Sri Shridevi Charitable Trust (R.)



#### SHRIDEVI INSTITUTE OF ENGINEERING AND TECHNOLOGY

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(Approved by AICTE, New Delhi, Recognised by Govt. of Karnataka and Affiliated to Visvesvaraya Technological University, Belagavi)

# Department of Computer Science and Engineering Six - days Hands-on Skill Training on DATA ANALYTICS USING PYTHON



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Department of Computer Science and Engineering
Skill and Career Development Cell
ShriTEK Innovations



ESTD: 2002

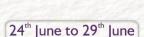
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**Hands-on Skill Training on** 

# **Data Analytics Using Python**





**Resource Person** 

Loganathan Rangasamy
Freelance Technical Trainer



4th sem 'A' Sec

### Best Wishes from: Management, Principal, HOD & Staff

Academic Year	2023-24	Targeted Audience from	CSE 4th 'A'
Name of the Event	Workshop	Number of Participants	67
<b>Date of Conduction</b>	27 <sup>th</sup> to 29 <sup>th</sup> May 2024	Time	09.00 AM to 05:00PM
Venue	COE Lab	Resource	Loganathan Rangaswamy

# **Details of Training:**

	The primary objectives of the workshop were:
	- To aims to equip you with essential skill in decision science using Python
	- The Workshop will focus on Python and how to achieve the results with
	python.
	- To introduce students to the real-world demands and expectations in using
	Data analytics in Python
Objective	- To provide hands-on experience with essential Python modules used in
	Data analytics.
	- To help students understand their learning paths and career opportunities
	in Data analytics.
	- To mainstream essential information and best practices in Data analytics
	using Python.
	The workshop on Data Analytics using Python was organized and
	conducted by the CSE dept. This Workshop was conducted for 6 days from
	Monday to Saturday. The students from the CSE dept showed a huge
	interest in this workshop. All the students gathered in the COE lab by 9:00
	am to 5.00 pm on every day of workshop. On the first day briefly explain t
	the students about the basic of python was taught to the students and various
	doubts were solved. The next day onwards this Workshop Content:-
	followed
	The workshop covered various topics and modules essential for building
	skills.
	1. Introduction to Python
	Basic of Python, Syntax, Variables, Data types.
	<ul> <li>Types of Operators using Python, Lists, Tuple, Conditional</li> </ul>
	statements, Looping statements and Arrays.
	❖ Hands on: Executing of Several Programs about on, E-bill
	Generation, Bank Withdrawal, Salary hiking so and so on.
	Python Libraries for Data Analytics: NumPy, Pandas & Matplotlib
	with example programs, Basic operations and setup.
D-4-!l64l A -4!!4	2. Basics of OOPs in Python
Details of the Activity	Define a Class, Objects, Primitive data structures, Class Definition
	Classes v/s Instances, Instances methods.
	Threading, Socket programming, Programming Demo, Properties of
	Python lists, Recursion and Arguments.
	<ul> <li>Programs on a particular pattern using Python Programming</li> </ul>
	Language & a Presentation from students.
	3. Continued with OOP's Concept;
	❖ Inheritance: Types of Inheritance & Related Programs
	How to inherit from Parent Class to Child Class
	<ul> <li>Encapsulation capsulated of attributes</li> </ul>
	<ul> <li>Properties of OOP's in Python &amp; Related Programs</li> </ul>
	Conduct a Quiz about what the Python.
	4. Introduction to Machine Learning
	❖ 7 Steps in Machine Learning, Frame Work
	❖ Tkinter Module: import the module and to use the module in
	program & how to connect the one module to another.
	Load the dataset using pandas read_csv(), head(), describe(), drop(
	functions

functions

	♦ Plot a histogram; Draw a correlation plot between the variables,
	<ul> <li>Graphs, Bar Chart &amp; Pie Chart.</li> <li>Django Application: Django is based on MVT (Model-View-Template) architecture.</li> </ul>
	5. Image Processing
	❖ Introduce of OpenCV (Open Source Computer Vision)
	Image Resizing, Rotation Translation, Normalization
	Edge Detection of Image, Image Blurring, Morphological Image processing.
Outcome	Data Analytics using Python is the fundamental process for starting with any of the projects. Also it is beneficial for the students as now they will be able to make their own Project successfully.
Outcome	Project exhibition on Data Analytics using Python based on this worshop was also conducted by CSE dept.

# Glimpse of course conduction are as follows...















Dr. Basavesha D HOD, CSE