30 Days of Online Certification Course on

Python for Beginners
Dec 5th 2020 – Jan 5th 2021

Organized by

Computer Science and Engineering Department
National Institute of Technology, Manipur.

Patron

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National Institute of Technology, Manipur

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Mrs. Nirvana Thokchom,
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National Institute of Technology, Manipur

About NIT, Manipur

National Institute of Technology Manipur, a centrally funded institution is set up to impart quality technical education at various levels of higher learning. It is one of the ten new NITs established and developed as "Institute of National Importance" by an act of Parliament in 2007. NIT Manipur started its first session with the three branches of Engineering-Electrical & Electronics Engineering, Electronics & Communication Engineering and Computer Science Engineering. The functioning of the institute was started at its temporary campus at Takyelpat, Imphal under the mentorship of NIT, Agartala. As one of the National Institutes of Technology (NIT), the Institute has the responsibility of providing high quality education in Engineering, Technology and Sciences to produce competent technical and scientific manpower for the country. The Institute offers B Tech, M Tech, M Sc, MBA and PhD programmers in several disciplines of Engineering, Technology and Sciences.

What you'll learn from the course

- a fundamental understanding of Python programming language
- understand how to create your own python program
- use variables to store, retrieve and calculate information
- utilize core programming tools such as functions and loops
- acquire the pre-requisite Python skills to move into specifics branches – Machine Learning, Data Science, etc.
- have skill and understanding of Python to apply for Python programming jobs confidently.

Resource Persons

Mr. Sanabam Bineshwor Singh, Lecturer, CSE, NIT Manipur
Mrs. Anuradha Laishram, Lecturer, CSE, NIT Manipur
Mrs. Maibam Mangalleibi Chanu, Lecturer, CSE, NIT Manipur
Ms. Teresa Longjam, Lecturer, CSE, NIT Manipur

Target Audience

Students: 11th, 12th, UG, PG, Ph.D.
Faculty of Engineering: (Any Branch)
Other Professionals: Engineers & Scientists from Industry and R&D organizations

Registration

Kindly register through this link: (link will be provided later)
Registration fee: Rs 500/- including GST

Important Dates

Last Date of Registration : 27th Nov, 2020

Details of Bank Account

Name: Director NIT Manipur IRG
Acc. No. 60330100000143
Bank and Branch: Bank of Baroda, NIT Manipur Campus
IFSC code: BARB0NITMAN

For any query, you can contact to the course convener
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Python for Beginner

➢ **Introduction to Python and Computer Programming**

Conceptual introduction:

Topics in computer science, algorithms; modern computer systems: hardware architecture, data representation in computers, software and operating system**;** installingPython; basic syntax, interactive shell, editing, saving, and running a script.

➢ **Data Types, Variables, Basic Input-Output Operations, Basic Operators**

The concept of data types;variables, assignments;immutable variables;numerical types;arithmetic operators andexpressions; comments in the program;understanding error messages;

➢ **Boolean Values, Conditional Execution, Loops, Logical and Bitwise Operations**

Conditions, Boolean logic, logical operators;ranges;Control statements: if-else, loops (for, while)short-circuit (lazy) evaluation;

➢ **Modules, Packages, String and List Methods, Lists and List Processingand Exceptions**

Lists, tuples, and dictionaries; basic list operators, replacing, inserting, removing an element; searching and sorting lists; dictionary literals, adding and removing keys, accessing and replacing values; traversing dictionaries, Python's nature of strings, String methods.

Design with functions: hiding redundancy, complexity; arguments and return values; formal vs actual arguments, named arguments. Program structure and design. Recursive functions.