

The Future of Technology is Here



INDUSTRIAL AUTOMATION
BUILDING MANAGEMENT
SYSTEM DIGITAL MARKETING
INFORMATION TECHNOLOGY
EMBEDDED & IoT PROGRAMS

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About IPCS Global

IPCS Global's research oriented and progressive training approach offers perfect Digital solutions to a vast array of industries. IPCS marked as one of the best technical Training Provider in India; provides training to Corporate Companies, Colleges & Individuals on Industrial Automation, Building Management Systems, CCTV & Security Systems, Embedded Systems, Digital Marketing, Information Technology, Python & Data Science & much more. The vast technical expertise makes sure that our students are achieving the best results in training, customer services & placements.



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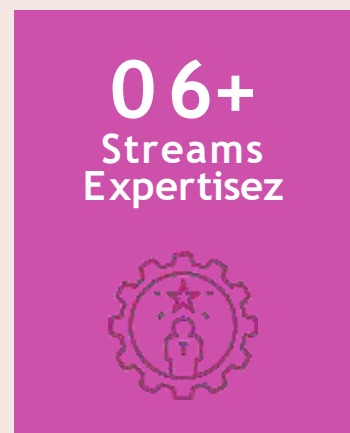
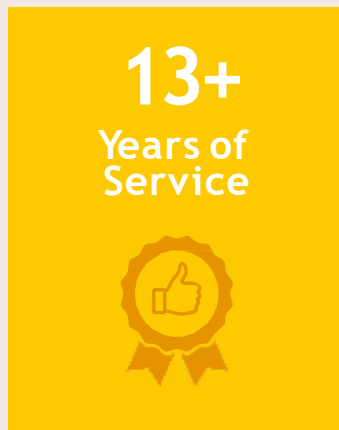
INTERNATIONAL EDUCATION ICON AWARD 2022



IPCS Global, World's leading technical training provider, has been recognized for its exceptional contributions to international education by receiving the **Best International Education Icon Award 2022** at **Greater India Business Summit 2023**.

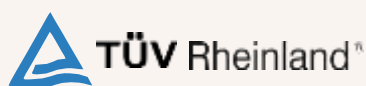


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Worldwide Approved Affiliations





EMBEDDED & IoT PROGRAMS

CERTIFIED EMBEDDED DESIGN PROFESSIONAL

Duration
140 Hrs

Basic Electronic Components / Analog & Digital Electronics
Fundamentals of C Programming/Embedded
Introduction to Microcontrollers and Embedded System
AVR / PIC / ARM 7 Microcontroller
Communication Protocols

CERTIFIED EMBEDDED SYSTEM ENGINEER

Duration
200 Hrs

Basic Electronic Components / Analog & Digital Electronics
Fundamentals of C Programming/Embedded C
Introduction to Microcontrollers and Embedded System
AVR / PIC / ARM 7 / 8051 Microcontroller
Python Programming - Raspberry pi 3 Microprocessor
Communication Protocols (UART,USART,I2C,SPI,CAN)

CERTIFIED IoT PROFESSIONAL

Duration
140 Hrs

Basic electronics components, Analog & Digital Electronics
IoT and Its Applications
C Programming ,Arduino-NodeMCU
Python Programming , Raspberry Pi
IoT hardware Platforms
IoT Cloud Platforms
Introduction to Ubidots, Thingier, Thingspeak IoT Platform,
Blynk , Google Cloud Platform, etc.



Information Technology Courses

CERTIFIED PYTHON PROGRAMMER

Duration
120 Hours

PYTHON FULL STACK DEVELOPER

Duration
180 Hrs

PROFESSIONAL DIPLOMA IN PYTHON & DATA SCIENCE

Duration
240Hrs

INTERNATIONAL WEB PROFESSIONAL

Duration
180 Hrs

WEB DESIGNING

Duration
180 Hrs



Information Technology has been one of the leading drives of globalization, and it may also become one of its major victims

Evgeny Morozov



Professional Diploma in Python & Data Science

Duration: 240 Hrs

Introduction to Data Science

What is analytics & Data Science?

Business Analytics vs. Data Analytics vs. Data Science

Common Terms in Analytics

Analytics vs. Data warehousing, OLAP, MIS Reporting

Types of data (Structured vs. Unstructured vs. Semi Structured)

Relevance of Analytics in industry and need of the hour

Critical success drivers

Overview of analytics tools & their popularity

Analytics Methodology & problem solving framework

Stages of Analytics

Python Essentials

Overview of Python- Starting with Python

Why Python for data science?

Anaconda vs. python

Introduction to installation of Python

Introduction to Python IDEs(Jupyter, /Ipython)

Concept of Packages - Important packages

NumPy, SciPy, scikit-learn, Pandas, Matplotlib, etc

Installing & loading Packages & Name Spaces

Data Types & Data objects/structures (strings, Tuples, Lists, Dictionaries)

List and Dictionary Comprehensions

Variable & Value Labels - Date & Time Values

Basic Operations - Mathematical/string/date

Control flow & conditional statements

Debugging & Code profiling

Python Built-in Functions (Text, numeric, date, utility functions)

User defined functions - Lambda functions

Concept of apply functions

Python - Objects- OOPs concepts

How to create & call classes and modules?



Operations with NumPy (Numerical Python)

What is NumPy?

Overview of functions & methods in NumPy

Data structures in NumPy

Creating arrays and initializing

Reading arrays from files

Special initializing functions

Slicing and indexing

Reshaping arrays

Combining arrays

NumPy Maths Overview of Pandas

What is pandas, its functions & methods

Pandas Data Structures (Series & Data Frames)

Creating Data Structures
(Data import - reading into pandas)

Cleansing Data with Python

Understand the data

Sub Setting / Filtering / Slicing Data

Using [] brackets

Using indexing or referring with
column names/rows

Using functions

Dropping rows & columns

Mutation of table (Adding/deleting columns)

Binning data (Binning numerical variables
in to categorical variables)

Renaming columns or rows

Sorting (by data/values, index)

By one column or multiple columns

Ascending or Descending

Type conversions

Setting index

Handling duplicates /missing/Outliers

Creating dummies from categorical data
(using get_dummies())

Applying functions to all the variables in a
data frame (broadcasting)

Data manipulation tools(Operators,
Functions, Packages, control structures,Loops, arrays etc.)

Data Analysis using Python

Exploratory data analysis

Descriptive statistics, Frequency Tables and
summarization

Uni-variate Analysis (Distribution of data &
Graphical Analysis)

Bi-Variate Analysis(Cross Tabs, Distributions &
Relationships, Graphical Analysis)

Predictive Modeling with Python

Introduction to Predictive Modeling

Concept of model in analytics and how it is used?

Common terminology used in modeling process

Types of Business problems - Mapping of Algorithms

Different Phases of Predictive Modeling

Data Exploration for modeling

Exploring the data and identifying any problems
with the data (Data Audit Report)

Identify missing/Outliers in the data

Visualize the data trends and patterns

Supervised Learning: Regression problems

Linear Regression

Non-linear Regression

K-Nearest Neighbor

Decision Trees

Supervised Learning: Classification problems

Logistic Regression

K-Nearest Neighbor

Naïve Bayes Classifier

Decision Trees

Unsupervised Learning

Dimensionality Reduction and Manifold Learning

Clustering

Deep Learning

Applied Text Mining in Python

Regular Expressions

Basic Natural Language Processing

Basic NLP tasks with NLTK

Advanced NLP tasks with NLTK

Text Classification



Data Visualization with Python

Introduction to Data Visualization

Introduction to Matplotlib

Basic Plotting with Matplotlib

Line Plots Basic Visualization Tools

Area Plots

Histograms

Bar Charts

Pie Charts

Box Plots

Scatter Plots

Bubble Plots Advanced Visualization Tools

Waffle Charts

Word Clouds

Seaborn and Regression Plots Visualizing
Geospatial Data

Introduction to Folium

Maps with Markers

Choropleth Maps Statistical Methods &
Hypothesis Testing

Descriptive vs. Inferential Statistics

What is probability distribution?

Important distributions (discrete &
continuous distributions)

Deep dive of normal distributions and properties

Concept of sampling & types of sampling

Concept of standard error and central limit theorem

Concept of Hypothesis Testing

Statistical Methods - Z/t-tests (One sample,
Independent, paired), ANOVA,

Correlation and Chi Square

Web Scraping with BeautifulSoup





Certified Python Programmer

Duration: 120 Hrs

GETTING STARTED

History & need of Python
Application of Python
Advantages of Python
Disadvantages of Python
Installing Python
Program structure
Interactive Shell
Executable or script files.
User Interface or IDE

PYTHON FUNDAMENTALS

Working with Interactive mode
Working with Script mode
Python Character Set
Python Tokens, Keywords, Identifiers, Literals, Operators
Variables and Assignments
Input and Output in Python

DATA HANDLING

Data Types
Numbers
Strings
Lists
Tuples
Dictionary
Set
Frozenset
Bool
Mutable & Immutable

STRING MANIPULATION

Introduction to Python String
Accessing Individual Elements
String Operators
String Slices
String Functions and Methods

LIST MANIPULATION

Introduction to Python List
Creating List
Accessing List
Joining List
Replicating List
List Slicing

DICTIONARIES

Introduction to Dictionary
Accessing values in dictionaries
Working with dictionaries
Properties

SET AND FROZENSET

Introduction to Set and Frozenset
Creating Set and Frozenset

TUPLES

Introduction to Tuple
Creating Tuples
Accessing Tuples
Joining Tuples
Replicating Tuples
Tuple Slicing

OPERATORS

Arithmetic Operators
Relational Operators
Logical Operators

Membership Operators
Identity Operators
Bitwise Operators
Assignment Operators
Operators Precedence
Evaluating Expression
Type Casting

PROGRAM CONTROL FLOW

Conditional Statements
The if Statement
The if-else Statement
The if-elif Statement
Nested if Statements
Python Indentation
Looping and Iteration

The For Loop
The While Loop
Loop else Statement
Nested Loops
Break and Continue
The Range Function
Introduction to range()
Types of range() function
Use of range() function

INTRODUCTION TO FUNCTIONS

Built-In Functions
Introduction to Functions
Using a Functions
Python Function Types

Structure of Python Functions E.g.

- map, zip, reduce, filter, any, chr, ord, sorted, globals,

locals, all, etc.

User Defined Functions

Structure of a Python Program w.r.t. UDF

Types of Functions

Invoking UDF

Flow of Execution

Arguments and Parameters

Default Arguments, Named Arguments

Scope of Variables

Lambda function

Recursion Function

Use of recursion function

MODULES AND PACKAGES

Built-in Modules

Importing Modules in Python Programs

Working with Random Modules E.g. -
builtins, os, time, datetime, calendar,
sys, etc.

User Defined Functions

Structure of Python Modules

FILE OPERATIONS

Text and Bytes files

Opening a file

Reading and Writing Files

Other File tools

MS Excel files

Introduction to MS Excel files

CLASSES AND OBJECTS

Classes as User Defined Data Type

Objects as Instances of Classes

Creating Class and Objects

Creating Objects By Passing Values

Variables & Methods in a Class

EXCEPTION HANDLING

Default Exception and Errors

Catching Exceptions

Raise an exception

Try.... except statement Raise,
assert, Finally blocks

User defined exception

INTRODUCTION TO OOPS

Procedural Vs Modular Programming

The Object Oriented Programming

Data Abstraction

Data Hiding

Encapsulation

Modularity

Inheritance

Polymorphism

DATABASE

Introduction to MySQL

MySQL Connections

Executing queries

Transactions

Handling error

GUI PROGRAMMING

Introduction

Tkinter programming

Tkinter widgets

Frame

Button

Label

Entry

MULTITHREADING

Thread and Process

Starting a thread

Threading module

Synchronizing threads

Multithreaded Priority Queue

REGULAR EXPRESSIONS

Match function

Search function

Grouping

Matching at Beginning or End

Match Objects Flags

PYTHON MODULES

Numpy

Pandas

Scipy

PYTHON MATPLOTLIB

Get Started

Pyplot

Plotting

Markers

Line

Labels

Grid

Subplots

Scatter

Bars

Histograms

Pie Charts





International Web Professional

Duration: 180 Hrs

WEB DEVELOPMENT SYLLABUS

Python Intro
Python Comments
Python Variables
Python Data Types
Python Numbers
Python Tuples
Python Sets

Python
Dictionaries
Python Scope
Python Modules
Python File
Handling
Python Read Files

Python
Write/Create Files
Python Delete
Files
Python MySQL
Create Database
Create Table

Inset
Select
Where
Order By
Delete
Drop Table
Update

Limit
Join
Creating a Website -
Project, using Frame
Work
Django

WEB DESIGN SYLLABUS

HTML5

HTML5 Introduction
HTML5 New Elements
HTML5 Video
HTML5 Video/DOM
HTML5 Audio
HTML5 Drag and Drop
HTML5 Canvas
HTML5 SVG
HTML5 Canvas vs. SVG
HTML5 Geolocation

CSS3

CSS HOME
CSS Introduction
CSS Syntax

CSS How To

CSS Colors
CSS Backgrounds
CSS Borders
CSS Margins
CSS Padding
CSS Height/Width

BOOTSTRAP

BS HOME
BS Get Started
BS Grid Basic
BS Typography
BS Tables
BS Images
BS Jumbotron

BS Wells

BS Alerts
BS Buttons
BS Button Groups

JAVASCRIPT

JS HOME
JS Introduction
JS Where To
JS Output
JS Syntax
JS Statements
JS Comments
JS Variables
JS Operators

AJAX

Introduction
PHP AJAX example
AJAX Database
programming

JQUERY

jQuery Install
jQuery Syntax
jQuery Selectors
jQuery Events
jQuery Hide/Show
jQuery Fade
PHP Course

Syllabus

jQuery Slide
jQuery Animate
jQuery stop()

CMS

WordPress
Admin panel
Theme Customization
Plugins
Create a blog using

WordPress

MVC
Basics

WordPress:

Introduction to

WordPress

Installing WordPress
exploring the admin interface
Content creation: Posts vs. pages

Web Optimization Syllabus

(Lesson 1)

SEO Business Concepts
Business Impact of SEO
Periodic Table of SEO Success Factors

(Lesson 2)

How Search Engines Work
Search Engine Landscape (Website terminology)
Search Engine Index

(Lesson 3)

Keyword Research & Competitive Analysis
The Need for A Keyword Research Plan
How to Research Your Keywords

(Lesson 4)

On Page Optimization - Content SEO
Understanding content Optimization
Optimizing Structure

(Lesson 5)

On Page Optimization - Technical SEO
Identify and Remove Duplicate Content
Additional Optimization & Management

(Lesson 6)

Off Page SEO
The Importance of Links
Evaluating Backlinks

(Lesson 7)

Long Term Content Planning
Overview of long-term content strategies
Planning a successful content strategy and avoid common

(Lesson 8)

Measuring SEO Effectiveness
Measuring SEO Performance
Measuring the Impact of Social Media

(Lesson 9)

SEO in E-Commerce
Understanding SEO and E-Commerce
Working with Semantic HTML for E-Commerce

(Lesson 10)

Google Business Listing
Understanding Google My Business
Setting Up and Optimizing Google+ Business Listing

(Lesson 11)

Mobile SEO
Configuring Your Website for Mobile
Developing mobile friendly content

(Lesson 12)

Google Analytics
Understanding the basics
Why Google analytics

(Lesson 13)

Google Tag Manager
Setting up Google Tag Manager
Using additional tags for marketing and remarketing



The world says



I got to know of IPCS Automation from an online search. I wasn't sure of what I saw online, but being a risk taker, I enrolled for their ASE course. I have spent about one month here from one session to the other, They are exceptionally good on all areas.

- Orute Irogbo Gareth - Nigeria



If you want 85% practical then think about coming to IPCS. If you want to be well trained as an Automation System Engineer, then come to IPCS. They have well trained instructors too.

Damiete Bob Manuel - Kenya



Detailed information which is relevant to industries, excellent lab facilities and good student to lecturer ratio.

Sikhumbozo Ncube - Zimbabwe



Excellent teaching approach, hand on experience, I would recommend anyone who might want to join IPCS, the staff welcoming and always smiling

Kennady Kimurgor Kemboi - Nigeria



I did Automation System Engineer. It was an awesome experience. They have many PLC's to play around with and instructors were knowledgeable. Good place to get introduced with PLC, SCADA.

Mohammed Rathu - Maldives



Wonderful experience from team IPCS. I have joined here industrial automation course. They have a great team the faculties are very experienced and their support in the learning phase is remarkable.

Brown Kazonganga - Zimbabwe



I'm very glad to be one of IPCS Cochin trainee graduated in BMS & Automation. This a good genesis of my engineering career.

Aimable Twambaze - Kenya



Let me say thank you to IPCS providing me the best. BMS course was really good. The syllabus, lab & also the experienced faculties. Thanks to all my instructors for encouraging me during my time at IPCS.

Ndhlova Jablani - Zimbabwe



Contact
95006 16664
78458 46880



IPCS Global Solutions Pvt Ltd

2nd Floor, Swathi Towers,
Peelamedu, Hope College, Coimbatore, Tamil Nadu - 641004
Call: 95006 16664 / 78458 46880
Email: cbr@ipcsautomation.com www.ipcsglobal.com

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