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VALUE ADDED PROGRAM

CS0703-VIRTUALIZATION



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TJS Nagar, Peruvoyal, Near Kavaraipettai, Gummidipoondi Taluk, Thiruvallur District -601206



14.10.2021

PERMISSION LETTER

From

Mr. Dhakshina Moorthy

Head of Department

Computer Science and Engineering,

TJS Engineering College,

Peruvoyal,

Thiruvallur district.

To

The Principal

TJS Engineering College,

Peruvoyal,

Thiruvallur district.

Respected Sir,

Sub: Permission to offer value added course - Requested - Reg

I wish to inform you that, we have planned to conduct value added course on CS0703 "Virtualization" for IV year students of B.E Computer science and Engineering students of strength 52 from 26.10.2021 to 30.10.2021. In this regard, permission may kindly be granted to offer the following value added course.

Thanking You

Yours Sincerely,

PRINCIPAL
NGINEERING COLLEGE
ruvoyal, Kavaraipettai,
ruvoyal, Kavaraipettai,

Gummidipoondi Taluk, Thiruvallur Dist - 601 206. A.V.B.Dhakhina moorthy/HOD





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Ref: TJSEC/CSE/CIR/21-22/VAC001

Date:15.10.2021

CIRCULAR

It is hereby informed the Department of Computer Science and Engineering is planning to conduct a value added course for IV year students of strength 52 on the topic of CS0703-"Virtualization" on 26.10.2021 to 30.10.2021 at Placement Seminar Hall. Hence all the Heads of the departments, faculty members and students of IV year CSE are requested to attend the Program.

Principal

T.J.S. ENGINEERING COLLEGE Peruvoyal, Kavaraipettai, Gummidipoondi Taluk, Thiruvallur Dist - 601 206.

Copy to

1. IQAC

- 2. All HoDs (to circulate among their staff members & students)
- 3. Library
- 4. Notice Board
- 5. File





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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

VALUE ADDED COURSE on CS0703-"VIRTUALIZATION"

Brochure



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DEPARTMENT OF

COMPUTER SCIENCE & ENGINEERIN

Organizing Five days Value Added Course on Course Code: CS0703

Resource Person

Mr.R.MURALI KRISHNAN, BEAMBA

DIRECTOR- ZAFIN FINTECH PRODUCT COMPANY.

Year CSE

NSTITUTION INNOVATION COUNCIL

Date

26.10.2021

30.10.2021

Time

9.00 to 3.30 pm

/enue

Seminar Hall

Ms. V. Pavithra, M.E., Assistant Professor / CSE Staff Co ordinator

Mr. A.V.B. Dhakshina Moorthy HOD / Department of CSE

Dr. J. Prakash, M.E., Ph.D., Principal

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Peruvyal, Kavarajental, Gummbipuondi Taluk, Thiruyallur Dist - 501 206.

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

VALUE ADDED COURSE on CS0703-"VIRTUALIZATION"

STUDENTS NAME LIST

IV year CSE

S. No.	Register No.	Student Name .
1	112818104001	AASHIKA. K.
2	112818104002	ABAKA CHARAN SAI
3	112818104003	ABINAYA. D.
4	112818104004	ANDALAMALA SHABARISH
5	112818104005	ASHNI. A. R.
6	112818104006	BALAJI. A.
7	112818104007	BALAJI. B.
8	112818104008	BALAJI. S.
9	112818104009	BHARATHI RAJA. K.
10	112818104010	BHARGAVI. P.
11	112818104011	BHUVANESWARI. V.
12	112818104013	DINESH. D
13	112818104014	DINESH BABU. N.
14	112818104015	DIVYA. K.
15	112818104016	GOWRI SANKAR. K. B.
16	112818104017	GUDUR VARSHITH
17	112818104018	GURRAM LIKITHA
18	112818104019	JAYALAKSHMI S
19	112818104020	JEBASTI SANJANA. S.

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20	112818104021	JEEVA. V.
21	112818104022	JEEVITHA. S.
22	112818104023	JOSHUA. J.
23	112818104024	JOTHIKA. A.
24	112818104025	KAARTHICK RAJ. T.
25	112818104026	KATDHIRI JAYASURYA
26	112818104027	KANI AMUDHAN. S.
27	112818104028	KARTHIKA. K. S.
28	112818104029	KEERTHANA. R.
29	112818104030	LAVANYA. K.
30	112818104031	LEELAVATHI. K.
31	112818104032	LOKESH G
32	112818104034	MARIMUTHU P
33	112818104035	MOSES STEPHEN ARULRAJ. S.
34	112818104036	MUGILA. K.
35	112818104037	MYLAM SOWMYA
36	112818104038	NARRA SREE DIVYA
37	112818104040	PAUL DHINAKARAN. J.
38	112818104041	POORNITHA. S.
39	112818104042	PRASANTH. R.
40	112818104043	PRATHEEBA. T.
41	112818104044	PRAVEEN KUMAR M
42	112818104045	, PRINCYAVANTHIKA R
43	112818104048	SHARMI V
	- Commission of the Commission	



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44	112818104049	SIDDARTHAN. S.
45	112818104050	SRIKANTH V G
46	112818104051	SUBHASHINI A
47	112818104052	SUDHALAGUNTA LOKESH
48	112818104053	UYYALA MAHESWAR REDDY
49	112818104054	VAISHNAVI. S.
50	112818104301	HARISH KUMAR
51	112818104302	KOKILA
52	112818104901	AHAMED ASIK .

<u>gordinator</u>

Mr. Dlates Livalling My

HOD

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

VALUE ADDED COURSE ON CS0703-"VIRTUALIZATION"

SELF FRAMED SYLLABUS

MODULE 1-INTRODUCTION:

System Architectures – Virtual Machine Basics – Process Virtual Machines – System Virtual Machines – Taxonomy of Virtual Machines

MODULE 2-EMULATION:

Emulation: Basic Interpretation - Threaded Interpretation - Pre-Coded and Direct Interpretation

MODULE 3- VLANs:

Layer 3 VRF Instances Layer 2 – VFIs Virtual Firewall Contexts Network Device Virtualization

MODULE 4-KERNEL:

Comparison of Virtualization Technologies: Guest OS, Host OS, Hypervisor, Emulation, Kernel Level – Shared

MODULE 5-Virtual Box:

Server Virtualization: Configuring Server with Server Virtualization, Adjusting and Tuning Virtual Servers, VM Backup and Migration

COURSE OUTCOME:

- 1. Analyze the virtualization concepts and Hypervisor
- 2. Apply the Virtualization for real-world applications
- 3. Install & Configure the different VM platforms
- 4. Experiment with the VM with various software

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SCHEDULE

S.NO	DATE	TOPICS TO BE COVERED	HOURS COVERED	RESORCE PERSON
1 2	26.10.2021	MODULE1-INTRODUCTION: System Architectures Virtual Machine Basics Process Virtual Machines System Virtual Machines	6	Mr. Murali krishanan
2 2	27.10.2021	 MODULE 2-EMULATION: Emulation: Basic Interpretation Threaded Interpretation Pre-Coded and Direct Interpretation 	6	Mr. Murali krishanan
3 2	28.10.2021	MODULE 3- VLANs: • Layer 3 VRF Instances Layer 2 • VFIs Virtual Firewall Contexts Network Device Virtualization	6	Mr. Murali krishanan
4 2	29.10.2021	MODULE 4-KERNEL:	6	Mr. Murali krishanan
5 3	30.10.2021	 MODULE 5-Virtual Box: Server Virtualization: Adjusting and Tuning Virtual Servers VM Backup and Migration 	6	Mr. Murali krishanan

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RESOURCE PERSON DETAILS



Resource Person:

Mr. Murali krishanan

Education

BE., MBA.,

Area of specialization: Data Base Technologies, System release management, Virtualization and techniques.

Papers published: 2

Experience:

25 years

Email-Id:

murali.rajendran@zafin.com

Contact:

9884811797

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

VALUE ADDED COURSE ON CS0703-"VIRTUALIZATION" ASSESSMENT QUESTIONS WITH ANSWER KEY

Marks: /20

NAME:

YEAR:

DATE:

- 1) Which of the following is NOT a type of virtualization?
- a) Server virtualization
- b) Storage virtualization
- c) Network virtualization
- d) Physical virtualization
- 2) Which of the following is a hypervisor that runs directly on the host's hardware?
- a) Type 1 hypervisor
- b) Type 2 hypervisor
- c) Type 3 hypervisor
- d) Type 4 hypervisor
- 3) Which of the following is an advantage of virtualization?
- a) Increased hardware costs
- b) Reduced scalability
- c) Improved resource utilization
- d) Decreased security

4) Which of the following is a type of server virtualization?

a) Container virtualization

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- b) Operating system virtualization
- c) Application virtualization
- d) All of the above
- 5) What is the process of creating multiple virtual machines on a single physical machine called?
- a) Virtualization
- b) Hypervisor
- c) Partitioning
- d) Clustering
- 6) Which of the following is a disadvantage of virtualization?
- a) Increased security
- b) Decreased hardware costs
- c) Increased complexity
- d) Improved scalability
- 7) Which of the following is a popular virtualization platform?
- a) Microsoft Azure
- b) Amazon Web Services
- c) VMware vSphere
- d) Google Cloud Platform
- 8) Which of the following is a type of storage virtualization?
- a) Network-attached storage (NAS)
- b) Storage area network (SAN)
- c) Direct-attached storage (DAS)
- d) All of the above

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- 9) What is the process of moving a virtual machine from one physical machine to another called?
- a) Migration
- b) Clustering
- c) Partitioning
- d) Hypervisor
- 10) Which of the following is a benefit of container virtualization?
- a) Increased isolation
- b) Improved performance
- c) Reduced overhead
- d) All of the above
- 11) What is virtualization?
- a) A technique to create virtual people in a video game
- b) A way to create multiple virtual machines on a single physical machine
- c) A method to create virtual reality experiences
- d) None of the above
- 12) Which of the following is NOT a type of virtualization?
- a) Server virtualization
- b) Storage virtualization
- c) Network virtualization
- d) Physical virtualization
- 13) Which of the following is a type of hypervisor?
- a) Type 1 hypervisor
- b) Type 2 hypervisor

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- c) Type 3 hypervisor
- d) All of the above
- 14) Which of the following is a type of operating system virtualization?
- a) Container virtualization
- b) Hardware virtualization
- c) Network virtualization
- d) Application virtualization
- 15) Which of the following is a benefit of server virtualization?
- a) Increased hardware costs
- b) Reduced scalability
- c) Improved resource utilization
- d) Decreased security
- 16) Which of the following is a disadvantage of virtualization?
- a) Increased security
- b) Decreased hardware costs
- c) Increased complexity
- d) Improved scalability
- 17) Which of the following is a popular open-source hypervisor?
- a) VMware ESXi
- b) Microsoft Hyper-V
- c) Xen
- d) Oracle VirtualBox

18) Which of the following is a type of network virtualization?

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- a) Virtual private network (VPN)
- b) Virtual local area network (VLAN)
- c) Virtual storage area network (VSAN)
- d) All of the above
- 19) Which of the following is a benefit of storage virtualization?
- a) Increased data redundancy
- b) Decreased storage capacity
- c) Improved storage utilization
- d) None of the above
- 20) Which of the following is a process used to move a virtual machine from one physical machine to another?
- a) Partitioning
- b) Migration
- c) Clustering
- d) None of the above

Course coordinator

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Department of Computer science and Engineering VALUE ADDED COURSE ON CS0703-"VIRTUALIZATION" ASSESSMENT QUESTIONS

Marks: |9/20

NAME: S- pournitha

YEAR: IV

DATE: 30/10/21

- 1) Which of the following is NOT a type of virtualization?
- a) Server virtualization
- b) Storage virtualization
- c) Network virtualization
- A) Physical virtualization
 - 2) Which of the following is a hypervisor that runs directly on the host's hardware?
- a) Type 1 hypervisor
 - b) Type 2 hypervisor
 - c) Type 3 hypervisor
 - d) Type 4 hypervisor
 - 3) Which of the following is an advantage of virtualization?
 - a) Increased hardware costs
 - b) Reduced scalability
- 2) Improved resource utilization
- d) Decreased security
- 4) Which of the following is a type of server virtualization?

a) Container virtualization

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- b) Operating system virtualization
- c) Application virtualization
- d) All of the above
- 5) What is the process of creating multiple virtual machines on a single physical machine called?
- a) Virtualization
- b) Hypervisor
 - c) Partitioning
 - d) Clustering
 - 6) Which of the following is a disadvantage of virtualization?
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 - a) Microsoft Azure
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- d) Google Cloud Platform
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- _b) Storage area network (SAN)
 - c) Direct-attached storage (DAS)
 - d) All of the above
 - 9) What is the process of moving a virtual machine from one physical machine to another called?
- a) Migration
- b) Clustering
- c) Partitioning

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d) Hypervisor

- 10) Which of the following is a benefit of container virtualization?
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- b) Storage virtualization
- c) Network virtualization
- d) Physical virtualization
 - 13) Which of the following is a type of hypervisor?
- a) Type 1 hypervisor
- b) Type 2 hypervisor
- c) Type 3 hypervisor
- -d) All of the above
 - 14) Which of the following is a type of operating system virtualization?
 - a) Container virtualization

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 - c) Network virtualization
 - d) Application virtualization
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 - a) VMware ESXi
 - b) Microsoft Hyper-V

c) Xen

- d) Oracle VirtualBox
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- a) Virtual private network (VPN)
- b) Virtual local area network (VLAN)
 - c) Virtual storage area network (VSAN)
- d) All of the above

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- c) Improved storage utilization
 - d) None of the above
 - 20) Which of the following is a process used to move a virtual machine from one physical machine to another?
 - a) Partitioning
- b) Migration
 - c) Clustering
 - d) None of the above

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VALUE ADDED COURSE ON CS0703-"VIRTUALIZATION"

IV YEAR MARK LIST

S. No.	Register No.	Student Name	MARKS (20)	MARKS (100)
1	112818104001	AASHIKA. K.	18	99
2	112818104002	ABAKA CHARAN SAI	19	98
3	112818104003	ABINAYA. D.	15	96
4	112818104004	ANDALAMALA SHABARISH	16	- 95
5	112818104005	ASHNI. A. R.	17	85
6	112818104006	BALAJI. A.	18	89
7	112818104007	BALAJI. B.	19	91
8	112818104008	BALAJI. S.	16	92
9	112818104009	BHARATHI RAJA. K.	18	. 94
10	112818104010	BHARGAVI. P.	19	98
11	112818104011	BHUVANESWARI. V.	15	97
12	112818104013	DINESH. D	18	85
13	112818104014	DINESH BABU. N.	16	89
14	112818104015	DIVYA. K.	19	90
15	112818104016	GOWRI SANKAR. K. B.	20	82
16	112818104017	GUDUR VARSHITH	19	95
17	112818104018	GURRAM LIKITHA	18	86
18	112818104019	JAYALAKSHMI S	16	87
19	112818104020	JEBASTI SANJANA. S.	18	91
20	112818104021	JEEVA. V.	17	90

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21	112818104022	JEEVITHA. S.	19	95
22	112818104023	JOSHUA. J.	20	87
23	112818104024	JOTHIKA. A.	19	95
24	112818104025	KAARTHICK RAJ. T.	18	90
25	112818104026	KATDHIRI JAYASURYA	20	91
26	112818104027	KANI AMUDHAN. S.	18	. 98
27	112818104028	KARTHIKA. K. S.	19	97
28	112818104029	KEERTHANA. R.	20	95
29	112818104030	LAVANYA. K.	19	92
30	112818104031	LEELAVATHI. K.	18	96
31	112818104032	LOKESH G	19	97
32	112818104034	MARIMUTHU P	20	. 94
33	112818104035	MOSES STEPHEN ARULRAJ. S.	18	92
34	112818104036	MUGILA. K.	16	98
35	112818104037	MYLAM SOWMYA	19	89
36	112818104038	NARRA SREE DIVYA	20	. 87
37	112818104040	PAUL DHINAKARAN. J.	18	88
38	112818104041	POORNITHA. S.	19	85
39	112818104042	PRASANTH. R.	18	87
40	112818104043	PRATHEEBA. T.	17	98
41	112818104044	PRAVEEN KUMAR M	16	97
42	112818104045	PRINCYAVANTHIKA R	17	91
43	112818104048	SHARMI V	19	98
44	112818104049	SIDDARTHAN. S.	20	82

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45	112818104050	SRIKANTH V G	19	98
46	112818104051	SUBHASHINI A	19	95
47	112818104052	SUDHALAGUNTA LOKESH	19	97
48	112818104053	UYYALA MAHESWAR REDDY	18	92
49	112818104054	VAISHNAVI. S.	16	94
50	112818104301	HARISH KUMAR	17	97
51	112818104302	KOKILA	19	95
52	112818104901	AHAMED ASIK	18	96

Course coordinator

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Department of Computer science and Engineering

VALUE ADDED COURSE ON CS0703-"VIRTUALIZATION"

IV YEAR ATTENDANCE

S. No.	Register No.	Student Name	26/10/21	27/10/21	28/10/21	29/10/21.	30/10/21
1	112818104001	AASHIKA. K.	Jali	psli	deli	deli	deli
2	112818104002	ABAKA CHARAN SAI	Sou	Sou	Lai	Soi	Lai.
3	112818104003	ABINAYA. D.	Ale Company	AB	BK	219	3/10
4	112818104004	ANDALAMALA SHABARISH	S	S~	82	\$≈	dr
5	112818104005	ASHNI. A. R.	Ashnia	Ashniar	Ashni A.P	Ashni AP	Ashin . A.F
6	112818104006	BALAJI. A.	Babyi.A	Balaji A	Balayi A	Baloji A	Balaji A
7	112818104007	BALAJI. B.	MANY	THUN	Munn	This	Many.
8	112818104008	BALAJI. S.	Blow	Ber 1	Box	Blem	Bo-
9	112818104009	BHARATHI RAJA. K.	Bharath	Bharath	Bharath	Bharath	Bharoth
10	112818104010	BHARGAVI. P.	Margani	Bargen	Bayari	Borgani	Bayan
11	112818104011	BHUVANESWARI. V.	Re	Ra	Orz	Di	Re
12	112818104013	DINESH. D	Du	Dr	D	B _	B
13	112818104014	DINESH BABU. N.	20	De	De	De	2
14	112818104015	DIVYA. K.	Divye	DM	DM	Dry	02
15	112818104016	GOWRI SANKAR. K. B.	aja	loge	278	lyl	GQ
16	112818104017	GUDUR VARSHITH	Val	12	The	Vil	Me
17	112818104018	GURRAM LIKITHA	Lity	Let	La	Lil	LL.
18	112818104019	JAYALAKSHMI S	John	12	jæ	Jes	JA
19	112818104020	JEBASTI SANJANA. S.	hi	Rún	~~	Su	Su
20	112818104021	JEEVA. V.	pur	ju-	Jen	sen	yn

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112818104022	JEEVITHA. S.	Jal	Jul	Jul	Jul	jer.
112818104023	JOSHUA. J.	John	Job	John	Jal	Jal
112818104024	JOTHIKA. A.	Total	Jath	Johl	JAL	John
112818104025	KAARTHICK RAJ. T.	KS	K2	K2	KR	KE
112818104026	KATDHIRI JAYASURYA	Jays	Jays	Jayl	Jayl	jayle
112818104027	KANI AMUDHAN. S.	Kom	Kani	Keis	Kar	Kan
112818104028	KARTHIKA. K. S.	Kouthe	Kasthl.	Karthh	Korthel	Konthe-
112818104029	KEERTHANA. R.	Kee Aha	Kenth	Keeth	Keethan	Keeth
112818104030	LAVANYA. K.	Lul	H	ph.	Like	hel
112818104031	LEELAVATHI. K.	Lede	Lule	L. R	Lede 1	Leels
112818104032	LOKESH G	De	Be	2	De l	8
112818104034	MARIMUTHU P	m	Nu	per	hei	m
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112818104043	PRATHEEBA. T.	Prathab	Trathel	Brothele	Brathel	Patheti.
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51	112818104302	KOKILA	KAR	12	re P	Est.	
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Course coordinator

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Thiruvallur Dist - 601 206

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DEPARTMENT OF COMPUTER SCIENCEAND ENGINEERING

CERTIFICATE

OF COURSE COMPLETION

This is to certified that Mr/Ms. S. Poornitha has successfully completed a value added course on CS0703 - Virtualization conducted from 26/10/21 to 30/10/21 organized by Department of CSE, T.J.S. Engineering College, Thiruvallur.

AND CSE

PRINCIPAL J Augustalinettal

ruvoyal, Kavaraipettai, Gummidipoondi Taluk, Thiruvallur Dist - 601 206.



DEPARTMENT OF COMPUTER SCIENCEAND ENGINEERING

CERTIFICATE

OF COURSE COMPLETION

This is to certified that Mr/Ms. K. MUGILA has successfully completed a value added course on CS0703 - Virtualization conducted from 26/10/21 to 30/10/21 organized by Department of CSE, T.J.S. Engineering College, Thiruvallur.

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HOD/CSE

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING VALUE ADDED COURSE ON CS0703-"VIRTUALIZATION" REPORT

Course code & name: CS0703 & Virtualization

Year offered : IV year CSE

Course coordinator: MS.Pavithra.V

Course type: Value added course

Course outcome:

The student will be able to understand the bacics of Virtualization. The aim of virtualization is to learn how to create a virtual machine.

Course type: value added course

Assessment mode: Offline

Number of students Enrolled: 52

Scheme of Exam: MCQ

Number of students appeared: 52

Number of passed: 52

Date of exam : 30/10/2021

Course Coordinator

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING VALUE ADDED COURSE - CS0703- VIRTUALIZATION

STUDENT FEED-BACK

NAME: B. Balaji

YEAR: IV

DATE: 30/10/21

- 1. The instructor was well prepared for class
 - a. Satisfactory b. good c excellent d. poor
- 2. The instructor was organized and used class time efficiently

a. Yes b. No

- 3. The instructor p[resented course material in a clear manner that facilitated understanding
 - a. Satisfactory b. good c. excellent d. poor
- 4. This class has increased my interest in this field of study.

a Yes b. No

- 5. The reading were appropriate to the goals of the course.
 - a. Satisfactory b good c. excellent d. poor
- 6. I have put a great deal of effort into advancing my learning in this course

a. Yes b. No

7. The grading practices were fair

a Yes b. No

-6 CINSEC.

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VALUE ADDED PROGRAM CS0402- MACHINE LEARNING



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03-12-2021

PERMISSION LETTER

From

Mr.A.V.B.DhakshinamoorthyM.E.,

Head of Department

Computer Science and Engineering,

TJS Engineering College,

Peruvoyal,

Thiruvellore district.

To

The Principal

TJS Engineering College,

Peruvoyal,

Thiruvellore district.

Respected Sir,

Sub: Permission to offer value added course-Requested-Reg

I wish to inform you that, we have planned to conduct value added course on CS0402 Machine Learning for II Year B.E Computer science and Engineering students of strength 35 from 08.12.2021 to 14.12.2021. In this regard, permission may kindly be granted to offer the following value added course.

Thanking You

Yours Sincerely,

A.V.B.Dhakhinamoorthy/HOD

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Ref: TJSEC/CSE/CIR/21-22/VAC002

Date: 5.12.2021

CIRCULAR

It is hereby informed that Department of Computer Science and Engineering is planning to conduct a value added course on CS0402 'Machine Learning'on 08.12.2021 to 14.12.2021 at Placement Seminar Hall for II year CSE students of strength 35. Hence all the Heads of the departments, faculty members and students of II year CSE are requested to attend the Program.

Principal

Copy to

- 1. TOAC
- 2. All HoDs (to circulate among their staff members & students)
- 3. Library
- 4. Notice Board
- 5. File



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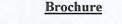


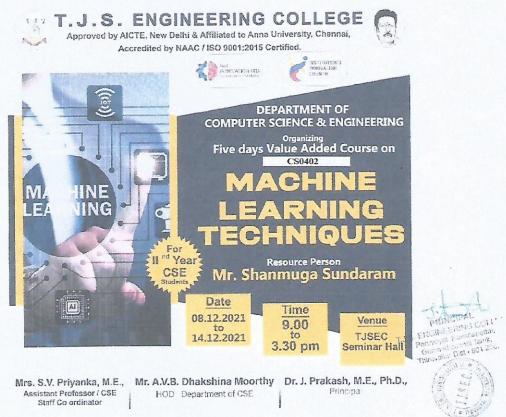


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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING VALUE ADDED COURSE "CS0402-Machine Learning"





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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING VALUE ADDED COURSE "CS0402-Machine Learning" II YEAR NAME LIST

S. No.	Register No.	Student Name		
1	112820104001	ABDUL IMRAN. A		
2	112820104002	MANUGUNTA DEVI PRASANTHI		
3	112820104003	DILLIVEL. N		
4	112820104004	ISHWARYA. R		
5	112820104005	KUMAR. V		
6	112820104006	LIDIYA ANGEL .U		
7	112820104007	LOKESHWARI. S		
8	112820104008	NANDHINI. S		
9	112820104009	NARMADHA. N		
10	112820104010	NIRBHAY KUMAR . A		
11	112820104011	PANTHAGANI PRAMOD KUMAR		
12	112820104012	POOJA .B		
13	112820104013	POOJA .V		
14	112820104014	POONGUZHALI. B		
15	112820104015	ROHITH .S		
16	112820104016	SANJAI .S		
17	112820104017	SARANRAJ. S		
18	112820104019	THARANI. S		
19	112820104020	USHA .G.B		
20	112820104021	VENKATESH .S.S		
21	112820104022	VENKATRAMAN .K		
22	112820104023	VINITHA . S		



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23	112820104024	VITHUN .V.S
24	112820104025	VUNNAM SANTHOSH
25	112820104301	ANJUTHA R
26	112820104302	BALAJI J
27	112820104303	HARISH BALA
28	112820104304	PAVITHRA K
29	112820104305	POOJA
30	112820104306	POOJA DHARSHINI
31	112820104307	RAGUL SANJAI A
32	112820104308	RANJITH
33	112820104309	SANJAI .J.N
34	112820104310	SURYA
35	112820104701	BARATH

Profamicars. V.

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Gummidipoondi Taluk,
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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING VALUE ADDED COURSE "CS0402-Machine Learning" <u>SELF FRAMED SYLLABUS</u>

MODULE 1- INTRODUCTION:

Introduction to ML- Introduction to ML- Reinforcement Learning-Multivariate Regression- Linear Classification

MODULE 2- LEARNING TECHNIQUES:

Unsupervised Learning-Partial Least Squares-Logistic Regression-Supervised Learning-

Shrinkage Methods- Support Vector Machines- Artificial Neural Networks

MODULE 3-NETWORKS:

Support Vector Machines- Artificial Neural Networks- Regression Trees- Hinge Loss

Formulation-Training and Validation-Decision Trees

MODULE 4-CLUSTERING:

Perceptron Learning- Parameter Estimations- Decision Trees Examples

Clustering- Expectation Maximization- Reinforcement Learning- Birch and Cure Algorithms

MODULE 5-MODELS:

Hidden Markov Models- Evaluation Measures- Ensemble Methods- Bayesian Networks-Ensemble Methods- Variable Elimination.

COURSE OUTCOMES:

- Understand a wide variety of learning algorithms.
- Understand how to evaluate models generated from data.
- Apply the algorithms to a real problem, optimize the models learned and report on the expected accuracy that can be achieved by applying the models.

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

VALUE ADDED COURSE "CS0402-Machine Learning"

SCHEDULE

S.NO	DATE	TOPICS TO BE COVERED	HOURS COVERED	RESORCE PERSON
1	08.12.2021	MODULE 1- INTRODUCTION: Introduction to ML Reinforcement Learning Multivariate Regression Linear Classification	6	Mr.Shanmuga Sundaram
2	09.12.2021	 MODULE 2- LEARNING TECHNIQUES: Unsupervised Learning Partial Least Squares Logistic Regression Supervised Learning 	6	, Mr.Shanmuga Sundaram
3	10.12.2021	MODULE 3-NETWORKS: Shrinkage Methods Support Vector Machines Artificial Neural Networks	6	Mr.Shanmuga Sundaram
4	13.12.2021	MODULE 4-CLUSTERING: Perceptron Learning Parameter Estimations Decision Trees Examples Clustering Expectation Maximization Reinforcement Learning Birch and Cure Algorithms	6	Mr.Shanmuga Sundaram
5	14.12.2021	MODULE 5-MODELS: Hidden Markov Models Evaluation Measures Ensemble Methods Bayesian Networks Ensemble Methods Variable Elimination	6	Mr.Shanmuga Sundaram

Total hours: 30 5

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING VALUE ADDED COURSE "CS0402-Machine Learning" RESOURCE PERSON DETAILS



Resource person: Mr.Shanmuga Sundaram

Education

:ME(CSE) from college of Engineering ,Guindy, Anna university

Area of specialization: Artificial intelligence, Data base ,Data science and business analytics, python, R and Julia.

Papers published: 15

Experience: Teaching 25 years and IT- Industry- 5 years

Email: mshans@gmail.com

Contact: 9790972638

I.J.S.E.C. *

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Peruvoyal, Keveraipettai,
Gummidipeondi Taluk,
Gummidipeondi Taluk,
Thiruvallur Dist - 601 206,







DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING VALUE ADDED COURSE "CS0402-Machine Learning" ASSESSMENT QUESTIONS WITH ANSWER KEY

Name:		
Year:		
Date:	Marks:	/20

- 1) What is machine learning?
- a) A method to program machines to perform specific tasks
- b) A technique to create virtual reality experiences
- c) A way to create multiple virtual machines on a single physical machine
- d) None of the above
- 2) What are the two main categories of machine learning?
- a) Unsupervised and supervised learning
- b) Deep and shallow learning
- c) Reinforcement and unsupervised learning
- d) None of the above
- 3) Which of the following is a supervised learning algorithm?
- a) K-means clustering
- b) Random forest
- c) Principal component analysis
- d) None of the above
- 4) Which of the following is a supervised learning algorithm?
- a) K-means clustering
- b) Linear regression
- c) K-nearest neighbors (KNN)
- d) None of the above
- 5) Which of the following is an unsupervised learning algorithm?
- a) Random forest
- b) Gradient boosting
- c) K-means clustering
- d) None of the above
- 6) What is the purpose of the training set in machine learning?

I.J.S.E.G. WAVARAITETINA

T.J.S. ENGINEERING COLLEGE Peruvoyal, Kavareipettal, Gummidipoondi Taluk, Thiruvallur Dist - 601 206.







- a) To train the model to make predictions
- b) To evaluate the performance of the model
- c) To test the model on new data
- d) None of the above
- 7) What is overfitting in machine learning?
- a) When a model is too simple and cannot generalize well
- b) When a model is too complex and memorizes the training data
- c) When a model is not able to learn from the training data
- d) None of the above
- 8) Which of the following is a type of neural network?
- a) Decision tree
- b) Convolutional neural network (CNN)
- c) Random forest
- d) None of the above
- 9) Which of the following is used to measure the performance of a classification model?
- a) Mean squared error (MSE)
- b) Receiver Operating Characteristic (ROC) curve
- c) R-squared (R2)
- d) None of the above
- 10) Which of the following is used to measure the performance of a regression model?
- a) Precision
- b) Recall
- c) Mean absolute error (MAE)
- d) None of the above
- 11) Which of the following is a popular machine learning library in Python?
- a) NumPy
- b) SciPy
- c) Pandas
- d) Scikit-learn
- 12) What is the purpose of cross-validation in machine learning?
- a) To train the model on all available data
- b) To evaluate the performance of the model on new data

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- c) To prevent overfitting
- d) None of the above
- 13) Which of the following is a technique used to preprocess data in machine learning?
- a) One-hot encoding
- b) Principal Component Analysis (PCA)
- c) Feature scaling
- d) All of the above
- 14) which of theb factors affect the performance of learner system does not include?
- a) Representation scheme used
- b) Training scenario
- c) Type Of feed back
- d) Good Data structure
- 15) in language understanding, the levels of knowledge that does not include?
- a) Phonologoical
- b) Synatactic
- c) Emperical
- d) Logical
- 16) Identify wheather True or False: In PCA the number of input dimensions is equal to principle components
- a) True b) False
- 17) Choose wheather the following statemnts is true or false: The back propogation law is also known as generalized delta rule
- a) True b) False
- 18) Choose that the following statemnts is True or False: True eror is define over the entire instance space, and not just over training data
- a) True b) False
- 19) Choose that the following statemnts is True or False: Artificial intelligence is the process that allows a computer to learn and make decisions like humans
- a) True b) False
- 20) Choose that the following statemnts is True or False: Decision tree cannot be used for clustering
- a) True b) False

janea. Sir urse coordinator

Aus. Blackiramoorthy

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING VALUE ADDED COURSE "CS0402-Machine Learning" ASSESSMENT QUESTIONS

Name: V. Pooja	
Year: 11	
Date: CSF	Marks: 17/20
1)What is machine learning?	
a) A method to program machines to perform specific tasks	
b) A technique to create virtual reality experiences	
c) A way to create multiple virtual machines on a single physical machine	
d) None of the above	
2)What are the two main categories of machine learning?	
a) Unsupervised and supervised learning	
b) Deep and shallow learning	
c) Reinforcement and unsupervised learning	
d) None of the above	
3) Which of the following is a supervised learning algorithm?	
a) K-means clustering	
Random forest	
c) Principal component analysis	
d) None of the above	
4) Which of the following is a supervised learning algorithm?	
a) K-means clustering	
b) Linear regression	

b) Gradient boosting

a) Random forest

d) None of the above

c) K-nearest neighbors (KNN)

e) K-means clustering

d) None of the above

6) What is the purpose of the training set in machine learning?

5) Which of the following is an unsupervised learning algorithm?

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a) To train the model to make predictions
To evaluate the performance of the model
c) To test the model on new data
d) None of the above
7)What is overfitting in machine learning?
a) When a model is too simple and cannot generalize well
When a model is too complex and memorizes the training data
c) When a model is not able to learn from the training data
d) None of the above
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c) Random forest
d) None of the above
9)Which of the following is used to measure the performance of a classification model?
a) Mean squared error (MSE)
b) Receiver Operating Characteristic (ROC) curve
c) R-squared (R2)
d) None of the above
10) Which of the following is used to measure the performance of a regression model?
a) Precision
6) Recall
c) Mean absolute error (MAE)
d) None of the above
11)Which of the following is a popular machine learning library in Python?

e) Pandas d) Scikit-learn

a) NumPyb) SciPy

12) What is the purpose of cross-validation in machine learning?

a) To train the model on all available data

b) To evaluate the performance of the model on new data

1. Avariant

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to principle components
w is also known as generalize
entire instance space, and not
process that allows a computer
for clustering
Moueshiramoorthy.



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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING VALUE ADDED COURSE "CS0402-Machine Learning"

II YEAR Mark list

S. No. Register No.		No. Register No. Student Name		Marks (100)	
1	112820104001	ABDUL IMRAN. A	20	100	
2	112820104002	MANUGUNTA DEVI PRASANTHI	18	90	
3	112820104003	DILLIVEL. N	16	80	
4	112820104004	ISHWARYA. R	16	. 80	
5	112820104005	KUMAR. V	17	85	
6	112820104006	LIDIYA ANGEL .U	19	95 .	
7	112820104007	LOKESHWARI. S	20	100	
8	112820104008	NANDHINI. S	19	95	
9	112820104009	NARMADHA. N	15	75	
10	112820104010	NIRBHAY KUMAR . A	17	85	
11	112820104011	PANTHAGANI PRAMOD KUMAR	19	95	
12	112820104012	POOJA .B		90	
13	112820104013	POOJA .V	17	85	
14	112820104014	POONGUZHALI. B	18	90	
15	112820104015	ROHITH .S	19	95	
16	112820104016	SANJAI .S	16	80	
17	112820104017	SARANRAJ. S	17	85	
18	112820104019	THARANI. S		90	
19	112820104020	USHA .G.B		75	
20	112820104021	VENKATESH .S.S		95	
21	112820104022	VENKATRAMAN .K	17	85	
22	112820104023	VINITHA . S	18	90	

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23	112820104024	VITHUN .V.S	16	80
24	112820104025	VUNNAM SANTHOSH	15	75
25	112820104301	ANJUTHA R	18	90
26	112820104302	BALAJI J	19	95
27	112820104303	HARISH BALA	19	95
28	112820104304	PAVITHRA K	17	85
29	112820104305	POOJA	18	90
30	112820104306	POOJA DHARSHINI	16	80
31	112820104307	RAGUL SANJAI A	19	95
32	112820104308	RANJITH	18	90
33	112820104309	SANJAI .J.N	17	85
34	112820104310	SURYA	15	75
35	112820104701	BARATH	17	85

Course coordinator

ANB. Dhouseliramouthy?

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

VALUE ADDED COURSE "CS0402-Machine Learning"

II YEAR ATTENDANCE

S. No.	Register No.	Student Name	8/12/21	9/12/21	10/12/23	13/12/21	14/12/21
1	112820104001	ABDUL IMRAN. A	Abdel	Abolia	Able	Abole	Abden
2	112820104002	MANUGUNTA DEVI PRASANTHI	Rollo.	1200	Re.	Boul	Pol.
3	112820104003	DILLIVEL. N	Palli	Dill.	Pilli	Dill'	Dirli
4	112820104004	ISHWARYA. R	whe	ula 1	NSI	sele.	Noters
5	112820104005	KUMAR. V	Keingl	Kernel	Hundy	Kenny	Kemal
6	112820104006	LIDIYA ANGEL .U	Argol	ARGE	Angel	Arab	Arge.
7	112820104007	LOKESHWARI. S	coli coli	Loke	14St	Skl	daki
8	112820104008	NANDHINI. S	Nago	NB.	始.	ish	A.
9	112820104009	NARMADHA. N	1 Aug	N)an	1)an	Non	Nan
10	112820104010	NIRBHAY KUMAR . A	Miles	or a iba	Mila	Na alam	Mi le
11	112820104011	PANTHAGANI PRAMOD KUMAR	Mr	Da	Du	M	Dri
12	112820104012	POOJA .B	Pocia B	Poora-13	Pooja B	Pooja-B	Poops B
13	112820104013	POOJA .V	Roya	Perge	Reoje (Rece	Projec
14	112820104014	POONGUZHALI. B	By	- Diff,	Me	Rig	duft
15	112820104015	ROHITH .S	policiples	2 duly	Robert	Rohale	polithe
16	112820104016	SANJAI .S	Sarjais	farjai.	Lanjai-S	Sarjai .3	Serjai-3
17	112820104017	SARANRAJ. S	gasigas	gararage	garannay	Sprange	Sarangias
18	112820104019	THARANI. S	Thorongs	Thosay's	sparanj s	Thorans. S	Maranj 8
19	112820104020	USHA .G.B			BUSHA-G.B		USHA.G.R
20	112820104021	VENKATESH .S.S	yonkebish	workeded	vankeley	vonkesb	vorkabel
21	112820104022	VENKATRAMAN .K	varkelsions	vankelous	vontalensu	ventelong	vankelen
22	112820104023	VINITHA . S	viritta	viritly	veride	Viriable	yinide

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23	112820104024	VITHUN .V.S	VITHUN.V	s vithunus	VITHUN,V.S	VITHUNE V.S	N. ANHLIA
24	112820104025	VUNNAM SANTHOSH	Quineha	Hurrey	Viensk	During	Junnes
25	112820104301	ANJUTHA R	ANJOTHA!	E ALTUTAN	arjuth e	A-Patholina	ANJUHAR
26	112820104302	BALAJI J	Balais	Balazis	Balagi:	Balajiy	Balais
27	112820104303	HARISH BALA	Marished	Harished			1 Dorished
28	112820104304	PAVITHRA K	palithe	pants	parist	bonestra	Parties
29	112820104305	POOJA	PoseLy	Jahn	Projeh.	Rigan	Vejat.
30	112820104306	POOJA DHARSHINI	posyabl	peoplery	pocyaly	bodom	poopully
31	112820104307	RAGUL SANJAI A	PLANSON	Pussant	pusson	pussary	pussang
32	112820104308	RANJITH	Rangel	Cansely	Baryelfo	Range	Carry
33	112820104309	SANJAI .J.N	Sanjari	Singari	Brien	Spiani	Somoni
34	112820104310	SURYA	pouro	Surve	Burga	Sions	Surya
35	112820104701	BARATH	Ronally	Braty	Braty	Broth	Broth

Course coordinator

AB. Bhareshinamoorthy)
HOD

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DEPARTMENT OF COMPUTER SCIENCEAND ENGINEERING

CERTIFICATE

OF COURSE COMPLETION

This is to certified that Mr/Ms. Vynnam Santhosh has successfully completed a value added course on CSO402, Machine Loaming conducted from 8/12/21 to 14/12/21 organized by Department of CSE, T.J.S. Engineering College, Thiruvallur.

AVB. Dharehermonthy? HOD/CSE

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NGINEERING COLLEGE Principal
uvoyal, Kavaraipettai,

Gummidipoondi Taluk, Thiruvallur Dist - 601 206



DEPARTMENT OF COMPUTER SCIENCEAND ENGINEERING

CERTIFICATE

OF COURSE COMPLETION

This is to certified that Mr/Ms. V. Pooja has successfully completed a value added course on CSO402. Machine learning conducted from 2/12/21 to 14/12/21 organized by Department of CSE, T.J.S. Engineering College, Thiruvallur.

AVB. Dloudinamo vyhy)
HOD/CSE

PRINCIPAL Principal
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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING VALUE ADDED COURSE "CS0402-Machine Learning" **REPORT**

Course code & name: CS0402&Machine learning

Year offered : II year CSE

Course coordinator: Mrs. Priyanka S.V

Course type: Value added course

Course outcome:

The student will be able to understand the bacics of machine learning. The aim of machine learning is to allow computers to learn automatically without human interaction.

Course type: value added course

Assessment mode: offline

Number of students Enrolled: 35

Scheme of Exam: MCQ

Number of students appeared: 35

Number of passed: 35

Date of exam : 14/12/2021

auca 's'it. Course Coordinator

AVB. Bhaushiramoorthy

HOD

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

NAME :-	B. Pooja	VALUE ADDED COURSE - "CS0402-Machine Learning"
115001		STUDENT FEED-BACK

YEAR: IL DATE :- 14/12/21

- 1. The instructor was well prepared for class
 - a. Satisfactory b. good e. excellent d. poor
- 2. The instructor was organized and used class time efficiently

- 3. The instructor p[resented course material in a clear manner that facilitated understanding
 - a. Satisfactory b. good cyexcellent d. poor
- 4. This class has increased my interest in this field of study.

- 5. The reading were appropriate to the goals of the course.
 - a. Satisfactory h. good c. excellent d. poor
- 6. I have put a great deal of effort into advancing my learning in this course

7. The grading practices were fair

Yes b. No

Ave Dalethirum Hy HOD. Course Coordinator Pryantensy.



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VALUE ADDED PROGRAM

CS0601-DATA SCIENCE



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15-05-2022

PERMISSION LETTER

From

Dr. S.Anbu M.E., Ph.D.

Head of Department

Computer Science and Engineering,

TJS Engineering College,

Peruvoyal,

Thiruvallur district.

To

The Principal

TJS Engineering College,

Peruvoyal,

Thiruvallur district.

Respected Sir,

Sub: Permission to offer value added course - Requested - Reg

I wish to inform you that, we have planned to conduct value added course on CS0601-"Data science" for III YEAR B.E Computer science and Engineering students of strength 65 from 19.05.2022 to 25.05.2022. In this regard, permission may kindly be granted to offer the following value added course.

Thanking You

Yours Sincerely,

S. ENGINEERING COLLEGE

Peruvoyai, Kavaraipettai,

Gummidipoondi Taluk, Thiruvallur Dist - 601 206.

(S.ANBU)





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Ref: TJSEC/CSE/CIR/21-22/010

Date: 16.05.2022

CIRCULAR

It is hereby informed that Department of Computer Science and Engineering is planning to conduct a Value added Course on CS0601-"Data Science" on 19.05.2022 to 25.05.2022 at Placement Seminar Hall for III year CSE Students of strength 65 students. Hence all the Heads of the departments, faculty members and students of III year CSE are requested to attend the Program.

Principal PRINCIPAL

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- 2. All HoDs (to circulate among their staff members & students)
- 3. Library
- 4. Notice Board
- 5. File







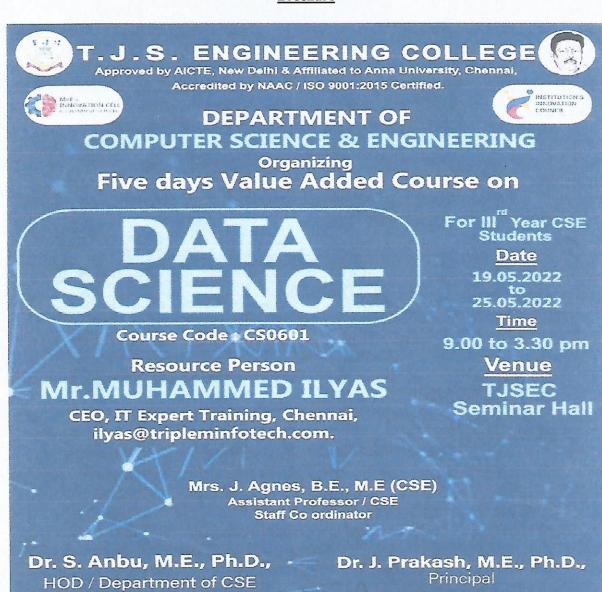
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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING VALUE ADDED COURSE on CS0601"DATA SCIENCE

Brochure



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Guannidipoonal Taluk,
Guannidipoonal Taluk,
Thiruvallur Diet - 601 203.







DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING VALUE ADDED COURSE on CS0601"DATA SCIENCE" III YEAR STUDENTS NAME LIST

S. No.	Register No.	Student Name
1	112819104002	AJITH L
2	112819104003	AKASH TIWARI N
3	112819104004	AKSHAYA V
4	112819104005	ARCHANA I
5	112819104006	BALUSUNDAR T S
6	112819104007	BANDLA VENU MADHAV
7	112819104008	BOLLEDDU GNANESWARI
. 8	112819104009	CHIMMILI BHANU CHANDRA
9	112819104010	DEEPIKA D
10	112819104011	EZHILARASI C
11	112819104012	GOWTHAM R
12	112819104013	G SAI KUMAR
13	112819104014	INBARAJ J
14	112819104015	INDHUJA S
15	112819104016	JOHNSI KAVERI N
16	112819104017	KAUSALYA S
17	112819104018	KUMAR A
. 18	112819104019	KUMMARI YASWANTH SAGAR
19	112819104020	LEELA RANI M
20	112819104021	MAHESWARI S
21	112819104022	MARTHALA VAMSI KRISHNA
22	112819104023	MOHAMED ILYAS M
23	112319104024	MOHANA PRASATH A A
24	112819104025	MOHANA PRIYA R



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25	112819104026	MOHANRAJ S		
26	112819104027	MOHAN RAJ M		
27	112819104028	MOHAN RAJ U		
28	112819104029	MONIKA V S		
29	112819104030	MONISHA P		
30	112819104031	MUTHYALA RAMA KRISHNA		
31	112819104032	NAGARAJ V		
32	112819104033	NAVEEN S .		
33	112819104034	NISHANTH S		
34	112819104035	PADMA PRIYA B		
35	112819104036	PRIYADHARSHINI J		
36	112819104037	PRIYADHARSHINI M		
37	112819104038	RAMYA R		
38	112819104039	RAMYA S		
39	112819104040	RAVALA GREESHMA		
40	112819104041	RAYI PAVAN		
41	112819104042	SAI SNEHA M		
42	112819104043	SANDHIYA R		
43	112819104044	SANTHOSH SWAMY V		
44	112819104045	SARAVANAN V		
45	112819104046	SATHIYAVANI V		
46	112819104048	SHAIK RAJEENA BEGUM		
47	112819104049	SHARMILA U		
48	112819104050	SHOBANA L		
49	112819104051	SILVANS		
50	112819104052	SINDHU K		



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51	112819104053	SINDHU V
52	112819104054	SIVA M
53	112819104055	SNEHA M
54	112819104056	SURESH CHELLADURAI
55	112819104057	SURESH KUMAR D
56	112819104058	SWARNA E
57	112819104059	THATIPARTHI ROHITH
58	112819104060	UTUKURU TEJA
59	112819104061	VADINENI SIREESHA
60	112819104062	VANDANA D
61	112819104063	VASANTH G
62	112819104064	VISHNU PRIYA P B
63	112819104301	AKASH
64	112819104303	PRADEEPA GANDHI
65	112819104304	PRASANTH

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING VALUE ADDED COURSE – CS0601-DATA SCIENCE

SELF-FRAMED SYLLABUS

MODULE 1:INTRODUCTION

Data Science: Benefits and uses – facets of data - Data Science Process: Overview – Defining research goals – Retrieving data – Data preparation - Exploratory Data

MODULE 2:DESCRIBING DATA

Types of Data - Types of Variables -Describing Data with Tables and Graphs -Describing Data with Averages - Describing Variability - Normal Distributions

MODULE 3:DESCRIBING RELATIONSHIPS

Correlation –Scatter plots –correlation coefficient for quantitative data –computational formula for correlation coefficient – Regression –regression line –least squares regression line

MODULE 4: PYTHON LIBRARIES

Basics of Numpy arrays –aggregations –computations on arrays –comparisons, masks, boolean logic – fancy indexing – structured arrays – Data manipulation with Pandas –

MODULE 5:DATA VISUALIZATION

Importing Matplotlib – Line plots – Scatter plots – visualizing errors – density and contour plots – Histograms – legends – colors – subplots – text and annotation

COURSE OUTCOME:

- Define the data science process
- Understand different types of data description for data science process
- Gain knowledge on relationships between data

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING <u>VALUE ADDED COURSE – CS0601-DATA SCIENCE</u>

SCHEDULE

S.NO	DATE	TOPICS TO BE COVERED	HOURS COVERED	RESOURCE PERSON
1	19-05-22	Module 1: INTRODUCTION: Data Science Benefits and uses facets of data Data Science Process:	6	Mr.Muhammed Ilyas CEO,IT expert Training
2	22-05-22	 Module 2: DESCRIBING DATA: Types of Data Types of Variables Describing Data with Tables and Graphs 	6	Mr.Muhammed Ilyas CEO,IT expert Training
3	23-05-22	Module 3: DESCRIBING RELATIONSHIPS	6	Mr.Muhammed Ilyas CEO,IT expert Training
4	24-05-22	Module 4: PYTHON LIBRARIES Basics of Numpy arrays aggregations computations on arrays –comparisons, masks, Boolean	6	Mr.Muhammed Ilyas CEO,IT expert Training
5	25-05-22	Module 5: DATA VISUALIZATION Importing Matplotlib, Line plots Scatter plots, visualizing errors density and contour plots, Histograms legends, colors Subplots, text and annotation	6	Mr.Muhammed Ilyas CEO,IT expert Training

Total hours: 30

Course coordinator

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING VALUE ADDED COURSE- CS0601-DATA SCIENCE

RESOURCE PERSON DETAILS



Resource Person: Mr.Muhammed Iyas, CEO, IT Expert Training

Education : M.E (Mechatronics) From Anna University

Area of specialization: Robotics, IOT, Embedded System, Data Science

Papers published: 2

Experience:

Teaching 10 Years

Email-Id:

ilyas@live.in

Contact:

9884648010



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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING VALUE ADDED COURSE - CS0601-DATA SCIENCE ASSESSMENT QUESTIONS WITH ANSWER KEY

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NA	TAT	1.

YEAR:

DATE:

Marks: /20

1. Which of the following is not a key skill required for a data scientist?

- A) Coding skills
- B) Communication skills
- C) Statistical skills
- D) Management skills
- 2. Which of the following is not a typical data science task?
- A) Data cleaning
- B) Data visualization
- C) Data mining
- D) Data encryption
- 3. What is the main purpose of exploratory data analysis (EDA)?
- A) To clean the data
- B) To summarize the data
- C) To explore relationships between variables
- D) To create a predictive model
- 4. Which of the following is not a type of data?
- A) Categorical
- B) Numeric
- C) Textual
- D) Imaginary
- 5. Which of the following is not a commonly used data visualization tool?
- A) Scatter plot
- B) Line chart
- C) Bar chart
- D) Histogram
- 6. Which of the following is not a machine learning technique?
- A) Linear regression
- B) Decision trees
- C) K-means clustering
- D) Principal component analysis

7. Which of the following is not a commonly used programming language for data science?

A) Python

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- B) Java
- C)R
- D) SQL
- 8. Which of the following is not a type of supervised learning algorithm?
- A) Regression
- B) Classification
- C) Clustering
- D) Ensemble learning
- 9. Which of the following is not a type of unsupervised learning algorithm?
- A) K-means clustering
- B) Principal component analysis
- C) Random forest
- D) Association rule mining
- 10. Which of the following is not a commonly used data storage format?
- A) CSV
- B) Excel
- C) JSON
- D) XML
- 11. Which of the following is not a step in the data science process?
- A) Data cleaning
- B) Data analysis
- C) Data storage
- D) Data visualization
- 12. Which of the following is not a type of data bias?
- A) Selection bias
- B) Sampling bias
- C) Confirmation bias
- D) Predictive bias
- 13. Which of the following is not a commonly used data preprocessing technique?
- A) Feature scaling
- B) Feature engineering
- C) Feature selection
- D) Feature modeling
- 14. Which of the following is not a commonly used data transformation technique?
- A) Normalization
- B) Standardization
- C) Interpolation
- D) Log transformation
- 15. Which of the following is not a commonly used statistical test?

A) T-test

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- 15. Which of the following is not a commonly used statistical test?
- A) T-test
- B) ANOVA
- C) Pearson correlation
- D) Neural network
- 16. Which of the following is not a commonly used evaluation metric for a classification problem?
- A) Accuracy
- B) Precision
- C) Recall
- D) R-squared
- 17. Which of the following is not a commonly used evaluation metric for a regression problem?
- A) Accuracy
- B) Mean squared error
- C) R-squared
- D) Mean absolute error
- 18. Which of the following is not a commonly used ensemble learning technique?
- A) Bagging
- B) Boosting
- C) Stacking
- D) Deep learning
- 19. Which of the following is not a commonly used deep learning framework?
- A) TensorFlow
- B) PyTorch
- C) Keras
- D) Scikit-learn
- 20. Which of the following is not a commonly used data science tool?
- A) Jupyter Notebook
- B) Tableau
- C) GitHub
- D) Photoshop

Course coordinator

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING VALUE ADDED COURSE - CS0601-DATA SCIENCE

ASSESSMENT QUESTIONS

14AMILE: 12 0 0 00 / 1(00 4	
YEAR: (11) year	
YEAR: [1] year DATE: 25 5 22	MARKS : 1/20

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- B) Java
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- D) SQL
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- D) Neural network
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 - C) Keras
- D) Scikit-learn
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- C) GitHub
- D) Photoshop



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Mark list-III YEAR

S. No.	o. Register No. Student Name			MARKS (100)
1	112819104002	AJITH L	18	90
2	112819104003	AKASH TIWARI N	15	75
3	112819104004	AKSHAYA V	16	80
4	112819104005	ARCHANA I	17 ·	85
5 .	112819104006	BALUSUNDAR T S	19	95
6	112819104007	BANDLA VENU MADHAV	19	95
7	112819104008	BOLLEDDU GNANESWARI	16	80
8	112819104009	CHIMMILI BHANU CHANDRA	19	95
9	112819104010	DEEPIKA D	18	90
10	112819104011	EZHILARASI C	19	95
11	112819104012	GOWTHAM R	19	95
12	112819104013	G SAI KUMAR	19	95
13	112819104014	INBARAJ J	20	100
14	112819104015	INDHUJA S	18	90
15	112819104016	JOHNSI KAVERI N	18	90
16	112819104017	KAUSALYA S	20	100
17	112819104018	KUMAR A	15	75
18	112819104019	KUMMARI YASWANTH SAGAR	17	85
19	112819104020	LEELA RANI M	19	95

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	112010104021	MATIECAVADIC	20	I
20	112819104021	MAHESWARI S		100
21	112819104022	MARTHALA VAMSI KRISHNA	19	95
22	112819104023	MOHAMED ILYAS M	15	75
23	112819104024	MOHANA PRASATH A A	17	85
24	112819104025	MOHANA PRIYA R	19	95
25	112819104026	MOHANRAJ S	18	90
26	112819104027	MOHAN RAJ M	17 .	85
27	112819104028	MOHAN RAJ U	20	100
28	112819104029	MONIKA V S	19	95
29	112819104030	MONISHA P	17	85
30	112819104031	MUTHYALA RAMA KRISHNA	19	95
31	112819104032	NAGARAJ V	17	85
32	112819104033	NAVEEN S	19	95
33	112819104034	NISHANTH S	19	95
34	112819104035	PADMA PRIYA B	18	90
35	112819104036	PRIYADHARSHINI J	16	80
36	112819104037	PRIYADHARSHINI M	17	85
37	112819104038	RAMYA R	18	90
38	112819104039	RAMYA S	17	85
39	112819104040	RAVALA GREESHMA	20	100
40	112819104041	RAYI PAVAN	19	95
41	112819104042	SAI SNEHA M	17	85
42	112819104043	SANDHIYA R	19	95

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43	112819104044	SANTHOSH SWAMY V	18	90
44	112819104045	SARAVANAN V	16	80
45	112819104046	SATHIYAVANI V	17	85
46	112819104048	SHAIK RAJEENA BEGUM	18	90
47	112819104049	SHARMILA U	17	85
48	112819104050	SHOBANA L	16	80
49	112819104051	SILVAN S	18	90
50	112819104052	SINDHU K	19	95
51	112819104053	SINDHU V	18	90
52	112819104054	SIVA M	16	80
53	112819104055	SNEHA M	17	85
54	112819104056	SURESH CHELLADURAI	19	95
55	112819104057	SURESH KUMAR D	18	90
56	112819104058	SWARNA E	16	80
57	112819104059	THATIPARTHI ROHITH	17	85
58	112819104060	UTUKURU TEJA	18	90
59	112819104061	VADINENI SIREESHA	17	85
60	112819104062	VANDANA D	17	85
61	112819104063	VASANTH G	19	95
62	112819104064	VISHNU PRIYA P B	18	90
63	112819104301	AKASH	16	80
64	112819104303	PRADEEPA GANDHI	17	85
65	112819104304	PRASANTH	17	85
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OURSE COORDINATOR

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING <u>VALUE ADDED COURSE - CS0601-DATA SCIENCE</u>

ATTENDANCE

S. No.	Register No.	Student Name	19/5/22 29/5/22 23/5/22 24/5/22 25/5/22
1	112819104002	AJITH L	Ald Ald Ald Ald Ald
2	112819104003	AKASH TIWARI N	Al LAM All All Alike
3	112819104004	AKSHAYA V	12ho 12h 12ho 12h
4	112819104005	ARCHANA I	A A A A
5	112819104006	BALUSUNDAR T S	De Be Ber De Be
6	112819104007	BANDLA VENU MADHAV	0,4 & p2 02 02
7	112819104008	BOLLEDDU GNANESWARI	Cyc Cey Cuc Go Co
8	112819104009	CHIMMILI BHANU CHANDRA	che che che che
9	112819104010	DEEPIKA D	p & & D
10	112819104011	EZHILARASI C	Any too KI KI KI
11	112819104012	GOWTHAM R	got got got got you
12	112819104013	G SAI KUMAR	82 8 - 8 - 8 - 8
13	112819104014	INBARAJ J	guber gut guy gur get
14	112819104015	INDHUJA S	2 2 2 2
15	112819104016	JOHNSI KAVERI N	Ky Ke Ke Ke
16	112819104017	KAUSALYA S	Kowly kouly Kouly Kouly Koul,
17	112819104018	KUMAR A	Res de de de

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		KUMMARI YASWANTH	2.4				
18	112819104019	SAGAR	Re-	K	· Kr	6	Kr
19	112819104020	LEELA RANI M	Lu	L	fu	k	he
20	112819104021	MAHESWARI S	M	1	M	12	M
21	112819104022	MARTHALA VAMSI KRISHNA	Van-	Josep	Vac	Vares	Van
22	112819104023	MOHAMED ILYAS M	Med	M	M	MY	M
23	112819104024	MOHANA PRASATH A A	M.p.	MP	MP	M-P	MP
24	112819104025	MOHANA PRIYA R	Moh	Nos	Medi	Mod	Med
25	112819104026	MOHANRAJ S	S-Mob	SM	S.M.L	S-MJ	S-Md
26	112819104027	MOHAN RAJ M	Ms	M	M	N	M
27	112819104028	MOHAN RAJ U	2.	2	2	8	2r
28	112819104029	MONIKA V S	Vu	V8	VE	VS	42
29	112819104030	MONISHA P	P.M.	Pr	P-M	P.M	P·M
30	112819104031	MUTHYALA RAMA KRISHNA	RZ	Rr	Rus	Ri	Rn
31	112819104032	NAGARAJ V	R	8	R	Re	Pa
32	112819104033	NAVEEN S	Naver	Nowe	Now	Nama	Nave
33	112819104034	NISHANTH S	Nut	ML	Nil	not	M
34	112819104035	PADMA PRIYA B	Pm	12	Qu	Pr	Q1
35	112819104036	PRIYADHARSHINI J	Pur	PA	PA	20	Ry
36	112819104037	PRIYADHARSHINI M	M	M	pl	M	~
37	112819104038	RAMYA R	Rns	Ry	Ry	Quy	Rus
38	112819104039	RAMYA S	Roma	Rang	Ronge	Rang	Pan
39	112819104040	RAVALA GREESHMA	01	Cul	Carola	Cush	0



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40	112819104041	RAYI PAVAN	28	RP.	Q.P	RP	R.P.
41	112819104042	SAI SNEHA M	Son	Sgi	Soi	Soir	Soi .
42	112819104043	SANDHIYA R	Sand	Soul	bond	Sand	Gond.
43	112819104044	SANTHOSH SWAMY V	Qu-	9	900	0=	Dy.
44	112819104045	SARAVANAN V	Jen-	Su	Se	for	for
45	112819104046	SATHIYAVANI V	Sathyaran	Catheren	Sathyrami	Sorthyerain	Southyerani
46	112819104048	SHAIK RAJEENA BEGUM	Rojer	Poin	Payers	Pajas	Regna:
47	112819104049	SHARMILA U	Solo	Sul	Sono	Sul	8 h
48	112819104050	SHOBANA L	Shebaray	Shakain	8 spary	3 shared	Shopany
49	112819104051	SILVAN S	2. Juan	Eller	Silvan	Silven	Silvan.
50	112819104052	SINDHU K	IndHU	Tendho	BingHAK	SindHe . K	I math U.V
51	112819104053	SINDHU V	Lende	Sindle	dende	dender	Sinding
52	112819104054	SIVA M	SWA	Jord	SIVI	ATTA	MAK
53	112819104055	SNEHA M	Snd	Gen	Sulve	Suele .	Shula.
54	112819104056	SURESH CHELLADURAI	Sulle	Sum	Shorn	Lury	Level
55	112819104057	SURESH KUMAR D	St.	Sic	Sie	Sie	SK.
56	112819104058	SWARNA E	SHARHA.	S'NAE 4	ESUNEYN	SWARY. A	SWARYA
57	112819104059	THATIPARTHI ROHITH	Polith	Polit	Robith	Polite.	Rolith
58	112819104060	UTUKURU TEJA	THA	TELA	TEJA	TELL	TEIL
59	112819104061	VADINENI SIREESHA	Ci.	Si	di	Si	di
- 60	112819104062	VANDANA D	Variana	Vando	Varidana	Vardo o	Vandara
61	112819104063	VASANTH G	Vascent	11	Vasanth.	Vayanth	11

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Course Coordinator

HOD

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING VALUE ADDED COURSE - CS0601- DATA SCIENCE Certificate

.S. ENGINEERING COLLEGE **DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING** CERTIFICATE OF COMPLETION This is to certify that Mr./Ms. GowTHAM. R has successfully completed a value added course on DATA SCIENCE conducted from 19-05-3cas to 25-05-2cas organized by Department of Computer Science Engineering, TJS Engineering College Thiruvallur. Principal HoD PRINCIPAL T.J.S. ENCINEERING COLLEGE Peruveyal, Kavarei pettai, Gummidiconnai Taluk, Thiruvallur Dist - 601 266

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DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

CERTIFICATE

OF COMPLETION

This is to certify that Mr./Ms. ARCHANA T has successfully completed a value added course on <u>DATA SCIENCE</u> conducted from 19-os-2022 to 25-os-2022 organized by Department of Computer Science Engineering, TJS Engineering College Thiruvallur.

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Thiruvallur Dist - 601 206.









DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING VALUE ADDED COURSE - CS0601-DATA SCIENCE

Report

Course code & name: CS0601& Data Science

Year offered : III year CSE

Course coordinator: Mrs. Agnes.J

Course type: Value added course

Course outcome:

The student will be able to understand the objective of the data scientist is to explore, sort and analyze megadata from various sources in order to take advantage of them and reach conclusions to optimize business processes.

Course type: value added course

Assessment mode: offline

Number of students Enrolled: 65

Scheme of Exam: MCQ

Number of students appeared :65

Number of passed: 65

Date of exam : 25/05/2022

Course Coordinator

J. Thum

HOD

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Gummidipoondi Taluk,
Thiruvallur Dist - 601 206.







DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING VALUE ADDED COURSE - CS0601 - DATA SCIENCE

STUDENT FEED-BACK

NAME: V-S. Monica

YEAR: III y

DATE: 25/5/22

1. The instructor was well prepared for class

a. Satisfactory b. good c. excellent d. poor

2. The instructor was organized and used class time efficiently

a. Yes b. No

3. The instructor p[resented course material in a clear manner that facilitated understanding

a. Satisfactory b. good c. excellent d. poor

4. This class has increased my interest in this field of study.

a, Yes b. No

5. The reading were appropriate to the goals of the course.

a. Satisfactory b. good c. excellent d. poor

6. I have put a great deal of effort into advancing my learning in this course

a. Yes b. No

7. The grading practices were fair

a. Yes b. No

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