



SSM INSTITUTE OF ENGINEERING AND TECHNOLOGY

Dindigul – Palani Highway, Dindigul – 624 002

Department of Computer Science and Engineering

Value Added Course Summary 2019-2020

Course Name: Python with Advanced Concepts

Course Duration: 32 hours

Year Offered: 2019-2020

Course Instructors: Ms. S. Bharathi, Assistant Professor/CSE

Ms. M. Kiruthika, Assistant Professor/CSE

Course Outcome:

On completion of the course, students will be able to Create programs in Python IDLE, Implement OOPs concepts by using Arrays, and Data structures and to Implement error handling.

Course Type: Self Framed

Assessment Mode

Attendance: 32 hours

Number of Participants: 51

Scheme of Exam: Python concepts as Assignment

GRANT
Course Co-ordinator



DR. S. SENTHIL KUMARAN

**Dr. D. SENTHIL KUMARAN, M.E., Ph.D.,(NUS),
Principal
SSM Institute of Engineering and Technology
Kuttathupatti Village, Sindalagundu (Po),
Palani Road, Dindigul - 624 002**

V. JAMALI
HoD



SSM INSTITUTE OF ENGINEERING AND TECHNOLOGY

Palani Highway, Dindigul – 624 002, Tamilnadu.

Phone : 0451 – 2448800 – 99 (100 Lines) Email : ssmietdgl@gmail.com Fax: 0451 – 2448855

Computer Science And Engineering

16/11/2019

CIRCULAR

We would like to inform that, Computer Science And Engineering department is about to conduct ten weeks training program on "Python with Advanced Concepts". The interested students are instructed to register their names with Ms. S. Bharathi , AP/CSE on or before 30/11/2019 with out fail. Your effective participation is appreciated..

V Jyoti
HOD/CSE



Dr.D.SENTHIL KUMARAN M.E.TECH MUS
Senior Professor
Department of Mechanical Engineering
SSM Institute of Engineering Technology
Palani Road, Dindigul-624 002

26/11/2019

From

Ms. S. Bharathi, AP/CSE
Ms. M. Kiruthika, AP/CSE
Department of Computer Science and Engineering,
SSM Institute of Engineering and Technology,
Dindigul

11/11/19
Ms. Senthilkumaran
15/11/19

To

The Principal,
SSM Institute of Engineering and Technology,
Dindigul.

Through

The Head of the Department,
Department of Computer Science and Engineering,
SSM Institute of Engineering and Technology,
Dindigul.

Respected Sir,

Sub: Requisition to conduct Value added Course to our Students at our college- Reg.

We are planning to conduct Value added Course "**Python with Advanced Concepts**" at our college during the even semester of the academic year 2019-20. The course schedule is enclosed with this letter for your reference. Hence we kindly request your permission to conduct and guide the same.

Thanking You Sir,

Date: 15.11.2019

Place: Dindigul

Yours Faithfully,

8/11/19
V. Shunmughavel 15/11/19

Ms. S. Bharathi, AP/CSE
Ms. M. Kiruthika, AP/CSE

V. Shunmughavel
15/11/19

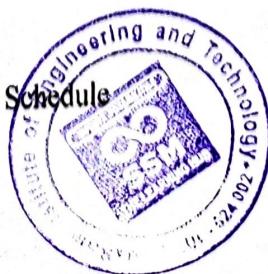
HoD/CSE
Dr.V.Shunmughavel

Principal
Dr.D.Senthilkumaran

D.S. 15/11/19

Enclosure:

1. Python with Advanced Concepts Course Schedule



Dr. D. SENTHIL KUMARAN M.E., Ph.D.
Senior Professor
Department of Mechanical Engineering
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Palani Road, Dindigul-624 002



SSM

INSTITUTE OF ENGINEERING AND
TECHNOLOGY

APPROVED BY AICTE, NEW DELHI | AFFILIATED TO ANNA UNIVERSITY, CHENNAI
ACCREDITED BY NAAC | ACCREDITED BY NBA (ECE, EEE, MECH UG PROGRAMS)

TECHNOLOGY TRAINING ON PYTHON WITH ADVANCED CONCEPTS

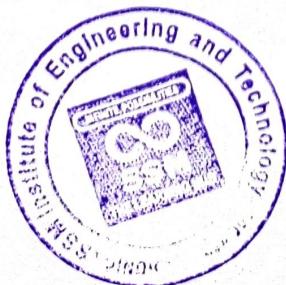
Instructors
S.Bharathi
M. Kiruthika

Hod

Dr.V. Shanmugavel

Principal

Dr.D.Senthil Kumaran



Dr.D.SENTHIL KUMARAN M.E..Ph.D
Senior Professor
Department of Mechanical Engineering
SSM Institute of Engineering Technology
Palani Road, Dindigul-624 002



SSM INSTITUTE OF ENGINEERING AND TECHNOLOGY

Dindigul – Palani Highway, Dindigul – 624 002.

Department of Computer Science and Engineering

Academic Year 2019-2020

VALUE ADDED COURSE

PYTHON WITH ADVANCED CONCEPTS

S.No.	Week	Topic Title	Topic Details
1.	Week 1	Introduction to Python Spyder tool	Introduction Spyder <ul style="list-style-type: none"> • Setting working Directory • Creating and saving a script file • File execution, clearing console, removing variables from environment, clearing environment • Commenting script files • Variable creation • Arithmetic and logical operators • Data types and associated operations
2.	Week 2	Python-Data Structure	Data Structure <ul style="list-style-type: none"> • Strings • Lists • Tuples • Dictionary • Sets
3.	Week 3	Python- Control structures Numpy Packages	Control structures <ul style="list-style-type: none"> • if-else family • for loop • for loop with if-break • while loop Numpy <ul style="list-style-type: none"> • Array • Matrix and associated operations • Linear algebra and related operations
4.	Week 4	Pandas Library	Pandas dataframe and dataframe related operations on Toyota Corolla dataset <ul style="list-style-type: none"> • Reading files • Exploratory data analysis • Data preparation and preprocessing
5.	Week 5	Data visualization	Data visualization on Toyoto Corolla dataset using matplotlib and seaborn libraries <ul style="list-style-type: none"> • Scatter plot • Line plot • Bar plot • Histogram and Tachplot • Box plot • Heatmap



6.	Week 6	Python - Object Oriented	Python - Object Oriented <ul style="list-style-type: none"> • Overview of OOP Terminology • Creating Classes • Creating Instance Objects • Accessing Attributes • Destroying Objects (Garbage Collection)
7.	Week 7	Python - Object Oriented	Python - Object Oriented <ul style="list-style-type: none"> • Class Inheritance • Overriding Methods • Base Overloading Methods • Data Hiding
8.	Week 8	Python with Database	Python with Database <ul style="list-style-type: none"> • Create Database • Insert • Find • Query • Delete • Update
9.	Week 9	Python-GUI	Python-GUI <ul style="list-style-type: none"> • Button • Canvas • Checkbutton • Radio Button • Frame • Label • ListBox
10.	Week 10	Python-GUI	Python-GUI <ul style="list-style-type: none"> • Menu • Menu Button • Message • Scale • Scroll Bar • Text • Panel Window • Label Frame • Message Box

8BL Mysuru
Ms. S. Bharathi, AP/CSE
Ms. M. Kiruthika, AP/CSE

Faculty Incharge

Ms.S. Bharathi, AP/CSE
Ms. M. Kiruthika,AP/CSE

V. Jhunjhunwala
HoD/CSE



Dr.D.Senthilkumaran
Dr.D.SENTHIL KUMARAN M.E., Ph.D., IND
Senior Professor
Department of Mechanical Engineering
SSIM Institute of Engineering Technology
Palani Road, Dindigul-624 002

D
Principal

VAC ATTENDANCE(19-20) (PYTHON WITH ADVANCED CONCEPTS)

YEAR/BRANCH/SEMESTER: II/CSE/IV

S.NO	REGISTER NO	NAME OF THE STUDENT	12.07.2019	14.12.2019	21.12.2019	25.01.2020	18.01.2020	02.01.2020	02.08.2020	01.04.2020	01.11.2020
1.	922118104001	Aravindhhan M	AB								
2.	922118104002	Bhuyana Raja M	AB								
3.	922118104003	Chandra R	Chandru								
4.	922118104004	Deepthi Thejasvi E	Deepthi								
5.	922118104005	Dhanusiva V S	Dhanush								
6.	922118104006	Fahima Rizwana K	Fahima								
7.	922118104007	Gayathri Rs	Gayathri								
8.	922118104008	Gokul S	Gokul								
9.	922118104009	Hari Prasad M	Hari								
10.	922118104010	Hinduja M	Hindu								
11.	922118104011	Indhumathi M	Indhumathi								
12.	922118104012	Janani M	Janani								
13.	922118104013	Janani M	Janani								
14.	922118104014	Jaya Priya G	Jaya								
15.	922118104015	Jegan M	Jegan								
16.	922118104016	Joaquin Raj S	Raj								
17.	922118104017	Jothika M	M.Jothika								
18.	922118104018	Keerthika R	Keerthika								
19.	922118104019	Kirthika K	Kirthika								
20.	922118104020	Kirubha Shree V	AB								
21.	922118104021	Krishna V	Krishna								
22.	922118104022	Krishna Sr Ee K	Krishna								
23.	922118104023	Livin Iruthaya Raj	Livin								
24.	922118104024	Loyola I	Iyengar								
25.	922118104025	Mari Vilgness R	Mari								
26.	922118104026	Nagamani N	Nagamani								
27.	922118104027	Nandhini S	S.Nandhini								
28.	922118104028	Nandhini T	T.Nandhini								
29.	922118104030	Naveendran S	Naveendran								
30.	922118104031	Naveen Kumar K	K	K	K	K	K	K	K	K	K



Dr.D.SENTHIL KUMARAN M.E.,Ph.D INSP

Senior Professor

Department of Mechanical Engineering

ESM Institute of Engineering Technology

Palani Road, Dindigul-624 002

Dr.D.SENTHIL KUMARAN M.E.,Ph.D.(INUSI)

Senior Professor

Department of Mechanical Engineering
SSM Institute of Engineering Technology

HoD/CSE

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Institute of Engineering and Technology

Department of Computer Science and Engineering
Value Added Course (2019-2020)

Technology Training on Python with Advanced Concepts

Assessment Questions

Total: 30

1. How do I access a module written in Python from C?
2. What will be the output of the code below?

```
list = ['alfa', 'bravo', 'charlie', 'delta', 'echo']
print list[10:]
```

3. How to Install Python?
4. Explain Scope in Python?
5. List the common built-in data types in Python?
6. Filter for rows showing Q3 and Q4 sales

Prepare the data by selecting only the sales for Q3 and Q4 across all the territories in 2021. For this, we will use the datetime package, which allows us to identify the year and quarter information from the order_date column.

```
fct_customer_sales_21 = fct_customer_sales[
    (fct_customer_sales.order_date.dt.quarter.isin([3,4])) &
    (fct_customer_sales.order_date.dt.year==2021)]
```

GBL Bharathi

V. Murali

S

Faculty Co-Ordinators

HoD/CSE

Principal



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Senior Professor
Department of Mechanical Engineering
SSM Institute of Engineering Technology
Palani Road, Dindigul-624 002

D. Senthil Kumaran

VAC ASSESSMENT REPORT

S.NO.	Name	TOTAL MARKS	ASSESSMENT MARKS
1	ARAVINDHAN M	30	30
2	BHUVANA RAJA M	30	25
3	CHANDRA R	30	26
4	DEEPTHI THEJASVI E	30	27
5	DHANUSIYA V S	30	25
6	FAHIMA RIZWANA K	30	29
7	GAYATHRI RS	30	28
8	GOKUL S	30	27
9	HARI PRA SAD M	30	25
10	HINDUJA M	30	24
11	INDHUMATHI M	30	25
12	JANANI M	30	26
13	JANANI M	30	28
14	JAYA PRIYA G	30	30
15	JEGAN M	30	30
16	JOAQUIN RAJS	30	29
17	JOTFIKA M	30	30
18	KEERTHIKA R	30	30
19	KIRTHIKA K	30	30
20	KIRUBHA SHREE V	30	26
21	KRISHNA V	30	29
22	KRISHNA SR EE K	30	28
23	LIVIN IRUTHAYA RAJ	30	27
24	LOYOLA I	30	28
25	MARI VIGNESH R	30	25
26	NAGAMAN I N	30	27
27	NANDHINI S	30	25
28	NANDHINI T	30	25
29	NAVEENDRAN S	30	26
30	NAVEEN KUMAR K P	30	29
31	OVIIYA PRIYADHARSHINI	30	28
32	POORNA KUMAR P	30	28
33	PRADEEPA R	30	30
34	PRIYADHARSHINI V P	30	27
35	PUNITH BABU M	30	28
36	SAJIHARINIKA S	30	28
37	SAMRITHA ATCHAYA P	30	28
38	SARANYA S	30	29
39	SARAVANAKUMARAN A	30	27
40	SHERLINE SNEHA M	30	27
41	SHREEVATHSAN	30	27
42	SRI VANIS	30	29



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 Senior Professor
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 BSM Institute of Engineering Technology
 Palani Road, Dindigul-624 002

43	SRUTHI K	30	29
44	SUDHAN M	30	29
45	THARUNSHANKARS	30	26
46	VIGNESH R	30	29
47	VIJAY G	30	28
48	VIJAYA SUBHA G	30	28
49	YOGALAKSHMI B	30	30

8BL Me

Faculty Co-Ordinators

V. Sury

HoD/CSE



R. S.

Dr. D. SENTHIL KUMARAN M.E., Ph.D. *(Signature)*
Senior Professor
Department of Mechanical Engineering
SSM Institute of Engineering Technology
Palani Road, Dindigul-624 002

26
20

M. M. Induga.

II - CSE

Module : `PyImport - Import Module ("ModuleName")`;

[];

Index Errors.

4) `def myfunc():`

~~`x=200;`~~

~~`def myinnerfunc():`~~

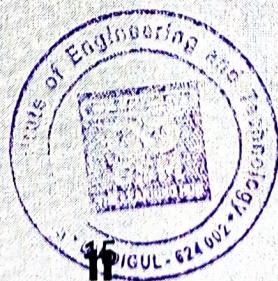
~~`print(x)`~~

~~`myinnerfunc()`~~

~~`myfunc()`~~

5) str, int, float, dict, bool.

C282	P476	2021-07-02	999	0146
C284	P481	2021-07-07	500	0149
C285	P489	2021-07-13	700	0150
C284	P489	2021-07-15	181	0151



D.Senthil Kumar

Dr.D.SENTHIL KUMARAN M.E. Ph.D INDU
Senior Professor
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DSSM Institute of Engineering Technology
Palani Road, Dindigul-624 002

2
30

N. Nagamani
9.68

1. `module = __import__(modulename)`;
2. `[]`; Index error.
3. Step-1: python version to download
Step-2: Click. Install (.exe)
Step-3: Installation in progress
Step-4: Verify the python Installation

Start

`"python --version"`

python 3.11.3.

Step-5: Opening idle

4. Variable created inside a function belongs to local scope of the function.

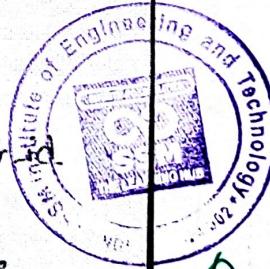
```
def myfunc();
    x=300
    print(x)
myfunc()
```

```
def myfunc();
    x=300
    def myinnerfunc();
        print(x)
        myinnerfunc()
myfunc()
```

5. * bytearray, bytes,
* bool
* frozenset, set
* dict,
* range, tuple, list
* float, int, complex
* str

Cust-id	Prod-Sku-id	Order-date	Order-value
C282	P476	2021-07-02	991
C284	P 487	2021-07-07	500
C285	P 478	2021-07-12	700
C287	P 489	2021-07-13	189
C284	P 482	2021-07-15	725

order id.
0146
0149
0150
0151



D.D.SENTHIL KUMARAN M.E.P.D.Tech
Senior Professor
Department of Mechanical Engineering
SSM Institute of Engineering Technology
Palani Road, Dindigul-624 002



Department of Computer Science and Engineering

Feedback Form

Topic	Value Added course on "Python with Advanced Concepts"
Conducted by	Ms. S.Bharathi, AP/CSE Ms. Kiruthika, AP/CSE
Target Group	II year CSE Students
Date/Venue/Timing	14.12.2019 – 01.11.2020/CSE LAB 1

1. Content delivered by Resource person

- Excellent
 Good
 Fair

2. Resource person's knowledge on content delivery

- Excellent
 Good
 Fair

3. Response of the resource person to students queries

- Excellent
 Good
 Fair

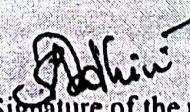
4. Whether the session was useful

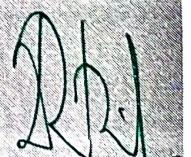
- Excellent
 Good
 Fair

5. Overall experience

- Excellent
 Good
 Fair

6. Suggestions/ any comments


Signature of the participant



Dr.D.SENTHI KUMARAN M.E., Ph.D INUS
Senior Professor
Department of Mechanical Engineering
SSM Institute of Engineering Technology
Palani Road, Dindigul-624 002





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Institute of Engineering and Technology

Department of Computer Science and Engineering

Feedback Form

Topic	Value Added course on "Python with Advanced Concepts"
Conducted by	Ms. S.Bharathi, AP/CSE
	Ms. Kiruthika, AP/CSE
Target Group	II year CSE Students
Date/Venue/Timing	14.12.2019 – 01.11.2020/CSE LAB 1

1. Content delivered by Resource person

- Excellent
- Good
- Fair

2. Resource person's knowledge on content delivery

- Excellent
- Good
- Fair

3. Response of the resource person to students queries

- Excellent
- Good
- Fair

4. Whether the session was useful

- Excellent
- Good
- Fair

5. Overall experience

- Excellent
- Good
- Fair

6. Suggestions/ any comments



Signature of the participant

Dr. D. SENTHIL KUMARAN M.E. M.Tech INDIA
Senior Professor
Department of Mechanical Engineering
SSM Institute of Engineering Technology
Palani Road, Dindigul - 624 002



SSM

Institute of Engineering and Technology

Department of Computer Science and Engineering

Feedback Form

Topic Value Added course on "Python with Advanced Concepts"
Conducted by Ms. S.Bharathi, AP/CSE
Ms. Kiruthika, AP/CSIE
Target Group II year CSE Students
Date/Venue/Timing 14.12.2019 – 01.11.2020/CSE LAB I

1. Content delivered by Resource person

- Excellent
- Good
- Fair

2. Resource person's knowledge on content delivery

- Excellent
- Good
- Fair

3. Response of the resource person to students queries

- Excellent
- Good
- Fair

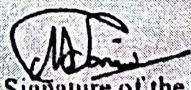
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- Fair

6. Suggestions/ any comments


Signature of the participant



Dr.D.SENTHIL KUMARAN M.E.PE.
Senior Professor
Department of Mechanical Engineering
SSM Institute of Engineering Technology
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Institute of Engineering and Technology

Department of Computer Science and Engineering

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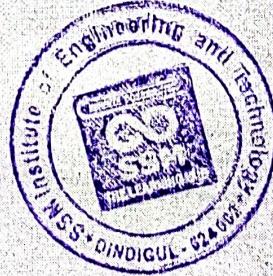
4. Whether the session was useful

- Excellent
- Good
- Fair

5. Overall experience

- Excellent
- Good
- Fair

6. Suggestions/ any comments



10

Coorgi D.S.
Signature of the participant

Dr. D. SENTHIL KUMARAN M.E., Ph.D., M.A.S.
Senior Professor
Department of Mechanical Engineering
SSM Institute of Engineering Technology,
Palani Road, Dindigul-624 002



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CERTIFICATE OF PARTICIPATION

This certificate is given to Ms/Mr BHUWANA RAJAM of II - CSE has attended
a 10 Weeks Technological Training of "Python with Advanced Concepts" in
SSM INSTITUTE OF ENGINEERING AND TECHNOLOGY, DIN DIGUL.

Principal

SSMIET

HOD/CSE

Instructor

AP/CSE

Dr. D. SENTHIL KUMARAN M.E., Ph.D (INT)
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CERTIFICATE OF PARTICIPATION

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Instructor
AP/CSE


HOD/CSE

Principal
SSMIET


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CERTIFICATE OF PARTICIPATION

This certificate is given to Ms/Mr VIJAY G of II - CSE has attended a 10 Weeks Technological Training of "Python with Advanced Concepts" in SSM INSTITUTE OF ENGINEERING AND TECHNOLOGY, DIN DIGUL.



[Signature]
Instructor
AP/CSE

[Signature]
AP/CSE

Senior Professor
Department of Mechanical Engineering
SSM Institute of Engineering Technology
Palani Road, Madurai 624 089

[Signature]
Principal
SSMIET



SSM

Institute of Engineering and Technology

CERTIFICATE OF PARTICIPATION

This certificate is given to Ms/Mr DEEPTHI THEJASWEE of II - CSE has attended
a 10 Weeks Technological Training of "Python with Advanced Concepts" in
SSM INSTITUTE OF ENGINEERING AND TECHNOLOGY, DINDIGUL.



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S. M. P. INSTITUTE
Department of Mechanical Engineering
SSM Institute of Engineering Technology
Palayamkottai, Dindigul-624 002

AP/CSE

HOD/CSE

Principal

Instructor



Institute of Engineering and Technology

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10 Weeks Technological Training of "Python with Advanced Concepts" in
SSM INSTITUTE OF ENGINEERING AND TECHNOLOGY, DIN DIGUL.

Principal
SSMIET

HOD/CSE
Instructor
AP/CSE

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Senior Professor
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T. N. Road, Dindigul-624 002

