

**KKR&KSR Institute of Technology and Sciences Vinjanampadu, Guntur,  
Andhra Pradesh-522017**

Approved by AICTE, New Delhi and Permanent Affiliation from JNTUK, Kakinada  
Accredited with "A" Grade by NAAC & NBA Accreditation Status for 4 UG (CSE, ECE, EEE, ME)  
Programs

**A Three Day Workshop on Advanced Python  
12<sup>th</sup> December to 14<sup>th</sup> December 2019**

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**16<sup>th</sup> December to 18<sup>th</sup> December 2019**

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**19<sup>th</sup> December to 21<sup>st</sup> December 2019**

**BY**

**M SriLalitha, M Ruthumma , K Meenakshi ,Trainer cum developer APSSDC**

### **About Resource Persons:**

**1. M SriLalitha**

Trainer Cum Developer  
APSSDC

Email : srilalitha.m@apssdc.in

**2. M Ruthumma**

Trainer Cum Developer  
APSSDC

Email: ruthu417@gmail.com

**3. K Meenakshi**

Trainer Cum Developer  
APSSDC

Email: meenakshi.k@apssdc.in

### **About APSSDC:**

The **Government of Andhra Pradesh** has a vision to be among the three best states in India by 2022 and to achieve the status of a developed state by 2029. To achieve this goal, the State has adopted a **mission-mode approach** and has created a '**Knowledge and Skills Mission**' along with six other missions. This mission will look into the manpower requirements of all other missions. Towards this, the Government of Andhra Pradesh has created a separate Department of Skill Development, Entrepreneurship and Innovation, to provide the thrust to skilling in the state and **Andhra Pradesh State Skill Development Corporation (APSSDC)** has been established as the implementing arm and spearheading the training skilling initiatives in the state.

#### **Vision of APSSDC:**

The Government of Andhra Pradesh has the vision (Swarna Andhra Vision 2029) to make Andhra Pradesh among the three best states in India by 2022 when India celebrates its 75th year of independence and to achieve the status of a fully developed state by 2029.

#### **Mission of APSSDC:**

To target 20 million people in AP in next 15 years towards skilling and entrepreneurship to meet skilled human power demands of all Missions and shape AP as the skilled-workforce and knowledge hub for the world

### **1. Objectives of the Event:**

This program aims at providing an opportunity for participants to enrich their knowledge and skill in developing various solutions for solving engineering problems in the society. This program serves as a platform for research scholars, faculty, engineers and students to interact on python language.

The workshop is designed to provide Basic knowledge of Python. Python programming is intended for software engineers, system analysts, program managers and user support personnel who wish to learn the Python programming language.

This Python for beginners training course leads the students from the basics of writing and running Python scripts to more advanced features such as file operations, regular expressions, working with binary data, and using the extensive functionality of Python modules. Extra emphasis is placed on features unique to Python, such as tuples, array slices, and output formatting.

### **Python Programming Training Objectives**

- Master the fundamentals of writing Python scripts
- Learn core Python scripting elements such as variables and flow control structures
- Discover how to work with lists and sequence data
- Write Python functions to facilitate code reuse
- Use Python to read and write files
- Make their code robust by handling errors and exceptions properly
- Work with the Python standard library
- Explore Python's object-oriented features
- Search text using regular expressions
- Using pandas and numpy importing the data sets to analyze the data
- using matplotlib to visualize the data.

### **2. Venue of the Event:**

The event is organized in **APSSDC Computer Lab** of KKR & KSR Institute of Technology and Sciences, Vinjanampadu, Guntur, Andhra Pradesh.

3. **Date & Time of the Event:** The Event is organized from 12<sup>th</sup> - 14<sup>th</sup> DEC 2019 & 16<sup>th</sup> - 18<sup>th</sup> DEC, 2019 & 19<sup>th</sup> DEC, 2019

4. **No. of students participated:** 182

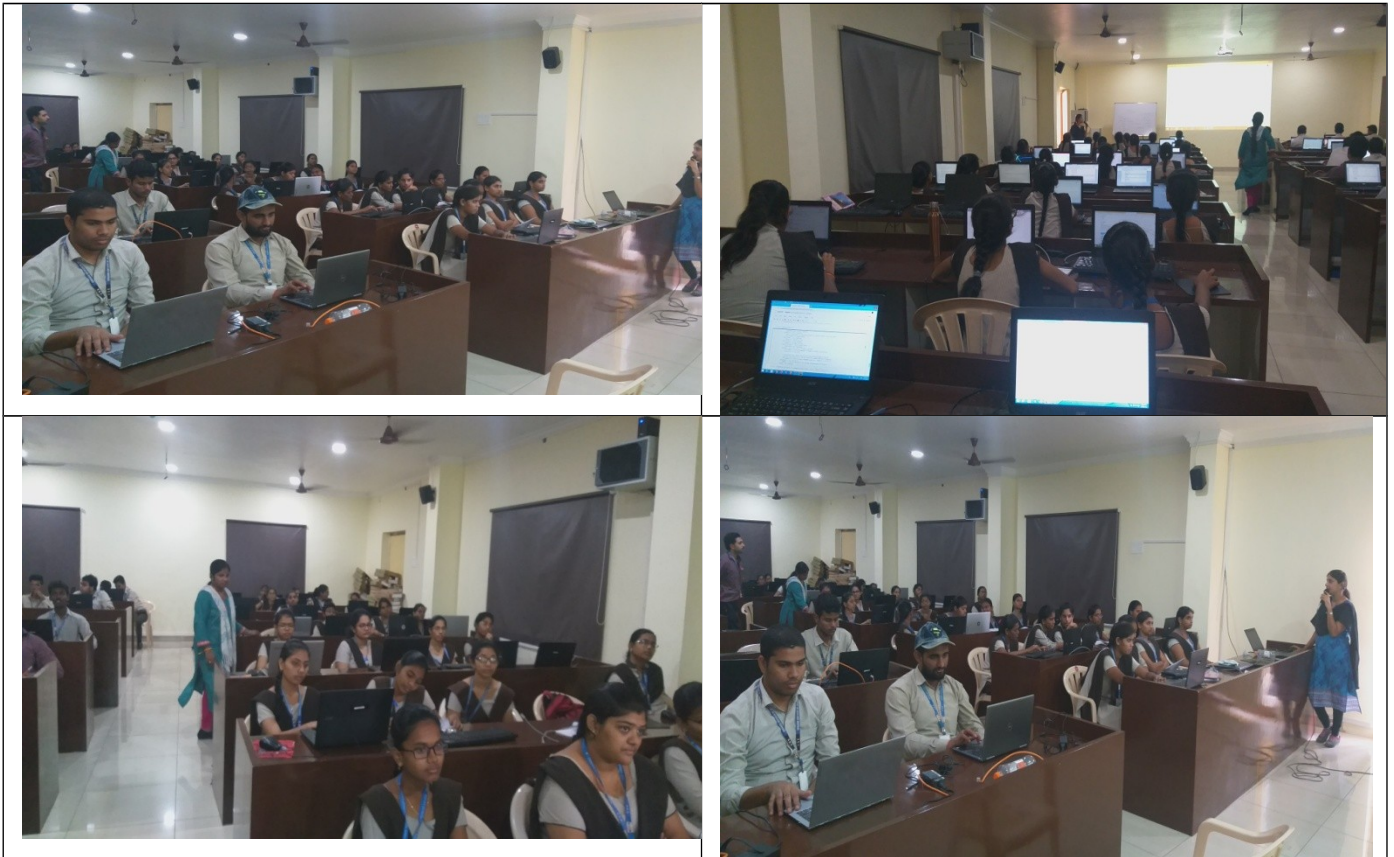
5. **No. of faculties participated:** 1

6. **Event photographs.**

Problem Solving and Programming in Python Phase - I	
Timings : 9:00 AM - 4:45 PM - 6 hours	
DAY 1	
Hour	Topic name
9:00 AM - 10:45 AM	Inauguration, Registrations, Introduction
11:00 AM - 12:30 PM	Literate Programming Jupyter Notebook Environment
1:30 PM - 2:30 PM	Markdown format for documentation
2:30 PM - 4:45 PM	Python basics
DAY 2	
Hour	Topic name
9:00 AM - 10:45 AM	String Slicing, functions with examples
11:00 AM - 12:30 PM	Python Functions
1:30 PM - 2:30 PM	Conditional Statements Iteration
2:30 PM - 4:45 PM	Lists
DAY 3	
Hour	Topic name
9:00 AM - 10:45 AM	Tuples, Sets
11:00 AM - 12:30 PM	Dictionaries
1:30 PM - 2:30 PM	Packages and Modules
2:30 PM - 4:45 PM	Regular Expression







## 7. Benefits in terms of learning/Skill/Knowledge obtained.

There are many benefits with this work shop which is on Python. It is a language that is remarkably easy to learn, and it can be used as a stepping stone into other programming languages and frameworks.

Python is widely used, including by a number of big companies like Google, Pinterest, Instagram, Disney, Yahoo!, Nokia, IBM, and many others. The Raspberry Pi - which is a mini computer and DIY lover's dream - relies on Python as its main programming language too. Probably wondering why either of these things matter, and that's because once learn Python. Not to mention, since a lot of big companies rely on the language, peoples can make good money as a Python developer.

Other benefits include:

- Python can be used to develop prototypes, and quickly because it is so easy to work with and read.
- Most automation, data mining, and big data platforms rely on Python. This is because it is the ideal language to work with for general purpose tasks.
- Python allows for a more productive coding environment than massive languages like C# and Java. Experienced coders tend to stay more organized and productive when working with Python, as well.
- Python is easy to read, even if you're not a skilled programmer. Anyone can begin working with the language, all it takes is a bit of patience and a lot of practice. Plus, this makes it an ideal candidate for use among multi-programmer and large development teams.
- Python powers Django, a complete and open source web application framework. Frameworks - like Ruby on Rails - can be used to simplify the development process.
- It has a massive support base thanks to the fact that it is open source and community developed. Millions of like-minded developers work with the language on a daily

basis and continue to improve core functionality. The latest version of Python continues to receive enhancements and updates as time progresses.

- numPy and Pandas have emerged to be essential libraries for any scientific computation, including machine learning, in python due to their intuitive syntax and high-performance matrix computation capabilities.
- **matplotlib** is a plotting library used for 2D graphics in python programming language. It can be used in python scripts, shell, web application servers and other graphical user interface toolkits.

#### 8. One Participant Feed Back:

I am **T. DEVIKA RANI**, studying 3<sup>rd</sup> B.Tech CSE department in KKR &KSR Institute of Technology and Sciences. I have attended the three days workshop on “**ADVANCED PYTHON**” First of all I want to thank my college management who provided such facility for all of us to learn and experience these workshops. In this regard my sincere thanks to AICTE-MHRD-IIC, who have been conducting such type of events for the student nourishment. I attended the workshop from 19<sup>th</sup> to 21<sup>th</sup> December 2019. I learn the following key concepts from this workshop which are very helpful in data visualization and machine learning.

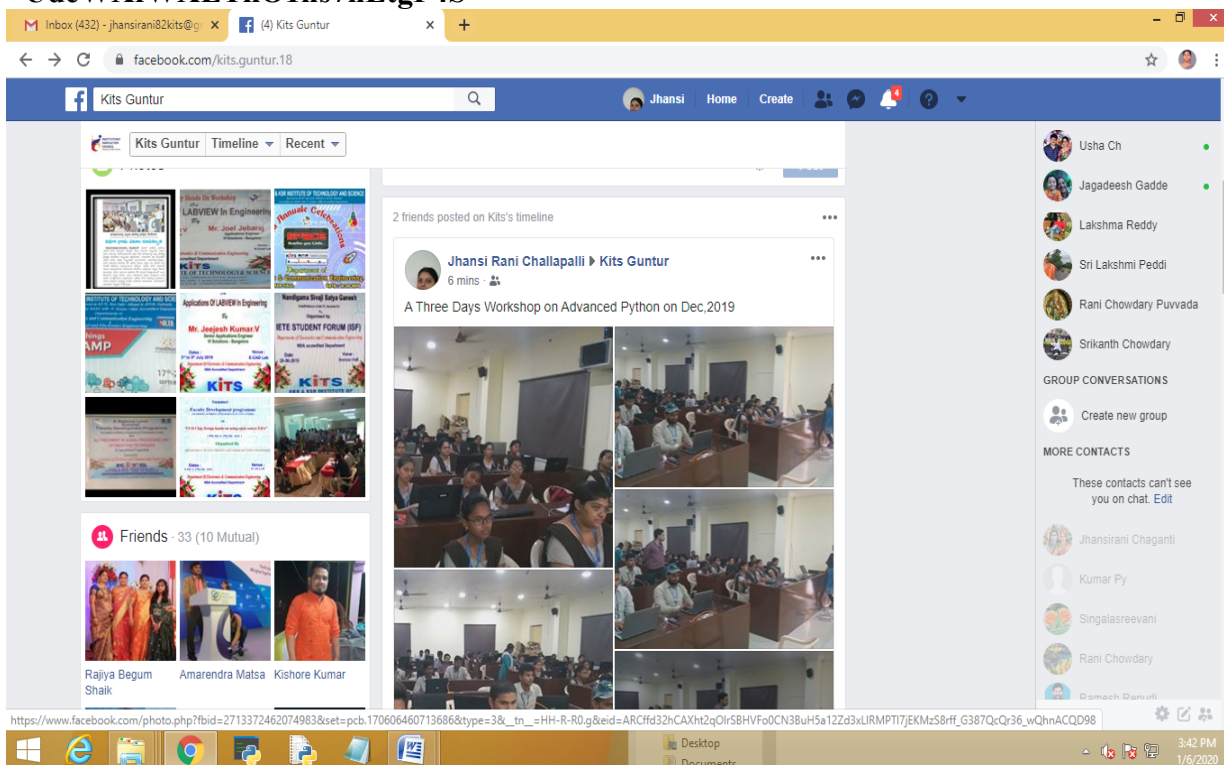
##### Key topics

- Introduction and String Formatting In Python
- Sorting In Python
- Python List Comprehension
- Arrays In Python
- Socket Programming In Python
- List Comprehensions Python
- Python Regex
- Matplotlib In Python
- If Statement In Python
- Dictionary In Python
- Object In Python
- Python Overloading
- Reverse Number In Python
- Fibonacci Series In Python
- Python Keywords
- Python Sets
- Bubble Sort In Python
- Heap Sort In Python
- Python Data Types
- Recursive Function In Python
- Do While Loop In Python
- Multidimensional Array In Python
- Python Variable Types
- Comments In Python
- Python Features
- Python Variables
- Python Database Connection
- While Loop In Python
- Destructor In Python
- Best Compiler For Python
- Python IDE For Windows
- Pandas.Dropna()
- Math Functions In Python
- Python Infinite Loop

➤ Abstract Class In Python

9. Promotion of the Event on the Social Media Website: (Link and Screenshot):

[https://www.facebook.com/photo.php?fbid=2713372308741665&set=pcb.170606460713686&type=3&\\_\\_tn\\_\\_=HH-R-R0.g&eid=ARAs\\_IsAONO7ncLJ4BUOlz6SJE656CsZi2osPVPcn5SThSb4LxPHzur-UdeWXfWXETiiO1hs7hEtgP4S](https://www.facebook.com/photo.php?fbid=2713372308741665&set=pcb.170606460713686&type=3&__tn__=HH-R-R0.g&eid=ARAs_IsAONO7ncLJ4BUOlz6SJE656CsZi2osPVPcn5SThSb4LxPHzur-UdeWXfWXETiiO1hs7hEtgP4S)



10. Promotion of the Event on the University/college Website :( Link and Screenshot)

[http://kitsguntur.ac.in/site/department\\_det.php?dept\\_id=1%20&page=Workshops](http://kitsguntur.ac.in/site/department_det.php?dept_id=1%20&page=Workshops)

11. 1- 2 minutes video of the event (Drive Link Only):

12. <https://drive.google.com/open?id=15uxAng22qBvnzYM2wulvK17EnKvX4tUd>

13. Expenditure Amount ( If any): **RS.30,000**

14. Remarks: The workshop is organized smoothly with practical orientation.

15. Experiences and Output of the Session

All CSE Department 3<sup>rd</sup> Year B.Tech students are attended the workshop by, **M SriLalitha, M Ruthumma , K Meenakshi**, Trainer cum developer APSSDC on “Python Basics” from 12<sup>th</sup> to 14<sup>th</sup> December 2019 & 16<sup>th</sup> to 18<sup>th</sup> Dec, 2019 & 19<sup>th</sup> Dec to 21<sup>st</sup> Dec, 2019, conducted by KKR & KSR Institute of Technology and Sciences in association with MHRD-IIC.

**Outcomes of the Session**

Python is one of the most important languages in the world of computer programming. This is because of its widespread application in the fields of Machine Learning, Data Science, and Artificial Intelligence . KITS in association with MHRD is proudly conducted a three days

workshop on Python. The outcome of this workshop is to enhance the knowledge of students and faculty in the field of Python Programming. This workshop will help the students and faculties to learn Python in industry perspective and make them to do real world web applications.

**M SriLalitha, M Ruthumma , K Meenakshi** , Trainer cum developer APSSDC as resource persons a workshop on “Advanced Python ” is organized. The session is Very useful and informative. **M SriLalitha, M Ruthumma , K Meenakshi** explained very clear about basics and involved in practical examples. This workshop is very useful to understand current research trends and we want to learn more about this research. So it



is better to extend this session. They explained the importance of innovation and projects. Thank you very much to the management and MHRD-IIC for giving the opportunity.