



Shyamlal College (Centre for skill development)

in collaboration with

National Institute of Electronics & Information Technology (NIELIT)

(An Autonomous Scientific Society under the administrative control of Ministry of Electronics & Information Technology (MoE&IT), Government of India)

proposes Joint training Programme in

Add-on Certificate Courses in IT

S.No	Course Name	Eligibility
1	Fundamental Course in Office Automation (30 Hrs)	10+2 Pass
2	Fundamental Course in Digital and Social Media Marketing (30 Hrs)	10+2 Pass
3	Fundamental Course in AI and Machine learning (30 Hrs)	10+2
4	Fundamental Course in BigData and Hadoop (30 Hrs)	10+2

Course Curriculum

1. Fundamental course in Office Automation

Duration (In Hours): 30 Hours/3Weeks (@ 2 hours Daily)

Course contents:

Unit 1: Using Word Processing Tools

Word processing concepts, Editing, designing and layout. Working with References, using Proofing tools, Creating Table of Contents & Drafting letters Using Mail Merge

Unit 2: Working with Spreadsheet Package

Spreadsheet concepts, Using Spreadsheet for creating Data, Designing Charts, Handling operators in Formulae, functions: Mathematical, Logical, Text, financial, Date and Time functions, Using Function Wizard.

Advanced Tools: Using Pivot tables and Pivot Charts, Validation Tools, Sorting & Advance filtering Tools

Unit 3: Designing using Presentation Package



Creating & Designing Presentations, Creating the look of your presentation for target Audience, working with different views, Working with Transition and Animation effects, making notes pages and handouts, Drawing and working with objects, Designing & Presenting a slide show, Printing Presentations.

2. Fundamental Course in Digital and Social Media Marketing

Duration (In Hours): 30 Hours/3Weeks (@ 2 hours Daily)

Course Contents

Unit 1: Digital Marketing Overview

Basic of Online Marketing, Difference of Internet Marketing vs Traditional,Marketing,Google Trends Domain Registration and Hosting Business promotions using internet marketing

Unit 2: Web Design & Development & Overview of Social Media Marketing

Web Page Basics: What is HTML, Basic HTML Tags to create a web page, HTML Tags for SEO,Defining and Implementing the Social Media Plan, Domain optimization, Meta tags Optimization and Content Optimization

Unit 3: Search Engine Optimization

Overview of SEO,Working of SEO,Types of SEO,SEO ON PAGE,SEO OFF PAGE, Google Keyword Planner,Keyword Research and Understanding and How To create Blog and optimizing

Unit 4: Facebook Marketing

How to create a Facebook Page to grow your business, How to create an ad on Facebook, Target website visitors, Facebook fans or email subscribers Custom Audiences, Target people who are like your existing customers with Lookalike Audience, Drive Ecommerce Sales with Dynamic Ads & Collection Ads, Growing App with App Install & Engagement Ads

Unit 5: Youtube Marketing

Create YouTube channel,Growing brand with a YouTube channel,Post and optimize videos with titles, descriptions etc ,Create clickable thumbnails and YouTube Monetizations



3. Fundamental Course in AI and Machine Learning

Duration (In Hours): 30 Hours/3 Weeks (@ 2 hours Daily)

Course contents

Unit 1: Artificial Intelligence

Introduction to Artificial Intelligence (AI), Current Trends & Terminologies in AI, Applications and Challenges in AI.

Unit 2: Python Programming

Introduction to Python, Python Data types, Statements & expressions, Flow control & loops, Lists, and dictionaries.

Unit 3: Exploratory Data Analysis

Numpy Library: Array types, Array slicing, Universal functions, Aggregations, N-Dimensional arrays, sorting arrays, loading data in Numpy from various formats.

Pandas Library: Pandas objects – Series and Data frames, Data indexing and selection, NaN objects, Manipulating Data Frames, Grouping, filtering.

Visualizations with Matplotlib Library using various charts such as Bar Graphs, Histogram, Scatter Plot, Area Plot, Pie Chart.

Feature Engineering: Numeric & Categorical features, Normalization, Min Max Scaling, Standardization, Imputation.

Unit 4: Machine Learning

Introduction to Machine Learning, Algorithm types of Machine learning, Supervised Learning – Classification with Logistic Regression, Regression with Linear Regression, Unsupervised Learning – Clustering with K-Means.



4. Fundamental Course in Bigdata and Hadoop

Duration (In Hours): 30 Hours/3 Weeks (@ 2 hours Daily)

Course Contents

Unit 1: Introduction to Big Data and Hadoop

What is Big Data, Evolution of Big Data, Characteristics of Big Data, Types of data, Challenges, Applications

Hadoop Preface and history ,Hadoop Master – Slave Architecture, Components of Hadoop, HDFS Architecture

Unit 2: Installation of Hadoop in different modes

Ubuntu installation and basic linux commands ,Package installation, File system & Various editors., Hadoop installation in Standalone Mode, Hadoop installation in Pseudo-distributed Mode.

Unit 3: HDFS Commands and Map-reduce Concepts

HDFS I/O operations , HDFS Basic commands Map-Reduce components:

Overview of MapReduce Framework, MapReduce Architecture, MapReduce Components, Use cases of MapReduce.

Unit 4: Introduction to Hive & installation

Hive Introduction, Hive vs MapReduce & Hive vs RDBMS, Hive Architecture & Components , Installation of Hive

Unit 5: Handling Big data using Hive and Pig

Hive DDL and DML commands , Internal and External Tables , Partitions in Hive

Introduction to Pig & installation

Introduction to Apache Pig , Map Reduce Vs. Apache Pig ,SQL vs. Apache Pig, Installation of Pig, Pig Programming: Different data types in Pig , Modes of Execution in Pig & Grunt shell, Pig Latin commands, Data Analytics using Pig.

Unit 6: Visualization of data

Introduction to Visualization, Various Visualization tools , Working with Zeppelin

Unit 7: Discussion on Use cases of Pig