Scanning Scanning Tools Scanning Techniques Scanning Penetration Testing Nmap Nessus
Module 7	System Hacking Linux Hacking Concepts Scanning The Machine Exploiting Different Protocols Exploiting Different Ports
Module 8	Windows Hacking Windows Hacking Concepts Scanning Windows Device Exploiting Windows Vulnerability Creating Windows Virus Remote Connection Listener
Module 9	Android Hacking Android Hacking Concepts Scanning Android Device Creating Android Virus Getting Remote Sessions
Module 10	Google Hacking Google Dorks Google Exploit DB Shodan Virustotal
Module 11	Social Engineering Social Engineering Concepts Social Engineering Techniques Phishing Phishing Concepts Phishing Techniques
Module 12	Burp Suite Site Map Proxy Intruder Repeater Sequencer Decoder Comparer Logger
Module 13	Web Application Pentesting Web Applications Concepts Web Applications Threats Hacking Methodology Web Application Hacking Tools
Module 14	SQL Injection SQL Injection Concepts SQL Injection Tools Dumping Database
Module 15	XSS Type of XSS

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	XSS Concepts XSS Live Demonstration
Module 16	Data Tampering Types of Data Tampering Concepts of Data Tampering Data Tampering Live Demonstration
Module 17	WIFI Hacking WIFI Hacking Concepts WIFI Hacking Methodology WIFI Hacking Tools Cracking WIFI Password

INDUSTRIAL TRAINING / INTERNSHIPS

MOBILE APPLICATION DEVELOPMENT USING FLUTTER

Description

App Development using Flutter is designed in a way that on learning one can gain the experience of developing an app serving different domains. Flutter helps to develop cross-platform applications for Android, iOS, Linux, Mac, Windows, Google Fuchsia, and the web from a single codebase.

Expectations and Goals

The course is designed for participants who are interested in developing hybrid apps but don't have any prior knowledge of technology(s). On learning this framework, one will be able to build a hybrid app and deploy it on a targeted device.

Prerequisites

Trainee(s) with no prior knowledge of any technology can easily enroll themselves for the course. Basic knowledge of programming language will be sufficient.

Course Schedule

Module No	Topic
Module 1	Introduction of Mobile Apps Discussion on different technologies and framework Introduction to Flutter Flutter Definition Flutter Architecture Introduction to Dart
Module 2	Installation of IDE(s), tools, packages Flutter SDK Setting up of a device Enabling web support
Module 3	What is Dart How to write code in Dart? Oops concept in details Implementation using an online editor
Module 4	Different ways of creating of Flutter project Understanding the file structure of a project Writing of Flutter code using Dart Running into targeted device
Module 5	Introduction to widgets Use of different widgets and their implementation Explanation of Widget Tree
Module 6	Types of Widgets Use of stateful widgets and lifecycle Use of stateless widgets Implementation
Module 7	Different layouts and their use Designing the screen with a different layout Use of different designing tools/libraries Handling events and functions
Module 8	Creation of customized widgets Different states and widgets connection Styling and theming Use of external package and upgrading the project Implementation
Module 9	Screens and routing Different routing techniques Different navigation widgets

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	Linking with the tabs, menus, and options
Module 10	Data Listing Multiline text/input in the view and its management Understanding List, Grid, Stack and implementation
Module 11	Data and Backend Different Storage forms and usage Adding external dependency for suitable storage Relevant Coding
Module 12	Images and media Camera and Gallery usage Handling multimedia support Creation of supported Apps
Module 13	Packages and Plugins Discussion on essential packages and plugins Implementing platform-specific changes
Module 14	Project Development and Documentation Report preparation

INDUSTRIAL TRAINING / INTERNSHIPS

FULL STACK DEVELOPMENT USING PYTHON AND DJANGO	
Modules	**Topics**
Module 1	• Introduction to Python • History of Python • Using Python Interpreter • The Interpreter and its Environment • Using Python as a Calculator • First Step towards Programming
Module 2	• Basic Syntax • Python Identifiers • Python Keywords • Python Comments in Python • Command Line Arguments • Parsing Command-Line Arguments
Module 3	• Variable Types • Assigning Values to Variables • Multiple Assignments • Standard Data Types • Python Numbers • Python Strings • Data Type Conversion
Module 4	• Python Data structure • Introduction to List • Work on Tuples • Sets • Dictionary • List Comprehension
Module 5	• Conditional and Iterative statements • If Statements • Looping Techniques • For Statements • The range function • BREAK Statement
Module 6	• Basic Operators • Types of Operators • Python Arithmetic Operators • Python Comparison Operators • Python Assignment Operators • Python Logical Operators • Python Identify Operators • Python Operators Precedence
Module 7	• Functions • Defining a Function • Calling a Function • Global vs. Local variables • Locating Modules • Creating Modules
Module 8	• Files I/O • Printing to the Screen • Reading Keyboard Input • The input Function • Opening and Closing Files • The open Function • The file Object Attributes • The close () Method

INDUSTRIAL TRAINING / INTERNSHIPS

	• Reading and Writing Files • The write () Method • The read () Method
Module 9	• Introduction to Django • What is Django? • Django and Python • Django's take on MVC: Model, View, and Template • DRY Programming: Don't Repeat Yourself • How to get and install Django
Module 10	• Getting started with Django • Important Core Files: • Templates • Adding static files • Models and Databases • Admin Interface • MVT –In details
Module 11	• Forms and Validations • Forms • Validation • Relative URL • Template Inheritance
Module 12	• Advanced Django • Django's in-built User • Registration • Login • Logout • Generic Views • CRUD Implementation
Module 13	• Project Work and Documentation

INDUSTRIAL TRAINING / INTERNSHIPS

FULL STACK WEB DEVELOPMENT USING PHP AND MYSQL

Description

The PHP Training course is designed to train the students on Core and Advanced topics of PHP with other tools like HTML5, JavaScript, and CSS, using Live Projects. Ardent has years of experience in developing and deploying hundreds of projects using PHP 8. This software development experience is very valuable in teaching the students everything they require to learn in a true development environment. With the best industry-experienced developers as trainers, Ardent delivers the best PHP Training with Live Projects to make students learn PHP and get placement immediately after finishing their course. Contact us to get more information about PHP Training Course details and fee structures.

Expectations and Goals

100% Practical, Personalized, Classroom Training, Learn from industry Experts (8+ years' experience) No hired faculty, Assignment: Entire training is based on daily assignments, 100% Practical Training: Students can carry their own laptop, Live projects: All training on live projects through Certified Trainer, 100% Job assistance for qualified students, Weekend Batches, Convenient Timings for Professionals.

Prerequisites

- Anybody interested in PHP can take this training.

Course Schedule

Module	Topic
Module 1	**Introduction to HTML 5 & CSS 3** HTML Tags Basic understanding of CSS Lab Session
Module 2	**Introduction to PHP 8** Learn the new features of PHP 8 Configure PHP 8 (XAMPP/WAMP) Use Form Handling Use Variables and Expressions Use various types of operators Explain the usage of scalar-type declarations in programs Use conditional and flow control statements Use functions Create and use arrays Lab Session
Module 3	**Form Handling** Understanding GET, POST & REQUEST methods Handling Form events Sanitize and validate form data. Encryption techniques Protecting from data from SQL / URL injections Lab Session
Module 4	**MySQL Database** Introduction to database management (RDBMS) Preparing SQL Query statements Database connectivity DML Operations using MySQLi MySQL Joins, Between, IN, LIMIT operators Lab Session
Module 5	**State Management** Use cookies & Perform session management

INDUSTRIAL TRAINING / INTERNSHIPS

	Lab Session
Module 6	**File Uploading** File upload & download in server View and delete the uploaded file Lab Session
Module 7	**JavaScript, jQuery, and Ajax** Basic understanding of JavaScript Understanding of DOM Variable declarations Use conditional and flow control statements Use functions Event Handling Data Validation Introduction to jQuery Implement Ajax using PHP Lab Session
Module 8	**Introduction to PHP Framework** What is MVC Introduction to Laravel Laravel Installation in Windows / Linux
Module 9	**Project Work and Documentation**

INDUSTRIAL TRAINING / INTERNSHIPS

GENERATIVE AI AND PROMPT ENGINEERING

Description

This course provides an in-depth exploration of generative artificial intelligence (AI) techniques, with a focus on prompt engineering methodologies. Students will learn the fundamentals of generative AI models, including language models such as GPT (Generative Pre-trained Transformer), and gain practical experience in prompt design and fine-tuning for various applications. This curriculum covers theoretical foundations, practical techniques, ethical considerations, and real-world applications of generative AI and prompt engineering. Through lectures, discussions, hands-on projects, and presentations, students will gain a comprehensive understanding of how to effectively utilize and deploy generative models while responsibly addressing ethical concerns.

Expectations and Goals

- Understand the principles and architecture of generative AI models
- Gain proficiency in prompt engineering techniques
- Apply generative AI models to real-world problems
- Analyze ethical implications and biases in generative AI applications

Prerequisites

- Basic understanding of machine learning concepts
- Familiarity with Python programming language
- Knowledge of neural networks and deep learning concepts

Course Schedule

Module	Topic
Module 1	Introduction to Generative AI ● Understanding generative artificial intelligence ● Applications of generative models in various domains ● Types of generative models: autoregressive models, VAEs, GANs, etc.
Module 2	Foundations of Prompt Engineering ● The role of prompts in guiding generative models ● Introduction to prompt engineering and its significance ● Basic principles of prompt formulation and design
Module 3	Language Models and Prompt-based Generation ● Overview of language models for text generation ● Introduction to OpenAI's GPT series ● Understanding prompt-based generation with GPT models
Module 4	Advanced Prompt Engineering Techniques ● Advanced prompt design strategies ● Handling biases and improving fairness in prompt engineering ● Fine-tuning strategies for specific tasks and domains
Module 5	Evaluation Metrics and Performance Analysis ● Metrics for evaluating generative AI models ● Benchmark datasets and evaluation techniques ● Analyzing model performance and identifying areas for improvement
Module 6	Deploying Generative AI Models ● Deployment considerations for generative AI models ● Infrastructure requirements and model serving ● Scalability and performance optimization
Module 7	Project work and documentation

INDUSTRIAL TRAINING / INTERNSHIPS

VLSI AND FPGA DESIGN COURSE USING VHDL / VERILOG

The objective of the VLSI and FPGA design course using VHDL / Verilog is to equip students and professionals with the theoretical knowledge and practical skills required to design, simulate, synthesize, and implement digital systems on both ASIC (Application-Specific Integrated Circuits) and FPGA (Field-Programmable Gate Arrays) platforms. By using both VHDL and Verilog, the course aims to provide proficiency in two of the most widely used hardware description languages (HDLs) in the industry.

Key Objectives:

1. **Fundamentals of VLSI Design:**
    - To understand the concepts of VLSI technology, including the design flow, fabrication processes, and design methodologies.
    - To learn the architectural and circuit-level techniques required for designing efficient integrated circuits (ICs).
2. **Introduction to FPGA Design:**
    - To gain knowledge of FPGA architecture, design flow, and applications.
    - To understand the FPGA implementation process, including logic synthesis, place-and-route, and timing optimization.
3. **Mastery of HDLs (VHDL and Verilog):**
    - To develop the ability to write digital designs using VHDL and Verilog.
    - To become proficient in writing and simulating both combinational and sequential logic designs using both HDLs.
    - To understand the differences between VHDL and Verilog, enabling the selection of the appropriate language for various digital design projects.
4. **Digital System Design:**
    - To design and simulate combinational and sequential circuits, such as adders, multiplexers, counters, and finite state machines (FSM).
    - To implement complex digital designs such as arithmetic logic units (ALUs), memory systems, and controllers.
5. **RTL Design, Synthesis, and Simulation:**
    - To learn Register Transfer Level (RTL) design principles and write RTL code for digital circuits.
    - To perform synthesis, functional verification, and timing analysis using industry-standard tools like Xilinx Vivado, Modelsim, and Intel Quartus.
6. **Timing Analysis and Optimization:**
    - To understand and perform static timing analysis (STA) to ensure correct circuit operation under timing constraints.
    - To explore power optimization techniques for low-power VLSI and FPGA designs.
7. **Project-Based Learning:**
    - To apply the theoretical knowledge gained to practical projects, such as designing a digital system on FPGA, implementing FSM-based control systems, or developing custom IP blocks.

By the end of this course, learners will be able to design, verify, and implement digital circuits for both VLSI and FPGA platforms, using both VHDL and Verilog, thereby preparing them for roles in digital system design, hardware verification, and FPGA/VLSI development in the semiconductor industry.

INDUSTRIAL TRAINING / INTERNSHIPS

Module	Topics
Module 1	Introduction to SoC Design Application, Scope
Module 2	Different chip design approaches VHDL Verilog
Module 3	Basic level Gate design concepts Full Adder, MuX, 7 Segment, Comparator
Module 4	Gate level Latch, Flip Flop, Register, and Counter design
Module 5	CMOS-based design concept CMOS-based NAND, NOR, XOR, XNOR Universal Gate design
Module 6	CMOS-based Latch, Flip flop, Register design
Module 7	CMOS based Register and counter design
Module 8	CMOS Layout fabrication process Different Gate Layout Design
Module 9	Layout-based IC Design
Module 10	VHDL and Verilog coding Behavioral, data flow, and structural coding Different control statement when, process, wait statement
Module 11	Analog VLSI Analog CMOS Design
Module 12	Project work and report preparation

INDUSTRIAL TRAINING / INTERNSHIPS

WEB DESIGNING USING HTML 5, CSS3, JAVASCRIPT, BOOTSTRAP (PROJECT BASED)

Description

Web Design course is a project-based course that teaches students how to build their own web pages. Students will learn the languages HTML and CSS, and will create their own live homepages to serve as portfolios of their creations. By the end of this course, students will be able to explain how web pages are developed and viewed on the Internet, analyze and fix errors in existing websites, and create their very own multipage websites.

Expectations and Goals

Students will learn and explore concepts around designing, creating, and viewing web pages on the Internet. Students will understand the knowhow and can function either as an entrepreneur or can take up jobs in the multimedia and Web site development studio and other information technology sectors. The student will be able to

- Define the principle of Web page design.
- Define the basics in web design.
- Visualize the basic concept of HTML.
- Recognize the elements of HTML.
- Introduce basics concept of CSS.
- Develop the concept of web publishing.

Prerequisites

The Web Design course is designed for complete beginners with no previous background in computer science. The course is highly visual, dynamic, and interactive making it engaging for students new to computer science. The course has a strong focus on creation. Students will be able to use their own personal interests and creativity to drive their development process.

Course Schedule

Module	Topic
Week 1	**Getting Started - What is The Web** Brief History of Internet What is World Wide Web Why create a web site Web Standards
Week 2	**HTML - Structuring Websites** Introduction to HTML What is HTML HTML Documents Basic structure of an HTML document Creating an HTML document Mark up Tags Heading-Paragraphs Line Breaks HTML Tags
Week 3	**Elements of HTML** Introduction to elements of HTML Working with Text Working with Lists, Tables and Frames
	Working with Hyperlinks, Images and Multimedia Working with Forms and controls.
Week 4	**CSS - Styling Websites** Concept of CSS Creating Style Sheet CSS Properties CSS Styling(Background, Text Format, Controlling Fonts) Working with block elements and objects Working with Lists and Tables CSS Id and Class Box Model(Introduction, Border properties, Padding Properties, Margin properties) CSS Advanced(Grouping, Dimension, Display, Positioning, Floating, Align, Pseudo class, Navigation Bar, Image Sprites, Attribute sector) CSS Color Creating page Layout and Site Designs.

INDUSTRIAL TRAINING / INTERNSHIPS

	Working with Hyperlinks, Images and Multimedia Working with Forms and controls.
Week 5	**Introduction to JavaScript** Java Script Language Basics JavaScript Objects JavaScript Scope JavaScript Events JavaScript Strings JavaScript Numbers JavaScript Math JavaScript Arrays JavaScript Boolean JavaScript Comparisons JavaScript Conditions JavaScript Switch JavaScript Loops JavaScript Type Conversion JavaScript RegExp JavaScript Errors JavaScript Debugging JavaScript Functions JavaScript Forms JavaScript HTML DOM
Week 6	**Introduction to jQuery** jQuery Syntax jQuery Selectors jQuery Events jQuery Effects jQuery HTML jQuery Traversing jQuery AJAX jQuery Misc.
Week 7	**Bootstrap introduction** Bootstrap Basics Bootstrap Grids Bootstrap Themes Bootstrap CSS Bootstrap JS
Week 8	**Bootstrap in depth** ● Bootstrap Grid System: ● Basics of the grid system ● Creating responsive layouts ● Using grid classes for different screen sizes ● Bootstrap Components: ● Navigation bars ● Buttons ● Forms ● Modals ● Alerts ● Cards **Bootstrap Utilities:** ● **Spacing** ● **Colors** ● **Typography** ● **Flexbox utilities** ● **Advanced Bootstrap:** ● **Customizing Bootstrap with Sass** ● **Bootstrap themes** ● **Integrating Bootstrap with JavaScript plugins**

INDUSTRIAL TRAINING / INTERNSHIPS

Academy of Skill Development
Module – 103, SDF Building,
Sector -V, Salt Lake,
Kolkata – 700091
www.asd.org.on

October 03, 2020

Ref: ASD/DAT/SBM/51093

Subject: INTERNSHIP CONFIRMATION LETTER

Dear **SUMIT SARKAR**

Your application for the **Industrial Training and Internship** is accepted. The details are below:

College/University: SBMS INSTITUTE OF TECHNOLOGY

Technology Domain: DATA SCIENCE, AI, MACHINE LEARNING USING PYTHON (PROJECT BASED)

Internship Start Month: OCTOBER 2020

Duration: 6 Weeks

This is a project based program. You will have to develop a project, prepare project report and project presentation.

INTERNSHIP MILESTONES: TRAINING ON THE TOPIC/TECHNOLOGY → PROJECT ALLOCATION → PROJECT IMPLEMENTATION → PROJECT REPORT PREPARATION /PPT PREPARATION → ASSESSMENT → CERTIFICATE DISBURSAL.

Wish you a progressive learning journey with us.

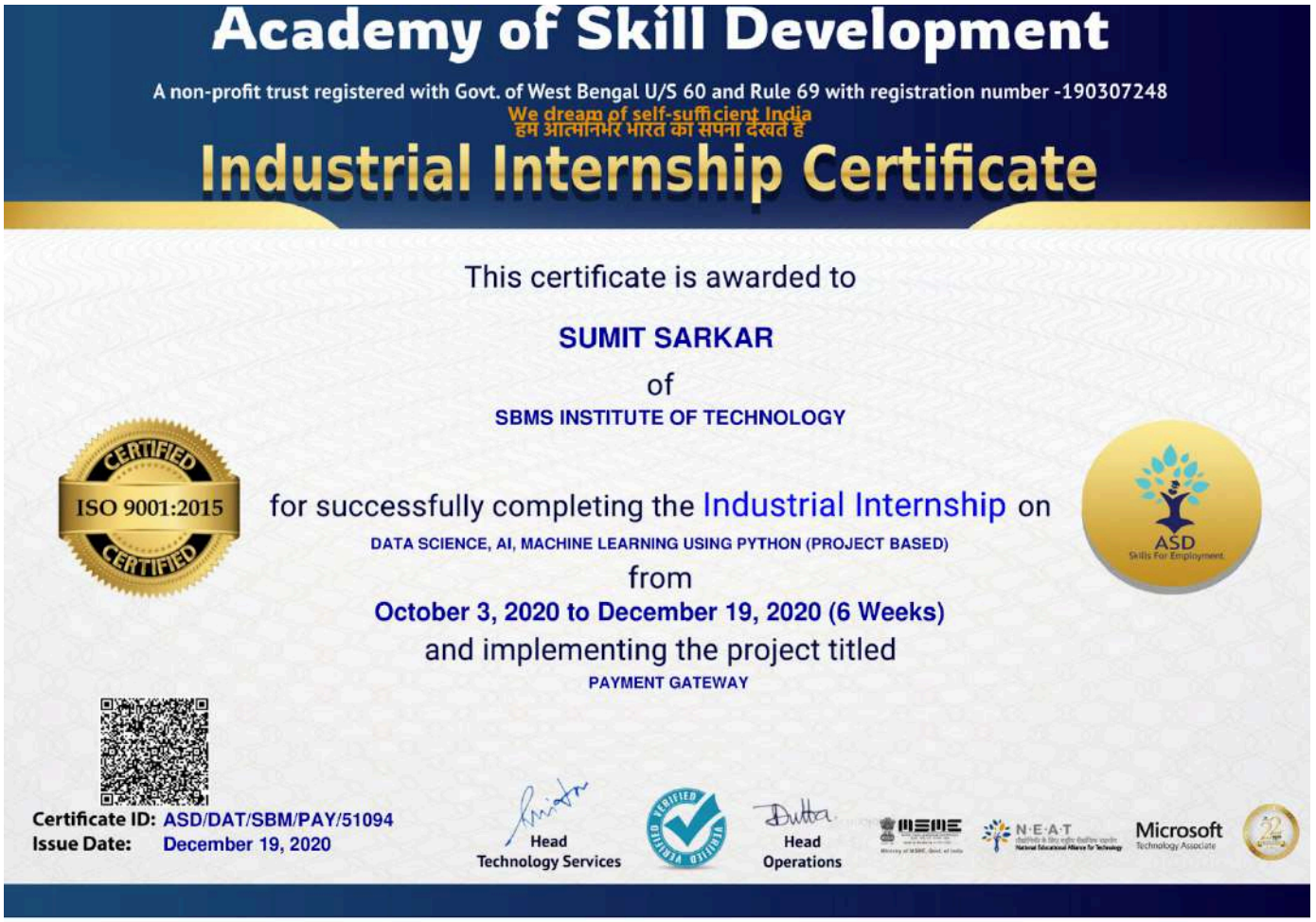
Thanking you,

Best Wishes,

Mahendra Datta
Head – Learning and Development
Academy of Skill Development

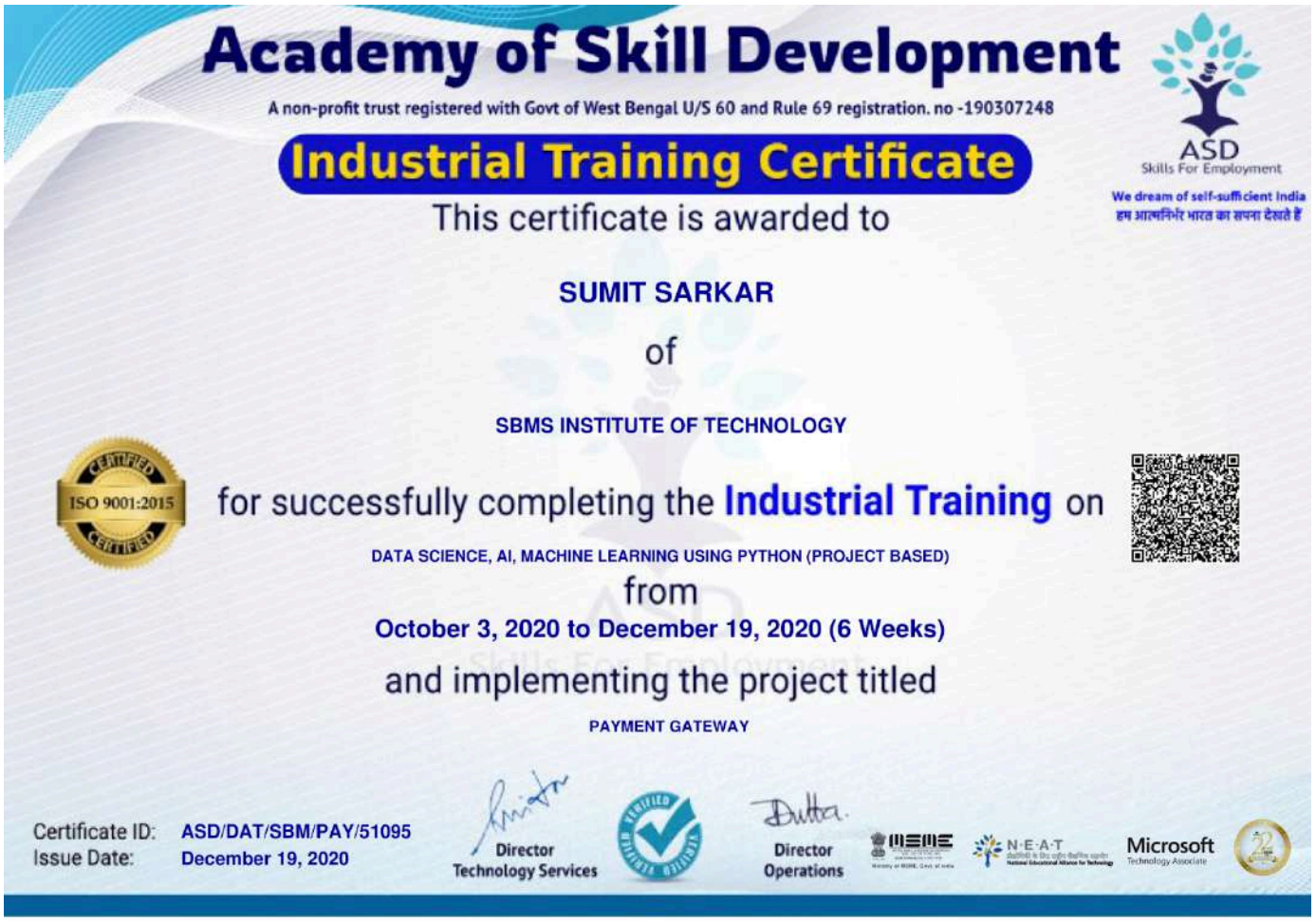
INTERNSHIP CONFIRMATION LETTER

INDUSTRIAL TRAINING / INTERNSHIPS



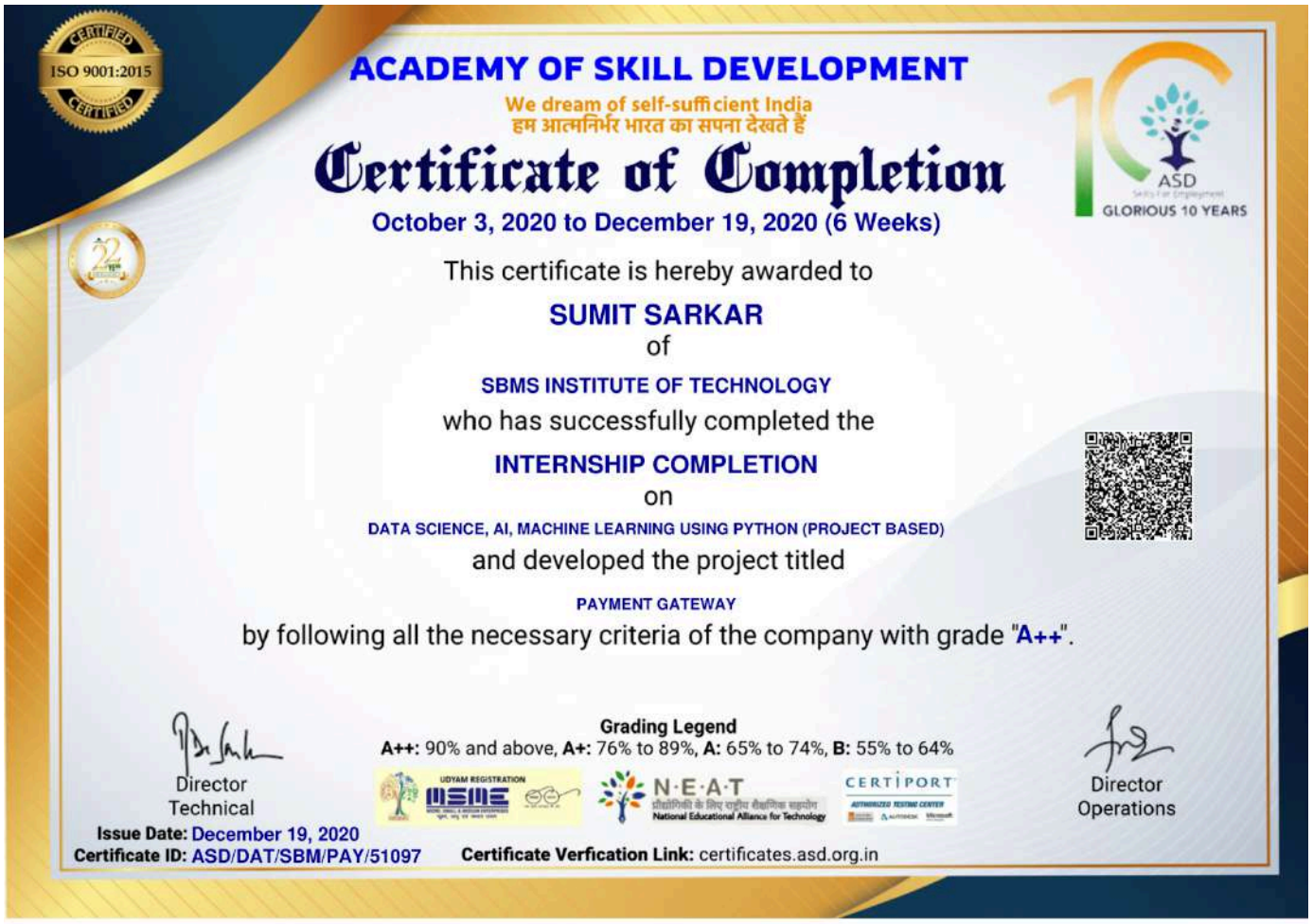
INDUSTRIAL INTERNSHIP CERTIFICATE

INDUSTRIAL TRAINING / INTERNSHIPS



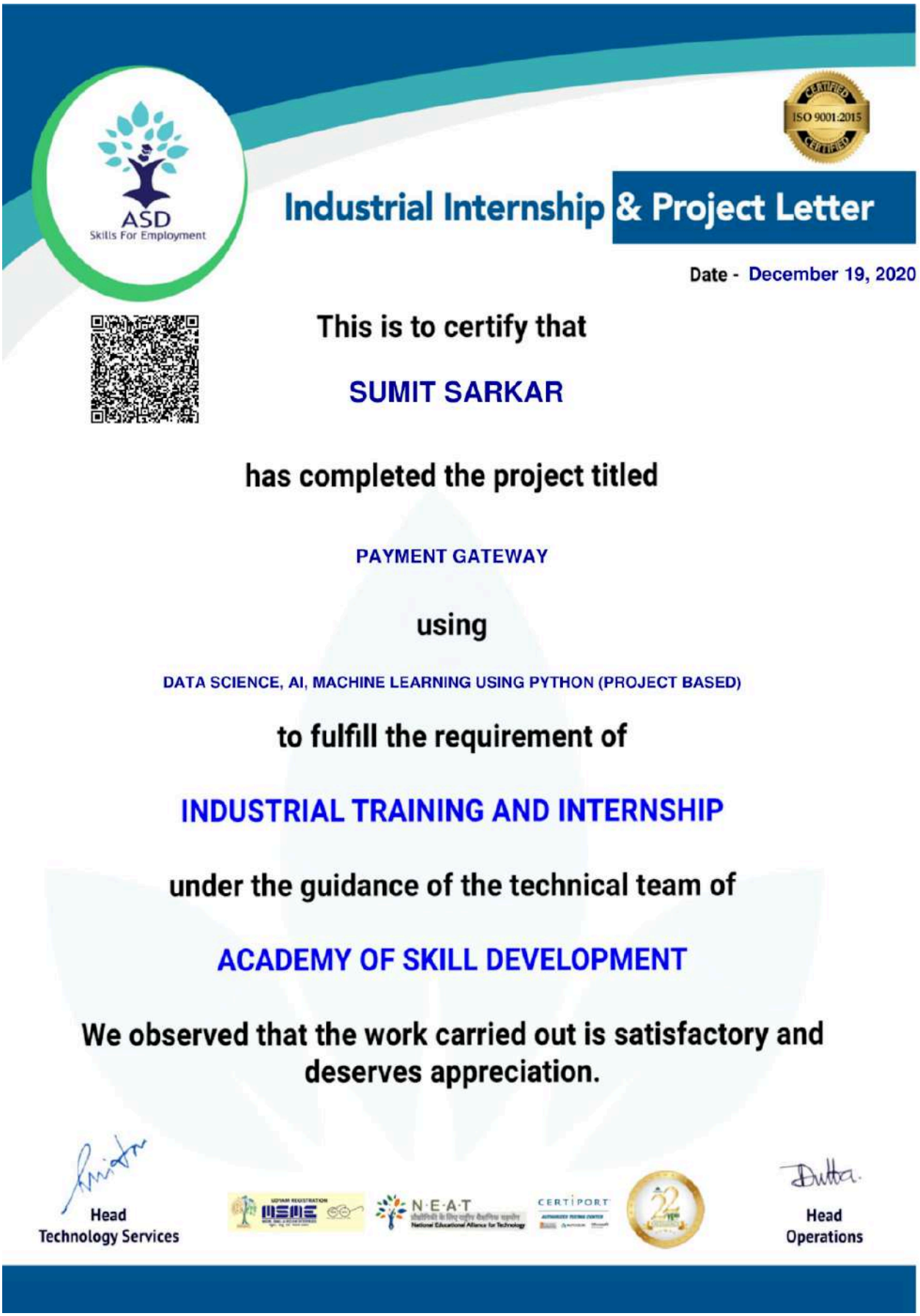
INDUSTRIAL TRAINING CERTIFICATE

INDUSTRIAL TRAINING / INTERNSHIPS



COMPLETION CERTIFICATE

INDUSTRIAL TRAINING / INTERNSHIPS



INTERNSHIP AND PROJECT LETTER

INDUSTRIAL TRAINING / INTERNSHIPS

Academy of Skill Development
Module – 103, SDF Building,
Sector -V, Salt Lake,
Kolkata – 700091
www.asd.org.on

December 19, 2020

Ref: ASD/DAT/SBM/51098

Subject: Acknowledgement of Attendance

Dear SUMIT SARKAR

Below is the status of your attendance during the internship:

College/University: SBMS INSTITUTE OF TECHNOLOGY

Technology Domain: DATA SCIENCE, AI, MACHINE LEARNING USING PYTHON (PROJECT BASED)

Attendance Percentage (%): 90%

Thanking you,

Best Wishes,

Mahendra Datta
Head – Learning and Development
Academy of Skill Development

ATTENDANCE CERTIFICATE