

# CONTACT US



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[www.slogsolutions.com](http://www.slogsolutions.com)

## TOP 10 REASONS WHY SLOG SOLUTIONS IS EVERY STUDENT'S CHOICE

### 100 % Job Guarantee

We take every necessary step to get you a suitable job on successfully completing the course

### Trained and Certified Faculty

Award winning and Industry benchmarked training faculty

### Unique Teaching Methodology

Innovative methods of teaching that make learning fun and easy to remember

### Practical training through labs

One computer per student that enables practical software based training to all students

### Scenario based learning

Through case studies and real life project, we provide a real life problem solving opportunity

### Personality Development Sessions

Enhance your confidence and ensures better job and higher salary prospects

### De-stress with Yoga

When you are relaxed, you find it easy to learn more

### Approval

A well established and ISO, MCA and MSME approved training company in Dehradun.

### Industrial Visit

Students will get an industrial visit to learn the practical work and experience the real life based project

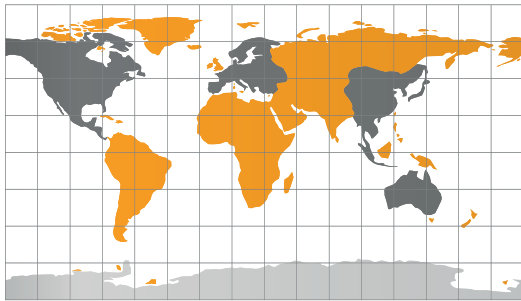
### Student Industrial Trip

Students will have 2 day tour in Uttarakhand

# 100 % JOB GUARANTEED MODULE



# 1 YEAR AND 6 MONTHS MODULE



## CERTIFICATION

One Diploma Certificate  
5 Global Technical Training certificate  
5 Project Certificate  
Internship Certificate  
Soft Skill Certification

Our Module have Two Phase.

Phase - I (240 Hours) & Phase-II (240 Hours)

Phase - I Contain Technical Part

Phase - II OJT (On Job Training) +  
Learning skills

## FEE:

For Detailed Fee Structure Please Visit  
SLOG Campus.

## TERMS AND CONDITIONS

For Detailed Visit SLOG Campus or  
Call us at 7456000240/41.42



### MODULE - 1 - CIVIL CAD PACKAGE - Content of Phase-I (320hrs.)

**AutoCAD-** Planning & Survey (70 Hours)  
**Revit-** 3D modeling, Rendering, V-Ray, Detailing (70 Hours)  
**STAAD Pro-** Structure analysis and Detailing, Detail drawings (50 Hours)  
**Estimation-** Detail cost and estimation of building (40 Hours)  
**Primavera-** Project Management (50 Hours)  
**PDP-** Personality Development Program (20 Hours)  
**Interview facing skill development-** Technical and Professional (10 Hours)  
**Resume writing** (10 Hours)

### MODULE - II MECHANICAL CAD PACKAGE - Content of Phase-I (320 Hrs.)

**AutoCAD-** Drafting & Isometric (60 Hours)  
**Solidworks-** 3D modeling, detailing (60 Hours)  
**CATIA-** 3D modeling, detailing (80 Hours)  
**Ansys-** Analysis, Detailing and Simulation (80 Hours)  
**PDP-** Personality Development Program (20 Hours)  
**Interview facing skills development-** Technical and Professional (10 Hrs)  
**Resume writing** (10 Hours)

### MODULE - III WEB DESIGNING & DEVELOPMENT USING PHP

**Content of Phase - I (320 Hrs.)**  
**HTML-** Building base of website (30 Hours)  
**CSS-** Beautify the HTML Content (60 Hours)  
**JS -** Make website interactive (60 Hours)  
**PHP-** To make website dynamic (90 Hours)  
**MY SQL-** To store dynamic data (40 Hours)  
**PDP-** Personality Development Program (20 Hours)  
**Interview facing skill development-** Technical and Professional (10 Hours)  
**Resume writing** (10 Hours)

### MODULE - IV - INTERNET OF THINGS

**Content of Phase-I (320 Hrs.)**  
**IOT -** A technology designed to automate the simple devices using Internet (90 Hours)  
**ROBOTICS-** A technology specially used for automation (90 Hours)  
**Industrial Automation** (100 Hours)  
**PDP-** Personality Development Program (20 Hours)  
**Interview facing skill development-** Technical and Professional (10 Hours)  
**Resume writing** (10 Hours)

### MODULE - IV - DIGITAL MARKETING & NETWORKING

**Content of Phase-I (320 Hrs.)**  
**SEO-** Process of growing the quality and quantity of website traffic (60 Hrs)  
**SMO-** Process to generate publicity to increase the awareness of a service (60 Hrs)  
**Networking -** (50 Hrs)  
**CCNA-** Beginner level certification in networking by Cisco (60 Hrs)  
**CCNP-** Advance level certification in networking by Cisco (50 Hrs)  
**PDP-** Personality Development Program (20 Hours)  
**Interview facing skill development-** Technical and Professional (10 Hrs)  
**Resume writing** (10 Hrs)

### MODULE - 1 - AI & ML MODULE - Content of Phase-I (320hrs.)

**Python-** Programming language (40 Hours)  
**Numpy-** Library used for scientific calculations (30 Hours)  
**Pandas-** Library used for data manipulation & for data analysis (30 Hrs)  
**Python Sqlite3-** Database used to store dynamic data (30 Hours)  
**SEABORN -** Library for data visualisation (20 Hours)  
**MACHINE LEARNING -** Technology used to train and test machine logical models (30 Hours)  
**DEEP LEARNING & NEURAL NETWORKS** (50 Hrs)  
**ARTIFICIAL INTELLIGENCE** (50 Hrs)  
**PDP-** Personality Development Program (20 Hours)  
**Interview facing skill development-** Technical & Professional (10 Hrs)  
**Resume writing** (10 Hours)

## Phase - II

(Common For All Modules)  
On Job Training(OJT) (160 Hrs)



**Get an EDGE over other STUDENTS with our EMPLOYABILITY TRAINING**

In the real world, a winning personality is just as important as technical skills. We provide Technical industry based training and Personality Development programs in our courses. Our program focuses on enhancing their technical and communication skills. It includes extensive employability sessions such as mock interviews, thus ensuring that our students are industry ready at the completion of their course.

# [Job Guarantee Training Program Module -AI + ML Package]

## [Artificial Intelligence & Machine Learning] Syllabus

### Institute Information

**Email**

[slog.doon@gmail.com]

**Contact No.**

[7456000240/41]

**Office Location**

[Dehradun, Uttarakhand]

### General Information

**Duration**

[320 Hrs]

**Description**

[This technology is used to provide intelligence to machine models]

**Expectations and Goals**

[After Completion of training students will be able to create their own projects and get job]

**Technology Covered**

[Python, Numpy, Pandas, Python Sqlite3, Machine Learning, Artificial Intelligence]

### Course Content

**PYTHON [40 Hrs]**

- Introduction to python programming
- Python Syntax
- Python Comments
- Python Variables
- Python Data Types
- Python Numbers
- Python Casting
- Python Strings
- Python Booleans
- Python Operators
- Python Lists
- Python Tuples

- Python Sets
- Python Dictionaries
- Python If...Else
- Python While Loops
- Python For Loops
- Python Functions
- Python Lambda
- Python Arrays
- Python Classes/Objects
- Python Inheritance
- Python Iterators
- Python Scope, Python Modules
- Python Dates
- Python Math
- Python JSON
- Python RegEx
- Python PIP
- Python Try...Except
- Python User Input
- Python String Formatting
- File Handling
- Python Read Files
- Python Write/Create Files
- Python Delete Files-----

## **NUMPY [30 hrs]**

- Introduction to numpy
- NumPy - ND array Object
- NumPy - Data Types
- NumPy - Array Attributes
- NumPy - Array Creation Routines
- NumPy - Array from Existing Data
- Array From Numerical Ranges
- NumPy - Indexing & Slicing
- NumPy - Advanced Indexing
- NumPy - Broadcasting

- NumPy - Iterating Over Array
- NumPy - Array Manipulation
- NumPy - Binary Operators
- NumPy - String Functions
- NumPy - Mathematical Functions
- NumPy - Arithmetic Operations
- NumPy - Statistical Functions
- Sort, Search & Counting Functions
- NumPy - Byte Swapping
- NumPy - Copies & Views
- NumPy - Matrix Library
- NumPy - Linear Algebra
- NumPy - Matplotlib
- NumPy - Histogram Using Matplotlib
- NumPy - I/O with NumPy

## **PANDAS [30 hrs]**

- Introduction to pandas
- Introduction to Data Structures
- Python Pandas - Series
- Python Pandas - Data Frame
- Python Pandas - Panel
- Python Pandas - Basic Functionality
- Descriptive Statistics
- Function Application
- Python Pandas - Reindexing
- Python Pandas - Iteration
- Python Pandas - Sorting
- Working with Text Data
- Options & Customization
- Indexing & Selecting Data
- Statistical Functions
- Python Pandas - Window Functions
- Python Pandas - Aggregations
- Python Pandas - Missing Data
- Python Pandas - GroupBy
- Python Pandas - Merging/Joining
- Python Pandas - Concatenation
- Python Pandas - Date Functionality
- Python Pandas - Timedelta
- Python Pandas - Categorical Data

- Python Pandas - Visualization
- Python Pandas - IO Tools
- Python Pandas - Sparse Data
- Python Pandas - Caveats & Gotchas
- Comparison with SQL

## SEABORN [20hrs]

- Introduction to Sqlite3
- SQLite - Commands
- SQLite - Syntax
- SQLite - Data Type
- SQLite - CREATE Database
- SQLite - ATTACH Database
- SQLite - DETACH Database
- SQLite - CREATE Table
- SQLite - DROP Table
- SQLite - INSERT Query
- SQLite - SELECT Query
- SQLite - Operators
- SQLite - Expressions
- SQLite - WHERE Clause
- SQLite - AND & OR Clauses
- SQLite - UPDATE Query
- SQLite - DELETE Query
- SQLite - LIKE Clause
- SQLite - GLOB Clause
- SQLite - LIMIT Clause
- SQLite - ORDER By Clause
- SQLite - GROUP By Clause
- SQLite - HAVING Clause
- SQLite - DISTINCT Keyword
- SQLite - PRAGMA
- SQLite - Constraints
- SQLite - JOINS
- SQLite - UNIONS Clause
- SQLite - NULL Values
- SQLite - ALIAS Syntax
- SQLite - Triggers
- SQLite - Indexes
- SQLite - INDEXED By Clause
- SQLite - ALTER Command
- SQLite - TRUNCATE Command

- SQLite - Views
- SQLite - Transactions
- SQLite - Subqueries
- SQLite - AUTOINCREMENT
- SQLite - Injection
- SQLite - EXPLAIN
- SQLite - VACUUM
- SQLite - Date & Time
- SQLite - Useful Functions

## **MACHINE LEARNING [30hrs.]**

- Introduction to Machine Learning
- Predictive models
- Linear regression
- Polynomial regression
- Multiple regression and predicting car prices
- Multi-level models
- Supervised vs. Unsupervised learning
- Train and Test data
- Bayesian methods
- K-means clustering
- Measuring entropy
- Decision tree
- Ensemble learning
- User based collaborative filtering
- Item based collaborating filtering
- Data mining
- K-nearest-neighbor
- Dimensionality reduction
- Data ware housing
- Confusion matrix
- Measuring classifiers
- Precision
- Recall
- F1
- ROC
- AUC

## **DEEP LEARNING & NEURAL NETWORKS [60 hrs.]**

- Introduction to deep learning
- Deep learning with Tensorflow playground
- Tensorflow library
- Keras library
- Using keras to predict political affiliations
- Convolutional neural network
- Using CNN's for handwriting recognition
- Recurrent neural network
- Using a RNN for sentiment analysis
- Transfer learning
- Tuning neural network
- Deep learning regularization with dropout and early stopping
- Ethics of deep learning

### **Artificial Intelligence [50 hrs.]**

- Introduction to Artificial Intelligence
- Fundamentals of reinforcement learning
- Q-learning intuition
- Q-learning visualization
- Deep convolutional Q-learning
- A3C intuition
- A3C visualization
- Artificial neural network
- Building an AI model
- Training the AI model

**PDP- Personality Development Program [20 Hours]**  
**Interview Facing Skill Development [10 Hours]**  
**Resume Writing [10 Hours]**