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Certificate Course

#### DATA SCIENCE WORKFLOW AND TOOLS

from 4th November 2019 to 9th November 2019



#### **ORGANIZED BY**

DEPT. OF COMPUTER SCIENCE ENGINEERING AVANTHI INSTITUTE OF ENGINEERING AND TECHNOLOGY, MAKAVARAPALEM (V), VISAKHAPATNAM-531113

#### **AVANTHI INSTITUTE OF ENGINEERING & TECHNOLOGY**

AIET started in the year 1999 and offers various courses at Engineering and PG level. The college is providing with rooms, computer centre, laboratories and seminar hall with audio-visual equipments. Industry Institute interaction is conducted regularly to emphasize on the latest trends in the present market.



It is very near to Narsipatnam. Frequent bus facilities are available both from and to Visakhapatnam and Narsipatnam. Very safe and secure hostel facility is available for Girl students. These are the additional facilities besides excellent academic atmosphere in the college campus.

#### DEPARTMENT OF COMPUTER SCIENCE ENGINEERING

The Computer Science & Engineering department was established with B.Tech Program in 1999 with intake of 60 students and this was increased to 120 students in 2007 and increased to 180 students in 2012. The Post graduate Program M.Tech with C.S.E was started in 2005 with intake of 18 Students and this was increased to 24 students in 2012. The Computer Science & Engineering department was accredited by NBA in 2009 and 2014. Department mission is to be Instrumental in the field of computer science &

engineering by providing high quality education and continues improvement process of the program. The department has full fledged faculty with four professors with Ph.D and 40 staff members with experience in teaching and industry, which leads the skill students to get employment in the market. The department encourages the faculty members and the students to participate paper presentations, seminars, workshops and National, International conferences and research activities. The department is well equipped laboratories and the computers have sophisticated development software tools. The department provides training to its students in advanced technologies like JAVA, WEB TECHNOLOGIES, NET, PHP, Data Warehousing, Data Mining tools and Data storage systems as a supplement to the curriculum to enhance the employability of students. Our faculty members are the members of Computer Society of India, ISTE, IEEE.

#### **ABOUT COURSE**

Data scientist is one of the best suited professions to thrive this century. It is digital, programming-oriented, and analytical. Therefore, it comes as no surprise that the demand for data scientists has been surging in the job marketplace.

However, supply has been very limited. It is difficult to acquire the skills necessary to be hired as a data scientist dedicated to developing novel data science theories, algorithms, and methods to solve challenging problems in business and society. The conference provides a venue for innovative data science studies that solve business and societal problems from the lens of data mining and machine learning, ranging from marketing and finance problems to health care, cyber security, and social network problems. Studies on theoretical and methodological foundations to data science, such as optimization for machine learning and new algorithms for data mining, are also welcome.

#### TOPICS TO BE COVERED

Day 1	Introduction t	to Data	Science

Day 2 Machine Learning

Day 3 Algorithms used in Machine Learning

Day 4 Statistical Foundations for Data Science

Day 5 Scientific Computing

Day 6 Optimization Techniques

For Registration please contact Mr. S.V.R.Vara Prasad, Assistant Professor, CSE.

CHIEF PATRON

Smt. M. Gnaneswari
President
Avanthi Institute of Engineering and Technology

PATRON

Dr. C P V N J Mohan Rao Principal, Avanthi Institute Of Engineering and Technology CHAIRMAN

P.M.Manohar
Head of the Department
Computer Science & Engineering



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Dt: 28-10-2019.

#### CIRCULAR

On behalf of the Department of Computer Science and Engineering AIET is conducting one week certificate course on "Data Science Workflow and Tools" during 4<sup>th</sup> November 2019 to 9<sup>th</sup> November 2019 for all the students of II & IV Year of Computer Science and Engineering Department.I advise to all the students of II & IV Year CSE to enroll your details for above course. For more details you may contact course Coordinator Mr.S.V.R.Varaprasad, Assistant Professor, CSE.

Resource Person 1: Dr.S.Jhansi Rani

Assistant Professor

A.U, Visakhapatnam

2: Dr.G.Sowjanya

Professor

Information Technology, JNTUV.

P.M.Manohar

Head of the Department

Computer Science and Engineering

Copy to: Principal, AIET

Avanthi Institute of Engg. & Technology
Tamaram, Makavarapalem Md.,
Visakhapatnam District, PIN-531113

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#### Data Science work flow and tools

Duration: 4th Nov 2019 to 9th Nov 2019

#### **SYLLABUS**

DAY 1: Introduction to data science in Python

DAY 2 : Introduction to Machine learning

DAY 3: Introduction to Algorithms, Algorithms used in Machine learning

DAY : Statistical Foundations for D.S

DAY 5 : Scientific Computing

DAY 6 : Optimization Techniques

S.V.R.Varaprasad

Coordinator

P.M.Manohar

Head of the Department

Avanguters ficience Engineering Tamaram, Makavarapalem Md Visakhapatnam District, Pin-531113



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### Data Science work flow and tools

Duration: 4th Nov 2019 to 9th Nov 2019

#### **SCHEDULE**

#### Day-1 (04/11/2019)

09:00 to 10:00 Inaugural Session

10:00 to 12:00 Introduction to data science in Python

12:00 to 01:00 Lunch Break

01:00 to 04:00 Introduction to data science in Python

#### Day-2 (05/11/2019)

09:00 to 12:00 Introduction to Machine learning

12:00 to 01:00 Lunch Break

01:00 to 04:00 Explanation to Machine learning

#### Day-3(06/11/2019)

09:00 to 12:00 Introduction to Algorithms

12:00 to 01:00 Lunch Break

01:00 to 04:00 Explanation to Algorithms used in Machine learning

#### Day-4(07/11/2019)

09:00 to 12:00 Statistical Foundations for D.S

12:00 to 01:00 Lunch Break

01:00 to 04:00 Describe Statistical Foundations for D.S

#### Day-5(08/11/2019)

09:00 to 12:00 Introduction to Scientific Computing

12:00 to 01:00 Lunch Break

01:00 to 04:00 Describe Scientific Computing

#### Day-6(09/11/2019)

09:00 to 12:00 Optimization Techniques

12:00 to 01:00 Lunch

01:00 to 04:00 Optimization Techniques

Coordinator

Head of the Department

Computer Science and Engineering
Avanth Institute of Engg & Technolog
Tamaram, Makavarapalem Md
Visakhapatnam District, Pin-531113



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Tamaram, Makavarapalem, Narsipatnam (RD), Visakhapatnam-531113 DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

#### **Data Science Workflow and Tools**

Date: 4/11/2019 To 9/11/2019

IV & II B.Tech STUDENTS ATTENDANCE LIST

S.NO	ROLL.NO	NAME OF THE STUDENT	Day 1	Day 2	Da 3	Day 4	Day 5	Day 6
1	16811A0501	ABRAHAM SHARON LEELA	~	\ \ \ \ \	1	Jay 4	Jay 5	Day 6
2	16811A0502	ADHIKARI SWATHI	5	V		1	1	V
3	16811A0503	AKULA LAVANYA	1	/	1	1		1
4	16811A0504	ANNAPAREDDY DALI DEEPIKA	~	1	1	1	/	1
5	16811A0505	BADIREDDY SURENDRA	1	1	1	1	/	1
6	16811A0506	BANDARU SARASWATHI	1	5	1	1	1	1
7	16811A0507	BEESETTI YUVA KIRAN SAI		1	X	5	1	1
8	16811A0508	BHEEMISETTY LAVANYA	~	1	1	1	1	1
9	16811A0509	BHEEMISETTY RAMYA	X	1	1	1	1	1
10	16811A0510	BOBBADI SIVA GOWRI	1	5	1	1	1	1
11	16811A0511	BODDEDA SIVA GOPI LAKSHMI	/	1	1	1	1	/
12	16811A0512	BODDU JAYA MADHURI	/	1	1	1	1	
13	16811A0513	BOLEM SAIKUMAR	/	/	1	1	1	1
14	16811A0514	BOTCHA DURGA	/			1	1	1
15	16811A0515	DARAKONDA VASANTHA	1	1	1	1	×	1
16	16811A0516	DEVARAPALLI NAGA	1	1	1			1
17	16811A0517	DEVARASETTI JAGADESWAR	1	1	/	1	1	1

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43	16811A0543	LAKAMSANI DURGA SAI ANIL	1	/	~	/	/	/
44	16811A0544	MADEM UMADEVI	/	5	V	~	_	/
45	16811A0545	MALLA MRUDULANKITHA	1	/	1		1	
46	16811A0546	MATSA BHAGYA LAKSHMI		·	/	/	1	
47	16811A0547	MEDESETTI PAVANI	/	1	<b>√</b>	/	1	X
48	16811A0548	MIDATHANA SITARAMA RAJU	/	1	✓	/	1	1
49	16811A0549	MINDI SAI VENKATA	/			V		1
50	16811A0550	MISRO MONALI	1	/	/	1		
51	16811A0551	MODALAVALASA MADHU	1	<b>V</b>	5	/		1
52	16811A0552	MOHAMMAD GULE AFSHA		<b>V</b>	/		5	1
53	16811A0553	NADIPINTI DURGA MOHAN	/	✓	X	1		1
54	16811A0554	NAGUBILLI	1	1	~	5		
34		SANTHOSHILAKSHMI			/	1	1	1
55	16811A0555	NAKKA GANESHDURGA	1	1	1	5	1	1
56	16811A0556	NALLALA RAMU		1	/	1	1	1
57	16811A0557	NALLALA SATEESWARARAO		1		1	-	/
58	16811A0558	PACHCHIKURA LIKITHA		5		/	-	
59	16811A0559				1	1	1	
60	16811A0560	PANDE GIRINDHAR RAO	1	×	1		1	
61	16811A0561	PAPPU KRUTHIKA		/	1		-	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
62	16811A0562	PATCHIGOLLA LATHA	1		1	-	-	-
63	16811A0563		/	\frac{1}{2}	1	-	×	\ \ \ \ \
64	16811A0564	PATNANA KISAN KUMAR	/	V	1		1	
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67	16811A0568	PERAPU VARA POORNIMA	/	/	/	1	1	1
68	16811A0569	PITLA CHANDRIKA		~		/	/	/
69	16811A0570	PITTA HARISH		1	/	/	5	<b>\</b>
70	16811A0571	PITTA SUNIL KUMAR	1	1	/	1	5	5
71	16811A0572	PRASADAM SIVA KRISHNA	1	/	5	5	/	5
72	16811A0573	PUDI GANESH	/	×	1	1	1	X
73	16811A0575	RAPETI HEMANTH	<b>V</b>	/	/	1	/	1
74	16811A0576	RAVI SRI RAM	1			/	/	/
75	16811A0577	REDDY SRIKANTH	5	1	/		1	1
76	16811A0578	SALUMURI DILIP KUMAR		1	<b>V</b>		/	5
77	16811A0579	SAMMETLA RAVI KARUN			1	$\checkmark$	/	/
78	16811A0580	SANAPALA TEJASWARI	1	/			V	V
79	16811A0581	SHEIK BADIRUDDIN		1	5	~	1	/
80	16811A0582	THIMMAPATRUNI BHAVANI		1	5	1	/	V
81	16811A0583	TONDAPU DHEERAJ REDDY		/	1	/	$\checkmark$	/
82	16811A0584	VARRE PRIYA MAHALAXMI	5	/	×	/	1	<b>\</b>
83	16811A0585	VEESAM JAHNAVI				/	/	/
84	16811A0586	VEGI LOKESH	/	5	5	/		5
85	16811A0587	VELAGA GAYATHRI	×	/		/	5	~
86	16811A0588	VONTEDDU NAGA VENKATA DEEPAK	1	/		/	×	5
87		VUPPALA SRAVANI	1	/		/	5	1
88	16811A0590	YELLAPU MANI KUMAR	5	/		/		
89	17815A0501	KOILADA ROHIT GOVIND	1			/	~	
90	17815A0502	MOTURU YAMINI NAGA DEVI	1	1			/	/
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91	17815A0503	CHINTALA LOKESH	/	~	J	1	~	1
92	18811A0501	BAILAPUDI PADMA	×,	1	1		/	1
93	18811A0502	BHANUMATHI PALAPARTHI	1	/	/	/	1	
94	18811A0503	BODDAPU PRASAD	5	/		1	/	1
95	18811A0504	BODDEDA LOKESH	1	/	/	1	1	/
96	18811A0505	BOINA TEJA	5	/	1		1	/
97	18811A0506	BONTHU PRANAY		X		/		
98	18811A0507	DACHEPALLI VENKATA	/	5	1	./	1	5
98	18811A0307	VIJAYALAKSHMI				•	,	•
99	18811A0508	DARAPUREDDY VANI	1	/	/	1	/	/
99	18811A0308	VASUNDHARA	-					
100	18811A0509	DIVYA BISAI	<b>S</b>	/	×			
101	18811A0510	DUGGINENI UMESH CHANDRA	S	$\sim$		/	$\checkmark$	
102	18811A0511	DWARAM SUSHMITHA YAMINI	1	5	1	1	1	5
103	18811A0512	GANDI BHARDWAZ NAIDU	5	1	5	1		
104	18811A0513	GOGINENI ALEKHYA	1	5		5	/	1
105	18811A0514	GOKADA PRASANTH KUMAR	5	/	~	1	/	/
106	18811A0515	GOLTI SAI KOTI MEGHANA	/	5	1	/	1	1
107	18811A0516	GOPALADAS VASANTHI	5		/	1	~	
108	18811A0518	GORLA ABHISHEK	5	/	/	/	5	1
109	18811A0519	GORLE SRI SATYA	5	1	/	1	1	/
110	18811A0521	GURE CHANDRIKA	1	1	1	~		1
111	18811A0522	GURRAM BHARGAVI	5	/		5	1	1
112	18811A0523	GURUCHARANA KRISHNA	1	1	/	/	1	1
112	18811A0323	LAHARI				5.2		
113	18811A0524	IMANDI RUBIN PRINCE	1	1		/	~	5
114	18811A0526	K VASANTHA		1	/	/	5	×
115	18811A0527	KADALI NISCHALA DEVI	5		/	~	1	5
116	18811A0528	KADAVALA SAI PRIYA	5	1	5	/	5	1
117	18811A0530	KANTA RUCHITHA			~		~	/

118	18811A0531	KARAKAVALASA DHANALAKSI	HMI 🗸	~	/	/	1	/
119	18811A0533	KEERTHI TEJASWI	/	1	1	1	/	/
120	18811A0534	KILAPARTHI DURGA PRASAD	1	~	/		./	/
121	18811A0536	KOTHAKOTA MAHESWARI				/	/	
122	18811A0537	KOTTE SAI GANESH	/	/		/	/	
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124	18811A0540	MADUGULA JAGAN MOHAN	V	/	~	/		
124	18811740340	SATYA DURGA PRASAD				~	X	
125	18811A0541	MAJJI SAI LAKSHMI		X			1	/
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127	18811A0543	MARISETTI MEENAKSHI						X
128	18811A0544	MEDISETTI JANAKI	5	//	/	1/.	/	
129	18811A0546	PATHAKAMUDI SHARMILA		/			/	
130	18811A0547	PATHALA NAGENDRA			/		/	1
131	18811A0549	PILLA BHARGAVI	/	-	1,			
132	18811A0551	POTHAMSETTI MANIKANTA	/			V		

Coordinator

HOD

Avanthi Institute of Engg. & Technology Tamaram, Makavarapalere Md., Visakhapatnam District, PIN-531113



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### DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

A Course On

**Data Science Workflow and Tools** 

Dated on: 04/11/2019



COORDINATOR

Avanthi Institute de Dog & Technology Tamaram, Makavarapalem Md Visakhapatnam District, Pin-531113



# AVANTHI

## INSTITUTE OF ENGINEERING AND TECHNOLOGY

Tamaram (V), Makavarapalem (M), Visakhapatnam Dist. 531113. (Approved by AICTE, Accredited by NAAC, Permanently Affiliated to JNTU Kakinada)

## Certificate of Participation

This is to certify that Mr./Ms.	of
has participated in the Certificate Course enti	tled
on <b>DATA SCIENCE WORKFLOW AND TOOLS</b> during from $4^{\text{TH}}$ NOV 2019 to $9^{\text{TH}}$ N	OV 2019
was organized by the Department of COMPUTER SCIENCE AND ENGINEEERIN	<u>IG</u>
at Avanthi Institute Of Engineering and Technology	

**Coordinator HOD Principal** 



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#### Department of Computer Science and Engineering

Date: 11-11-2019

#### BRIEF REPORT

Department of Computer Science and Engineering, Avanthi Institute of Engineering and Technology had organized a certificate course on "Data Science workflow and tools" during 4-11-2019 to 9-11-2019.

We had Resource Person: Dr.S.Jhansi Rani, Assistant Professor, A.U was explained each and every details about data science workflow and tools. He extensively explained about Data science is defined, unsurprisingly, as "the study of data." That certainly narrows it down! Fortunately, there's more to it. The purpose of data science is to gain knowledge and insights from all kinds of data, structured or unstructured. The process includes creating and implementing ways of recording, analyzing, and storing data to glean useful information effectively. Predictive segmentation removes the need for all of the manual work by automatically identifying and analyzing the valuable or high-potential audience segments that need to be targeted. However, as an individual capability, it does not help in determining the right experience that should be tailored for each identified audience segment. Statistical Foundations of Data Science gives a thorough introduction to commonly used statistical models, contemporary statistical machine learning techniques and algorithms, along with their mathematical insights and statistical theories.

Coordinator

Head of the Department

Avanimputer Science and Engineering
Tama ..., wakavarapalem Md
Visakhapatnam District, Pin-531113