INDUS UNIVERSITY
ज्ञानेन प्रकाशते जगत्

FACULTY DEVELOPMENT PROGRAM ON PYTHON PROGRAMMING

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Program Co-ordinator:	Head of Department:	Director (IITE)
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MODULE-1

Introduction & basics of Python Programming:

History of Python, Installing Python, Executing Python Programs, Internal Working of Python, Python Implementations. Python Character Set, Token, Python Core Data Type, print() function, Assigning Value to Variable, input() function, eval() function, Formatting Number and Strings, Operators and Expressions, Differential Evolution, Social Spider Optimization)

MODULE 2

Lists and Dictionaries

Tuples and Sets; File Handling; Pandas Creating Lists, Basic list operators, Slicing, Inbuilt functions for Lists, List operator, List Methods, Splitting, Need of Dictionary, Creating a Dictionary , Adding and Replacing Values, Retrieving Values ; Deleting Items and Traversing Dictionaries. Tuples and Sets: Creating Tuples; Tuple () Function, Inbuilt Functions for Tuples, Indexing and Slicing; Operations on Tuples; Traverse Tuples from a List, Set operators; Set class. Object-Oriented Programming: Classes and objects, methods, Operator Overloading, Inheritance, super () and Method Overriding. File Handling: Need of File Handling, Reading/Writing Text and Numbers to/from a File; Directories on a disk. Pandas: Using Pandas, the python data analysis library and data frames

MODULE 3

Decision Statements

Loop Control Statements; Functions, Strings Boolean Type, Boolean Operators, Using Number and Strings with Boolean Operators, Decision Making Statements and Conditional Expressions While loop, range( ) Function, For Loop, Nested Loops, Break Statement, Continue Statement; Syntax and Basics of a Function, Use of a function, Parameters and Arguments, Local and Global Scope Scope of a Variable, return statement and Recursive Functions.; str class, Inbuilt functions for String, index[] operator, traversal of String, String operators, String Operations

MODULE 4

Data Handling and Use Cases & Machine Learning

RE Pattern Matching, Parsing Data, Introduction to Regression , Types of Regression , Use Cases , Exploratory data analysis , Correlation Matrix , Visualization using Matplotlib and Implementing linear regression

Machine Learning- Machine Learning - Algorithm, Algorithms - Random forest , Super vector Machine , Random Forest , Build your own model in python and Comparison between random forest and decision tree

How to Apply:

1. Click on the following link http://online.mnit.ac.in/eict/clogin.php
2. Enter your email id in New Registration Section
3. You will receive username and password in your email
4. Again go to link http://online.mnit.ac.in/eict/clogin.php
5. Login with your user id and password
6. First fill your personal details
7. In next part fill the course details
8. Select any of above courses
9. In Proctoring Coordinator box, kindly select "Divyangna Gandhi, Institute of Tech. & Engg., Indus University Ahmedabad"
10. Submit the course details
11. In the next part if you are willing to get a certificate kindly pay online fees of Rs. 500 as per the instructions given in that part.

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