ADD-ON Program

2021-22

ADD on Program

On

"LaTeX Editing Tool"

|| Jai Sri Gurudev ||

SRI ADICHUNCHANAGIRI SHIKSHANA TRUST ®
ADICHUNCHANAGIRI INSTITUTE OF TECHNOLOGY, CHIKKAMAGALURU
P.B No.91,Adichunchanagiri Extension, Chikkamagaluru-577 102, Karnataka ,India.

Ref: AIT/IQAC/CSE/ /2021-22

Date:31/05/2022

Circular

Department of Computer Science & Engineering is conducting a Certificate Program (Add-on Program) on "**LaTeX Editing Tool [21CS-SLET_01]**" from **21-06-2022** to **09-07-2022**. All other HOD's instruct the concern department students to attend the program. Following faculty member (Course instructor) is conducting a certificate program at CS&E Department.

Course Instructor

1. Dr. Sunitha M R
   Professor
   Dept. of CS&E
   AIT Chikmagalur

2. Prof. S J Prashantha
   Assistant Professor
   Dept. of CS&E
   AIT Chikmagalur

Professor and H.O.D.
Department of Computer Science and Engg
Adichunchanagiri Institute of Technology
CHIKMAGALUR - 577102
HOD's Signature

Principal Signature
B.E.,M.Tech.,Ph.D
Adichunchanagiri Institute of Technology
CHIKKAMAGALURU-577102

ADD-ON Course

On

"LaTeX Editing Tool"

Organized by,

Department of Computer Science and Enginering.
Adichunchanagiri Institute of Technology,
Chikmagalur – 577102
Karnataka. India
www.aitchikmagalur.ac.in

About the College:

Adichunchanagiri Institute of Technology (AIT) was established in the year 1980 under the auspicious of **Adhichunchanagiri Shikshana Trust(R)** with the blessings of Bhairavaikya **Jagadguru Padmabhushana Sri Sri Sri Dr. Balagangadharanatha Mahaswamiji** to provide technical and other professional education in the rural area of Chikmagalur, the land of Coffee. With the blessings of Jagadguru Sri. Sri. Sri. Nirmalanandanatha Swamiji, AIT is imparting the quality education in Engineering and Management with ethical and spiritual values. The engineering departments have recognized as research centers under VTU. The college has well equipped laboratory facilities and highly qualified and experienced faculty. The Institute is providing good training for students to excel in academics as well as in industry requirements and aims towards 100% placements to give a better future for students.

About the Department:

The Department of Computer Science and Engineering is established in the year 1986. It was earlier affiliated to the Mysore University later to the Kuvempu University and at present, it is affiliated to Visvesvaraya Technological University, Belagavi. The alumni of the department are working in various reputed organizations in India and abroad. The department is accredited twice by National Broad of Accreditation, New Delhi.
The department offers UG, PG Courses with an intake of 120 and 18 respectively and facilitates R&D through VTU recognized research center. The department has received funds from various reputed agencies like AICTE, VGST, KSCST, ISRO, ISTE, etc., for its activities.

Objectives of the Course:

LaTeX, a document preparation system, is widely used for publishing in many scientific fields like mathematics, statistics, computer science, engineering, chemistry, physics, economics, linguistics, etc.. It is a powerful and open-source system that provides numerous facilities for automating typesetting of the document: i.e. structuring page layout, listing and auto-numbering of sections, tables, figures, generating a table of contents, managing cross-referencing, citing, and indexing.

Unlike other WYSIWYG editors, the content is written in plain text along with appropriate commands, thus, allowing the user to concentrate on the content rather than the aesthetics (the way it looks). The TeX typesetting program which LaTeX uses, was designed such that anyone can create good quality material with less efforts.

This course introduces the basic concepts of LaTeX. Participants taking this course will be able to create and design documents in LaTeX and presentations in Beamer with confidence.

Resource Person:

Dr. Sunitha M R

Professor

Dept of CS&E, AIT, Chikkamagaluru

Convenor:

Dr Pushpa Ravi Kumar,

Professor and Head,

Dept. of CS&E. AIT, Chikkamagaluru

Coordinator:

Mr. S J Prashantha

Asst Professor,

Dept. of CS&E, AIT, Chikkamagaluru

ADICHUNCHANAGIRI INSTITUTE OF TECHNOLOGY
CHIKKAMAGALURU-577102

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

ADD-ON Course – LaTeX Editing Tool

Student Enrollment List

SI NO	NAME	USN	Signature
1	AAISHA SUHA	4AI20CS001	
2	ABHIJNA C D	4AI20CS003	
3	AISHWARYA A S	4AI20CS005	
4	AISIRI H T	4AI20CS006	
5	AMITH SHETTY A R	4AI20CS007	
6	AMULYA J	4AI20CS008	
7	ANANYA C M	4AI20CS009	
8	ANIL KUMAR R PATIL	4AI20CS010	
9	ANJANI S SINGH	4AI20CS011	
10	ANVIKA B N	4AI20CS012	
11	ARUN BELAVADI	4AI20CS013	
12	ARYA K S	4AI20CS014	
13	BHAGYA Y	4AI20CS015	
14	BHAKTHI SAMPADA J S	4AI20CS016	
15	BHOOMIKA C V	4AI20CS017	
16	BHOOMIKA G V	4AI20CS018	
17	BHOOMIKA M	4AI20CS019	
18	BHOOMIKA P.H	4AI20CS020	
19	BHUMIKA L	4AI20CS021	
20	CHANDRASHEKHARA M	4AI20CS022	
21	CHETHAN K S	4AI20CS023	
22	CHINTHAN H K	4AI20CS024	
23	CHIRANTH K G	4AI20CS025	
24	DAIVIK M D	4AI20CS026	
25	DEEKSHA C T	4AI20CS027	
26	DEEKSHITH K	4AI20CS028	
27	DHANYA H M	4AI20CS029	
28	DIVYA SHREE M N	4AI20CS030	
29	ESHANYA C Y	4AI20CS031	
30	FARDEEN KHAN	4AI20CS032	
31	RAKESH G	4AI20CS033	
32	GAGANA K R	4AI20CS034	
33	HARSHITH M O	4AI20CS035	
34	HARSHITH M PATEL	4AI20CS036	
35	PRANCHANA H.S	4AI20CS068	
36	PRATHEEK H.N	4AI20CS069	
37	PREETHAM GOWDA C.B	4AI20CS070	
38	RAKSHITA	4AI20CS073	
39	RANJAN GOWDA T N	4AI20CS077	
40	RATAN AKKI	4AI20CS078	
41	RENUKA N	4AI20CS079	
42	ROOPESH B Y	4AI20CS080	
43	SANATH D U	4AI20CS087	

44	SANATH R	4AI20CS088	Sanath R.
45	SANJANA S	4AI20CS089	Sanjana. S.
46	SANVI H R	4AI20CS090	Sanvi H R
47	SUHAS Y C	4AI20CS108	SUHAS.
48	SUJAY G	4AI20CS109	
49	SUJITH D	4AI20CS110	
50	SUMEDH M ANVEKAR	4AI20CS111	
51	SWATHI K M	4AI20CS112	
52	SYED AMAN	4AI20CS113	
53	TANUSHREE D	4AI20CS114	Tanushree
54	UDAY RAO C G	4AI20CS115	
55	VAMSHIKA M J	4AI20CS116	
56	VARSHA B C	4AI20CS117	
57	VARSHA V	4AI20CS118	Varsha
58	VARSHINI G	4AI20CS119	
59	VIDYA N G	4AI20CS120	
60	VIJAYALAKSHMI G S	4AI20CS121	
61	VINAY KUMAR B S	4AI20CS122	

Course Instructor Signature

HOD Signature

Professor and H.O.D.
Department of Computer Science and Engg
Adichunchanagiri Institute of Technology
CHIKMAGALUR - 577102

ADICHUNCHANAGIRI INSTITUTE OF TECHNOLOGY, CHIKKAMAGALURU

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Add on course for 4th sem BE, CSE – 30 Hours

CS&E

ADD on Course Name: LaTeX Editing Tool

Course Code: 21CS-SLET_01

Module 1: Overleaf guides

10 Hours

Creating a document in Overleaf, Uploading a project, Copying a project, Creating a project from a template Using the Overleaf project menu, Including images in Overleaf, Exporting your work from Overleaf, Working offline in Overleaf, Debugging Compilation timeout errors.

Module 2: LaTeX Basics

10 Hours

Creating your first LaTeX document, Choosing a LaTeX Compiler, Paragraphs and new lines, Bold, italics and underlining, Lists, Errors, Figures and tables: Inserting Images, Tables, Positioning Images and Tables, Lists of Tables and Figures.

Module 3: Mathematics

10 Hours

Mathematical expressions, Subscripts and superscripts, Brackets and Parentheses, Matrices, Fractions and Binomials, Aligning equations, Operators, Spacing in math mode, limits, Display, List of Greek letters and math symbols, Mathematical fonts, Using the Symbol Palette in Overleaf.

Text Books:

1. Guide to LATEX - UC Davis Mathematics, by H Kopka · 2004

References:

1. LATEX in 24 Hours, a practical guide for scientific writing by Dilip Datta

ADICHUNCHANAGIRI INSTITUTE OF TECHNOLOGY, CHIKKAMAGALURU
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

ADD on Course Name : LaTeX Editing Tool

Course Code : 21CS-SLET_01

Semester : 4th

Branch : CSE

Students are identified for ADD on Course Classes based on their enrolment. ADD on Course classes will be held during **21-06-2022** to **09-07-2022** at CS&E dept from 4 PM -6 PM

Attendance Report

SI NO	NAME	USN	During 21-06-2022 to 09-07-2022															Signature
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
1	AAISHA SUHA	4AI20CS001	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	
2	ABHIJNA C D	4AI20CS003	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	
3	AISHWARYA A S	4AI20CS005	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
4	AISIRI H T	4AI20CS006	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
5	AMITH SHETTY A R	4AI20CS007	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
6	AMULYA J	4AI20CS008	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
7	ANANYA C M	4AI20CS009	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	
8	ANIL KUMAR R PATIL	4AI20CS010	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	
9	ANJANI S SINGH	4AI20CS011	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	
10	ANVIKA B N	4AI20CS012	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	
11	ARUN BELAVADI	4AI20CS013	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	
12	ARYA K S	4AI20CS014	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
13	BHAGYA Y	4AI20CS015	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
14	BHAKTHI SAMPADA J S	4AI20CS016	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
15	BHOOMIKA C V	4AI20CS017	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	
16	BHOOMIKA G V	4AI20CS018	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
17	BHOOMIKA M	4AI20CS019	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	
18	BHOOMIKA P H	4AI20CS020	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
19	BHUMIKA L	4AI20CS021	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
20	CHANDRASHEKHARA M	4AI20CS022	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
21	CHETHAN K S	4AI20CS023	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
22	CHINTHAN H K	4AI20CS024	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
23	CHIRANTH K G	4AI20CS025	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
24	DAIVIK M D	4AI20CS026	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
25	DEEKSHA C T	4AI20CS027	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
26	DEEKSHITH K	4AI20CS028	A	P	P	P	P	P	P	P	P	P	A	P	P	P	P	
27	DHANYA H M	4AI20CS029	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	
28	DIVYA SHREE M N	4AI20CS030	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
29	ESHANYA C Y	4AI20CS031	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	
30	FARDEEN KHAN	4AI20CS032	P	P	P	A	P	P	P	P	P	A	P	P	P	P	P	

31	RAKESH G	4AI20CS033	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	
32	GAGANA K R	4AI20CS034	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	
33	HARSHITH M O	4AI20CS035	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	
34	HARSHITH M PATEL	4AI20CS036	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	
35	PRANCHANA H S	4AI20CS068	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
36	PRATHEEK H N	4AI20CS069	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
37	PREETHAM GOWDA C B	4AI20CS070	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
38	RAKSHITA	4AI20CS073	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
39	RANJAN GOWDA T N	4AI20CS077	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	
40	RATAN AKKI	4AI20CS078	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
41	RENUKA N	4AI20CS079	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
42	ROOPESH B Y	4AI20CS080	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
43	SANATH D U	4AI20CS087	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
44	SANATH R	4AI20CS088	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
45	SANJANA S	4AI20CS089	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	
46	SANVI H R	4AI20CS090	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
47	SUHAS Y C	4AI20CS108	P	P	P	P	A	P	P	A	P	P	P	P	P	P	P	P	
48	SUJAY G	4AI20CS109	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
49	SUJITH D	4AI20CS110	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
50	SUMEDH M ANVEKAR	4AI20CS111	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
51	SWATHI K M	4AI20CS112	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
52	SYED AMAN	4AI20CS113	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	
53	TANUSHREE D	4AI20CS114	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	
54	UDAY RAO C G	4AI20CS115	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
55	VAMSHIKA M J	4AI20CS116	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
56	VARSHA B C	4AI20CS117	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	
57	VARSHA V	4AI20CS118	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
58	VARSHINI G	4AI20CS119	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
59	VIDYA N G	4AI20CS120	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
60	VIJAYALAKSHMI G S	4AI20CS121	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
61	VINAY KUMAR B S	4AI20CS122	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	

Course Instructor Signature

HOD Signature

Professor and H.O.D.
Department of Computer Science and Engg
Adichunchanagiri Institute of Technology
CHIKMAGALUR - 577102


Sri Adichunchanagiri Shikshana Trust (R)

ADICHUNCHANAGIRI INSTITUTEOF TECHNOLOGY

CHIKKAMAGALURU – 577 102

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING


Certificate of Participation

This is to certify that **RENUKA N** *has successfully completed the add on course on "***LaTeX Editing Tool***" from* **21-06-2022** to **09-07-2022** *organized by Department of Computer Science and Engineering.*

Prof. S J Prashantha
Staff co-ordinator

Dr. Sunitha M R
Staff co-ordinator

Professor and H.O.D.
Department of Computer Science and Engg.
Adichunchanagiri Institute of Technology
CHIKMAGALUR - 577102
Dr. Pushpa Ravikumar
H.O.D

Sri Adichunchanagiri Shikshana Trust (R)

ADICHUNCHANAGIRI INSTITUTEOF TECHNOLOGY

CHIKKAMAGALURU – 577 102

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Certificate of Participation

This is to certify that BHAGYA Y *has successfully completed the add on course on "***LaTeX Editing Tool***" from* **21-06-2022** to **09-07-2022** *organized by Department of Computer Science and Engineering.*

Prof. S J Prashantha
Staff co-ordinator

Dr. Sunitha M R
Staff co-ordinator

Professor and H.O.D.
Dept. of Computer Science and Engg.
Adichunchanagiri Institute of Technology
CHIKMAGALUR - 577102

Dr. Pushpa Ravikumar
H.O.D

ADICHUNCHANAGIRI INSTITUTE OF TECHNOLOGY, CHIKKAMAGALURU
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

ADD on Course Name: LaTeX Editing Tool

Course Code : 21CS-SLET_01

Semester: 4

Branch: CSE

TOPPERS LIST

SI NO	NAME	USN	Marks Obtained
1	AAISHA SUHA	4AI20CS001	47
2	VIJAYALAKSHMI G S	4AI20CS121	45
3	DAIVIK M D	4AI20CS026	43

Course Instructor Signature

HOD Signature

Professor and H.O.D.
Department of Computer Science and Engineering
Adichunchanagiri Institute of Technology
CHIKMAGALUR - 577102

ADICHUCHANAGIRI INSTITUTE OF TECHNOLOGY, CHIKKAMAGALURU

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

ADD ON COURSE: LaTeX Editing Tool

SEMESTER : IV

Max Marks: 50

Student Name : Harshith.M.Patel

Student USN : 4AT20CS036

Note: There are 50 multiple choice questions. All questions are compulsory. Each question carries equal marks.

50*1=50

1. Question: To use_____there is a requirement of LaTeX distribution (software).
   a) TeX
   b) SciTE
   c) LaTeX
   d) Ubuntu

2. Question: Most LaTeX distribution software includes_____and some additional software in them.
   a) TeX
   b) SciTE
   c) LaTeX
   d) Ubuntu

3. Question: TeX Live is a very popular LaTeX distribution software which is available in the standard_____repositories.
   a) TeX
   b) SciTE
   c) LaTeX
   d) Ubuntu

4. Question: While using LaTeX, there is also a need for plain_____editor and software to view the output file.
   a) Text
   b) Transcript
   c) Script
   d) Word

5. Question: LaTeX documents are typically created using any plain_____editor.
   a) Text
   b) Transcript
   c) Script
   d) Word

6. Question: _____are examples of plain text editors.
   a) Gedit
   b) SciTE
   c) Both (A) and (B)
   d) None of these

7. Question: The different parts of the text are marked using_____commands that associate a meaning to them.
   a) LaTeX
   b) Simple
   c) TeX
   d) HTML

8. Question: _____command is used to define the document's title.
   a) \ title
   b) \author
   c) \date
   d) \document

9. Question: _____command is used to specify the author(s) of the document.
   a) \title
   b) \author
   c) \date
   d) \document

10. Question: _____command is used to indicate the date the document was created.
    a) \title
    b) \author
    c) \date
    d) \document

11. Question: _____command can be used to explicitly specify the logical structure of the document.
    a) \ chapter
    b) \ section
    c) \paragraph
    d) All of these

12. Question: LaTeX comes with_____ways to format these document elements in a pleasant looking professionalstyle.
    a) Integrated
    b) Built-in
    c) Many
    d) Incorporated

13. Question: The document is compiled (processed) using the LaTeX_____and an output file is produced.
    a) Organization
    b) Commands
    c) System
    d) Document

14. Question: While compilation, LaTeX can also produce some additional_____
    a) Records
    b) Archives
    c) Files
    d) Directories

15. Question: The produced additional files can be_____safely without losing any information.
    a) Read
    b) Deleted
    c) Saved
    d) Documented

16. Question: When the output file is viewed using appropriate software or print it on a printer, one can seethe_____document.
    a) Unformatted
    b) Formatted
    c) In-line
    d) None of these

17. Question: In the output file, if the looks of the document are not satisfactory, it can be further_____with thehelp of built-in styles or own styles can be defined.
    a) Adapted
    b) Formatted
    c) Modified
    d) Customized

18. Question: Every time a modification is made in the_____text, there will be a need to compile it again for seeingthe effect of the change in the output document.
    a) Source
    b) Basic
    c) Beginning
    d) Main

19. Question: Both TeX and LaTeX use the file extension_____
    a) .text
    b) .tex
    c) .txe
    d) .latex

20. Question: LaTeX has a command called_____that produces the popular PDF format files.
    a) PDFtex
    b) pdflatex
    c) PDF
    d) Latexpdf

21. Question: Full form of PDF is_____
    a) Perfect Document Format
    b) Portable Double Format
    c) Portable Document Format
    d) Perfect Deed Format

22. Question: PDF files are very popular for sharing_____documents on the Web.
    a) Producible
    b) Printable
    c) Printed
    d) Scanned

23. Question: PDF documents can be viewed in_____default viewer.
    a) TeX's
    b) SciTE's
    c) LaTeX's
    d) Ubuntu's

24. Question: Ubuntu's document default viewer is_____
    a) Evince
    b) LaTeX
    c) Evine
    d) All of these

25. Question: The edit-compile-view cycle has_____steps.
    a) One
    b) Two
    c) Three
    d) Four

26. Question: The document can be edited by using any plain editor like_____
    a) Gedit
    b) Word
    c) Wordpad
    d) Getit

27. Question: The LaTeX document can be compiled by issuing the command_____at the command prompt.
    a) Pdflatex filename
    b) PDF filename
    c) latexpdf filename
    d) filename pdflatex

28. Question: The generated PDF file can be viewed by opening it from the_____
    a) Desktop
    b) GUI

c) Adobe
d) LaTeX

29. Question: The generated PDF file can also be viewed by issuing the command_____pdf filename at thecommand prompt.
a) Evince
b) LaTeX
c) Evine
d) All of these

30. Question: To use SciTE with pdflatex, there is a need to make changes in its_____file.
a) Document
b) PDF
c) Configuration
d) LaTeX

31. Question: LaTeX is essentially a_____language.
a) Markup
b) Highlighted
c) Object oriented
d) Simple

32. Question: The LaTeX source consists of plain text with some parts of the text marked up using markers knownas_____
a) Instructions
b) Commands
c) Guidelines
d) Directions

33. Question: In LaTeX, some_ _____are independent commands - they do not mark any specific part of the text.
a) Instructions
b) Commands
c) Guidelines
d) Directions

34. Question: The LaTeX commands can perform a variety of tasks when the_____is processed by the LaTeXsystem.
a) Organization
b) File
c) System
d) Document

35. Question: The LaTeX commands provide information about the text or the_____
a) Organization
b) File
c) System
d) Document

36. Question: The LaTeX commands indicate the role of the marked text in the overall structure of the_____
a) Organization
b) File
c) System
d) Document

37. Question: The LaTeX commands directly specify_____
a) Formatting
b) Information
c) Data
d) File name

38. Question: The LaTeX command name can be a_____of alphabetic letters only, or it can be a single non-letter.
a) String
b) Sequence
c) Series
d) Chain

39. Question: LaTeX commands are_____sensitive.
a) Event
b) Case
c) Instance
d) Example

40. Question: Some commands accept additional information which is called_____
a) Examples
b) Data info
c) Arguments
d) Instances

41. Question: There are two types of_____optional and compulsory.
a) Examples
b) Data Info
c) Arguments
d) Instances

42. Question: _____arguments are not mandatory.
a) Optional
b) Compulsory
c) Instance
d) Event

43. Question: If one or more optional arguments are to be provided, they have to be written after the commandname, enclosed in_____
a) [] (square brackets)
b) ""(quotes)
c) <>(angular brackets)
d) {} (curly braces)

44. Question: More than one optional argument has to be separated by_____
a) (:) colon

b) (,) comma
c) (;) semi colon
d) (A) caret

45. Question: Mandatory arguments (if there are any) have to be enclosed in in_____
a) [ ] (square brackets)
b) "" (quotes)
c) <>(angular brackets)
d) { } (curly braces)

46. Question: 12pt is an_____argument.
a) Name
b) Optional
c) Compulsory
d) All of these

47. Question: Article is a_____argument.
a) Name
b) Optional
c) Compulsory
d) All of these

48. Question: LaTeX treats all_____characters (the space, tab and newline characters) as the same.
a) Special
b) Space
c) Line
d) Whitespace

49. Question: LaTeX converts all occurrences of multiple consecutive_____into a single space character.
a) Special
b) Space
c) Line
d) Whitespace

50. Question: The_____at the beginning of a line are generally ignored and one or more consecutive blank lines are considered to mark the beginning of a new paragraph.
a) Special
b) Space
c) Line
d) Whitespace

11/50

ADICHUNCHANAGIRI INSTITUE OF TECHNOLOGY,
CHIKKAMAGALURU-577102.
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Add-On Course on "LaTeX Editing Tool"

Add-On Course PARTICIPANTS FEEDBACK

Sl.No	DESCRIPTION	EXCELLENT	GOOD	POOR
1	How would you rate the presenter's knowledge on the concept?	✓		
2	How would you rate the concepts and Information provided by the Presenter?	✓		
3	What was your overall impression of the session?	✓		
4	Remarks	The session was very good		

Bhoga

Signature of the Participants

ADICHUNCHANAGIRI INSTITUTE OF TECHNOLOGY CHIKKAMAGALURU

Department of Computer Science & Engineering

Summary Report

The course "**LaTeX Editing Tool**"was conducted at CS&E Dept from **21/06/2022 to 09/07/2022.**

The main motive is to impart the knowledge and understanding about LaTeX system, explain the procedure of LaTeX typesetting and familiarize the participants with various document formats of LaTeX and enable them to prepare research articles, thesis, books, and presentations with confidence.

Course Outcomes

Students will be able to learn:

- Typesetting of complex mathematical formulae using LaTeX.
- Use tabular and array environments within LaTeX.
- Use various methods to either create or import graphics into a LaTeX document.
- Typesetting of journal articles, technical reports, thesis, books, and slide
- presentations. Automatic generation of table of contents, bibliographies and indexes.

Instructor's Signature

HOD's Signature

H.O.D.
Department of Computer Science and Engg
Adichunchanagiri Institute of Technology
CHIKMAGALUR - 577102

ADD-ON PROGRAM

ON

"DIGITAL IMAGE PROCESSING AND MACHINE VISION"

ADD-ON Course

On

"Digital Image Processing and Machine Vision"

Organized by,

Department of Computer Science and Enginering.
Adichunchanagiri Institute of Technology,
Chikmagalur – 577102
Karnataka. India
www.aitchikmagalur.ac.in

About the College:

Adichunchanagiri Institute of Technology (AIT) was established in the year 1980 under the auspicious of **Adhichunchanagiri Shikshana Trust(R)** with the blessings of Bhairavaikya **Jagadguru Padmabhushana Sri Sri Sri Dr. Balagangadharanatha Mahaswamiji** to provide technical and other professional education in the rural area of Chikmagalur, the land of Coffee. With the blessings of Jagadguru Sri. Sri. Sri. Nirmalanandanatha Swamiji, AIT is imparting the quality education in Engineering and Management with ethical and spiritual values. The engineering departments have recognized as research centers under VTU. The college has well equipped laboratory facilities and highly qualified and experienced faculty. The Institute is providing good training for students to excel in academics as well as in industry requirements and aims towards 100% placements to give a better future for students.

About the Department:

The Department of Computer Science and Engineering is established in the year 1986. It was earlier affiliated to the Mysore University later to the Kuvempu University and at present, it is affiliated to Visvesvaraya Technological University, Belagavi. The alumni of the department are working in various reputed organizations in India and abroad.
The department is accredited twice by National Broad of Accreditation, New Delhi. The department offers UG, PG Courses with an intake of 120 and 18 respectively and facilitates R&D through VTU recognized research center. The department has received funds from various reputed agencies like AICTE, VGST, KSCST, ISRO, ISTE, etc., for its activities.

Objectives of the Course:

After you have succesfully followed the course on image processing and computer vision you will be able to use techniques to process and analyze images. In this course we will introduce the basic notions in image processing and computer vision in such a way that a student will be able to use them for practical purposes and have an understanding of the theoretical (mathematical) basics. Algorithms for image processing and computer vision are often the 'materialization' of mathematical formulas. Being able to make a program from a mathematical description using the Python programming language is an important objective of this course

Resource Person:

Mr. Darshan L M.

Assistant Professor

Dept of CS&E, AIT, Chikkamagaluru

Convenor:

Dr Pushpa Ravi kumar, Professor and Head, Dept. of CS&E.

Coordinator:

1. Mr. Gopalakrishna C, Associate Professor, Dept. CS&E, AIT, Chikkamagaluru

2. Mr. Chandra Naik G, Assistant Professor, Dept. CS&E, AIT, Chikkamagaluru

|| Jai Sri Gurudev ||

SRI ADICHUNCHANAGIRI SHIKSHANA TRUST ®
DICHUNCHANAGIRI INSTITUTE OF TECHNOLOGY
CHIKKAMAGALURU

P.B No.91, Adichunchanagiri Extension, Chikkamagaluru-577 102, Karnataka, India.

Ref: AIT/IQAC/CSE/ /2022-23

Date: 16/05/2022

Circular

Department of Computer Science & Engineering is conducting a Certificate Program (Add-on Program) on "**Digital Image Processing and Machine vision**" from **25/05/2022** to **10/06/2022**. All other HOD's instruct the concern department students to attend the program. Following faculty member (Course instructor) is conducting a certificate program at CS&E Department.

Course Coordinators

1. Mr. Chandra Naik G
   Assistant Professor
   Dept. of CS&E
2. Mr. Gopalakrishna C
   Associate Professor
   Dept. of CS&E
   AIT Chikmagalur

HOD's Signature
Professor and H.O.D.
Department of Computer Science and Engg
Adichunchanagiri Institute of Technology
CHIKMAGALUR - 577102

Principal Signature
Dr. C.T. JAYADEVA
Principal B.E.,M.Tech.,Ph.D
Adichunchanagiri Institute of Technology
CHIKKAMAGALURU-577102

DIGITAL IMAGE PROCESSING AND MACHINE VISION

Add on Course **6th Sem B.E., CSE** **Duration –30 hours**

Syllabus

MODULE 1

Overview of Applications of Vision and Image Processing, Digital Image Formats, Colour Models, Data Types, Operators., Manipulating Matrices, File I/O, The Image Processing Toolbox (10 Hours)

MODULE 2

Thresholding, Histogram Equalization, Linear Filtering (convolution) , Noise Reduction, Nonlinear Filtering, Gradients, Edge Magnitude and Direction , Finite Difference Filters , Laplacian of Gaussian Filter, Canny Edge Detector, Colour Transformations, Colour Histogram Equalization Colour Median Filtering., Colour Gradient and Edge Detection (10 Hours)

MODULE 3

Thresholding as a form of Segmentation, Basic Global Thresholding, Optimal Global Thresholding, Techniques to improve global thresholding, Region Labelling, Boundary Tracing, Boundary-based measures of accuracy, Regionbased measures of accuracy, Measuring Reproducibility. (10 Hours)

Text Books/References:

(1)Textbook: Sonka M. Hlavac V. and Doyle R., Image Processing, Analysis, and Machine Vision, PWS Publishing, 1999.

(2) Reference: Bose T., Digital Signal and Image Processing, Wiley, 2004. (3) Forsth D. A. and Ponce J., Computer Vision: A Modern Approach, Prentice Hall, 2003. Reference Books (1) Gonzales R.C. and Woods P., Digital Image Processing, AddisonWesley, 2002. (2) Duda R. O., Hart P. E., and Stork D. G., Pattern Classification, Wiley Inter science, 2001.

ADICHUNCHANAGIRI INSTITUTE OF TECHNOLOGY, CHIKKAMAGALURU

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Add-On Course on

"DIGITAL IMAGE PROCESSING & MACHINE VISION"

STUDENT ENROLLMENT LIST

Sl. NO	USN	NAME	SIGNATURE
1	4AI17CS068	PREETHI J	
2	4AI18CS019	CHANDAN M	
3	4AI18CS042	MANASAY K Y	
4	4AI18CS117	TEJASWINI J	
5	4AI18CS122	VINUTHA C	
6	4AI19CS006	AKSHAYA KUMAR	
7	4AI19CS010	AMULYA V R	
8	4AI19CS012	ANANYA S N	
9	4AI19CS013	ANKITH K N	
10	4AI19CS015	ANUSHA BHAT	
11	4AI19CS016	ANUSHREE G	
12	4AI19CS017	AYISHA SIDDIQA	
13	4AI19CS019	BINDUSHREE C M	
14	4AI19CS020	BINOY PRASAD	
15	4AI19CS022	CHARVITHA C	
16	4AI19CS023	CHINMAYI S P	
17	4AI19CS024	CHITHRA C J	
18	4AI19CS025	CHITHRA P	
19	4AI19CS028	DAYANAND M G	
20	4AI19CS030	DEEPTHI M	
21	4AI19CS031	DEEPU R	
22	4AI19CS033	DHANYA SHREE P	
23	4AI19CS034	DHRUVA BHATTACHARYA	
24	4AI19CS036	DRUSTI S KUMAR	
25	4AI19CS040	GANAVI C T	
26	4AI19CS041	GOWRISHREE D	
27	4AI19CS043	HARSHITH C R	

ADICHUNCHANAGIRI INSTITUTE OF TECHNOLOGY
CHIKKAMAGALURU-577102
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

ADD-ON Course – Digital Image Processing

Attendance Report

Note :Session 1-9.30-12.30 Session 2-2.30-5.30

S.NO	USN	Student Name	25/5/ 2022	26/5/ 2022	27/5/ 2022	28/5/ 2022	30/5/ 2022	31/5/ 2022	1/6/ 2022	2/6/ 2022	3/6/ 2022	4/6/ 2022	Signature
			Day-1	Day-2	Day-3	Day-4	Day-5	Day-6	Day-7	Day-8	Day-9	Day-10	
1	4AI17CS068	PREETHI J	P	P	P	P	P	P	P	P	P	P	
2	4AI18CS019	CHANDAN M	P	P	P	P	P	P	P	P	P	P	
3	4AI18CS042	MANASAY K Y	P	P	P	P	P	P	P	P	P	P	
4	4AI18CS117	Tejaswini J	P	P	P	P	P	P	P	P	P	P	
5	4AI18CS122	VINUTHA C	P	P	P	P	P	P	P	P	P	P	
6	4AI19CS006	AKSHAYA KUMAR	P	P	P	P	P	P	P	P	P	P	
7	4AI19CS010	AMULYA V R	P	P	P	P	P	P	P	P	P	P	
8	4AI19CS012	ANANYA S N	P	P	P	P	P	P	P	P	P	P	
9	4AI19CS013	ANKITH K N	P	P	P	P	P	P	P	P	P	P	
10	4AI19CS015	ANUSHA BHAT	P	P	P	P	P	P	P	P	P	P	
11	4AI19CS016	ANUSHREE G	P	P	P	P	P	P	P	P	P	P	
12	4AI19CS017	AYISHA SIDDIQA	P	P	P	P	P	P	P	P	P	P	
13	4AI19CS019	BINDUSHREE C M	P	P	P	P	P	P	P	P	P	P	
14	4AI19CS020	BINOY PRASAD	P	P	P	P	P	P	P	P	P	P	

15	4AI19CS022	CHARVITHA C	P	P	P	P	P	P	P	P	P	P	P	P	
16	4AI19CS023	CHINMAYI S P	P	P	P	P	P	P	P	P	P	P	P	P	
17	4AI19CS024	CHITHRA C J	P	P	P	P	P	P	P	P	P	P	P	P	
18	4AI19CS025	CHITHRA P	P	P	P	P	P	P	P	P	P	P	P	P	
19	4AI19CS028	DAYANAND M G	P	P	P	P	P	P	P	P	P	P	P	P	
20	4AI19CS030	DEEPTHI M	P	P	P	P	P	P	P	P	P	P	P	P	
21	4AI19CS031	DEEPU R	P	P	P	P	P	P	P	P	P	P	P	P	
22	4AI19CS033	DHANYA SHREE P	P	P	P	P	P	P	P	P	P	P	P	P	
23	4AI19CS034	DHRUVA BHATTACHARYA	P	P	P	P	P	P	P	P	P	P	P	P	
24	4AI19CS036	DRUSTI S KUMAR	P	P	P	P	P	P	P	P	P	P	P	P	
25	4AI19CS040	GANAVI C T	P	P	P	P	P	P	P	P	P	P	P	P	
26	4AI19CS041	GOWRISHREE D	P	P	P	P	P	P	P	P	P	P	P	P	
27	4AI19CS043	HARSHITH C R	P	P	P	P	P	P	P	P	P	P	P	P	
28	4AI19CS046	HARSHITHA J S	P	P	P	P	P	P	P	P	P	P	P	P	
29	4AI19CS047	INCHARA M B	P	P	P	P	P	P	P	P	P	P	P	P	
30	4AI19CS048	JASWANTH GINDI N L	P	P	P	P	P	P	P	P	P	P	P	P	
31	4AI19CS049	JAYANTH H A	P	P	P	P	P	P	P	P	P	P	P	P	
32	4AI19CS050	JEEVAN H T	P	P	P	P	P	P	P	P	P	P	P	P	
33	4AI19CS053	KARTHIK I L	P	P	P	P	P	P	P	P	P	P	P	P	
34	4AI19CS054	KAVYA B V	P	P	P	P	P	P	P	P	P	P	P	P	
35	4AI19CS056	KISHORE N	P	P	P	P	P	P	P	P	P	P	P	P	
36	4AI19CS058	LIKHITH T U	P	P	P	P	P	P	P	P	P	P	P	P	
37	4AI19CS060	MOKSHITH M D	P	P	P	P	P	P	P	P	P	P	P	P	
38	4AI19CS065	NIHRIKA C L	P	P	P	P	P	P	P	P	P	P	P	P	

39	4AI19CS066	NISCHITHA M	P	P	P	P	P	P	P	P	P	P	Nischitha.
40	4AI19CS068	NISHMITHA M GOWDA	P	P	P	P	P	P	P	P	P	P	
41	4AI19CS069	NITHYANJALI H GOWDA	P	P	P	P	P	P	P	P	P	P	Nithyanjali.H.Go
42	4AI19CS070	PALLAVI P V	P	P	P	P	P	P	P	P	A	P	
43	4AI19CS071	PALLAVI S	P	P	P	P	P	P	P	P	P	P	Pallavi.S
44	4AI19CS076	PRAMODH C A	P	P	P	P	P	P	P	P	P	P	
45	4AI19CS083	RACHITHA P K	P	P	P	P	P	P	P	P	P	P	

S.NO	USN	Student Name	6/6/2022	7/6/2022	8/6/2022	9/6/2022	10/6/2022	Signature
			Day-11	Day-12	Day-13	Day-14	Day-15	
1	4AI17CS068	PREETHI J	P	P	P	P	P	
2	4AI18CS019	CHANDAN M	P	P	P	P	P	
3	4AI18CS042	MANASAY K Y	P	P	P	P	P	
4	4AI18CS117	Tejaswini J	P	P	P	P	P	
5	4AI18CS122	VINUTHA C	P	P	P	P	P	
6	4AI19CS006	AKSHAYA KUMAR	P	P	P	P	P	
7	4AI19CS010	AMULYA V R	P	P	P	P	P	
8	4AI19CS012	ANANYA S N	P	P	P	P	P	
9	4AI19CS013	ANKITH K N	P	P	P	P	P	
10	4AI19CS015	ANUSHA BHAT	P	P	P	P	P	
11	4AI19CS016	ANUSHREE G	P	P	P	P	P	
12	4AI19CS017	AYISHA SIDDIQA	P	P	P	P	P	

13	4AI19CS019	BINDUSHREE C M	P	P	P	P	P	
14	4AI19CS020	BINOY PRASAD	P	P	P	P	P	
15	4AI19CS022	CHARVITHA C	P	P	P	P	P	
16	4AI19CS023	CHINMAYI S P	P	P	P	P	P	
17	4AI19CS024	CHITHRA C J	P	P	P	P	P	
18	4AI19CS025	CHITHRA P	P	P	P	P	P	
19	4AI19CS028	DAYANAND M G	P	P	P	P	P	
20	4AI19CS030	DEEPTHI M	P	P	P	P	P	
21	4AI19CS031	DEEPU R	P	P	P	P	P	
22	4AI19CS033	DHANYA SHREE P	P	P	P	P	P	
23	4AI19CS034	DHRUVA BHATTACHARYA	P	P	P	P	P	
24	4AI19CS036	DRUSTI S KUMAR	P	P	P	P	P	
25	4AI19CS040	GANAVI C T	P	P	P	P	P	
26	4AI19CS041	GOWRISHREE D	P	P	P	P	P	
27	4AI19CS043	HARSHITH C R	P	P	P	P	P	
28	4AI19CS046	HARSHITHA J S	P	P	P	P	P	
29	4AI19CS047	INCHARA M B	P	P	P	P	P	
30	4AI19CS048	JASWANTH GINDI N L	P	P	P	P	P	
31	4AI19CS049	JAYANTH H A	P	P	P	P	P	
32	4AI19CS050	JEEVAN H T	P	P	P	P	P	
33	4AI19CS053	KARTHIK I L	P	P	P	P	P	
34	4AI19CS054	KAVYA B V	P	P	P	P	P	
35	4AI19CS056	KISHORE N	P	P	P	P	P	
36	4AI19CS058	LIKHITH T U	P	P	P	P	P	
37	4AI19CS060	MOKSHITH M D	P	P	P	P	P	

38	4AI19CS065	NIHRIKA C L	P	P	P	P	P	Nihrika
39	4AI19CS066	NISCHITHA M	P	P	P	P	P	Nischitha M
40	4AI19CS068	NISHMITHA M GOWDA	P	P	P	P	P	
41	4AI19CS069	NITHYANJALI H GOWDA	P	P	P	P	P	Nithyanjali H Gowda
42	4AI19CS070	PALLAVI P V	P	P	P	P	P	Pallavi PV
43	4AI19CS071	PALLAVI S	P	P	P	P	P	Pallavi. S
44	4AI19CS076	PRAMODH C A	P	P	P	P	P	
45	4AI19CS083	RACHITHA P K	P	P	P	P	P	

Course Instructor's Signature

HOD's Signature

Professor and H.O.D.
Department of Computer Science and Engg
Adichunchanagiri Institute of Technology
CHIKMAGALUR - 577102

CS&E

ADICHUNCHANAGIRI INSTITUE OF TECHNOLOGY,

CHIKKAMAGALURU-577102.

DEPARTMENT OF COPMUTER SCIENCE & ENGINEERING

Add-On Course on "**Digital Image Processing and Machine vision**"

Over All Add-On Course PARTICIPANTS FEEDBACK

Sl.No	DESCRIPTION	EXCELLENT	GOOD	POOR
1	How would you rate the presenter's knowledge on the concept?		Good	
2	How would you rate the concepts and Information provided by the Presenter?	Excellent		
3	What was your overall impression of the session?		Good	
4	Remarks	— NIL —		

Signature of the Participants

||Jai Sri Gurudev||

Sri Adichunchanagiri Shikshana Trust (R)

ADICHUNCHANAGIRI INSTITUTEOF TECHNOLOGY

CHIKKAMAGALURU – 577 102

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Certificate of Participation

This is to certify that Pallavi P. V *has successfully completed the add on course on "Digital Image Processing and Machine vision" from 25th May 2022 to 10th june 2022 ,organized by Department of Computer Science and Engineering.*

Prof. Chandra Naik G
Staff co-ordinator

Prof. Gopalakrishna C
Staff co-ordinator

Professor and H.O.D
Department of Computer Science and Engg.
Adichunchanagiri Institute of Technology
CHIKKAMAGALUR - 577102

Dr. Pushpa Ravikumar
H.O.D

ADICHUNCHANAGIRI INSTITUTE OF TECHNOLOGY, CHIKKAMAGALURU

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Add-On Course on

"DIGITAL IMAGE PROCESSING AND MACHINE VISION"

TOPPERS LIST

SL NO	STUDENT NAME	USN	MARKS OBTAINED
1	RACHITHA P K	4AI19CS083	49
2	ANUSHA BHAT	4AI19CS015	48
3	MOKSHITH M D	4AI19CS060	47

Professor and H.O.D.
Department of Computer Science and Engg
Adichunchanagiri Institute of Technology
CHIKMAGALUR - 577102

SIGNATURE OF THE HOD

ADICHUNCHANAGIRI INSTITUTE OF TECHNOLOGY, CHIKKAMAGALURU
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
Add-On Course on "DIGITAL IMAGE PROCESSING"
ASSESSMENT QUESTIONS

NAME: Rachitha P. K. **USN:** 4AI19CS083

INSTRUCTIONS:

1. Answers to all questions are to be recorded on the multiple-choice form, either in the format A-D or True/False.
2. Tick Mark one option only to indicate the answer you consider correct for each question.
3. Mark your answers in Black or blue ink point pen on the multiple-choice form provided.

TICK MARK THE FOLLOWING QUESTIONS: **50*1=50 Marks**

1. What is the first and foremost step in Image Processing?
a) Image restoration b) Image enhancement c) Image acquisition d) Segmentation

2. In which step of processing, the images are subdivided successively into smaller regions?
a) Image enhancement b) Image acquisition c) Segmentation d) Wavelets

3. What is the next step in image processing after compression?
a) Wavelets b) Segmentation c) Representation and description d) Morphological processing

4. What is the step that is performed before color image processing in image processing?
a) Wavelets and multi resolution processing b) Image enhancement
c) Image restoration d) Image acquisition

5. How many number of steps are involved in image processing?
a) 10 b) 9 c) 11 d) 12

6. What is the expanded form of JPEG?
a) Joint Photographic Expansion Group b) Joint Photographic Experts Group
c) Joint Photographs Expansion Group d) Joint Photographic Expanded Group

7. Which of the following step deals with tools for extracting image components those are useful in the representation and description of shape?
a) Segmentation b) Representation & description
c) Compression d) Morphological processing

8. In which step of the processing, assigning a label (e.g., "vehicle") to an object based on its descriptors is done?
a) Object recognition b) Morphological processing
c) Segmentation d) Representation & description

49/50

9. What role does the segmentation play in image processing?
a) Deals with extracting attributes that result in some quantitative information of interest
b) Deals with techniques for reducing the storage required saving an image, or the bandwidth required transmitting it
c) Deals with partitioning an image into its constituent parts or objects
d) Deals with property in which images are subdivided successively into smaller regions

10. Among the following image processing techniques which are fast, precise and flexible.
a) Optical b) Digital c) Electronic d) Photographic

11. An image is considered to be a function of a(x,y), where a represents:
a) Height of image b) Width of image c) Amplitude of image d) Resolution of image

12. What is pixel?
a) Pixel is the elements of a digital image b) Pixel is the elements of an analog image
c) Pixel is the cluster of a digital image d) Pixel is the cluster of an analog image

13. The range of values spanned by the gray scale is called:
a) Dynamic range b) Band range c) Peak range d) Resolution range

14. Which is a color attribute that describes a pure color?
a) Saturation b) Hue c) Brightness d) Intensity

15. Which gives a measure of the degree to which a pure colour is diluted by white light?
a) Saturation b) Hue c) Intensity d) Brightness

16. Which means the assigning meaning to a recognized object?
a) Interpretation b) Recognition c) Acquisition d) Segmentation

17. The transition between continuous values of the image function and its digital equivalent is called _____
a) Quantisation b) Sampling c) Rasterisation d) None of the Mentioned

18. If the Gaussian filter is expressed as $H(u, v) = e^{(-D2}(u,v)/2D_0^2)$,where D(u, v) is the distance from point(u, v), D_0 is the distance defining cutoff frequency, then for what value of D(u, v) the filter is down to 0.607 of its maximum value?
a) $D(u, v) = D_0$ b) $D(u, v) = D_0^2$ c) $D(u, v) = D_0^3$ d) $D(u, v) = 0$

19. State the statement as true or false. "The GLPF did produce as much smoothing as the BLPF of order 2 for the same value of cutoff frequency".
a) True b) False

20. In general, which of the following assures of no ringing in the output?
a) Gaussian Lowpass Filter b) Ideal Lowpass Filter
c) Butterworth Lowpass Filter d) All of the mentioned

21. The lowpass filtering process can be applied in which of the following area(s)?
a) The field of machine perception, with application of character recognition
b) In field of printing and publishing industry
c) In field of processing satellite and aerial images d) All of the mentioned

22. The edges and other abrupt changes in gray-level of an image are associated with_____
a) High frequency components b) Low frequency components
c) Edges with high frequency and other abrupt changes in gray-level with low frequency components
d) Edges with low frequency and other abrupt changes in gray-level with high frequency components

23. A type of Image is called as VHRR image. What is the definition of VHRR image?
a) Very High Range Resolution image b) Very High Resolution Range image
c) Very High Resolution Radiometer image d) Very High Range Radiometer Image

24. The Image sharpening in frequency domain can be achieved by which of the following method(s)?
a) Attenuating the high frequency components b) Attenuating the low-frequency components
c) All of the mentioned d) None of the mentioned

25. The function of filters in Image sharpening in frequency domain is to perform reverse operation of which of the following Lowpass filter?
a) Gaussian Lowpass filter b) Butterworth Lowpass filter
c) Ideal Lowpass filter d) None of the Mentioned

26. If D_0 is the cutoff distance measured from origin of frequency rectangle and D(u, v) is the distance from point(u, v). Then what value does an Ideal Highpass filter will give if $D(u, v) \leq D0$ andif$D(u, v) > D0$?
a) 0 and 1 respectively b) 1 and 0 respectively
c) 1 in both case d) 0 in both case

27. What is the relation of the frequencies to a circle of radius D_0, where D_0 is the cutoff distance measured from origin of frequency rectangle, for an Ideal Highpass filter?
a) IHPF sets all frequencies inside circle to zero
b) IHPF allows all frequencies, without attenuating, outside the circle
c) All of the mentioned d) None of the mentioned

28. Which of the following is the transfer function of the Butterworth Highpass Filter, of order n, D_0 is the cutoff distance measured from origin of frequency rectangle and D(u, v) is the distance from point(u, v)?
a) H(u,v)=1/1+[(D0/D(u,v)]^2n b) H(u,v)={0 if D(u,v) <= D0 and 1 if D(u,v)> D0}
c) H(u,v)=1-e^-D^2(u,v)/2D0^2 d) none of the mentioned

29. Which of the following is the transfer function of the Ideal Highpass Filter? Given D_0 is the cutoff distance measured from origin of frequency rectangle and D(u, v) is the distance from point(u, v).

a) H(u,v)=1/1+[(D0/D(u,v)]^2n b) H(u,v)={0 if D(u,v) <= D0 and 1 if D(u,v)> D0}
c) H(u,v)=1-e^-D^2(u,v)/2D0^2 d) none of the mentioned

30. Which of the following is the transfer function of the Gaussian Highpass Filter? Given D_0 is the cutoff distance measured from origin of frequency rectangle and D(u, v) is the distance from point(u, v).

a) H(u,v)=1/1+[(D0/D(u,v)]^2n b) H(u,v)={0 if D(u,v) <= D0 and 1 if D(u,v)> D0}
c) H(u,v)=1-e^-D^2(u,v)/2D0^2 d) none of the mentioned

31. For a given image having smaller objects, which of the following filter(s), having D_0 as the cutoff distance measured from origin of frequency rectangle, would you prefer for a comparably smoother result?

a) IHLF with D_0 15 b) BHPF with D_0 15 and order 2
c) GHPF with D_0 15 and order 2 d) All of the mentioned

32. Which of the following statement(s) is true for the given fact that "Applying Highpass filters has an effect on the background of the output image"?

a) The average background intensity increases to near white
b) The average background intensity reduces to near black
c) The average background intensity changes to a value average of black and white
d) All of the mentioned

33.Gaussian noise is referred to as

a) red noise b) black noise c) white noise d) normal noise

34. Which of the following is an example of Digital Image processing?

a) Computer graphics b) Pixels c) camera mechanism d) All of the mentioned

35.Convolution in spatial domain is multiplication in

a)frequency domain b)time domain c)spatial domain d)plane

36.Linear functions possesses the property of

a) additivity b)homogeneity c)multiplication d)Both a and b

37.PDF in image processing is called

a) probability degraded function b)probability density function
c) probabilistic degraded function d)probabilistic density function

38.Filter that replaces the pixel value with the medians of intensity levels is

a) arithmetic mean filter b)geometric mean filter
c) median filter d)sequence mean filter

39.In geometric mean filters when alpha is equal to 1 then it works as

a)notch filter b)bandpass filter c)wiener filter d)inverse filter

40.In wiener filtering it is assumed that noise and image are
a)different b)homogenous c)correlated d)uncorrelated

41.EBCT scanners stands for
a)electrical beam computed tomography b)electric beam computed tomography
c)electronic beam computed tomography d)electron beam computed tomography

42. PSF stands for
a)probability spread function b)point spread function
c)probability spike function d)point spike function

43. Filter that performs opposite to band rejected filter is called
a)lowpass filter b)bandpass filter c)highpass filter d)max filter

44.Degradation can be estimated by
a)2ways b)3ways c)4ways d)5ways

45. The purpose of restoration is to gain
a) degraded image b) original image c)pixels d) coordinates

46. Power spectra and noise of undegraded image must be known is a statement of
a) notch filter b) bandpass filter c)wiener filter d)max filter

47. Contra harmonic mean filter produces
a)degraded image b)original image c)restored image d)plane

48.One that is not the type of a mean filter
a)arithmetic mean filter b)geometric mean filter
c)harmonic mean filter d)sequence mean filter

49.Which is meant by assuming any two neighboring that are both edge pixels with consistent orientation?
a)Canny edge detection b)Smoothing c)Segmentation d)None of the mentioned

50. What is the process of breaking an image into groups?
a)Edge detection b)Smoothing c)Segmentation d)None of the mentioned

ADICHUNCHANAGIRI INSTITUTE OF TECHNOLOGY CHIKKAMAGALURU

Department of Computer Science & Engineering

Summary Report

The course **"Digital Image Processing"**was conducted at CS&E Dept from **25/05/2022 to 04/06/2022.**

With this course students can understand how to improve images for human interpretation. Information can be processed and extracted from images for machine interpretation. The pixels in the image can be manipulated to any desired density and contrast.

Course Outcomes

Upon completion of the subject, students will be able to: ·

- To study the image fundamentals and mathematical transforms necessary for image processing.
- To study the image enhancement techniques
- To study image restoration procedures.
- To study the image compression procedures

Instructor's Signature

HOD's Signature .

Professor and H.O.D.
Department of Computer Science and Engg.
Adichunchanagiri Institute of Technology

ADD-ON Program

2017-18

ADD ON PROGRAM

ON

"Basics of MATLAB Tool"

ADD-ON Course

On

"Basics of MATLAB Tool"

Organized by,

Department of Computer Science and Enginering.
Adichunchanagiri Institute of Technology,
Chikmagalur – 577102
Karnataka. India
www.aitchikmagalur.ac.in

About the College:

Adichunchanagiri Institute of Technology (AIT) was established in the year 1980 under the auspicious of **Adhichunchanagiri Shikshana Trust(R)** with the blessings of Bhairavaikya **Jagadguru Padmabhushana Sri Sri Sri Dr. Balagangadharanatha Mahaswamiji** to provide technical and other professional education in the rural area of Chikmagalur, the land of Coffee. With the blessings of Jagadguru Sri. Sri. Sri. Nirmalanandanatha Swamiji, AIT is imparting the quality education in Engineering and Management with ethical and spiritual values. The engineering departments have recognized as research centers under VTU. The college has well equipped laboratory facilities and highly qualified and experienced faculty. The Institute is providing good training for students to excel in academics as well as in industry requirements and aims towards 100% placements to give a better future for students.

About the Department:

The Department of Computer Science and Engineering is established in the year 1986. It was earlier affiliated to the Mysore University later to the Kuvempu University and at present, it is affiliated to Visvesvaraya Technological University, Belagavi. The alumni of the department are working in various reputed organizations in India and abroad. The department is accredited twice by National Broad of Accreditation, New Delhi.

The department offers UG, PG Courses with an intake of 120 and 18 respectively and facilitates R&D through VTU recognized research center. The department has received funds from various reputed agencies like AICTE, VGST, KSCST, ISRO, ISTE, etc., for its activities.

Objectives of the Course:

To Impart the Knowledge to the students with MATLAB software. [This enhances programming knowledge in Research and Development].It provides a working introduction to the Matlab technical computing environment. [Themes of data analysis, visualization, and programming].It helps to introduce students the use of a high-level programming language, Matlab. [scientific problem solving with applications and examples from Engineering].

Resource Person:

Mr. Varun E.

Assistant Professor

Dept of CS&E, AIT, Chikkamagaluru

Convenor:

Dr. Pushpa Ravi kumar, Professor and Head, Dept. of CS&E.

Coordinator:

Mr. Chethan P J, Asst Professor,

Dept. CS&E, AIT, Chikkamagaluru

|| Jai Sri Gurudev ||

SRI ADICHUNCHANAGIRI SHIKSHANA TRUST ®
ADICHUNCHANAGIRI INSTITUTE OF TECHNOLOGY,
CHIKKAMAGALURU

P.B No.91,Adichunchanagiri Extension, Chikkamagaluru-577 102, Karnataka ,India.

Ref: AIT/IQAC/CSE/ /2018-19

Date:26/11/2018

Circular

Department of Computer Science & Engineering is conducting a Certificate Program (Add-on Program) on "**Basics of MATLAB Tool**" from **26/11/2018** to **30/11/2018**. All other HOD's instruct the concern department students to attend the program. Following faculty member (Course instructor) is conducting a certificate program at CS&E Department.

Course Instructor
Mr. Chethan P J
Assistant Professor
Dept. of CS&E
AIT Chikmagalur

HOD's Signature

Professor and H.O.D.
Department of Computer Science &...
Adichunchanagiri Institute of Tech...
CHIKMAGALUR - 577102

Principal Signature

Dr. C.T. JAYADEVA
Principal B.E.,M.Tech.,Ph.D
Adichunchanagiri Institute of Technology
CHIKKAMAGALURU-577102

Basics of MATLAB Tool

Add on Course for V Semester
B.E. Computer Science and Engineering

Duration: 30 Hours

Learning Objectives:

1. To learn features of MATLAB as a programming tool.
2. To promote new teaching model that will help to develop programming skills and technique tosolve mathematical problems.
3. To understand MATLAB graphic feature and its applications.
4. To use MATLAB as a simulation tool.

Module 1. Introduction to MATLAB

- The MATLAB Environment
- MATLAB Basics – Variables, Numbers, Operators, Expressions, Input and output.
- Vectors, Arrays – Matrices

Module 2. MATLAB Functions.

- Built-in Functions
- User defined Functions

Module 3. Programming with MATLAB

- Conditional Statements, Loops
- MATLAB Programs – Programming and Debugging.
- Applications of MATLAB Programming.

References:

1. "A Guide to MATLAB - for Beginners and Experienced Users", 2nd Ed., Brian R. Hunt, Ronald L.Lipsman, Jonathan M. Rosenberg, Cambridge University Press, (2006).
2. "Essentials of MATLAB Programming", 2nd Ed., Stephen J. Chapman, Cengage Learning, (2009).

ADICHUNCHANAGIRI INSTITUTE OF TECHNOLOGY
CHIKKAMAGALURU-577102
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

ADD-ON Course – Basics of MATLAB Tool

Enrollment List

Sl. NO	USN	Student Name
1	4AI14CS012	APOORVA S R
2	4AI14CS026	DEEKSHA K N
3	4AI15CS002	ABHISHEK G
4	4AI15CS028	CHANDANA P H
5	4AI15CS051	KOUSHIK S D
6	4AI15CS064	NIDHI A R
7	4AI15CS103	SIDDANTH B K
8	4AI16CS002	ADYA H N
9	4AI16CS003	AGNES SANMATHI D
10	4AI16CS004	ALFIYA BANU
11	4AI16CS006	ANANYA K V
12	4AI16CS007	ANUSHA K N
13	4AI16CS008	ANUVIKA A S
14	4AI16CS009	ARVIND GIRISH
15	4AI16CS011	BABITHA B
16	4AI16CS012	BHAGYASHREE H D
17	4AI16CS013	BHOOMIKA G S
18	4AI16CS014	BHOOMIKA K
19	4AI16CS015	BINDUSHREE C
20	4AI16CS016	BINDUSREE B R

21	4AI16CS019	CHINMAYEE
22	4AI16CS023	DEEPAK N R
23	4AI16CS025	GADDI CHETAN
24	4AI16CS026	GOURAV B R
25	4AI16CS027	HARSHA H K
26	4AI16CS028	JAYASHREE
27	4AI16CS029	JEEVAN A S
28	4AI16CS030	KALPASHREE Y
29	4AI16CS031	KARTHIK N L
30	4AI16CS032	KAVYA S
31	4AI16CS033	KAVYA S K
32	4AI16CS034	KAVYASHREE C M
33	4AI16CS035	KHALEEL AHAMED
34	4AI16CS036	KOWSHIK V
35	4AI16CS037	KRUTHIKA G NAYAK
36	4AI16CS038	LEANDRA MARIA MENDON
37	4AI16CS040	MANISHA P BEERAIAH
38	4AI16CS042	MEGHANA D Y
39	4AI16CS047	NAVEEN P PARVATHANENI
40	4AI16CS048	NAYANA K S
41	4AI16CS049	NESARA B R
42	4AI16CS051	NISCHITHA K S
43	4AI16CS052	NISHANTH K R
44	4AI16CS053	NISWARTH V SHETTY
45	4AI16CS058	POOJA S
46	4AI16CS059	POORNIMA C L
47	4AI16CS062	RACHANA N VANAGUR
48	4AI16CS127	POOJA C P

49	4AI14CS092	SHREYAS C B
50	4AI15CS063	NAVANEETH G D
51	4AI15CS102	SHUSHMA N GOWDA
52	4AI15CS112	SUMAN V H
53	4AI16CS039	MADHUMITHA K M
54	4AI16CS065	RAKESH T
55	4AI16CS066	RAMANANDA S BHAT
56	4AI16CS067	RAMYA R
57	4AI16CS068	RAMYASHREE C A
58	4AI16CS070	ROJA K S
59	4AI16CS072	SADVI N B
60	4AI16CS073	SAHANA DESAI
61	4AI16CS074	SAMRUDDHI D K
62	4AI16CS075	SAMRUDH PATEL D M
63	4AI16CS076	SAMRUDHI H R
64	4AI16CS079	SANJANA R
65	4AI16CS080	SANJANA R G
66	4AI16CS081	SAVEENA M M
67	4AI16CS082	SHARATH K R
68	4AI16CS085	SHREYA B R
69	4AI16CS086	SHRIKARAN C N
70	4AI16CS087	SHRUTHA R JAIN
71	4AI16CS088	SIDDESH P
72	4AI16CS089	SINCHANA S B
73	4AI16CS090	SINCHANA S GOWDA
74	4AI16CS091	SNEHA K
75	4AI16CS092	SOUMYA H

76	4AI16CS100	SRISTI BAGAMANE
77	4AI16CS101	SRUSTI R B S
78	4AI16CS102	SUMANTHA M K
79	4AI16CS103	SUPRITH K
80	4AI16CS104	SUPRIYA S K
81	4AI16CS105	SURYA C P
82	4AI16CS106	SUSHMA S

Course Instructor's Signature

HOD's Signature

Professor and H.O.D.
Department of Computer Science and E
Adichunchanagiri Institute of Te
CHIKMAGALUR - 577102

ADICHUNCHANAGIRI INSTITUTE OF TECHNOLOGY
CHIKKAMAGALURU-577102
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

ADD-ON Course – Basics of MATLAB Tool

Attendance Report

Note :Session 1-9.30-12.30 Session 2-2.30-5.30

S.NO	USN	Student Name	26/11/2018		27/11/2018		28/11/2018		29/11/2018		30/11/2018		Signature
			Session-1	Session-2	Session-1	Session-2	Session-1	Session-2	Session-1	Session-2	Session-1	Session-2	
1	4AI14CS012	APOORVA S R	P	P	P	P	P	P	P	P	P	P	Apporva
2	4AI14CS026	DEEKSHA K N	P	P	P	P	P	A	A	P	P	P	Deek
3	4AI15CS002	ABHISHEK G	P	P	P	P	A	P	P	P	P	A	Abhi
4	4AI15CS028	CHANDANA P H	P	P	P	P	P	P	P	A	P	P	Chandan
5	4AI15CS051	KOUSHIK S D	P	P	P	P	A	P	P	P	P	P	Koushik
6	4AI15CS064	NIDHI A R	P	P	P	P	P	P	P	P	P	A	Nidhi
7	4AI15CS103	SIDDANTH B K	P	P	P	P	P	P	P	P	A	P	Siddanth.
8	4AI16CS002	ADYA H N	P	P	P	P	P	P	P	P	P	P	Adya.
9	4AI16CS003	AGNES SANMATHI D	P	P	P	P	P	A	A	P	A	P	Agnes
10	4AI16CS004	ALFIYA BANU	P	A	P	P	A	P	P	A	P	P	AB
11	4AI16CS006	ANANYA K V	A	P	P	P	P	P	P	P	P	P	Ananya K V
12	4AI16CS007	ANUSHA K N	A	P	P	P	P	P	P	P	P	P	Anusha
13	4AI16CS008	ANUVIKA A S	P	A	P	P	P	P	P	P	P	A	Anuvika
14	4AI16CS009	ARVIND GIRISH	P	P	P	P	P	P	P	P	P	P	Arvind Girish
15	4AI16CS011	BABITHA B	P	P	P	P	P	A	P	P	P	P	Babitha

16	4AI16CS012	BHAGYASHREE H D	P	P	A	P	P	P	P	P	A	P	Bhagyashree
17	4AI16CS013	BHOOMIKA G S	P	P	P	P	A	P	A	P	A	P	Bhoomika
18	4AI16CS014	BHOOMIKA K	P	P	P	P	P	P	A	P	P	P	Bhoomika
19	4AI16CS015	BINDUSHREE C	P	P	P	P	P	P	P	P	P	P	Bindushree
20	4AI16CS016	BINDUSREE B R	P	P	P	P	P	P	P	P	P	P	Bindu
21	4AI16CS019	CHINMAYEE	P	P	P	P	P	P	P	P	P	P	Chinmayee
22	4AI16CS023	DEEPAK N R	P	P	P	P	P	P	P	P	P	P	Deepak
23	4AI16CS025	GADDI CHETAN	P	P	P	P	A	P	P	P	P	P	Chethan
24	4AI16CS026	GOURAV B R	P	P	P	P	P	A	P	P	P	P	Gourav
25	4AI16CS027	HARSHA H K	P	P	P	P	P	P	P	P	P	P	Harsha HN
26	4AI16CS028	JAYASHREE	P	P	P	P	A	P	P	P	P	P	Jayashree
27	4AI16CS029	JEEVAN A S	P	P	P	P	P	P	P	P	P	A	Jeevan
28	4AI16CS030	KALPASHREE Y	P	A	P	P	P	P	P	P	P	P	Kalpashree
29	4AI16CS031	KARTHIK N L	A	A	P	P	P	P	A	P	P	P	Karthik
30	4AI16CS032	KAVYA S	P	P	P	P	P	A	P	P	A	P	Kavya
31	4AI16CS033	KAVYA S K	P	P	P	P	P	P	P	P	P	P	Samyuktha
32	4AI16CS034	KAVYASHREE C M	P	P	P	P	P	P	P	P	P	P	Kavyashree
33	4AI16CS035	KHALEEL AHAMED	P	P	P	P	P	P	P	P	P	P	Khaleel
34	4AI16CS036	KOWSHIK V	P	P	P	P	P	P	P	P	P	P	
35	4AI16CS037	KRUTHIKA G NAYAK	P	P	P	P	A	P	P	P	P	A	Kruthika
36	4AI16CS038	LEANDRA MARIA MENDON	P	P	P	P	P	P	P	P	P	P	Manisha
37	4AI16CS040	MANISHA P BEERAIAH	P	P	P	P	P	P	P	P	P	P	Meghana
38	4AI16CS042	MEGHANA D Y	P	P	P	P	P	P	P	P	P	P	
39	4AI16CS047	NAVEEN P PARVATHANENI	P	P	P	P	A	P	P	P	P	A	

40	4AI16CS048	NAYANA K S	P	P	P	P	P	P	P	A	P	P		
41	4AI16CS049	NESARA B R	P	P	P	P	A	P	P	P	P	P		
42	4AI16CS051	NISCHITHA K S	P	P	P	P	P	A	P	P	P	P		
43	4AI16CS052	NISHANTH K R	P	P	P	P	P	P	P	P	P	P		
44	4AI16CS053	NISWARTH V SHETTY	A	A	P	P	P	A	P	P	A	P		
45	4AI16CS058	POOJA S	P	P	P	P	P	P	P	P	P	A		
46	4AI16CS059	POORNIMA C L	A	A	P	P	A	P	P	P	P	P		
47	4AI16CS062	RACHANA N VANAGUR	P	P	P	P	P	P	A	P	P	P		
48	4AI16CS127	POOJA C P	P	P	P	P	P	P	P	A	P	A		
49	4AI14CS092	SHREYAS C B	P	P	P	P	P	P	P	P	P	P		
50	4AI15CS063	NAVANEETH G D	A	A	P	P	A	P	P	P	P	P		
51	4AI15CS102	SHUSHMA N GOWDA	A	P	P	P	P	P	P	P	R	A		
52	4AI15CS112	SUMAN V H	P	P	P	P	P	P	A	P	P	P		
53	4AI16CS039	MADHUMITHA K M	P	P	P	P	P	P	P	P	P	P		
54	4AI16CS065	RAKESH T	P	P	P	P	P	A	P	P	P	P		
55	4AI16CS066	RAMANANDA S BHAT	P	P	P	P	P	P	P	P	A	P		
56	4AI16CS067	RAMYA R	P	P	P	P	A	P	P	A	P	P		
57	4AI16CS068	RAMYASHREE C A	P	P	P	P	P	P	P	P	P	A		
58	4AI16CS070	ROJA K S	P	P	P	P	P	P	P	P	P	P		
59	4AI16CS072	SADVI N B	P	P	P	P	P	P	P	P	P	P		
60	4AI16CS073	SAHANA DESAI	P	P	P	P	P	P	P	P	P	P		
61	4AI16CS074	SAMRUDDHI D K	P	P	P	P	P	P	P	P	P	P		
62	4AI16CS075	SAMRUDH PATEL D M	P	P	P	P	A	P	P	P	P	A		

63	4AI16CS076	SAMRUDHI H R	P	P	P	P	A	P	P	P	P	P	
64	4AI16CS079	SANJANA R	P	P	P	P	P	P	P	P	P	P	
65	4AI16CS080	SANJANA R G	P	P	P	P	P	P	P	P	P	P	
66	4AI16CS081	SAVEENA M M	P	P	P	P	P	P	A	P	P	A	Saveena M. M.
67	4AI16CS082	SHARATH K R	P	P	P	P	P	P	P	P	P	P	
68	4AI16CS085	SHREYA B R	P	P	P	P	P	P	P	P	P	P	
69	4AI16CS086	SHRIKARAN C N	A	P	P	P	P	P	P	P	P	P	
70	4AI16CS087	SHRUTHA R JAIN	P	P	P	P	P	A	P	A	P	P	
71	4AI16CS088	SIDDESH P	P	P	P	P	P	P	P	P	P	P	
72	4AI16CS089	SINCHANA S B	P	P	P	P	P	P	P	P	P	P	Sinchana SB
73	4AI16CS090	SINCHANA S GOWDA	A	P	P	A	P	P	P	P	A	P	
74	4AI16CS091	SNEHA K	P	P	P	P	P	P	P	P	P	P	
75	4AI16CS092	SOUMYA H	P	P	P	P	P	P	P	P	P	P	Soumya
76	4AI16CS100	SRISTI BAGAMANE	A	P	P	A	P	P	P	A	P	P	
77	4AI16CS101	SRUSTI R B S	P	P	P	P	P	P	P	P	P	P	Srustisbs
78	4AI16CS102	SUMANTHA M K	P	P	P	P	P	P	P	P	P	P	
79	4AI16CS103	SUPRITH K	P	P	P	P	P	P	P	P	P	P	
80	4AI16CS104	SUPRIYA S K	P	P	P	P	P	P	P	P	P	P	
81	4AI16CS105	SURYA C P	P	P	P	P	P	P	P	P	P	P	
82	4AI16CS106	SUSHMA S	P	P	P	P	A	P	P	P	P	A	Sushma S.

Course Instructor's Signature

Professor and H.O.D.
Department of Computer Science and Engg
Adichunchanagiri Institute
CHIK

HOD's Signature

||Jai Sri Gurudev||

Sri Adichunchanagiri Shikshana Trust (R)

ADICHUNCHANAGIRI INSTITUTEOF TECHNOLOGY

CHIKKAMAGALURU – 577 102

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Certificate of Participation

This is to certify that Meghana D.Y *has successfully completed the add on course on "Basics of MATLAB Tool" from 26th to 30th November 2018 ,organized by Department of Computer Science and Engineering.*

Prof. Chethan P J
Staff co-ordinator

Prof. S J Prashanth
Staff co-ordinator

Dr. Pushpa Ravikumar
H.O.D

ADICHUNCHANAGIRI INSTITUE OF TECHNOLOGY,CHIKKAMAGALURU-577102.

DEPARTMENT OF COPMUTER SCIENCE & ENGINEERING

Add-On Course on "Basics of MATLAB Tool"

OVER ALL Add-On Course PARTICIPANTS FEEDBACK

Sl.No	DESCRIPTION	EXCELLENT	GOOD	POOR
1	How would you rate the presenter's knowledge on the concept?	✓		
2	How would you rate the concepts and Information provided by the Presenter?		✓	
3	What was your overall impression of the session?		✓	
4	Remarks	came to know about MATLAB, session was so helpfull.		

Signature of the Participant

ADICHUCHANAGIRI INSTITUTE OF TECHNOLOGY, CHIKKAMAGALURU
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
ADD ON COURSE: BASICS OF MATLAB TOOL

Toppers List

SLNo	Student Name	Student USN	Marks Obtained
1	SAMRUDHI H.R	4AI16CS076	44
2	DEEKSHA K.N	4AI14CS026	40
3	RAMYA R	4AI16CS067	32

Signature of HOD

Professor and H.O.D.
Department of Computer Science and Engg.
Adichunchanagiri Institute of Technology
CHIKMAGALUR - 577102

ADICHUNCHANAGIRI INSTITUTE OF TECHNOLOGY CHIKKAMAGALURU

Department of Computer Science & Engineering

Summary Report

The course "**Basics of MATLAB Tool**"was conducted at CS&E Dept from **26/11/2018 to 30/11/2018.**

During the course ,the students are able to understand the importance of Millions of engineers and scientists worldwide use MATLAB for a range of applications, in industry and academia, including deep learning and machine learning, signal processing and communications, image and video processing, control systems, test and measurement, computational finance, and computational biology.

Course Outcomes

1. Students learned features of MATLAB as a programming tool. They are fully familiar to all the features of MATLAB software and easily handle the software.

2. New teaching model which include theory & practical running simultaneously is introduced to our students. This method is very effective and helped to develop programming skills and technique to solve mathematical problems.

3. Students learned graphic features of MATLAB and they are able to use this feature effectively in the various applications.

4. Students are able to use MATLAB as a simulation tool.

5. Major outcome is students are able to work as a 'MATLAB programmer' in the industry because of the hands on practical sessions. This job oriented course will helps students to get the jobs in future.

Instructor's Signature

HOD's Signature

Professor and H.O.D.
Department of Computer Science and Engg
Adichunchanagiri Institute of Technology
CHIKKAMAGALUR - 577102

ADD-ON Course

On

"E-Waste Management"

Organized by,

Department of Computer Science and Enginering.
Adichunchanagiri Institute of Technology,
Chikmagalur – 577102
Karnataka. India
www.aitchikmagalur.ac.in

About the College:

Adichunchanagiri Institute of Technology (AIT) was established in the year 1980 under the auspicious of **Adhichunchanagiri Shikshana Trust(R)** with the blessings of Bhairavaikya **Jagadguru Padmabhushana Sri Sri Sri Dr. Balagangadharanatha Mahaswamiji** to provide technical and other professional education in the rural area of Chikmagalur, the land of Coffee. With the blessings of Jagadguru Sri. Sri. Sri. Nirmalanandanatha Swamiji, AIT is imparting the quality education in Engineering and Management with ethical and spiritual values. The engineering departments have recognized as research centers under VTU. The college has well equipped laboratory facilities and highly qualified and experienced faculty. The Institute is providing good training for students to excel in academics as well as in industry requirements and aims towards 100% placements to give a better future for students.

About the Department:

The Department of Computer Science and Engineering is established in the year 1986. It was earlier affiliated to the Mysore University later to the Kuvempu University and at present, it is affiliated to Visvesvaraya Technological University, Belagavi. The alumni of the department are working in various reputed organizations in India and abroad. The department is accredited twice by National Broad of Accreditation, New Delhi.

The department offers UG, PG Courses with an intake of 120 and 18 respectively and facilitates R&D through VTU recognized research center. The department has received funds from various reputed agencies like AICTE, VGST, KSCST, ISRO, ISTE, etc., for its activities.

Objectives of the Course:

E-waste or electronic waste describes discarded or rejected electronic or electrical devices. Used electronics or electrical products which are destined for reuse, resale, refurbishment, salvage recycling through material recovery, or disposal are also considered e-waste. Informal e-waste processing in developing nations can lead to adverse human health effects and pollution in the environment. The recycling of e-waste serves a lot of useful purposes. It includes protecting human & environmental health by keeping those devices out of landfills. Or recovering the parts within the devices that still have value and providing manufacturers with recycled metal that can be used to make new products.

Resource Person:

Mr. Varun E.

Assistant Professor

Dept of CS&E, AIT, Chikkamagaluru

Convenor:

Dr Pushpa Ravi Kumar, Professor and Head, Dept. of CS&E.

Coordinator:

Mr. Gopinath C B, Asst Professor,

Dept. CS&E, AIT, Chikkamagaluru

E-Waste Management

Add on Course for I Semester
B.E. Computer Science and Engineering

Duration: 30 Hours

Syllabus

Module 1: INTRODUCTION

What is E-Waste, Indian and global scenario of e-Waste, Growth of Electrical and Electronics industry in India, E-waste generation in India, Composition of e-waste, Possible hazardous substances present in e-waste, Environmental and Health implications.

Module 2: E-WASTE LEGISLATION

Regulatory regime for e-waste in India, The hazardous waste(Management and Handling) rules 2003, E-waste management rules 2015, Regulatory compliance including roles and responsibility of different stakeholders – producer, manufacturer, consumer etc., Proposed reduction in the use of hazardous substances(RoHS), Extended producer responsibility (EPR).

Module 3: END OF LIFE MANAGEMENT OF E-WASTE

Historic methods of waste disposal – dumping, burning, landfill, Recycling and recovery technologies –

Reference:

Johri R., "E-waste: implications, regulations, and management in India and current global best practices", TERI Press, New Delhi.

|| Jai Sri Gurudev ||

SRI ADICHUNCHANAGIRI SHIKSHANA TRUST ®
ADICHUNCHANAGIRI INSTITUTE OF TECHNOLOGY,
CHIKKAMAGALURU

P.B No.91, Adichunchanagiri Extension, Chikkamagaluru-577 102, Karnataka, India.

Ref: AIT/IQAC/CSE/ /2018-19

Date: 16/03/2018

Circular

Department of Computer Science & Engineering is conducting a Certificate Program (Add-on Program) on **"E-Waste Management"** from **16/03/2018** to **20/03/2018**. All other HOD's instruct the concern department students to attend the program. Following faculty member (Course instructor) is conducting a certificate program at CS&E Department.

Course Instructor

Mr. Gopinath C B

Assistant Professor

Dept. of CS&E

AIT Chikkmagaluru.

HOD's Signature

Professor and H
Department of Computer Scien
Adichunchanagiri Institute of Technol
CHIKMAGALUR - 577102

Dr. C T JAYADEVA
Principal
B.E.,M.Tech.,P
Adichunchanagiri Institute of
CHIKKAMAGALURU-577102

ADICHUNCHANAGIRI INSTITUTE OF TECHNOLOGY CHIKKAMAGALURU-577102
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
ADD-ON Course – E-Waste Management

Student Enrollment List

S.NO	USN	Student Name	
1	4AI18CS002	AIKYA M H	AS
2	4AI18CS003	AISHWARYA S	[illegible]
3	4AI18CS004	AMAR B M	Amar
4	4AI18CS006	ANANYA K N	Ays
5	4AI18CS007	ANKITHA A P	Ankitha
6	4AI18CS008	ARJUN RAM K S	arth
7	4AI18CS011	AYESHA SHABNAM	Ayesha
8	4AI18CS012	B SAQLEN PASHA	Anls
9	4AI18CS013	BAVIN KOYA	Bavin
10	4AI18CS015	BHOOMIKA	Bomikn
11	4AI18CS016	BHOOMIKA R	R. Bomid.
12	4AI18CS017	BRUNDHA K M	Brundha
13	4AI18CS020	CHANDAN V SHET	chandan
14	4AI18CS022	CHANDANA K S	chandas
15	4AI18CS023	DARSHAN L C	Darshan L
16	4AI18CS024	DEEKSHA C M GOWDA	Deeksh
17	4AI18CS025	DEEKSHA HS	[illegible]
18	4AI18CS026	DEEPIKA G	Deepika. G
19	4AI18CS028	DHANUSHREE V L	Dhanus

46	4AI18CS077	RACHANA H C	Rachana
47	4AI18CS078	RACHANA M C	Rachana
48	4AI18CS080	RANJINI H P	Ranjini
49	4AI18CS082	REETH PRADEEP	Reeth P
50	4AI18CS085	ROMIYA TARANUM	Romiya
51	4AI18CS086	ROSHAN M	Roshan M
52	4AI18CS088	SACHIN C J	Sachin
53	4AI18CS090	SAMBRAM GOWDA S M	Sambram
54	4AI18CS094	SATHVIK A K	Sathvik
55	4AI18CS098	SHASHANK B S	Shashank
56	4AI18CS100	SHRAVYA D S	Shravya
57	4AI18CS101	SHREYA GIRISH	Shreya
58	4AI18CS105	SINCHANA S	Sinchana
59	4AI18CS106	SINCHANA V M	Sinchana
60	4AI18CS108	SONIA FATHIM	Sonia
61	4AI18CS109	SOUNDARYA M K	Soundarya
62	4AI18CS112	SUKITH A S	Soukaths
63	4AI18CS113	SUMANTH S	Sumanth
64	4AI18CS115	SUSHMA K	Sushma
65	4AI18CS116	TEJAS J SHETTY	Tejas
66	4AI18CS118	THANYA	Thanya
67	4AI18CS120	VAISHNAVI M R	Vaishnavi
68	4AI18CS130	DEVIKA T R	Devika
69	4AI18CS005	ANANTH KUMAR M V	Ananya
70	4AI18CS009	ARUN KUMAR N R	Arun
71	4AI18CS014	BHAVANA B N	Bhavana

20	4AI18CS029	DIVYA S NAYAK	Nayak
21	4AI18CS030	GANESH KARTHIK H G	Ganesh
22	4AI18CS033	HARSHA K P	Has K P
23	4AI18CS035	JEEVAN G K	Jeevan G.K
24	4AI18CS036	JUVERIA IRAM	Severiya iram
25	4AI18CS039	LALITHYA M S	Lalitha
26	4AI18CS040	LATHA T J	Latha TJ
27	4AI18CS043	MANIKA KESHARWANI	Manika
28	4AI18CS044	MANJUNATH C C	Manjunath CC
29	4AI18CS046	MANOJ N R	manoj . N.R
30	4AI18CS045	MANOJ KUMAR B G	Manjo
31	4AI18CS047	MANOJ P H	Manoj
32	4AI18CS048	MANOJ T R	Manoj. T.B
33	4AI18CS052	MOHITH N H	Mohith
34	4AI18CS055	NAGASHREE H D	Nags
35	4AI18CS057	NAVEEN KUMAR H C	NKumar
36	4AI18CS059	NIKHIL SUBRAMANYA	Nikhil
37	4AI18CS060	NIREEKSHA N P	Nireeksha
38	4AI18CS062	NISCHAL B J	Nischith
39	4AI18CS063	NISCHITHA R	Nischitha
40	4AI18CS064	NISHA	Nisha
41	4AI18CS069	PHALGUNI SHARASCHANDRA	Phalguni
42	4AI18CS070	POOJA K M	Pooja KM
43	4AI18CS071	POOJA M	Pooja
44	4AI18CS072	PRAGNA SUDHIR	Pooja Sudhir
45	4AI18CS074	PRATHEEKSHA G S	Prths

72	4AI18CS018	CHAITRA B L	
73	4AI18CS021	CHANDANA K P	
74	4AI18CS084	ROHIT CHAVAN	
75	4AI18CS027	DEEPIKA K V	
76	4AI18CS031	GANESH R	
77	4AI18CS034	IMPANA K S	
78	4AI18CS037	KARTHIK GOWDA H L	
79	4AI18CS049	MANSI DUTT K S	
80	4AI18CS051	MEGHASHREE B	
81	4AI18CS058	NIHARIKA T S	

Course Instructor's Signature

HOD's Signature

Professor and Head
Department of Computer Science and Engg
Adichunchanagiri Institute of Technology
CHIKMAGALUR - 577102

D

ADICHUNCHANAGIRI INSTITUTE OF TECHNOLOGY CHIKKAMAGALURU-577102
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
ADD-ON Course – E-Waste Management
Attendance Report

Note: Session 1 -9.30-12.30

Session 2- 2.30-5.30

S.NO	USN	Student Name	16/03/2018		17/03/2018		18/03/2018		19/03/2018		20/03/2018		Signature
			Session-1	Session-2	Session-1	Session-2	Session-1	Session-2	Session-1	Session-2	Session-1	Session-2	
1	4AI18CS002	AIKYA M H	P	P	P	P	P	P	P	P	P	P	
2	4AI18CS003	AISHWARYA S	P	A	P	P	P	A	A	P	P	P	
3	4AI18CS004	AMAR B M	P	P	P	A	P	P	P	P	P	P	
4	4AI18CS006	ANANYA K N	P	P	P	A	P	P	P	P	P	P	
5	4AI18CS007	ANKITHA A P	A	P	P	P	P	P	A	P	P	P	
6	4AI18CS008	ARJUN RAM K S	A	A	P	P	P	A	P	P	P	P	
7	4AI18CS011	AYESHA SHABNAM	P	P	P	A	A	P	P	P	P	P	
8	4AI18CS012	B SAQLEN PASHA	P	P	A	P	P	P	P	P	P	P	
9	4AI18CS013	BAVIN KOYA	A	P	P	P	P	P	P	P	P	P	
10	4AI18CS015	BHOOMIKA	A	A	A	A	P	P	P	P	P	P	
11	4AI18CS016	BHOOMIKA R	P	P	P	P	P	P	P	P	P	P	
12	4AI18CS017	BRUNDHA K M	P	P	A	P	P	P	P	P	P	P	
13	4AI18CS020	CHANDAN V SHET	P	P	P	A	P	P	P	P	P	P	
14	4AI18CS022	CHANDANA K S	P	P	P	P	P	P	A	P	P	P	
15	4AI18CS023	DARSHAN L C	P	P	P	A	P	P	P	A	A	P	
16	4AI18CS024	DEEKSHA C M GOWDA	P	P	P	P	P	P	P	P	P	P	
17	4AI18CS025	DEEKSHA HS	P	P	P	P	P	P	P	P	P	P	

18	4AI18CS026	DEEPIKA G	P	P	P	P	P	P	P	P	P	P		
19	4AI18CS028	DHANUSHREE V L	P	P	P	P	P	A	P	P	P	P		
20	4AI18CS029	DIVYA S NAYAK	P	P	P	P	P	P	P	P	P	P		
21	4AI18CS030	GANESH KARTHIK H G	P	P	P	A	P	P	A	P	P	P		
22	4AI18CS033	HARSHA K P	A	P	A	P	P	P	P	P	P	P		
23	4AI18CS035	JEEVAN G K	P	P	P	P	P	P	A	P	A	A		
24	4AI18CS036	JUVERIA IRAM	P	P	P	P	P	P	P	P	P	P		
25	4AI18CS039	LALITHYA M S	P	P	P	P	P	A	P	P	A	P		
26	4AI18CS040	LATHA T J	A	P	P	P	A	P	P	P	P	P		
27	4AI18CS043	MANIKA KESHARWANI	P	P	P	A	P	P	P	A	P	P		
28	4AI18CS044	MANJUNATH C C	P	P	P	P	P	P	P	P	P	P		
29	4AI18CS046	MANOJ N R	P	P	P	A	P	P	P	P	P	P		
30	4AI18CS045	MANOJ KUMAR B G	P	P	P	P	P	P	P	P	P	P		
31	4AI18CS047	MANOJ P H	P	P	P	P	P	P	P	A	P	P		
32	4AI18CS048	MANOJ T R	P	P	A	P	P	P	P	P	P	P		
33	4AI18CS052	MOHITH N H	P	P	P	P	P	P	P	P	P	P		
34	4AI18CS055	NAGASHREE H D	P	P	P	P	P	P	P	P	A	A		
35	4AI18CS057	NAVEEN KUMAR H C	P	P	A	P	P	P	A	P	P	P		
36	4AI18CS059	NIKHIL SUBRAMANYA	P	P	P	P	P	P	P	P	P	P		
37	4AI18CS060	NIREEKSHA N P	P	P	P	P	P	P	P	P	P	P		
38	4AI18CS062	NISCHAL B J	A	P	A	P	P	A	P	P	P	P		
39	4AI18CS063	NISCHITHA R	A	P	P	P	P	P	P	P	P	P		
40	4AI18CS064	NISHA	P	P	P	P	A	P	P	P	P	P		
41	4AI18CS069	PHALGUNI SHARASCHANDRA	P	P	P	P	P	P	P	P	P	P		
42	4AI18CS070	POOJA K M	P	P	P	P	P	P	P	P	P	P		

43	4AI18CS071	POOJA M	P	P	A	P	A	P	P	P	P	P	P	Pooja
44	4AI18CS072	PRAGNA SUDHIR	P	P	P	P	P	A	P	A	P	P	P	Pragna
45	4AI18CS074	PRATHEEKSHA G S	P	P	P	P	P	P	P	P	P	P	P	Pratheeksha
46	4AI18CS077	RACHANA H C	A	P	P	P	P	P	P	A	P	P	A	Rachana
47	4AI18CS078	RACHANA M C	A	P	P	P	P	P	P	P	P	P	P	Rachana
48	4AI18CS080	RANJINI H P	P	P	P	P	P	P	P	A	P	P	P	Ranjini
49	4AI18CS082	REETH PRADEEP	P	P	P	P	P	A	P	P	P	P	P	Reeth P
50	4AI18CS085	ROMIYA TARANUM	P	P	P	P	P	P	P	P	P	P	P	Romiya
51	4AI18CS086	ROSHAN M	A	P	P	P	P	A	P	A	P	P	P	Roshan M
52	4AI18CS088	SACHIN C J	A	P	P	P	P	P	P	P	P	P	P	Sachin
53	4AI18CS090	SAMBRAM GOWDA S M	A	P	P	P	P	P	A	A	P	A	A	Sambhag
54	4AI18CS094	SATHVIK A K	P	P	P	P	P	P	P	P	P	P	P	Sathvik
55	4AI18CS098	SHASHANK B S	P	A	P	A	P	A	P	A	P	P	P	Sathvik.
56	4AI18CS100	SHRAVYA D S	P	P	P	P	P	P	P	P	A	P	P	Shravya
57	4AI18CS101	SHREYA GIRISH	P	P	A	P	P	A	P	P	P	P	P	Shashank
58	4AI18CS105	SINCHANA S	P	P	P	P	P	P	A	P	A	P	P	Sinchana
59	4AI18CS106	SINCHANA V M	P	P	P	P	P	P	P	P	P	P	P	Sonia
60	4AI18CS108	SONIA FATHIM	P	P	P	P	P	P	P	A	P	P	P	Sinchana
61	4AI18CS109	SOUNDARYA M K	P	P	P	P	P	A	P	P	P	P	P	Soundarya
62	4AI18CS112	SUKITH A S	P	P	A	P	A	A	A	P	A	P	A	Sumanth
63	4AI18CS113	SUMANTH S	A	P	A	P	P	P	P	D	P	D	P	Sushma
64	4AI18CS115	SUSHMA K	A	P	P	P	P	A	P	P	P	P	P	Tejas
65	4AI18CS116	TEJAS J SHETTY	P	P	P	A	P	P	P	P	A	P	P	Thanya
66	4AI18CS118	THANYA	P	P	P	P	P	P	A	P	P	P	P	Vaishnavi
67	4AI18CS120	VAISHNAVI M R	P	P	P	P	P	A	P	P	A	P	P	Devika
68	4AI18CS130	DEVIKA T R	P	A	P	A	A	P	P	A	P	P	P	

9	4AI18CS005	ANANTH KUMAR M V	A	A	P	P	P	P	P	P	P	P	P	P		Ankya
0	4AI18CS009	ARUN KUMAR N R	P	P	A	A	P	P	P	P	P	P	P	P		Arun
1	4AI18CS014	BHAVANA B N	P	P	P	P	A	A	P	P	P	P	P	P		Bhav
2	4AI18CS018	CHAITRA B L	P	P	P	P	P	P	A	A	P	P	P	P		Chitra
3	4AI18CS021	CHANDANA K P	P	P	P	P	P	P	P	P	P	P	P	P		CHK
4	4AI18CS084	ROHIT CHAVAN	P	P	P	P	P	A	P	P	P	P	P	P		Rohit
5	4AI18CS027	DEEPIKA K V	P	P	P	P	A	P	P	P	P	P	P	P		Deepika
6	4AI18CS031	GANESH R	P	P	P	A	P	P	P	P	P	P	P	P		GR H
7	4AI18CS034	IMPANA K S	P	P	P	P	P	P	P	P	P	P	P	P		Impana
8	4AI18CS037	KARTHIK GOWDA H L	P	P	P	P	P	A	P	P	P	P	P	P		Karthik
9	4AI18CS049	MANSI DUTT K S	P	P	P	P	P	P	P	P	P	P	P	P		Mansi
0	4AI18CS051	MEGHASHREE B	A	A	P	P	P	A	A	P	P	P	A	A		Megha
1	4AI18CS058	NIHARIKA T S	P	P	A	P	A	P	P	P	P	P	P	P		

Course Instructor's Signature

HOD's Signature

Professor and H.O.D
Department of Computer Science
Adichunchanagiri Institute of Tec
CHIKMAGALUR - 577102

CS&E

ADICHUNCHANAGIRI INSTITUE OF TECHNOLOGY,CHIKKAMAGALURU-577102.

DEPARTMENT OF COPMUTER SCIENCE & ENGINEERING

Add-On Course on "E-Waste"

OVER ALL Add-On Course PARTICIPANTS FEEDBACK

Sl.No	DESCRIPTION	EXCELLENT	GOOD	POOR
1	How would you rate the presenter's knowledge on the concept?	✓		
2	How would you rate the concepts and Information provided by the Presenter?	✓		
3	What was your overall impression of the session?	✓		
4	Remarks	We got to know about the things that's happening in our sourrounding And to get rid of it		

Harsha K P

Signature of the Participants

||Jai Sri Gurudev||

Sri Adichunchanagiri Shikshana Trust (R)

ADICHUNCHANAGIRI INSTITUTEOF TECHNOLOGY

CHIKKAMAGALURU – 577 102

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Certificate of Participation

This is to certify that HARSHA K.P *has successfully completed the add on course on "E- Waste Management" from 16th to 20th March 2018 ,organized by Department of Computer Science and Engineering.*

Prof. Chethan P J
Staff co-ordinator

Prof. S J Prashanth
Staff co-ordinator

Dr. Pushpa Ravikumar
H.O.D

ADICHUCHANAGIRI INSTITUTE OF TECHNOLOGY, CHIKKAMAGALURU
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
ADD ON COURSE: E-Waste Management

Toppers List

Sl.No	Student Name	Student USN	Marks Obtained
1	ANKITHA AP	4AI18CS007	49
2	NISCHITHA R	4AI18CS063	48
3	CHANDANA KS	4AI18CS022	47

Signature of HOD
Professor and H.O
Department of Computer Scien
Adichunchanagiri Institute o
CHIKMAGALUR

ADICHUCHANAGIRI INSTITUTE OF TECHNOLOGY, CHIKKAMAGALURU

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

ADD ON COURSE: E-Waste Management

Assessment Questions

Semester: I

Max Marks: 50

Student Name: ANKITHA A.P

USN: 4AI18CS007

49/50

1. E-waste is also known as

a) Electronic waste b) Essential waste c) European waste d) Household waste

2. Which one of the following is an example of e-waste?

a) Nuclear wastes, medical wastes, toxic industrial wastes, etc

b) Plastic bags, cardboard boxes, corroded metals, etc

c) Beverage cans, packaged boxes, plastic bottles, etc

d) Sensors, alarms, sirens, TV etc.

3. Which one of the following is wrong about Cathode Ray Tubes (CRTs)?

a) They were used in television sets.

b) They do not pose any environmental threat as such.

c) They have a high content of carcinogens and heavy metals.

d) They release toxins into the soil, air and groundwater.

4. What is the most widely used method for e-waste disposal?

a) Burning b) Recycling c) Disintegration d) Land-filling.

5. Name some of the most hazardous leachates found in land-fills.

a) Copper, and Bromine. b) Mercury, Cadmium and Lead.

c) Lithium, Beryllium and Bromine. d) Boron, Fluorine and Hydrogen.

6. What are the adverse effects of mercury on health?

a) Lung Cancer. b) Damages kidneys and brain. c) Softens bones. d) Asthmatic bronchitis

7. When did E-waste (management and handling) rules, 2011 come into effect?

a) January 1, 2012 b) March 1, 2012 c) May 1, 2012. d) July 1, 2012

8. Which cities produce the highest e-waste in India?

a) Mumbai and Delhi.
b) Chennai and Vishakhapatnam
c) Kolkata and Patna
d) Lucknow and Hyderabad

9. The component beryllium mostly released from the E-waste of ____

a) Cathode Ray Tubes.
b) Computer plate.
c) Switch board.
d) Microchips.

10) Who is responsible for the disposal of the product when it becomes e-waste?

a) The seller
b) The producers
c) The customers
d) The vendors

11) WEEE stands for _____

a) Waste Electrical and Electronic Equipment
b) Water Electronic and Electronic Experiment
c) Waste Electronic Electrical and Equipment
d) Water Electronic and Electronic Equipment

12) Which of the following reduce e-waste?

a) Purchasing more and more gadgets
b) Using them for a short time and then discarded
c) Good maintenance
d) All of these

13) WEEE is almost _____ % of e-waste from solid waste.

a) 5
b) 10
c) 15
d) 20

14) In India, E-Waste management assumes greater significance because

a) Generation of own e-waste
b) Dumping of e-waste from developed countries
c) Lack of awareness
d) All of these

15) Which of the following is one of the impacts of e-waste on the environment?

a) Global Warming
b) Deforestation
c) Soil erosion
d) Emission of gases

16) The insulated wire has copper which causes _____

a) Skin disease or allergies or increase the risk of lung cancer
b) Can damage human's kidney, brain and human nervous system
c) Neurological disorders
d) Damage live and bones

17) The term ISWM refers to

a) International Solid Waste Management
b) Integrated Solid Waste Management
c) Integrated Solid Waste Machine
d) International Solid Waste Mechanism

18) In 2006, the IAER projected that the electronic and electrical appliances would become e-waste by 2010.

a) 1 billion
b) 2 billion
c) 3 billion
d) 4 billion

19) What is the hazardous pollutant released from calculators?

a) Lithium
b) Barium
c) Lead
d) Copper

20) Which of the following can be considered as source reduction?

a) Material Substitution
b) Treating offsite
c) Analysis
d) Landfill disposal

21) Which of the following metal affects mental development in children?

a) Lead
b) Barium
c) Zinc
d) Sliver

22) Which of the following health impact is observed by dumping cathode tubes?

a) Silicosis
b) Lung Disease
c) Kidney Inflammation
d) PAH exposure

23) What is iron and steel constitute of e-waste?

a) 20
b) 30
c) 40
d) 50

24) According to the Comptroller and Auditor General (CAG) report what is the amount of e-waste generated annually?

a) 8LT
b) 5LT
c) 4LT
d) 7LT

25) Which of the hazardous pollutant occurs in plastic?

a) Lithium
b) PCB's
c) Lead
d) Copper

26) Which of the following is not a biomedical waste?

a) Animal waste
b) Microbiological waste
c) Chemical waste
d) Domestic waste

27) Waste removal system was established in which of the following cities for the first time?

a) Athens
b) Lahore
c) Paris
(d) London

28) What is hazardous pollutant released from Circuit Boards?

a) Arsenic b) Barium c) Lead d) Copper

29) Why is it difficult to recycle plastics?

a) It is very hard b) It comes in different sizes

c) It is adhesive d) It contains different types of polymer resins

30) Which of the following is done on an individual level?

a) Burning b) Disposal c) Recycling d) Source reduction

31) What is hazardous pollutant released from Calculators?

a) Lithium b) Mercury c) Lead d) Copper

32) Which of the following plans is used as a waste management plan?

a) Plan for reuse b) The integrated plan c) Plan for recycling d) Plan for reducing

33) The organic material of the solid waste will decompose

a) By the flow of water b) By the soil particles

c) By the action of microorganisms d) By oxidation

34) Which of the following wastes is called the Municipal Solid Waste (MSW)?

a) Food wastes b) Wood pieces c) Plastic cans d) All of the above

35) The process of burning municipal solid wastes under suitable temperature and conditions in a specific furnace is called _____.

a) Landfill b) Incineration c) Recycling d) Vermicomposting

36) The burning of solid waste is not recommended because

a) It is very costly b) It requires a lot of space

c) It requires modern technologies d) It causes several environmental issues

37) When the organic matter present in the sanitary landfill decomposes, it generates

a) Methane b) Nitrogen c) Hydrogen d) All of the above

38) Which of the following are the oldest and the most common method used to dump solid wastes?

a) River b) Ocean c) Landfill d) None of the above

39) The disposable wastes contain

a) Solids b) Slurries c) Liquids d) All of the above

40) Find the correct statement

a) The waste from one process becomes the input for another process

b) All the processes related to consumption and production produces some kind of waste

c) There is no real waste in nature

d) All of the above

41) Which of the following methods is better for the solid waste problem?

a) Recycling b) Landfilling c) Both a and b d) None of the above

42) Which of the following statements is incorrect for plastic wastes?

a) It is used to make compost b) It lasts for a longer period of time

c) Toxic fumes are produced when burnt d) Non of these

43) Which of the following can be recycled many times?

a) Wood b) Plastic c) Aluminum d) Organic materials

44) Which of the following gas is produced from landfill wastes?

a) Biogas b) Natural gas c) Liquified petroleum gas d) All of the abo

45) Which of the following statements is true about zero waste management?

a) Separate collection of each kind of waste b) Segregation of garbage at the sour

c) Community involvement d) All of the above

46) How many main components are there in integrated waste management?

a) Two b) Three c) Seven d) Eleven

47) Polluters pay Principle means

a) Anyone causing the pollution will pay for the damage caused

b) Polluters paid well by NGOs

c) Polluters may get a bonus

d) Polluters are not the cause of pollution

48) Which of the following HW cannot be recycled?

a) Used oil b) Treatment waste c) Paints d) Batteries

49) Which of the following solid wastes describes the term 'Municipal Solid Waste'?

a) Toxic b) Hazardous c) Non-toxic d) Non-hazardous

50) Why is recycled paper banned for use in food containers?

a) Because it creates a lot of spaces

b) Because it creates contamination

c) Because paper can be used only one time

d) Because paper is very thick and can't cover the food containers

49
50

ADICHUNCHANAGIRI INSTITUTE OF TECHNOLOGY CHIKKAMAGALURU

Department of Computer Science & Engineering

Summary Report

The course "**E- Waste Management**"was conducted for the first year students at CS&E Dept from **16/03/2018 to 20/03/2018.**

During the course ,the students are able to understand the importance of The recycling of e-waste. For instance, include protecting human and environmental health by keeping those devices out of landfills. Or recovering the parts within the devices that still have value, and providing manufacturers with recycled metals that can be used to make new products.

Course Outcomes

Upon successful completion of this course, students will be able to:

- Learn basic concepts of solid waste management, beginning from source generation to waste disposal in a system of municipality organizational structure.
- Develop understanding on various technological applications for processing of waste and their disposals in various ways.
- Acquire knowledge on waste to energy productions in the perspectives of sustainable development.
- Apply basic concepts in hazardous waste management and integrated waste management for urban areas.
- To acquire a fair amount of knowledge on waste characterization and its management practiced in various cities of India. To achieve this objective, students will be taught different case studies reported by previous researchers and technical bodies.

Instructor's Signature

HOD's Signature

Professor and H.O.D.
Dept. of Computer Science and Engg.
Adichunchanagiri Institute of Technology
CHIKKAMAGALUR - 577102

ADD-ON Program

2018-19

ADD on Program

On

"Basics of VLSI Design"

|| Jai Sri Gurudev ||

SRI ADICHUNCHANAGIRI SHIKSHANA TRUST ®
ADICHUNCHANAGIRI INSTITUTE OF TECHNOLOGY, CHIKKAMAGALURU
P.B No.91,Adichunchanagiri Extension, Chikkamagaluru-577 102, Karnataka ,India.

Ref: AIT/IQAC/CSE/ /2018-2019

Date: 01/01/2018

Circular

Department of Computer Science & Engineering is conducting a Certificate Program (Add-on Program) on "**Basics of VLSI Design [19CS_AC_012]**" from **15-01-2018** to **28-01-2018**. All other HOD's instruct the concern department students to attend the program. Following faculty member (Course instructor) is conducting a certificate program at CS&E Department.

Course Instructor

1. Prof. S J Prashantha
   Assistant Professor
   Dept. of CS&E
   AIT Chikmagalur
2. Prof. Vivekananda
   Assistant Professor
   Dept. of CS&E
   AIT Chikmagalur

Professor and H.O.D.
Department of Computer Science and Engg.
Adichunchanagiri Institute of Technology
CHIKMAGALUR - 577102

HOD's Signature

Principal Signature

Dr. C.T. JAYADEVA
Principal B.E.,M.Tech.,Ph.D
Adichunchanagiri Institute of Technology
CHIKKAMAGALURU-577102

ADD-ON Course

On

"Basics of VLSI Design"

Organized by,

Department of Computer Science and Enginering,
Adichunchanagiri Institute of Technology,
Chikmagalur – 577102
Karnataka, India
www.aitchikmagalur.ac.in

About the College:

Adichunchanagiri Institute of Technology (AIT) was established in the year 1980 under the auspicious of **Adhichunchanagiri Shikshana Trust(R)** with the blessings of Bhairavaikya **Jagadguru Padmabhushana Sri Sri Sri Dr. Balagangadharanatha Mahaswamiji** to provide technical and other professional education in the rural area of Chikmagalur, the land of Coffee. With the blessings of Jagadguru Sri Sri Sri Nirmalanandanatha Swamiji, AIT is imparting the quality education in Engineering and Management with ethical and spiritual values. The engineering departments have recognized as research centers under VTU. The college has well equipped laboratory facilities and highly qualified and experienced faculty. The Institute is providing good training for students to excel in academics as well as in industry requirements and aims towards 100% placements to give a better future for students.

About the Department:

The Department of Computer Science and Engineering is established in the year 1986. It was earlier affiliated to the Mysore University later to the Kuvempu University and at present, it is affiliated to Visvesvaraya Technological University, Belagavi. The alumni of the department are working in various reputed organizations in India and abroad. The department is accredited twice by National Broad of Accreditation, New Delhi.
The department offers UG, PG Courses with an intake of 120 and 18 respectively and facilitates R&D through VTU recognized research center. The department has received funds from various reputed agencies like AICTE, VGST, KSCST, ISRO, ISTE, etc., for its activities.

Objectives of the Course:

Today's world is digital. Unbelievable growth in electronics has made it possible. The back bone for electronic gadgets is a small silicon material which is often referred as chip. In order to design any chip (IC), the designer has to follow many complex procedures for which one has to have all the basic of circuit design using transistors.

The advent of Electronic Design Automation Tools made it possible to cut down the design cycle time to a great extent. In this course Verilog HDL is presented which is a popular language for designing any digital circuit using EDA Tools. Various circuits in transistor level are presented which are very much essential for IC design.

Resource Person:

Mr. Darshan L M.

Assistant Professor

Dept of CS&E, AIT, Chikkamagaluru

Convenor:

Dr Pushpa Ravi kumar, Professor and Head, Dept. of CS&E.

Coordinator:

Mr. S J Prashanth, Asst Professor,

Dept. CS&E, AIT, Chikkamagaluru

ADICHUNCHANAGIRI INSTITUTE OF TECHNOLOGY, CHIKKAMAGALURU

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

CS&E

Add on course – 30 Hours

ADD on Course Name: Basics of VLSI Design

Course Code: 19CS_AC_012

Module 1: 10 Hours

Introduction: Basic steps of IC fabrication, PMOS, NMOS, CMOS &BiCMOS,and SOI process technologies, MOS transistors - MOS transistor switches – Basic gate using switches, working polartransistor Resistors and Capacitors. Basic Electrical Properties of MOS and BiCMOS Circuits: Working of MOS transistors – threshold voltage; MOS design equations: Ids–Vds relationships, Threshold Voltage, Body effect, Channel length modulation , gm, gds, figure of merit ω0; Pass transistor, NMOS Inverter, CMOS Inverter analysis and design, Various pull ups loads,Bi-CMOS Inverters.

Module 2: 10 Hours

Basic Circuit Concepts: Capacitance, resistance estimations- Sheet Resistance Rs, MOS Divice Capacitances, routing a pacitance, Analytic Inverter Delays, Driving large Capacitive Loads, Fan-in and fan-out. VLSI Circuit Design Processes: VLSI Design Flow, MOS Layers, Stick Diagrams, Design Rules and Layout, 2μm CMOS Design rules for wires, Contacts and Transistors Layout Diagrams for NMOS and CMOS Inverters and Gates, Scaling of MOS circuits, Limitations of Scaling.

Module 3: 10 Hours

Gate level Design: Logic gates and other complex gates, Switch logic, Alternate gate circuits. Subsystem Design: Shifters, Adders, ALUs, Multipliers, Parity generators, Comparators, Counters, VHDL Synthesis: VHDL Synthesis, Circuit Design Flow, Circuit Synthesis, Simulation

TEXT BOOKS:

1. Kamran Eshraghian, Eshraghian Douglas and A. Pucknell, "Essentials of VLSI circuits and systems", PHI, 2013 Edition.
2. K.Lal Kishore and V.S.V. Prabhakar, "VLSI Design", IK Publishers

REFERENCES: 1. Weste and Eshraghian, "Principles of CMOS VLSI Design", Pearson Education, 1999.

ADICHUNCHANAGIRI INSTITUTE OF TECHNOLOGY, CHIKKAMAGALURU
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

STUDENT ENROLLMENT LIST
ADD on Course Name: Basics of VLSI Design
Branch: CSE

SI NO	NAME	USN
1	APOORVA S R	4AI14CS012
2	DEEKSHA K N	4AI14CS026
3	ABHISHEK G	4AI15CS002
4	CHANDANA P H	4AI15CS028
5	KOUSHIK S D	4AI15CS051
6	NIDHI A R	4AI15CS064
7	SIDDANTH B K	4AI15CS103
8	ADYA H N	4AI16CS002
9	AGNES SANMATHI D	4AI16CS003
10	ALFIYA BANU	4AI16CS004
11	ANANYA K V	4AI16CS006
12	ANUSHA K N	4AI16CS007
13	ANUVIKA A S	4AI16CS008
14	ARVIND GIRISH	4AI16CS009
15	BABITHA B	4AI16CS011
16	BHAGYASHREE H D	4AI16CS012
17	BHOOMIKA G S	4AI16CS013
18	BHOOMIKA K	4AI16CS014
19	BINDUSHREE C	4AI16CS015
20	BINDUSREE B R	4AI16CS016
21	BRUNDA D	4AI16CS017
22	CHANDANA H Y	4AI16CS018
23	CHINMAYEE	4AI16CS019
24	CHINTHANA M C	4AI16CS021
25	CHIRAG M R	4AI16CS022
26	DEEPAK N R	4AI16CS023
27	DEEPIKA D P	4AI16CS024
28	GADDI CHETAN	4AI16CS025
29	GOURAV B R	4AI16CS026
30	HARSHA H K	4AI16CS027
31	JAYASHREE	4AI16CS028
32	JEEVAN A S	4AI16CS029
33	KALPASHREE Y	4AI16CS030
34	KARTHIK N L	4AI16CS031
35	KAVYA S	4AI16CS032
36	KAVYA S K	4AI16CS033
37	KAVYASHREE C M	4AI16CS034
38	KHALEEL AHAMED	4AI16CS035
39	KOWSHIK V	4AI16CS036
40	KRUTHIKA G NAYAK	4AI16CS037
41	LEANDRA MARIA MENDON	4AI16CS038
42	MANISHA P BEERAIAH	4AI16CS040
43	MEGHANA D Y	4AI16CS042
44	MOHAMMED NIHAL KHAN	4AI16CS043
45	MOUNA J	4AI16CS044
46	NAMITHA M TAPSE	4AI16CS046
47		

	NAVEEN P PARVATHANENI	4AI16CS047	Naveen
48	NAYANA K S	4AI16CS048	Nayana
49	NESARA B R	4AI16CS049	NesaraBR
50	NISCHITHA K S	4AI16CS051	Nischitha KS
51	NISHANTH K R	4AI16CS052	Nishanth
52	NISWARTH V SHETTY	4AI16CS053	Niswarth V Shetty
53	P PRADEEP KUMAR	4AI16CS054	Pradeep kumar
54	POOJA B R	4AI16CS055	Pooja B R
55	POOJA B S	4AI16CS056	Pooja B.S
56	POOJA N K	4AI16CS057	Pooja NK
57	POOJA S	4AI16CS058	Pooja S
58	POORNIMA C L	4AI16CS059	Poornima
59	RACHANA N VANAGUR	4AI16CS062	Rachana
60	RAHUL A	4AI16CS063	Rahul A
61	RAHUL S	4AI16CS064	Rahul
62	POOJA C P	4AI16CS127	Pooja CP
63	ALFIYA SHAIK	4AI16CS130	Ambika
64	AMBIKA D P	4AI17CS400	Shashikala S
65	SHASHIKALA S	4AI17CS407	Vijetha B.S
66	VIJETHA B S	4AI17CS409	Shreya B.R
67	SHREYA B R	4AI16CS085	Shrikaran CN
68	SHRIKARAN C N	4AI16CS086	Shrutha
69	SHRUTHA R JAIN	4AI16CS087	Siddesh P
70	SIDDESH P	4AI16CS088	Sinchana S
71	SINCHANA S B	4AI16CS089	Sinchana S Gowda
72	SINCHANA S GOWDA	4AI16CS090	Sneha K
73	SNEHA K	4AI16CS091	Soumya H
74	SOUMYA H	4AI16CS092	Soundarya
75	SOUNDARYA GOGATE T S	4AI16CS093	Sowmya HP
76	SOURAB SAKLECHA	4AI16CS094	Sourab
77	SOWMYA M	4AI16CS095	Spandana H P
78	SPANDANA H P	4AI16CS096	Spandana S
79	SPANDANA S	4AI16CS097	Sparsha B R
80	SPARSHA B R	4AI16CS098	Spoorthi A N
81	SPOORTHI A N	4AI16CS099	Sristi Bagamane
82	SRISTI BAGAMANE	4AI16CS100	Srusti
83	SRUSTI R B S	4AI16CS101	Sumantha MK
84	SUMANTHA M K	4AI16CS102	Suprith K
85	SUPRITH K	4AI16CS103	Supriya
86	SUPRIYA S K	4AI16CS104	Vaishnavi C O
87	VAISHNAVI C O	4AI16CS114	Vaishnavi
88	VAISHNAVI RAO	4AI16CS115	

Course Instructor Signature

HOD Signature

Professor and H.O.D.
Department of Computer Science and Engg.
Adichunchanagiri Institute of Technology
CHIKMAGALUR - 577102

ADICHUNCHANAGIRI INSTITUTE OF TECHNOLOGY, CHIKKAMAGALURU
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

ADD on Course Name: Basics of VLSI Design

Course Code : 19CS_AC_012

Branch: CSE

Students are identified for ADD on Course Classes based on their enrolment.

ADD on Course classes will be held during **15-01-2018 to 28-01-2018** at CS&E dept from 4-6pm

Attendance Report

SI NO	NAME	USN	During 15-01-2018 to 28-01-2018.															Signature
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
1	APOORVA S R	4AI14CS012	P	P	P	P	P	P	P	A	P	P	P	A	P	P	P	APOORVA SR
2	DEEKSHA K N	4AI14CS026	P	P	A	P	P	P	P	P	A	P	P	A	P	P	P	Deeksha KN
3	ABHISHEK G	4AI15CS002	P	P	A	P	P	P	P	A	P	P	P	P	A	P	P	Abish
4	CHANDANA P H	4AI15CS028	P	P	P	P	P	P	P	P	A	P	P	P	P	A	P	Chan
5	KOUSHIK S D	4AI15CS051	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	Kaushik SD
6	NIDHI A R	4AI15CS064	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	Nidhi AR
7	SIDDANTH B K	4AI15CS103	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Siddanth
8	ADYA H N	4AI16CS002	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	Adya HN
9	AGNES SANMATHI D	4AI16CS003	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	Agnes Sanmathi D
10	ALFIYA BANU	4AI16CS004	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Alfiya Banu
11	ANANYA K V	4AI16CS006	P	P	P	A	P	P	P	P	P	P	P	A	P	P	P	~~Alfiya~~
12	ANUSHA K N	4AI16CS007	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Ananya KV
13	ANUVIKA A S	4AI16CS008	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Anuvika
14	ARVIND GIRISH	4AI16CS009	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Arvind Girish Bunda
15	BABITHA B	4AI16CS011	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Babitha
16	BHAGYASHREE H D	4AI16CS012	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	Bhagya
17	BHOOMIKA G S	4AI16CS013	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Bhoomika
18	BHOOMIKA K	4AI16CS014	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	Bhoomika
19	BINDUSHREE C	4AI16CS015	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Bindu
20	BINDUSREE B R	4AI16CS016	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	Bindu
21	BRUNDA D	4AI16CS017	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Brunda
22	CHANDANA H Y	4AI16CS018	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	Chandana
23	CHINMAYEE	4AI16CS019	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Chinmayee
24	CHINTHANA M C	4AI16CS021	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	Chinthana
25	CHIRAG M R	4AI16CS022	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Chirag
26	DEEPAK N R	4AI16CS023	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	Deepak
27	DEEPIKA D P	4AI16CS024	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Deepika
28	GADDI CHETAN	4AI16CS025	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	Gaddi
29	GOURAV B R	4AI16CS026	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Gourav
30	HARSHA H K	4AI16CS027	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	Harsha
31	JAYASHREE	4AI16CS028	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Jayashree
32	JEEVAN A S	4AI16CS029	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Jeevan
33	KALPASHREE Y	4AI16CS030	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	Kalpashree
34	KARTHIK N L	4AI16CS031	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	~~Karthik~~ Karthik N L
35	KAVYA S	4AI16CS032	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	Kavya
36	KAVYA S K	4AI16CS033	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Kavya
37	KAVYASHREE C M	4AI16CS034	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Kavya
38	KHALEEL AHAMED	4AI16CS035	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Khaleel

39	KOWSHIK V	4AI16CS036
40	KRUTHIKA G NAYAK	4AI16CS037
41	LEANDRA MARIA MENDON	4AI16CS038
42	MANISHA P BEERAIAH	4AI16CS040
43	MEGHANA D Y	4AI16CS042
44	MOHAMMED NIHAL KHAN	4AI16CS043
45	MOUNA J	4AI16CS044
46	NAMITHA M TAPSE	4AI16CS046
47	NAVEEN P PARVATHANENI	4AI16CS047
48	NAYANA K S	4AI16CS048
49	NESARA B R	4AI16CS049
50	NISCHITHA K S	4AI16CS051
51	NISHANTH K R	4AI16CS052
52	NISWARTH V SHETTY	4AI16CS053
53	P PRADEEP KUMAR	4AI16CS054
54	POOJA B R	4AI16CS055
55	POOJA B S	4AI16CS056
56	POOJA N K	4AI16CS057
57	POOJA S	4AI16CS058
58	POORNIMA C L	4AI16CS059
59	RACHANA N VANAGUR	4AI16CS062
60	RAHUL A	4AI16CS063
61	RAHUL S	4AI16CS064
62	POOJA C P	4AI16CS127
63	ALFIYA SHAIK	4AI16CS130
64	AMBIKA D P	4AI17CS400
65	SHASHIKALA S	4AI17CS407
66	VIJETHA B S	4AI17CS409
67	SHREYA B R	4AI16CS085
68	SHRIKARAN C N	4AI16CS086
69	SHRUTHA R JAIN	4AI16CS087
70	SIDDESH P	4AI16CS088
71	SINCHANA S B	4AI16CS089
72	SINCHANA S GOWDA	4AI16CS090
73	SNEHA K	4AI16CS091
74	SOUMYA H	4AI16CS092
75	SOUNDARYA GOGATE T S	4AI16CS093
76	SOURAB SAKLECHA ✓	4AI16CS094
77	SOWMYA M	4AI16CS095
78	SPANDANA H P	4AI16CS096
79	SPANDANA S	4AI16CS097
80	SPARSHA B R	4AI16CS098
81	SPOORTHI A N	4AI16CS099
82	SRISTI BAGAMANE	4AI16CS100
83	SRUSTI R B S	4AI16CS101
84	SUMANTHA M K	4AI16CS102
85	SUPRITH K	4AI16CS103
86	SUPRIYA S K	4AI16CS104
87	VAISHNAVI C O	4AI16CS114
88	VAISHNAVI RAO	4AI16CS115

Course Instructor Signature

HOD Signature

Professor and H.O.D.
Department of Computer Science and Engg.
Adichunchanagiri Institute of Technology
CHIKMAGALUR - 577102

ADICHUNCHANAGIRI INSTITUE OF TECHNOLOGY,CHIKKAMAGALURU-577102.

DEPARTMENT OF COPMUTER SCIENCE & ENGINEERING

Add-On Course on "Basics of VLSI Design"

OVER ALL Add-On Course PARTICIPANTS FEEDBACK

Sl.No	DESCRIPTION	EXCELLENT	GOOD	POOR
1	How would you rate the presenter's knowledge on the concept?	✓		
2	How would you rate the concepts and Information provided by the Presenter?	✓		
3	What was your overall impression of the session?	✓		
4	Remarks	—		

Signature of the Participants

||Jai Sri Gurudev||

Sri Adichunchanagiri Shikshana Trust (R)

ADICHUNCHANAGIRI INSTITUTEOF TECHNOLOGY

CHIKKAMAGALURU – 577 102

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Certificate of Participation

This is to certify that **CHANDANA H Y** *has successfully completed the add on course on "***Basics of VLSI Design***" from* **15-01-2018** to **28-01-2018** *organized by Department of Computer Science and Engineering.*

Prof. S J Prashantha
Staff co-ordinator

Prof. Vivekananda
Staff co-ordinator

Dr. Pushpa Ravikumar
H.O.D

||Jai Sri Gurudev||

Sri Adichunchanagiri Shikshana Trust (R)

ADICHUNCHANAGIRI INSTITUTEOF TECHNOLOGY

CHIKKAMAGALURU – 577 102

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Certificate of Participation

This is to certify that **SPANDANA S** *has successfully completed the add on course on "***Basics of VLSI Design***" from* **15-01-2018** to **28-01-2018** *organized by Department of Computer Science and Engineering.*

Prof. S J Prashantha
Staff co-ordinator

Prof. Vivekananda
Staff co-ordinator

Dr. Pushpa Rayikumar
H.O.D

Professor & H.O.D.
Department of Computer Science and E...
Adichunchanagiri Institute of Technology
CHIKMAGALUR - 577102

76

ADICHUCHANAGIRI INSTITUTE OF TECHNOLOGY, CHIKKAMAGALURU

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

ADD ON COURSE: Basics of VLSI Design

Student Name: SOURAB SAKLECHA **USN:** 4AI16CS094

Instruction for students:

1. **Mark your answers in Black or blue ink point pen on the multiple-choice form provided.**
2. **Tick mark only one option you consider correct for each questions.**
3. **Each question carries 1 mark**

Answer for 50 multiple choice questions

1. The work function difference is negative for _____
a) silicon substrate b) polysilicon gate
c) silicon substrate & polysilicon gate d) none of the mentioned

2. Substrate bias voltage is positive for nMOS.
a) true b) false

3. According to body effect, substrate is biased with respect to _____
a) source b)drain c)gate d) Vss

4. Increasing Vsb _____ the threshold voltage.
a) does not effect b) decreases
c) increases d) exponentially increases

5. Transconductance gives the relationship between _____
a) input current and output voltage b) output current and input voltage
c) input current and input voltage d) output current and output voltage

6. Transconductance can be increased by _____
a) decreasing the width b) increasing the width
c) increasing the length d) decreasing the length

7. Increasing the transconductance _____
a) increases input capacitance b) decreasing area occupied
c) decreasing input capacitance d) decrease in output capacitance

8. Ids is _____ to length L of the channel.
a) directly proportional b) inversely proportional
c) not related d) logarithmically related

9. Switching speed of a MOS device depends on _____
a) gate voltage above a threshold b) carrier mobility
c) length channel d) all of the mentioned

10) A fast circuit requires _____
a) high gm b) low gm
c) does not depend on gm d) low cost

11) Surface mobility depends on _____
a) effective drain voltage b) effective gate voltage
c) channel length d) effective source voltage

12) What is a MOS transistor?
a) minority carrier device b) majority carrier device
c) majority & minority carrier device d) none of the mentioned

13) The MOS transistor is non conducting when?
a) zero source bias b) zero threshold voltage
c) zero gate bias d) zero drain bias

14) Gate logic is also called as
a) transistor logic b) switch logic
c) complementary logic d) restoring logic

15) Both NAND and NOR gates can be used in gate logic.
a) true b) false

16) The CMOS inverter has _____ power dissipation.
a) low b) more c) no d) very less

17) As the number of inputs increases, the NAND gate delay
a) increases b) decreases c) does not vary d) exponentially decreases

18) NAND gate delay can be given as
a) τint b) τint/n c) n*τint d) 2n*τint

19) In CMOS NAND gate, p transistors are connected in
a) series b) parallel c) cascade d) random

20) BiCMOS is used for ____ fan-out.
a) less b) more c) no d) very less

21) Which can handle high capacitance load?
a) NAND b) nMOS NAND c) CMOS NAND d) BiCMOS NAND

22) Which among the following is a process of transforming design entry information of the circuit into a set of logic equations?
a) Simulation b) Optimization c) Synthesis d. Verification

23) _____ is the fundamental architecture block or element of a target PLD.
a) System Partitioning b) Pre-layout Simulation
c) Logic cell d) Post-layout Simulation

24) In VLSI design, which process deals with the determination of resistance & capacitance of interconnections?
a) Floor planning b) Placement & routing
c) Testing d) Extraction

25) In Net-list language, the net-list is generated _____synthesizing VHDL code.
a) Before b) At the time of (during)
c)After d) None of the above

26) In VHDL, which object/s is/are used to connect entities together for the model formation?
a) Constant b) Variable
c) Signal d) All of the above

27) Which data type in VHDL is non synthesizable & allows the designer to model the objects of dynamic nature?
a) Scalar b) Access c) Composite d) File

28) Which type of simulation mode is used to check the timing performance of a design?
a) Behavioral b) Switch-level c) Transistor-level d) Gate-level

29) In the simulation process, which step specifies the conversion of VHDL intermediate code so that it can be used by the simulator?
a) Compilation b) Elaboration c) Initialization d) Execution

30) Which type of simulator/s neglect/s the intra-cycle state transitions by checking the status of target signals periodically irrespective of any events?
a) Event-driven Simulator b) Cycle-based Simulator
c) Both a and b d) None of the above

31) Which among the following is not a characteristic of 'Event-driven Simulator'?
a) Identification of timing violations b) Storage of state values & time information
c) Time delay calculation d) No event scheduling

32) which among the following is an output generated by synthesis process?
a) Attributes & Library b) RTL VHDL description
c) Circuit constraints d) Gate-level net list

33) Register transfer level description specifies all of the registers in a design & _____ logic between them.
a) Sequential b) Combinational c) Both a and b d) None of the above

34) Which attribute in synthesis process specifies the resistance by controlling the quantity of current it can source?
a) Load attribute b) Drive attribute c) Arrival time attribute d) All of the above

35) Which type of digital systems exhibit the necessity for the existence of at least one feedback path from output to input?
a) Combinational System b) Sequential system
c) Both a and b d) None of the above

36) The time required for an input data to settle _____ the triggering edge of clock is known as 'Setup Time'.
a) Before b) During c) After d) All of the above

37) Hold time is defined as the time required for the data to _____ after the triggering edge of clock.
a) Increase b) Decrease c) Remain stable d) All of the above

38) An Antifuse programming technology is predominantly associated with _____.
a) SPLDs b) FPGAs c) CPLDs d) All of the above

39) In fusible link technologies, the undesired fuses are removed by the pulse application of _____voltage & current to device input.
a) Low b) Moderate c) High d) All of the above

40) Which programming technologies is/are predominantly associated with SPLDs and CPLDs?
a) EPROM b) EEPROM c) FLASH d) All of the above

41) Before the commencement of design, the clocking strategy determine/s _____
a) Number of clock signals necessary for routing throughout the chip
b) Number of transistors used per storage requirement
c) Power dissipated by chip & the size of chip
d) All of the above

42) Which method/s of physical clocking is/are a /the recursive structure where the memory elements are grouped together to make the use of nearby or same distribution points?
a) H tree b) balanced tree clock network
c) Both a and b d) None of the above

43) Increase in the physical distance of H-tree _____the skew rate.
a) Increases b) Stabilizes c) Decreases d) All of the above

44) Which type of MOSFET exhibits no current at zero gate voltage?
a) Depletion MOSFET b) Enhancement MOSFET
c) Both a and b d) None of the above

45) In enhancement MOSFET, the magnitude of output current _____ due to an increase in the magnitude of gate potentials.
a) Increases b) Remains constant c) Decreases d) None of the above

46) After an initialization phase, the simulator enters the _____phase.

a) Compilation **b)** Elaboration **c)** Execution d) None of the above

47) In DIBL, which among the following is/are regarded as the source/s of leakage?
a) Subthreshold conduction b) Gate leakage c) Junction leakage d) All of the above

48) Which among the following can be regarded as an/the application/s of MOS switch in an IC design?
a) Multiplexing & Modulation b) Transmission gate in digital circuits
c) Simulation of a resistor d) All of the above

49) Which among the following is/are regarded as an/the active resistor/s?
a. MOS diode b. MOS transistor c. MOS switch d. All of the above

50) In testability, which terminology is used to represent or indicate the formal evidences of correctness?
a. Validation b. Verification c. Simulation d. Integration

30

50

ADICHUCHANAGIRI INSTITUTE OF TECHNOLOGY, CHIKKAMAGALURU
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
ADD ON COURSE: "Basics of VLSI design"

Toppers List

Sl.No	Student Name	Student USN	Marks Obtained
1	SOURAB SAKLECHA	4AI16CS094	30
2	KALPASHREE Y	4AI16CS030	28
3	KAVYASHREE C M	4AI16CS034	25

Signature of HOD

Professor and H.O.D.
Department of Computer Science and Engg
Adichunchanagiri Institute of Technology
CHIKMAGALUR - 577102

ADICHUNCHANAGIRI INSTITUTE OF TECHNOLOGY CHIKKAMAGALURU

Department of Computer Science & Engineering

Summary Report

The course "**Basics of VLSI Design**"was conducted at CS&E Dept from **15/01/2018 to 28/01/2018.**

This course helps the students to understand how VLSI affords IC designers the ability to design utilizing less space. Typically, electronic circuits incorporate a CPU, RAM, ROM, and other peripherals on a single PCBA. However, very large-scale integration (VLSI) technology affords an IC designer the ability to add all of these into one chip

Course Outcomes

- To learn basic CMOS Circuits.
- To learn CMOS process technology
- To learn techniques of chip design using programmable devices.
- To learn the concepts of designing VLSI Subsystems.

Instructor's Signature

HOD's Signature

Professor and H.O.D.
Department of Computer Science and Engg.
Adichunchanagiri Institute of Technology
CHIKMAGALUR - 577102

ADD on Program

On

"Deep Learning :AI"

ADD-ON Course

On

"DEEP LEARNING:AI"

Organized by,

Department of Computer Science and Enginering.
Adichunchanagiri Institute of Technology,
Chikmagalur – 577102
Karnataka. India
www.aitchikmagalur.ac.in

About the College:

Adichunchanagiri Institute of Technology (AIT) was established in the year 1980 under the auspicious of **Adichunchanagiri Shikshana Trust(R)** with the blessings of Bhairavaikya **Jagadguru Padmabhushana Sri Sri Sri Dr. Balagangadharanatha Mahaswamiji** to provide technical and other professional education in the rural area of Chikmagalur, the land of Coffee. With the blessings of Jagadguru Sri. Sri. Sri. Nirmalanandanatha Swamiji, AIT is imparting the quality education in Engineering and Management with ethical and spiritual values. The engineering departments have recognized as research centers under VTU. The college has well equipped laboratory facilities and highly qualified and experienced faculty. The Institute is providing good training for students to excel in academics as well as in industry requirements and aims towards 100% placements to give a better future for students.

About the Department:

The Department of Computer Science and Engineering is established in the year 1986. It was earlier affiliated to the Mysore University later to the Kuvempu University and at present, it is affiliated to Visvesvaraya Technological University, Belagavi. The alumni of the department are working in various reputed organizations in India and abroad. The department is accredited twice by National Broad of Accreditation, New Delhi.
The department offers UG, PG Courses with an intake of 120 and 18 respectively and facilitates R&D through VTU recognized research center. The department has received funds from various reputed agencies like AICTE, VGST, KSCST, ISRO, ISTE, etc., for its activities.

Objectives of the Course:

Competence in technical writing holds great importance in the present era. Technical writing deals with specific knowledge, generally in the sphere of science and technology, and may be used in a wide variety of media: journal papers, thesis, project proposals, and other technical documents. DEEP LEARNING.AI is a document typesetting system that is used to produce high quality scientific documents, like articles, books, dissertations, technical reports, etc. Expertise in drafting technical documents is an indispensable skill for all professionals for it helps them to share their knowledge of technical subjects effectively in all domains of society and thus makes them competent in their professional careers

Resource Person:

Dr. Adarsh M J.

Associate Professor

Dept of CS&E, AIT, Chikkamagaluru

Convenor:

Dr Pushpa Ravi kumar, Professor and Head, Dept. of CS&E.

Coordinator:

Mr. S J Prashanth, Asst Professor,

Dept. CS&E, AIT, Chikkamagaluru

|| Jai Sri Gurudev ||

SRI ADICHUNCHANAGIRI SHIKSHANA TRUST ®
ADICHUNCHANAGIRI INSTITUTE OF TECHNOLOGY,
CHIKKAMAGALURU

P.B No.91,Adichunchanagiri Extension, Chikkamagaluru-577 102, Karnataka ,India.

Ref: AIT/IQAC/CSE/ /2018-2019

Date: 10/06/2018

Circular

Department of Computer Science & Engineering is conducting a Certificate Program (Add-on Program) on **"Deep Learning :AI [19CS_AC_013]** from **18-06-2018 to 02-07-2018** All other HOD's instruct the concern department students to attend the program. Following faculty member (Course instructor) is conducting a certificate program at CS&E Department.

Course Instructor

1. Prof. Vivekananda
   Assistant Professor
   Dept. of CS&E
   AIT Chikmagalur

2. Prof. S J Prashantha
   Assistant Professor
   Dept. of CS&E
   AIT Chikmagalur

Professor and H.O.D.
Department of Computer Science and Engg
Adichunchanagiri Institute of Technology
CHIKMAGALUR - 577102
HOD's Signature

Principal Signature
Dr. C.T. JAYADEVA
Principal B.E.,M.Tech.,Ph.D
Adichunchanagiri Institute of Technology
CHIKKAMAGALURU-577102

ADICHUNCHANAGIRI INSTITUTE OF TECHNOLOGY, CHIKKAMAGALURU

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Add on course – 30 Hours

ADD on Course Name: Deep Learning : AI

Course Code: 19CS_AC_013

Module 1: **10 Hours**

Basic Concepts of Machine Learning: Machine Learning Systems ,Supervised Learning , Learning Algorithms Parametric Models ,Cost functions ,Generalization ,Regularization ,Evaluation of a Binary Classifier , Confusion Matrix ,Receiver Operating, Characteristic Curve , Precision Recall Curve.

Module 2: **10 Hours**

Artificial Neural Networks: Basic Concepts ,Feed forward Neural Networks ,Single-Layer Perceptron ,Multilayer Perceptron ,ANN Learning Gradient Descent Methods ,Back-propagation Algorithm ,Regularization

Module 3: **10 Hours**

Convolutional Neural Networks :Convolution Operation . Convolution in Mathematic and Image Processing Convolution in Neuroscience ,Convolutional Network Architecture . Convolutional Layer . Pooling .. Batch Normalization . Main Concepts Behind CNNs . Local Receptive fields. Parameter Sharing . Popular CNN Architectures .

TEXT BOOKS:

1. **Neural Networks and Deep learning : A Text book by Charu C.Aggarrwal 2018**

ADICHUNCHANAGIRI INSTITUTE OF TECHNOLOGY, CHIKKAMAGALURU
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

ADD on Course Name: Deep Learning: AI

Course Code: 19CS_AC_013

Branch: CSE

Student Enrollment List

SI NO	NAME	USN	SIGNATURE
1	APOORVA S R	4AI14CS012	Apoorva SR
2	DEEKSHA K N	4AI14CS026	Deeksha
3	ABHISHEK G	4AI15CS002	Abhishek
4	CHANDANA P H	4AI15CS028	Chandana
5	KOUSHIK S D	4AI15CS051	Koushik S D
6	NIDHI A R	4AI15CS064	Nidhi
7	SIDDANTH B K	4AI15CS103	
8	ADYA H N	4AI16CS002	
9	AGNES SANMATHI D	4AI16CS003	
10	ALFIYA BANU	4AI16CS004	
11	ANANYA K V	4AI16CS006	Ananya
12	ANUSHA K N	4AI16CS007	
13	ANUVIKA A S	4AI16CS008	
14	ARVIND GIRISH	4AI16CS009	Arvind Girish
15	BABITHA B	4AI16CS011	Babitha
16	BHAGYASHREE H D	4AI16CS012	
17	BHOOMIKA G S	4AI16CS013	
18	BHOOMIKA K	4AI16CS014	Bhoom
19	BINDUSHREE C	4AI16CS015	
20	BINDUSREE B R	4AI16CS016	Bindushree R
21	BRUNDA D	4AI16CS017	
22	CHANDANA H Y	4AI16CS018	
23	CHINMAYEE	4AI16CS019	
24	CHINTHANA M C	4AI16CS021	
25	CHIRAG M R	4AI16CS022	Chirag
26	DEEPAK N R	4AI16CS023	Deepak N R
27	DEEPIKA D P	4AI16CS024	Deepika D P
28	GADDI CHETAN	4AI16CS025	
29	GOURAV B R	4AI16CS026	Gaurav
30	HARSHA H K	4AI16CS027	
31	JAYASHREE	4AI16CS028	
32	JEEVAN A S	4AI16CS029	Jeevan
33	KALPASHREE Y	4AI16CS030	
34	KARTHIK N L	4AI16CS031	Karthik N L
35	KAVYA S	4AI16CS032	Kavya S
36	KAVYA S K	4AI16CS033	Kavya S K
37	KAVYASHREE C M	4AI16CS034	Kavyashree
38	KHALEEL AHAMED	4AI16CS035	Khaleel
39	KOWSHIK V	4AI16CS036	Kowshik
40	KRUTHIKA G NAYAK	4AI16CS037	Kruthika G
41	LEANDRA MARIA MENDON	4AI16CS038	

42	MANISHA P BEERAIAH	4AI16CS040	
43	MEGHANA D Y	4AI16CS042	
44	MOHAMMED NIHAL KHAN	4AI16CS043	
45	MOUNA J	4AI16CS044	
46	NAMITHA M TAPSE	4AI16CS046	
47	NAVEEN P PARVATHANENI	4AI16CS047	
48	NAYANA K S	4AI16CS048	
49	NESARA B R	4AI16CS049	
50	NISCHITHA K S	4AI16CS051	
51	NISHANTH K R	4AI16CS052	
52	NISWARTH V SHETTY	4AI16CS053	
53	P PRADEEP KUMAR	4AI16CS054	
54	POOJA B R	4AI16CS055	
55	POOJA B S	4AI16CS056	
56	POOJA N K	4AI16CS057	
57	POOJA S	4AI16CS058	
58	POORNIMA C L	4AI16CS059	
59	RACHANA N VANAGUR	4AI16CS062	
60	RAHUL A	4AI16CS063	
61	RAHUL S	4AI16CS064	
62	POOJA C P	4AI16CS127	
63	ALFIYA SHAIK	4AI16CS130	
64	AMBIKA D P	4AI17CS400	
65	SHASHIKALA S	4AI17CS407	
66	VIJETHA B S	4AI17CS409	
67	SHREYA B R	4AI16CS085	
68	SHRIKARAN C N	4AI16CS086	
69	SHRUTHA R JAIN	4AI16CS087	
70	SIDDESH P	4AI16CS088	
71	SINCHANA S B	4AI16CS089	
72	SINCHANA S GOWDA	4AI16CS090	
73	SNEHA K	4AI16CS091	
74	SOUMYA H	4AI16CS092	
75	SOUNDARYA GOGATE T S	4AI16CS093	
76	SOURAB SAKLECHA	4AI16CS094	
77	SOWMYA M	4AI16CS095	
78	SPANDANA H P	4AI16CS096	
79	SPANDANA S	4AI16CS097	
80	SPARSHA B R	4AI16CS098	
81	SPOORTHI A N	4AI16CS099	
82	SRISTI BAGAMANE	4AI16CS100	
83	SRUSTI R B S	4AI16CS101	
84	SUMANTHA M K	4AI16CS102	
85	SUPRITH K	4AI16CS103	
86	SUPRIYA S K	4AI16CS104	
87	VAISHNAVI C O	4AI16CS114	

Course Instructor Signature

HOD Signature

Professor and Head
Department of Computer Science and Engg.
Adichunchanagiri Institute of Technology
CHIKKAMAGALUR - 577102

ADICHUNCHANAGIRI INSTITUTE OF TECHNOLOGY, CHIKKAMAGALURU
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

ADD on Course Name: Deep Learning :AI

Course Code : 19CS_AC_013

Branch: CSE

Students are identified for ADD on Course Classes based on their enrolment.
ADD on Course classes will be held during **18-06-2018 to 02-07-2018** at CS&E dept from 4-6pm

Attendance Report

SI NO	NAME	USN	During 18-06-2018 to 02-07-2018															Signature
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
1	APOORVA S R	4AI14CS012	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	APOORVA SR
2	DEEKSHA K N	4AI14CS026	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	DEEKSHA KN
3	ABHISHEK G	4AI15CS002	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	Abish
4	CHANDANA P H	4AI15CS028	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	Chan
5	KOUSHIK S D	4AI15CS051	P	P	P	P	P	P	P	P	P	P	A	A	P	P	P	Koush
6	NIDHI A R	4AI15CS064	P	P	P	P	P	P	P	P	P	P	A	A	P	P	P	Nidhi
7	SIDDANTH B K	4AI15CS103	P	P	P	P	P	P	P	A	A	A	P	P	P	P	P	Siddanth
8	ADYA H N	4AI16CS002	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Adya
9	AGNES SANMATHI D	4AI16CS003	P	P	P	P	P	P	P	A	A	P	P	P	P	P	P	Agnes Sanmathi D
10	ALFIYA BANU	4AI16CS004	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	Alfiya banu
11	ANANYA K V	4AI16CS006	P	A	P	A	P	P	P	P	P	P	P	A	P	P	P	Ananya
12	ANUSHA K N	4AI16CS007	P	P	P	P	P	P	A	A	A	A	P	P	P	P	P	Anusha
13	ANUVIKA A S	4AI16CS008	P	A	A	P	P	P	P	A	P	P	P	P	P	P	P	Anuvika
14	ARVIND GIRISH	4AI16CS009	P	P	P	P	P	P	P	P	P	P	P	A	A	P	A	Arvind
15	BABITHA B	4AI16CS011	P	P	A	A	P	P	P	P	P	P	A	P	P	P	P	Babi
16	BHAGYASHREE H D	4AI16CS012	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Bhagya
17	BHOOMIKA G S	4AI16CS013	P	P	P	P	P	P	P	A	A	A	P	P	P	P	P	Bhoo
18	BHOOMIKA K	4AI16CS014	P	P	P	P	P	A	A	P	P	P	P	P	P	P	P	Bhoom
19	BINDUSHREE C	4AI16CS015	P	P	P	P	P	P	P	P	P	A	P	P	P	A	P	Bindu
20	BINDUSREE B R	4AI16CS016	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	Bindu
21	BRUNDA D	4AI16CS017	P	P	P	P	P	P	A	A	P	P	P	P	P	P	P	Brunda
22	CHANDANA H Y	4AI16CS018	A	A	A	P	P	P	A	P	P	P	P	P	P	P	P	Chan
23	CHINMAYEE	4AI16CS019	P	P	P	A	P	P	A	P	P	P	P	A	P	P	P	Chin
24	CHINTHANA M C	4AI16CS021	A	A	P	P	P	P	P	P	P	P	A	P	P	P	P	Chin
25	CHIRAG M R	4AI16CS022	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Chirag
26	DEEPAK N R	4AI16CS023	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	Deep
27	DEEPIKA D P	4AI16CS024	P	A	P	P	A	P	P	P	P	P	P	P	P	A	P	P	Deepika
28	GADDI CHETAN	4AI16CS025	P	P	A	P	P	A	P	P	P	P	P	P	P	P	P	P	Gaddi
29	GOURAV B R	4AI16CS026	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	Gour
30	HARSHA H K	4AI16CS027	A	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	Harsh
31	JAYASHREE	4AI16CS028	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	A	Jaya
32	JEEVAN A S	4AI16CS029	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Jeeva
33	KALPASHREE Y	4AI16CS030	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	Kalpa
34	KARTHIK N L	4AI16CS031	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Karthik
35	KAVYA S	4AI16CS032	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Kavya
36	KAVYA S K	4AI16CS033	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	Kavya
37	KAVYASHREE C M	4AI16CS034	P	P	P	P	P	P	A	A	P	P	P	P	P	P	P	P	Kavya
38	KHALEEL AHAMED	4AI16CS035	P	P	A	P	P	P	P	P	P	P	P	P	A	P	P	P	Khalil

39	KOWSHIK V	4AI16CS036	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	Kat
40	KRUTHIKA G NAYAK	4AI16CS037	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Kruth
41	LEANDRA MARIA MENDON	4AI16CS038	A	P	P	P	P	P	P	P	P	A	A	P	P	P	P	P	Leand
42	MANISHA P BEERAIAH	4AI16CS040	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	mani
43	MEGHANA D Y	4AI16CS042	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	Meghana
44	MOHAMMED NIHAL KHAN	4AI16CS043	A	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	Mdnihal
45	MOUNA J	4AI16CS044	P	P	P	P	P	P	P	A	P	P	P	A	P	P	P	P	Mouna
46	NAMITHA M TAPSE	4AI16CS046	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	Namitha
47	NAVEEN P PARVATHANENI	4AI16CS047	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	Naveen
48	NAYANA K S	4AI16CS048	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Nay
49	NESARA B R	4AI16CS049	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Nesara
50	NISCHITHA K S	4AI16CS051	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Nisc
51	NISHANTH K R	4AI16CS052	P	P	P	A	P	P	A	P	P	P	P	P	P	P	P	P	Nishanth
52	NISWARTH V SHETTY	4AI16CS053	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	Niswarth
53	P PRADEEP KUMAR	4AI16CS054	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Pradeep
54	POOJA B R	4AI16CS055	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	Pooja
55	POOJA B S	4AI16CS056	A	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	Pooj
56	POOJA N K	4AI16CS057	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P
57	POOJA S	4AI16CS058	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Pooja
58	POORNIMA C L	4AI16CS059	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Poorn
59	RACHANA N VANAGUR	4AI16CS062	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	Rach
60	RAHUL A	4AI16CS063	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	Rahul
61	RAHUL S	4AI16CS064	A	A	P	P	P	P	P	P	P	P	P	A	P	P	P	P	Rahu
62	POOJA C P	4AI16CS127	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	POOJA
63	ALFIYA SHAIK	4AI16CS130	P	P	P	A	P	P	P	P	P	A	P	A	P	P	P	P	Alf
64	AMBIKA D P	4AI17CS400	P	A	P	P	P	P	P	P	P	P	A	P	P	P	P	P	Amb
65	SHASHIKALA S	4AI17CS407	P	P	A	P	P	P	P	P	P	P	P	P	P	A	P	P	Shas
66	VIJETHA B S	4AI17CS409	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	Vije
67	SHREYA B R	4AI16CS085	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	Shre
68	SHRIKARAN C N	4AI16CS086	P	P	A	A	P	P	P	P	P	P	P	P	P	P	P	P	Shri
69	SHRUTHA R JAIN	4AI16CS087	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	Shru
70	SIDDESH P	4AI16CS088	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Siddesh
71	SINCHANA S B	4AI16CS089	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	Sincha
72	SINCHANA S GOWDA	4AI16CS090	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	Sinch
73	SNEHA K	4AI16CS091	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Sneha
74	SOUMYA H	4AI16CS092	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Soum
75	SOUNDARYA GOGATE T S	4AI16CS093	P	P	P	P	P	A	A	P	P	P	P	P	P	P	P	P	Sou
76	SOURAB SAKLECHA	4AI16CS094	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Sourab
77	SOWMYA M	4AI16CS095	P	P	P	P	P	P	P	P	P	P	P	P	P	N	P	P	Sowm
78	SPANDANA H P	4AI16CS096	P	P	P	P	P	P	P	P	P	A	A	P	P	P	P	P	Spandan
79	SPANDANA S	4AI16CS097	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Spand
80	SPARSHA B R	4AI16CS098	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Spar
81	SPOORTHI A N	4AI16CS099	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	Spo
82	SRISTI BAGAMANE	4AI16CS100	P	P	P	P	A	P	P	P	P	P	A	P	P	P	P	P	Sris
83	SRUSTI R B S	4AI16CS101	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	Srus
84	SUMANTHA M K	4AI16CS102	P	P	P	P	P	P	A	A	P	P	P	P	P	P	P	P	Sumanth
85	SUPRITH K	4AI16CS103	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Supri
86	SUPRIYA S K	4AI16CS104	P	P	P	P	P	P	P	A	A	A	A	P	P	P	P	P	Supr
87	VAISHNAVI C O	4AI16CS114	A	A	A	P	P	P	P	P	P	P	P	A	A	P	P	P	Vaish

Course Instructor Signature

HOD Signature

Professor and H.O.D.
Department of Computer Science and Engg.
Adichunchanagiri Institute of Technology
CHIKMAGALUR - 577102

ADICHUNCHANAGIRI INSTITUTE OF TECHNOLOGY, CHIKKAMAGALURU

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

ADD ON COURSE NAME: DEEP LEARNING: AI

COURSE CODE: 19CS_AC_013

ASSESSMENT QUESTIONS

LIST OF TOPPERS

Sl.No	Name of the Student	USN	Marks Scored
1	Vaishnavi C O	4AI16CS114	50
2	Sumantha M K	4AI16CS102	49
3	Sristi Bagamane	4AI16CS100	48

Signature of the H.O.D

Professor and H.O.D.
Department of Computer Science and Engg.
Adichunchanagiri Institute of Technology
CHIKMAGALUR - 577 102

||Jai Sri Gurudev||

Sri Adichunchanagiri Shikshana Trust (R)

ADICHUNCHANAGIRI INSTITUTEOF TECHNOLOGY

CHIKKAMAGALURU – 577 102

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Certificate of Participation

This is to certify that POOJA B R *has successfully completed the add on course on "***Deep Learning :AI***" from* **18-06-2018 to 02-07-2018** *organized by Department of Computer Science and Engineering.*

Prof. S J Prashantha
Staff co-ordinator

Prof. Vivekananda
Staff co-ordinator

Professor and H.O.D.
Dr. Pushpa Ravikumar
H.O.D.
Department of Computer Science and Engg.
Adichunchanagiri Institute of Technology
CHIKMAGALUR - 577102

ADICHUNCHANAGIRI INSTITUTE OF TECHNOLOGY, CHIKKAMAGALURU

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

ADD ON COURSE NAME: DEEP LEARNING: AI

COURSE CODE: 19CS_AC_013

ASSESSMENT QUESTIONS

35/50

Name of the Student: Apoorva. S.R

USN: HAI1HCS012

Max Marks: 50

1. Which of the following is a subset of machine learning?

A. Numpy B. SciPy C. Deep Learning D. All of the above

2. How many layers Deep learning algorithms are constructed?

A. 2 B. 3 C. 4 D. 5

3. The first layer is called the?

A. inner layer B. outer layer C. hidden layer D. None of the above

4. RNNs stands for?

A. Receives neural networks B. Report neural networks
C. Recording neural networks D. Recurrent neural networks

5. Which of the following is/are Common uses of RNNs?

A. Businesses Help securities traders to generate analytic reports
B. Detect fraudulent credit-card transaction
C. Provide a caption for images
D. All of the above

6. CNN is mostly used when there is an?

A. structured data B. unstructured data C. Both A and B D. None of the above

7. Which neural network has only one hidden layer between the input and output?

A. Shallow neural network B. Deep neural network
C. Feed-forward neural networks D. Recurrent neural networks

8. Deep learning algorithms are _____ more accurate than machine learning algorithm in image classificatio

A. 33% B. 37% C. 40% D. 41%

9. In which of the following applications can we use deep learning to solve the problem?

A. Protein structure prediction B. Prediction of chemical reactions

C. Detection of exotic particles D. All of the above

10. The number of nodes in the input layer is 10 and the hidden layer is 5.The maximum number of connections from the input layer to the hidden layer are

A. 50 B. less than 50 C. more than 50 D. It is an arbitrary value

11. The input image has been converted into a matrix of size 28 X 28 and a kernel/filter of size 7 X 7 with a stride of 1. What will be the size of the convoluted matrix?

A. 20x20 B. 21x21 C. 22x22 D. 25x25

12. In a simple MLP model with 8 neurons in the input layer, 5 neurons in the hidden layer and 1 neuron in the output layer. What is the size of the weight matrices between hidden output layer and input hidden layer?

A. [1 X 5] , [5 X 8] B. [5 x 1] , [8 X 5] C. [8 X 5] , [5 X 1] D. [8 X 5] , [1 X 5]

13. Which of the following functions can be used as an activation function in the output layer if we wish to predict the probabilities of n classes (p1, p2..pk) such that sum of p over all n equals to 1?

A. Softmax B. ReLu C. Sigmoid D. Tanh

14. Assume a simple MLP model with 3 neurons and inputs= 1,2,3. The weights to the input neurons are 4,5 and 6 respectively. Assume the activation function is a linear constant value of 3. What will be the output ?

A. 32 B. 64 C. 96 D. 128

15. Sentiment analysis using Deep Learning is a many-to one prediction task.

A. True B. False C. Can be true and false D. can not say

16. In CNN, having max pooling always decrease the parameters?

A. True B. False C. Can be true and false D. cannot say

17. When an experienced deep learning engineer works on a new problem, they can usually use insight from previous problems to train a good model on the first try, without needing to iterate multiple times through different models.?

A. True B. False

18. Which of the factors affect the performance of learner system does not include?

a) Representation scheme used b) Training scenario
c) Type of feedback d) Good data structures 0

19. Different learning methods does not include?

a) Memorization b) Analogy c) Deduction d) Introduction 1

20. In language understanding, the levels of knowledge that does not include?

a) Phonological b) Syntactic c) Empirical d) Logical 1

21. A model of language consists of the categories which does not include?

a) Language units b) Role structure of units c) System constraints d) Structural units 0

22. Among the following which is not a horn clause?

a) p b) Øp V q c) p → q d) p → Øq 0

23. Type of matrix decomposition model is_____

A. predictive model B. descriptive model C.logical model D.None 1

24. PCA is_____

A. backward feature selection B.forward feature selection.
C. feature extraction D. None of these 0

25. Supervised learning and unsupervised clustering both require which is correct according to the statement.

A. input attribute B. hidden attribute C.output attribute D.categorical attribute 1

26. Following are the types of supervised learning_____

A. Regression B. classification C. subgroup discovery D. All of above 1

27. A feature F1 can take certain value: A, B, C, D, E, & F and represents grade of students from a college. Here feature type is_____

A. Ordinal B. nominal C. categorical D. Boolean 0

28. Following is powerful distance metrics used by Geometric model_____

A. Manhattan distance B. Euclidean distance C. All of above D. None of above 0

29. The output of training process in machine learning is_____

A. Machine learning algorithm. B.Machine learning model C. Null D. accuracy 1

30. Which of the following is a good test dataset characteristic?

A. is representative of the dataset as a whole
B. large enough to yield meaningful results
C. All of above
D. None of above

31. Which of the following techniques would perform better for reducing dimensions of a data set?

A. removing columns which have high variance in data
B. removing columns which have too many missing value
C. removing columns with dissimilar data trends
D. None of the above

32. You are given reviews of few Netflix series marked as positive, negative and neutral. Classifying reviews o
a new Netflix series is an example of_____

A .unsupervised learning
B. semi supervised learning
C. supervised learning
D. reinforcement learning

33. Like the probabilistic view, the _____ view allows us to associate a probability of membership with each classification

A. Deductive B. exampler C. classical D. inductive

34. Database query is used to uncover this type of knowledge.

A. Hidden B. shallow C. Deep D. multidimensional

35. Data used to build a data mining model.

A. Training data B. hidden data C. test data D. validation data

36. If machine learning model output doesn't involves target variable then that model is called as_____

A. predictive model B. descriptive model C. reinforcement learning D. all of the above

37. In the example of predicting number of babies based on stork's population, Number of babies is_____

A. feature B. observation C.outcome D.attribute

38. Following are the descriptive models_____

A. Classification B. clustering C. association rule D. Both 1 and 2

39. What does dimensionality reduction reduce?

A. Collinearity B. stochastic C. entropy D. performance

40. Which of the following is the best machine learning method?

A. Accuracy B. scalable C. fast D. All of above 1

41. In multiclass classification number of classes must be_____

A. Equals to two B. less than two C. greater than two D. None 1

42. Which of the following can only be used when training data are linearly separable? 0

A. linear logistic regression B. linear hard-margin svm
C. linear soft margin svm D. parzen windows

43. Impact of high variance on the training set? 1

A. underfitting B. overfitting C.both underfitting & overfitting D. depends upon the dataset

44. The effectiveness of an SVM depends upon_____ 1

A. kernel parameters B. selection of kernel C. soft margin parameter D. All of the above

45. Feature can be used as a_____ 0

A. predictor B. binary split C. All of above D. None of above

46. Which of the following evaluation metrics can not be applied in case of logistic regression output to compare with target? 0

A. Accuracy B. auc-roc C. logloss D. mean-squared-error

47. A measurable property or parameter of the data-set is_____ 1

A. training data B. test data C. feature D. validation data

48. Support Vector Machine is_____ 1

A. geometric model B. probabilistic model C. logical model D. none

49. Imagine a Newly-Born starts to learn walking. It will try to find a suitable policy to learn walking after repeated falling and getting up. Specify what type of machine learning is best suited? 1

A. Regression B. means algorithm C. reinforcement learning D. None

50. Different learning methods does not include?

A. Deduction B. memorization C. analogy D. Introduction 1

ADICHUNCHANAGIRI INSTITUE OF TECHNOLOGY,CHIKKAMAGALURU-577102.

DEPARTMENT OF COPMUTER SCIENCE & ENGINEERING

Add-On Course on "**Deep Learning :AI**"

OVER ALL Add-On Course PARTICIPANTS FEEDBACK

Sl.No	DESCRIPTION	EXCELLENT	GOOD	POOR
1	How would you rate the presenter's knowledge on the concept?	✓		
2	How would you rate the concepts and Information provided by the Presenter?	✓		
3	What was your overall impression of the session?			✓
4	Remarks	Got some knowledge after attending the session.		

Signature of the Participants

ADICHUNCHANAGIRI INSTITUTE OF TECHNOLOGY CHIKKAMAGALURU

Department of Computer Science & Engineering

Summary Report

The course "**Deep Learning:AI**"was conducted at CS&E Dept from **18/06/2018 to 02/07/2018.**

The main objective of this course is to make students comfortable with tools and techniques required in handling large amounts of datasets. They will also uncover various deep learning methods in NLP, Neural Networks etc. Several libraries and datasets publicly available will be used to illustrate the application of these algorithms. This will help students in developing skills required to gain experience of doing independent research and study.

Course Outcomes

Students are able to

- Understand the informed and uninformed problem types and apply search strategies to solve them.
- Apply difficult real life problems in a state space representation so as to solve them using AI techniques like searching and game playing.
- Design and evaluate intelligent expert models for perception and prediction from intelligent environment.
- Formulate valid solutions for problems involving uncertain inputs or outcomes by using decision making techniques.
- Demonstrate and enrich knowledge to select and apply AI tools to synthesize information and develop models within constraints of application area.
- Examine the issues involved in knowledge bases, reasoning systems and planning

Instructor's Signature

HOD's Signature.

Professor and H.O.D.
Department of Computer Science and
Adichunchanagiri Institute of Technology
CHIKMAGALUR - 577102

ADD ON COURSE

ON

"BASICS OF SOFTWARE TESTING"

ADD-ON Course

On

"Basics of Software Testing"

Organized by,

Department of Computer Science and Enginering.
Adichunchanagiri Institute of Technology,
Chikmagalur – 577102
Karnataka. India
www.aitchikmagalur.ac.in

About the College:

Adichunchanagiri Institute of Technology (AIT) was established in the year 1980 under the auspicious of **Adhichunchanagiri Shikshana Trust(R)** with the blessings of Bhairavaikya **Jagadguru Padmabhushana Sri Sri Sri Dr. Balagangadharanatha Mahaswamiji** to provide technical and other professional education in the rural area of Chikmagalur, the land of Coffee. With the blessings of Jagadguru Sri. Sri. Sri. Nirmalanandanatha Swamiji, AIT is imparting the quality education in Engineering and Management with ethical and spiritual values. The engineering departments have recognized as research centers under VTU. The college has well equipped laboratory facilities and highly qualified and experienced faculty. The Institute is providing good training for students to excel in academics as well as in industry requirements and aims towards 100% placements to give a better future for students.

About the Department:

The Department of Computer Science and Engineering is established in the year 1986. It was earlier affiliated to the Mysore University later to the Kuvempu University and at present, it is affiliated to Visvesvaraya Technological University, Belagavi. The alumni of the department are working in various reputed organizations in India and abroad. The department is accredited twice by National Broad of Accreditation, New Delhi.
The department offers UG, PG Courses with an intake of 120 and 18 respectively and facilitates R&D through VTU recognized research center. The department has received funds from various reputed agencies like AICTE, VGST, KSCST, ISRO, ISTE, etc., for its activities.

Objectives of the Course:

Software Testing is a method to check whether the actual software product matches expected requirements and to ensure that software product is Defect free. It involves execution of software/system components using manual or automated tools to evaluate one or more properties of interest. The purpose of software testing is to identify errors, gaps or missing requirements in contrast to actual requirements.
Software testing definition as a White Box and Black Box Testing. In simple terms, Software Testing means the Verification of Application under Test (AUT). This Software Testing course introduces testing software to the audience and justifies the importance of software testing.

Resource Person:

Mr. CHETHAN P J

Assistant Professor

Dept of CS&E, AIT, Chikkamagaluru

Convenor:

Dr Pushpa Ravi Kumar, Professor and Head, Dept. of CS&E.

Coordinator:

Mr. Gopinath C B, Asst Professor,

Dept. CS&E, AIT, Chikkamagaluru

ADICHUNCHANAGIRI INSTITUTE OF TECHNOLOGY CHIKKAMAGALURU-577102
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
ADD-ON Course – Basics of Software Testing

Student Enrollment List

S.NO	USN	Student Name	
1	4AI16CS041	M D ZAHID HUSSAIN	
2	4AI16CS069	ROHITH KUMAR SINGH	
3	4AI17CS062	POOJA H B	Pooja. H.B.
4	4AI17CS063	POOJA K R	Pooja.
5	4AI17CS064	PRAGATHI HEBBAR K M	Pragathi
6	4AI17CS065	PRAJWALA D E	Prajwala.D.E
7	4AI17CS066	PRAJWAL M D	
8	4AI17CS069	PREETHI N U	Preethi
9	4AI17CS070	PRERANA M V	Prerana.M.V
10	4AI17CS071	PRIYANKA T M	Priyanka T.M.
11	4AI17CS072	RAHUL PRABHU K	
12	4AI17CS074	RAKSHITH H D	Rakshith. H.D
13	4AI17CS075	RANJANA A	Ranjana A
14	4AI17CS076	ROHITH VINOD HUKKIERI	
15	4AI17CS077	SADHANA P HEBBAR	Sadhana. P. Hebbar
16	4AI17CS078	SAHANA M N	Sahana M N
18	4AI17CS080	SANJAN R	Sanjan R
19	4AI17CS081	SANJANA S	Sanjana S
20	4AI17CS082	SANJITHA P	Sanjitha P
21	4AI17CS083	SHANMUKHA G C	Shanmukha G.C
22	4AI17CS084	SHARATH C R	Sharath CR

23	4AI17CS085	SHARATH M G	
24	4AI17CS086	SHASHANK S	
25	4AI17CS087	SHASHANK S HEBBAR	
26	4AI17CS088	SHATHANIKA H V	
27	4AI17CS089	SHEEBA SUFIYAN	
28	4AI17CS091	SHRAVANI R A	
29	4AI17CS092	SHRAVYA J N	
30	4AI17CS093	SHREENIKA A K	
31	4AI17CS094	SHRESHTA K S	
28	4AI17CS095	SHRINIDHI A S	
29	4AI17CS096	SMAYANA A C	
30	4AI17CS097	SNEHA S P	
31	4AI17CS098	SOUNDARYA A R	
32	4AI17CS099	SOWMYA H L	
33	4AI17CS100	SPOORTHI K S	
34	4AI17CS101	SREERAKSHA TAPSE H	
35	4AI17CS102	SUCHITHA H S	
36	4AI17CS103	SUHAS S GOWDA	
37	4AI17CS104	SUJITH D S	
38	4AI17CS106	SUSHMITHA R	
39	4AI17CS107	SWAROOP A PAWAR	
40	4AI17CS108	SYED MAQDUM C M	
41	4AI17CS109	TEJAS M DEVANG	
42	4AI17CS110	TEJASHWINI B V	
43	4AI17CS111	THEJUS C J	
44	4AI17CS112	ULLAS M R	
45	4AI17CS113	UMME SUHANA	

46	4AI17CS114	USHA B M	
47	4AI17CS116	VANISHREE B	
48	4AI17CS117	VIDYA T S	
49	4AI17CS118	VYSHNAVI V N	
50	4AI17CS119	YAMUNA S	
51	4AI17CS120	POOJA S	
52	4AI18CS400	Aishwarya C	
53	4AI18CS402	ARPITHA C U	
54	4AI18CS404	MANOJ R	
55	4AI18CS405	MOHAMMED IBRAHIM SAFIULLA	
56	4AI18CS406	Nitish Kumar N H	
57	4AI18CS407	RAHIL M B	
58	4AI18CS410	Sowmya A P	
59	4AI17CS022	BHAVYA M N	
60	4AI17CS023	BHOOMIKA B R	
61	4AI17CS024	BHUMIKA K G	
62	4AI17CS025	CHAITHRA H G	
63	4AI17CS026	CHANDAN C V	
64	4AI17CS027	CHETHAN S	
65	4AI17CS028	CHIRANTH M V	
66	4AI17CS029	DARSHAN K S	
67	4AI17CS030	DEEKSHA R	
68	4AI17CS031	DEEPIKA H P	
69	4AI17CS032	DEEPTHI A	
70	4AI17CS033	FARHEEN NAAZ	
71	4AI17CS034	GOWRAV A S	
72	4AI17CS036	HALEEMA FAIZA	

73	4AI17CS037	HARSHADA L ACHARYA	
74	4AI17CS038	HARSHITHA C M	
75	4AI17CS039	JAYALAKSHMI A N	
76	4AI17CS040	JEEVAN REDDY K N	
77	4AI17CS041	JYOTHIRMAYEE P V S N	
78	4AI17CS042	KARTHIK REDDY A P	
79	4AI17CS043	KAVANA S	
80	4AI17CS044	KAVYA B M	
81	4AI17CS045	KIRIGODALA NAGARAJU MANIKANTA	
82	4AI17CS047	LAVANYA M G	
83	4AI17CS048	MADEEHA RAYAN FATHIM	
84	4AI17CS049	MANASA I M	
85	4AI17CS050	MANASVI PRASHANTH	
86	4AI17CS052	MEGHA M H	
87	4AI17CS053	MEGHASHREE K S	
88	4AI17CS054	MOHAMMED TAHA	
89	4AI17CS055	NANDINI A S	
90	4AI17CS056	NAVDEEP M K	
91	4AI17CS057	NELVITA LORRAINE FERNANDES	
92	4AI17CS058	NIHARIKA B R	

ADICHUCHANAGIRI INSTITUTE OF TECHNOLOGY, CHIKKAMAGALURU
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
ADD ON COURSE: BASICS OF SOFTWARE TESTING

Toppers List

Sl.No	Student Name	Student USN	Marks Obtained
1	SHANMUKA G C	4AI17CS083	48
2	SHEEBA SUFIYA	4AI17CS089	47
3	SUHAS GOWDA	4AI17CS103	46

Signature of HOD

Professor and H.O.D
Department of Computer Science and Engg.
Adichunchanagiri Institute of Technology
CHIKMAGALUR - 577102

ADICHUCHANAGIRI INSTITUTE OF TECHNOLOGY, CHIKKAMAGALURU
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
ADD ON COURSE: BASICS OF SOFTWARE TESTING

SEMESTER: IV **Max Marks: 50**

Student Name: Shanmuka GC
USN: 4AI17CS083

Note: There are 50 multiple choice questions. All questions are compulsory. Each question carries equal marks.

50*1=50

1. A deviation from the specified or expected behavior that is visible to end-users is called:
a) An error b) a fault c) a failure d) a defect

2. A configuration management system would NOT normally provide:
a) Linkage of customer requirements to version numbers.
b) The precise differences in versions of software component source code.
c) Facilities to compare test results with expected results.
d) Restricted access to the source code librar

48/50

3. Test cases are designed during:
a) Test recording. b) Test configuration. c) Test planning. d) Test specification

4. Which of the following statements about reviews is true?
a) Reviews should be performed on specifications, code, and test plans
b) Reviews are the least effective way of testing code.
c) Reviews are unlikely to find faults in test plans.
d) Reviews cannot be performed on user requirements specifications.

5. In case of Large Systems
a) Only few tests should be run b) Test Cases written by good test engineers should be executed
c) Only Good Test Cases should be executed d) Testing should be on the basis of Risk

6. Which of the following will be the best definition for Testing :
a) Testing is executing Software for the purpose of finding defects
b) The purpose of testing is to demonstrate that the program is defect free c) The purpose of testing is to demonstrate that the program does what it is supposed to do
d) The goal / purpose of testing is to demonstrate that the program works.

7. Which of the following is not a type of incremental testing approach?
a) Big-bang b) Top down c) Bottom up d) Functional incrimination

8. Test Conditions are derived from
a) Test Design b) Test Cases c) Test Data d) Specifications

9. Pick the best definition of quality
a) Quality is job one b) Zero defects c) Work as designed d) Conformance to requirements

10. Fault Masking is
a) Creating a test case which does not reveal a fault b) Error condition hiding another error condition
c) Masking a fault by developer d) **Masking a fault by a tester**

11. Boundary value testing
a) Is the same as equivalence partitioning tests b) Tests combinations of input circumstances
c) Test boundary conditions on, below and above the edges of input and output equivalence classes
d) Is used in white box testing strategy

12. One Key reason why developers have difficulty testing their own work is:
a) Lack of technical documentation b) Lack of test tools on the market for developer's
c) Lack of Objectivity d) Lack of training

13. In a review meeting a moderator is a person who:
a) Takes minutes of the meeting b) Takes telephone calls
c) Mediates between people d) writes the documents to be reviewed

14. Acceptance test cases are based on what?
a) Decision table b) Design c) Code d) Requirements

15. How much testing is enough?
a) This question is easy to answer b) This question is impossible to answer
c) The answer depends on the risk for your industry, contract and special requirements
d) This answer depends on the maturity of your developers

16. which of the following is the component test standard?
a) IEEE 610 b) IEEE 829 c) BS7925-1 d) BS7925-2

17. Which of the following is NOT a standard related to testing?
a) IEEE610 b) IEEE829 c) BS7925-1 d) BS7925-2

18. The standard that gives definitions of testing terms is:
a) ISO/IEC 12207 b) BS 7925-1 c) ANSI/IEEE 729 d) ANSI/IEEE 829

19. Which of the following is NOT true of incidents?
a) Incidents are raised when expected and actual results differ. b) Incidents may be raised against user requirements.
c) Incidents require investigation and/or correction.
d) Incident resolution is the responsibility of the author of the software under test.

20. Which of the following is false?
a) In a system two different failures may have different severities.
b) A fault need not affect the reliability of a system.
c) A system is necessarily more reliable after debugging for the removal of a fault.
d) Undetected errors may lead to faults and eventually to incorrect behavior.

21. Which of the following is the odd one out?
a) White box b) Functional c) Structural d) Glass box

22. Which of the following is a static test?
a) Coverage analysis b) Code inspection c) Usability assessment d) Installation test

23. Which of the following is a black box design technique?
a) statement testing b) error- guessing c) equivalence partitioning d) usability testing

24. Which of the following is not the integration strategy?
a) Design based b) Bottom-up c) Big-bang d) Top-down

25. Which of the following is NOT a reasonable test objective?
a) To find faults in the software b) To give confidence in the software
c) To prove that the software has no faults d) To find performance problems

26. Which of the following uses Impact Analysis most?
a) Non-functional system testing b) Component testing c) User acceptance testing
d) Maintenance testing

27. Expected results are:
a) Only important in system testing b) Most useful when specified in advance c) Only used in component testing d) Derived from the code

28. What type of review requires formal entry and exit criteria, including metrics?
a) Management review b) Inspection c) Walkthrough d) Post project review

29. The difference between re-testing and regression testing is:
a) Re-testing ensures the original fault has been removed; regression testing looks for unexpected side-effects
b) Re-testing looks for unexpected side-effects; regression testing ensures the original fault has been removed
c) Re-testing is done by developers; regression testing is done by independent testers
d) Re-testing is done after faults are fixed; regression testing is done earlier

30. Given the following types of tool, which tools would typically be used by developers, and which by an independent system test team?
i) Static analysis ii) performance testing iii. Test management iv) dynamic analysis
a) Developers would typically use i and iv; test team ii and iii
b) Developers would typically use i and iii; test team ii and iv
c) Developers would typically use i, iii and iv; test team ii
d) Developers would typically use ii and iv; test team i and iii

31. Functional system testing is:
a) Testing that the system functions with other systems
b) testing the end to end functionality of the system as a whole
c) Testing that the components that comprise the system function together
d) testing the system performs functions within specified response times

32. Which of the following items would not come under Configuration Management?
a) Operating systems b) Live data c) Test documentation d) User requirement documents

33. Incidents would not be raised against:
a) Requirements b) Documentation c) Improvements suggested by users d) Test cases

34. Maintenance testing is:
a) Testing to maintain business advantage b) Testing a released system that has been changed
c) Testing by users to ensure that the system meets a business need d) Updating tests when the software has changed

35. Which of the following techniques is NOT a black box technique?
a) State transition testing b) Syntax testing c) LCSAJ d) Boundary value analysis

36. What can static analysis NOT find?
a) Memory leaks b) Unreachable ("dead") code c) The use of a variable before it has been defined
d) Array bound violations

37. Which of the following is likely to benefit most from the use of test tools providing test capture and replay facilities?
a) Integration testing b) Regression testing c) System testing d) User acceptance testing

38. Which of the following requirements is testable?
a) The system shall be user friendly.
b) The response time shall be less than one second for the specified design load.
c) The safety-critical parts of the system shall contain 0 faults.
d) The system shall be built to be portable.

39.. In prioritizing what to test, the most important objective is to:
a) Test high risk areas. b) Find as many faults as possible. c) Obtain good test coverage.
d) Test whatever is easiest to test.

40. Which of the following is false?
a) An incident can be raised against documentation.
b) An incident occurs when expected and actual results differ.
c) Incidents can be analyzed to assist in test process improvement.
d) Incidents should always be fixed.

41. Identify the correct functional requirement.
a)Robustness b)Portability c)Maintainability d)None

42. Identify the correct measure for correctness.
a)Errors per KLOC b) $ per KLOC c)Defects per KLOC d)None

43. Identify the fault-based testing technique.
a)Beta testing b)Unit testing c)Mutation testing d)Stress testing

44. Identify the term which is not related to testing?
a)Failure b)error c)Test case d)Test bot

45. When can white-box testing be started?
a)After SRS creation b)after installation c) after programming d)After designing

46. By whom is unit testing done?
a)Users b)Customers c) Developers d)None

47. In which of the following categories can white-box testing be classified?
a)Design based testing b)Structural testing c)Error guessing technique d)None of the above

48. Identify the term which is used to define testing?
a)Finding broken code b)A stage of all projects c)Evaluating deliverables to find errors
d)None of the above

49. Identify the environment in which we can perform alpha testing?
a)User's end b)Developer's end c) Both a and b are correct d)None of the above

50. Choose the correct option which represents the key objective of integration testing?
a) Interface errors b) Procedure errors c) Design errors d) none of the above

ADICHUNCHANAGIRI INSTITUTE OF TECHNOLOGY CHIKKAMAGALURU

Department of Computer Science & Engineering

Summary Report

The course "**Software Testing**"was conducted at CS&E Dept from **25/01/2019 to 29/01/2019.**

This course helps the students to understand critical processes of the software development process life cycle. It helps the companies to perform a comprehensive assessment of software and ensure that their product fulfils the client's needs. The testing phases of the software development lifecycle help to identify all errors and bugs of any software to companies before it is implemented. If the software bugs are not solved or fixed before deployment they badly affect the client's business.

Course Outcomes

1. Understand and describe the basic concepts of functional (black box) software testing.
2. Identify a number of test styles and techniques and assess their usefulness in your context.
3. Understand the basic application of techniques used to identify useful ideas for tests.
4. Help determine the mission and communicate the status of your testing with the rest of your project team.
5. Understand where key testing concepts apply within the context of unified processes.

Instructor's Signature

HOD's Signature

Professor and H.O.D.
Department of Computer Science and Engg
Adichunchanagiri Institute of Technology
CHIKKAMAGALUR - 577102

ADD-ON Program

2021-22

ADD on Program

On

"Deep Learning :AI"

ADD-ON Course

On

"DEEP LEARNING:AI"

Organized by,

Department of Computer Science and Enginering.
Adichunchanagiri Institute of Technology,
Chikmagalur – 577102
Karnataka. India
www.aitchikmagalur.ac.in

About the College:

Adichunchanagiri Institute of Technology (AIT) was established in the year 1980 under the auspicious of **Adichunchanagiri Shikshana Trust(R)** with the blessings of Bhairavaikya **Jagadguru Padmabhushana Sri Sri Sri Dr. Balagangadharanatha Mahaswamiji** to provide technical and other professional education in the rural area of Chikmagalur, the land of Coffee. With the blessings of Jagadguru Sri. Sri. Sri. Nirmalanandanatha Swamiji, AIT is imparting the quality education in Engineering and Management with ethical and spiritual values. The engineering departments have recognized as research centers under VTU. The college has well equipped laboratory facilities and highly qualified and experienced faculty. The Institute is providing good training for students to excel in academics as well as in industry requirements and aims towards 100% placements to give a better future for students.

About the Department:

The Department of Computer Science and Engineering is established in the year 1986. It was earlier affiliated to the Mysore University later to the Kuvempu University and at present, it is affiliated to Visvesvaraya Technological University, Belagavi. The alumni of the department are working in various reputed organizations in India and abroad. The department is accredited twice by National Broad of Accreditation, New Delhi.
The department offers UG, PG Courses with an intake of 120 and 18 respectively and facilitates R&D through VTU recognized research center. The department has received funds from various reputed agencies like AICTE, VGST, KSCST, ISRO, ISTE, etc., for its activities.

Objectives of the Course:

Competence in technical writing holds great importance in the present era. Technical writing deals with specific knowledge, generally in the sphere of science and technology, and may be used in a wide variety of media: journal papers, thesis, project proposals, and other technical documents. DEEP LEARNING.AI is a document typesetting system that is used to produce high quality scientific documents, like articles, books, dissertations, technical reports, etc. Expertise in drafting technical documents is an indispensable skill for all professionals for it helps them to share their knowledge of technical subjects effectively in all domains of society and thus makes them competent in their professional careers

Resource Person:

Dr. Adarsh M J.

Associate Professor

Dept of CS&E, AIT, Chikkamagaluru

Convenor:

Dr Pushpa Ravi kumar, Professor and Head, Dept. of CS&E.

Coordinator:

Mr. S J Prashanth, Asst Professor,

Dept. CS&E, AIT, Chikkamagaluru

|| Jai Sri Gurudev ||

SRI ADICHUNCHANAGIRI SHIKSHANA TRUST ®
ADICHUNCHANAGIRI INSTITUTE OF TECHNOLOGY,
CHIKKAMAGALURU

P.B No.91,Adichunchanagiri Extension, Chikkamagaluru-577 102, Karnataka ,India.

Ref: AIT/IQAC/CSE/ /2018-2019

Date: 10/06/2018

Circular

Department of Computer Science & Engineering is conducting a Certificate Program (Add-on Program) on **"Deep Learning :AI [19CS_AC_013]** from **18-06-2018 to 02-07-2018** All other HOD's instruct the concern department students to attend the program. Following faculty member (Course instructor) is conducting a certificate program at CS&E Department.

Course Instructor

1. Prof. Vivekananda
   Assistant Professor
   Dept. of CS&E
   AIT Chikmagalur

2. Prof. S J Prashantha
   Assistant Professor
   Dept. of CS&E
   AIT Chikmagalur

Professor and H.O.D.
Department of Computer Science and Engg
Adichunchanagiri Institute of Technology
CHIKMAGALUR - 577102
HOD's Signature

Principal Signature
Dr. C.T. JAYADEVA
Principal B.E.,M.Tech.,Ph.D
Adichunchanagiri Institute of Technology
CHIKKAMAGALURU-577102

ADICHUNCHANAGIRI INSTITUTE OF TECHNOLOGY, CHIKKAMAGALURU

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Add on course – 30 Hours

ADD on Course Name: Deep Learning : AI

Course Code: 19CS_AC_013

Module 1: **10 Hours**

Basic Concepts of Machine Learning: Machine Learning Systems ,Supervised Learning , Learning Algorithms Parametric Models ,Cost functions ,Generalization ,Regularization ,Evaluation of a Binary Classifier , Confusion Matrix ,Receiver Operating, Characteristic Curve , Precision Recall Curve.

Module 2: **10 Hours**

Artificial Neural Networks: Basic Concepts ,Feed forward Neural Networks ,Single-Layer Perceptron ,Multilayer Perceptron ,ANN Learning Gradient Descent Methods ,Back-propagation Algorithm ,Regularization

Module 3: **10 Hours**

Convolutional Neural Networks :Convolution Operation . Convolution in Mathematic and Image Processing Convolution in Neuroscience ,Convolutional Network Architecture . Convolutional Layer . Pooling .. Batch Normalization . Main Concepts Behind CNNs . Local Receptive fields. Parameter Sharing . Popular CNN Architectures .

TEXT BOOKS:

1. **Neural Networks and Deep learning : A Text book by Charu C.Aggarrwal 2018**

ADICHUNCHANAGIRI INSTITUTE OF TECHNOLOGY, CHIKKAMAGALURU
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

ADD on Course Name: Deep Learning: AI

Course Code: 19CS_AC_013

Branch: CSE

Student Enrollment List

SI NO	NAME	USN	SIGNATURE
1	APOORVA S R	4AI14CS012	Apoorva SR
2	DEEKSHA K N	4AI14CS026	Deeksha
3	ABHISHEK G	4AI15CS002	Abhishek
4	CHANDANA P H	4AI15CS028	Chandana
5	KOUSHIK S D	4AI15CS051	Koushik S D
6	NIDHI A R	4AI15CS064	Nidhi
7	SIDDANTH B K	4AI15CS103	
8	ADYA H N	4AI16CS002	
9	AGNES SANMATHI D	4AI16CS003	
10	ALFIYA BANU	4AI16CS004	
11	ANANYA K V	4AI16CS006	Ananya
12	ANUSHA K N	4AI16CS007	
13	ANUVIKA A S	4AI16CS008	
14	ARVIND GIRISH	4AI16CS009	Arvind Girish
15	BABITHA B	4AI16CS011	Babitha
16	BHAGYASHREE H D	4AI16CS012	
17	BHOOMIKA G S	4AI16CS013	
18	BHOOMIKA K	4AI16CS014	Bhoom
19	BINDUSHREE C	4AI16CS015	
20	BINDUSREE B R	4AI16CS016	Bindushree R
21	BRUNDA D	4AI16CS017	
22	CHANDANA H Y	4AI16CS018	
23	CHINMAYEE	4AI16CS019	
24	CHINTHANA M C	4AI16CS021	
25	CHIRAG M R	4AI16CS022	Chirag
26	DEEPAK N R	4AI16CS023	Deepak N R
27	DEEPIKA D P	4AI16CS024	Deepika D P
28	GADDI CHETAN	4AI16CS025	
29	GOURAV B R	4AI16CS026	Gaurav
30	HARSHA H K	4AI16CS027	
31	JAYASHREE	4AI16CS028	
32	JEEVAN A S	4AI16CS029	Jeevan
33	KALPASHREE Y	4AI16CS030	
34	KARTHIK N L	4AI16CS031	Karthik N L
35	KAVYA S	4AI16CS032	Kavya S
36	KAVYA S K	4AI16CS033	Kavya S K
37	KAVYASHREE C M	4AI16CS034	Kavyashree
38	KHALEEL AHAMED	4AI16CS035	Khaleel
39	KOWSHIK V	4AI16CS036	Kowshik
40	KRUTHIKA G NAYAK	4AI16CS037	Kruthika G
41	LEANDRA MARIA MENDON	4AI16CS038	

42	MANISHA P BEERAIAH	4AI16CS040	
43	MEGHANA D Y	4AI16CS042	
44	MOHAMMED NIHAL KHAN	4AI16CS043	
45	MOUNA J	4AI16CS044	
46	NAMITHA M TAPSE	4AI16CS046	
47	NAVEEN P PARVATHANENI	4AI16CS047	
48	NAYANA K S	4AI16CS048	
49	NESARA B R	4AI16CS049	
50	NISCHITHA K S	4AI16CS051	
51	NISHANTH K R	4AI16CS052	
52	NISWARTH V SHETTY	4AI16CS053	
53	P PRADEEP KUMAR	4AI16CS054	
54	POOJA B R	4AI16CS055	
55	POOJA B S	4AI16CS056	
56	POOJA N K	4AI16CS057	
57	POOJA S	4AI16CS058	
58	POORNIMA C L	4AI16CS059	
59	RACHANA N VANAGUR	4AI16CS062	
60	RAHUL A	4AI16CS063	
61	RAHUL S	4AI16CS064	
62	POOJA C P	4AI16CS127	
63	ALFIYA SHAIK	4AI16CS130	
64	AMBIKA D P	4AI17CS400	
65	SHASHIKALA S	4AI17CS407	
66	VIJETHA B S	4AI17CS409	
67	SHREYA B R	4AI16CS085	
68	SHRIKARAN C N	4AI16CS086	
69	SHRUTHA R JAIN	4AI16CS087	
70	SIDDESH P	4AI16CS088	
71	SINCHANA S B	4AI16CS089	
72	SINCHANA S GOWDA	4AI16CS090	
73	SNEHA K	4AI16CS091	
74	SOUMYA H	4AI16CS092	
75	SOUNDARYA GOGATE T S	4AI16CS093	
76	SOURAB SAKLECHA	4AI16CS094	
77	SOWMYA M	4AI16CS095	
78	SPANDANA H P	4AI16CS096	
79	SPANDANA S	4AI16CS097	
80	SPARSHA B R	4AI16CS098	
81	SPOORTHI A N	4AI16CS099	
82	SRISTI BAGAMANE	4AI16CS100	
83	SRUSTI R B S	4AI16CS101	
84	SUMANTHA M K	4AI16CS102	
85	SUPRITH K	4AI16CS103	
86	SUPRIYA S K	4AI16CS104	
87	VAISHNAVI C O	4AI16CS114	

Course Instructor Signature

HOD Signature

Professor and Head
Department of Computer Science and Engg.
Adichunchanagiri Institute of Technology
CHIKKAMAGALUR - 577102

ADICHUNCHANAGIRI INSTITUTE OF TECHNOLOGY, CHIKKAMAGALURU
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

ADD on Course Name: Deep Learning :AI

Course Code : 19CS_AC_013

Branch: CSE

Students are identified for ADD on Course Classes based on their enrolment.
ADD on Course classes will be held during **18-06-2018 to 02-07-2018** at CS&E dept from 4-6pm

Attendance Report

SI NO	NAME	USN	During 18-06-2018 to 02-07-2018															Signature
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
1	APOORVA S R	4AI14CS012	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	APOORVA SR
2	DEEKSHA K N	4AI14CS026	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	DEEKSHA KN
3	ABHISHEK G	4AI15CS002	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	Abish
4	CHANDANA P H	4AI15CS028	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	Chan
5	KOUSHIK S D	4AI15CS051	P	P	P	P	P	P	P	P	P	P	A	A	P	P	P	Koush
6	NIDHI A R	4AI15CS064	P	P	P	P	P	P	P	P	P	P	A	A	P	P	P	Nidhi
7	SIDDANTH B K	4AI15CS103	P	P	P	P	P	P	P	A	A	A	P	P	P	P	P	Siddanth
8	ADYA H N	4AI16CS002	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Adya
9	AGNES SANMATHI D	4AI16CS003	P	P	P	P	P	P	P	A	A	P	P	P	P	P	P	Agnes Sanmathi D
10	ALFIYA BANU	4AI16CS004	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	Alfiya banu
11	ANANYA K V	4AI16CS006	P	A	P	A	P	P	P	P	P	P	P	A	P	P	P	Ananya
12	ANUSHA K N	4AI16CS007	P	P	P	P	P	P	A	A	A	A	P	P	P	P	P	Anusha
13	ANUVIKA A S	4AI16CS008	P	A	A	P	P	P	P	A	P	P	P	P	P	P	P	Anuvika
14	ARVIND GIRISH	4AI16CS009	P	P	P	P	P	P	P	P	P	P	P	A	A	P	A	Arvind
15	BABITHA B	4AI16CS011	P	P	A	A	P	P	P	P	P	P	A	P	P	P	P	Babi
16	BHAGYASHREE H D	4AI16CS012	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Bhagya
17	BHOOMIKA G S	4AI16CS013	P	P	P	P	P	P	P	A	A	A	P	P	P	P	P	Bhoo
18	BHOOMIKA K	4AI16CS014	P	P	P	P	P	A	A	P	P	P	P	P	P	P	P	Bhoom
19	BINDUSHREE C	4AI16CS015	P	P	P	P	P	P	P	P	P	A	P	P	P	A	P	Bindu
20	BINDUSREE B R	4AI16CS016	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	Bindu
21	BRUNDA D	4AI16CS017	P	P	P	P	P	P	A	A	P	P	P	P	P	P	P	Brunda
22	CHANDANA H Y	4AI16CS018	A	A	A	P	P	P	A	P	P	P	P	P	P	P	P	Chan
23	CHINMAYEE	4AI16CS019	P	P	P	A	P	P	A	P	P	P	P	A	P	P	P	Chin
24	CHINTHANA M C	4AI16CS021	A	A	P	P	P	P	P	P	P	P	A	P	P	P	P	Chin
25	CHIRAG M R	4AI16CS022	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Chirag
26	DEEPAK N R	4AI16CS023	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	Deep
27	DEEPIKA D P	4AI16CS024	P	A	P	P	A	P	P	P	P	P	P	P	P	A	P	P	Deepika
28	GADDI CHETAN	4AI16CS025	P	P	A	P	P	A	P	P	P	P	P	P	P	P	P	P	Gaddi
29	GOURAV B R	4AI16CS026	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	Gour
30	HARSHA H K	4AI16CS027	A	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	Harsh
31	JAYASHREE	4AI16CS028	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	A	Jaya
32	JEEVAN A S	4AI16CS029	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Jeeva
33	KALPASHREE Y	4AI16CS030	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	Kalpa
34	KARTHIK N L	4AI16CS031	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Karthik
35	KAVYA S	4AI16CS032	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Kavya
36	KAVYA S K	4AI16CS033	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	Kavya
37	KAVYASHREE C M	4AI16CS034	P	P	P	P	P	P	A	A	P	P	P	P	P	P	P	P	Kavya
38	KHALEEL AHAMED	4AI16CS035	P	P	A	P	P	P	P	P	P	P	P	P	A	P	P	P	Khalil

39	KOWSHIK V	4AI16CS036	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	Kat
40	KRUTHIKA G NAYAK	4AI16CS037	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Kruth
41	LEANDRA MARIA MENDON	4AI16CS038	A	P	P	P	P	P	P	P	P	A	A	P	P	P	P	P	Leand
42	MANISHA P BEERAIAH	4AI16CS040	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	mani
43	MEGHANA D Y	4AI16CS042	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	Meghana
44	MOHAMMED NIHAL KHAN	4AI16CS043	A	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	Mdnihal
45	MOUNA J	4AI16CS044	P	P	P	P	P	P	P	A	P	P	P	A	P	P	P	P	Mouna
46	NAMITHA M TAPSE	4AI16CS046	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	Namitha
47	NAVEEN P PARVATHANENI	4AI16CS047	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	Naveen
48	NAYANA K S	4AI16CS048	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Nay
49	NESARA B R	4AI16CS049	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Nesara
50	NISCHITHA K S	4AI16CS051	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Nisc
51	NISHANTH K R	4AI16CS052	P	P	P	A	P	P	A	P	P	P	P	P	P	P	P	P	Nishanth
52	NISWARTH V SHETTY	4AI16CS053	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	Niswarth
53	P PRADEEP KUMAR	4AI16CS054	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Pradeep
54	POOJA B R	4AI16CS055	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	Pooja
55	POOJA B S	4AI16CS056	A	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	Pooj
56	POOJA N K	4AI16CS057	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P
57	POOJA S	4AI16CS058	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Pooja
58	POORNIMA C L	4AI16CS059	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Poorn
59	RACHANA N VANAGUR	4AI16CS062	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	Rach
60	RAHUL A	4AI16CS063	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	Rahul
61	RAHUL S	4AI16CS064	A	A	P	P	P	P	P	P	P	P	P	A	P	P	P	P	Rahu
62	POOJA C P	4AI16CS127	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	POOJA
63	ALFIYA SHAIK	4AI16CS130	P	P	P	A	P	P	P	P	P	A	P	A	P	P	P	P	Alf
64	AMBIKA D P	4AI17CS400	P	A	P	P	P	P	P	P	P	P	A	P	P	P	P	P	Amb
65	SHASHIKALA S	4AI17CS407	P	P	A	P	P	P	P	P	P	P	P	P	P	A	P	P	Shas
66	VIJETHA B S	4AI17CS409	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	Vije
67	SHREYA B R	4AI16CS085	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	Shre
68	SHRIKARAN C N	4AI16CS086	P	P	A	A	P	P	P	P	P	P	P	P	P	P	P	P	Shri
69	SHRUTHA R JAIN	4AI16CS087	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	Shru
70	SIDDESH P	4AI16CS088	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Siddesh
71	SINCHANA S B	4AI16CS089	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	Sincha
72	SINCHANA S GOWDA	4AI16CS090	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	Sinch
73	SNEHA K	4AI16CS091	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Sneha
74	SOUMYA H	4AI16CS092	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Soum
75	SOUNDARYA GOGATE T S	4AI16CS093	P	P	P	P	P	A	A	P	P	P	P	P	P	P	P	P	Sou
76	SOURAB SAKLECHA	4AI16CS094	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Sourab
77	SOWMYA M	4AI16CS095	P	P	P	P	P	P	P	P	P	P	P	P	P	N	P	P	Sowm
78	SPANDANA H P	4AI16CS096	P	P	P	P	P	P	P	P	P	A	A	P	P	P	P	P	Spandan
79	SPANDANA S	4AI16CS097	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Spand
80	SPARSHA B R	4AI16CS098	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Spar
81	SPOORTHI A N	4AI16CS099	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	Spo
82	SRISTI BAGAMANE	4AI16CS100	P	P	P	P	A	P	P	P	P	P	A	P	P	P	P	P	Sris
83	SRUSTI R B S	4AI16CS101	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	Srus
84	SUMANTHA M K	4AI16CS102	P	P	P	P	P	P	A	A	P	P	P	P	P	P	P	P	Sumanth
85	SUPRITH K	4AI16CS103	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	Supri
86	SUPRIYA S K	4AI16CS104	P	P	P	P	P	P	P	A	A	A	A	P	P	P	P	P	Supr
87	VAISHNAVI C O	4AI16CS114	A	A	A	P	P	P	P	P	P	P	P	A	A	P	P	P	Vaish

Course Instructor Signature

HOD Signature

Professor and H.O.D.
Department of Computer Science and Engg.
Adichunchanagiri Institute of Technology
CHIKMAGALUR - 577102

ADICHUNCHANAGIRI INSTITUTE OF TECHNOLOGY, CHIKKAMAGALURU

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

ADD ON COURSE NAME: DEEP LEARNING: AI

COURSE CODE: 19CS_AC_013

ASSESSMENT QUESTIONS

LIST OF TOPPERS

Sl.No	Name of the Student	USN	Marks Scored
1	Vaishnavi C O	4AI16CS114	50
2	Sumantha M K	4AI16CS102	49
3	Sristi Bagamane	4AI16CS100	48

Signature of the H.O.D

Professor and H.O.D.
Department of Computer Science and Engg.
Adichunchanagiri Institute of Technology
CHIKMAGALUR - 577 102

||Jai Sri Gurudev||

Sri Adichunchanagiri Shikshana Trust (R)

ADICHUNCHANAGIRI INSTITUTEOF TECHNOLOGY

CHIKKAMAGALURU – 577 102

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Certificate of Participation

This is to certify that POOJA B R *has successfully completed the add on course on "***Deep Learning :AI***" from* **18-06-2018 to 02-07-2018** *organized by Department of Computer Science and Engineering.*

Prof. S J Prashantha
Staff co-ordinator

Prof. Vivekananda
Staff co-ordinator

Professor and H.O.D.
Dr. Pushpa Ravikumar
H.O.D.
Department of Computer Science and Engg.
Adichunchanagiri Institute of Technology
CHIKMAGALUR - 577102

ADICHUNCHANAGIRI INSTITUTE OF TECHNOLOGY, CHIKKAMAGALURU

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

ADD ON COURSE NAME: DEEP LEARNING: AI

COURSE CODE: 19CS_AC_013

ASSESSMENT QUESTIONS

35/50

Name of the Student: Apoorva. S.R

USN: HAI1HCS012

Max Marks: 50

1. Which of the following is a subset of machine learning?

A. Numpy B. SciPy C. Deep Learning D. All of the above

2. How many layers Deep learning algorithms are constructed?

A. 2 B. 3 C. 4 D. 5

3. The first layer is called the?

A. inner layer B. outer layer C. hidden layer D. None of the above

4. RNNs stands for?

A. Receives neural networks B. Report neural networks
C. Recording neural networks D. Recurrent neural networks

5. Which of the following is/are Common uses of RNNs?

A. Businesses Help securities traders to generate analytic reports
B. Detect fraudulent credit-card transaction
C. Provide a caption for images
D. All of the above

6. CNN is mostly used when there is an?

A. structured data B. unstructured data C. Both A and B D. None of the above

7. Which neural network has only one hidden layer between the input and output?

A. Shallow neural network B. Deep neural network
C. Feed-forward neural networks D. Recurrent neural networks

8. Deep learning algorithms are _____ more accurate than machine learning algorithm in image classificatio

A. 33% B. 37% C. 40% D. 41%

9. In which of the following applications can we use deep learning to solve the problem?

A. Protein structure prediction B. Prediction of chemical reactions

C. Detection of exotic particles D. All of the above

10. The number of nodes in the input layer is 10 and the hidden layer is 5.The maximum number of connections from the input layer to the hidden layer are

A. 50 B. less than 50 C. more than 50 D. It is an arbitrary value

11. The input image has been converted into a matrix of size 28 X 28 and a kernel/filter of size 7 X 7 with a stride of 1. What will be the size of the convoluted matrix?

A. 20x20 B. 21x21 C. 22x22 D. 25x25

12. In a simple MLP model with 8 neurons in the input layer, 5 neurons in the hidden layer and 1 neuron in the output layer. What is the size of the weight matrices between hidden output layer and input hidden layer?

A. [1 X 5] , [5 X 8] B. [5 x 1] , [8 X 5] C. [8 X 5] , [5 X 1] D. [8 X 5] , [1 X 5]

13. Which of the following functions can be used as an activation function in the output layer if we wish to predict the probabilities of n classes (p1, p2..pk) such that sum of p over all n equals to 1?

A. Softmax B. ReLu C. Sigmoid D. Tanh

14. Assume a simple MLP model with 3 neurons and inputs= 1,2,3. The weights to the input neurons are 4,5 and 6 respectively. Assume the activation function is a linear constant value of 3. What will be the output ?

A. 32 B. 64 C. 96 D. 128

15. Sentiment analysis using Deep Learning is a many-to one prediction task.

A. True B. False C. Can be true and false D. can not say

16. In CNN, having max pooling always decrease the parameters?

A. True B. False C. Can be true and false D. cannot say

17. When an experienced deep learning engineer works on a new problem, they can usually use insight from previous problems to train a good model on the first try, without needing to iterate multiple times through different models.?

A. True B. False

18. Which of the factors affect the performance of learner system does not include?

a) Representation scheme used b) Training scenario
c) Type of feedback d) Good data structures 0

19. Different learning methods does not include?

a) Memorization b) Analogy c) Deduction d) Introduction 1

20. In language understanding, the levels of knowledge that does not include?

a) Phonological b) Syntactic c) Empirical d) Logical 1

21. A model of language consists of the categories which does not include?

a) Language units b) Role structure of units c) System constraints d) Structural units 0

22. Among the following which is not a horn clause?

a) p b) Øp V q c) p → q d) p → Øq 0

23. Type of matrix decomposition model is_____

A. predictive model B. descriptive model C.logical model D.None 1

24. PCA is_____

A. backward feature selection B.forward feature selection.
C. feature extraction D. None of these 0

25. Supervised learning and unsupervised clustering both require which is correct according to the statement.

A. input attribute B. hidden attribute C.output attribute D.categorical attribute 1

26. Following are the types of supervised learning_____

A. Regression B. classification C. subgroup discovery D. All of above 1

27. A feature F1 can take certain value: A, B, C, D, E, & F and represents grade of students from a college. Here feature type is_____

A. Ordinal B. nominal C. categorical D. Boolean 0

28. Following is powerful distance metrics used by Geometric model_____

A. Manhattan distance B. Euclidean distance C. All of above D. None of above 0

29. The output of training process in machine learning is_____

A. Machine learning algorithm. B.Machine learning model C. Null D. accuracy 1

30. Which of the following is a good test dataset characteristic?

A. is representative of the dataset as a whole
B. large enough to yield meaningful results
C. All of above
D. None of above

31. Which of the following techniques would perform better for reducing dimensions of a data set?

A. removing columns which have high variance in data
B. removing columns which have too many missing value
C. removing columns with dissimilar data trends
D. None of the above

32. You are given reviews of few Netflix series marked as positive, negative and neutral. Classifying reviews o
a new Netflix series is an example of_____

A .unsupervised learning
B. semi supervised learning
C. supervised learning
D. reinforcement learning

33. Like the probabilistic view, the _____ view allows us to associate a probability of membership with each classification

A. Deductive B. exampler C. classical D. inductive

34. Database query is used to uncover this type of knowledge.

A. Hidden B. shallow C. Deep D. multidimensional

35. Data used to build a data mining model.

A. Training data B. hidden data C. test data D. validation data

36. If machine learning model output doesn't involves target variable then that model is called as_____

A. predictive model B. descriptive model C. reinforcement learning D. all of the above

37. In the example of predicting number of babies based on stork's population, Number of babies is_____

A. feature B. observation C.outcome D.attribute

38. Following are the descriptive models_____

A. Classification B. clustering C. association rule D. Both 1 and 2

39. What does dimensionality reduction reduce?

A. Collinearity B. stochastic C. entropy D. performance

40. Which of the following is the best machine learning method?

A. Accuracy B. scalable C. fast D. All of above 1

41. In multiclass classification number of classes must be_____

A. Equals to two B. less than two C. greater than two D. None 1

42. Which of the following can only be used when training data are linearly separable? 0

A. linear logistic regression B. linear hard-margin svm
C. linear soft margin svm D. parzen windows

43. Impact of high variance on the training set? 1

A. underfitting B. overfitting C.both underfitting & overfitting D. depends upon the dataset

44. The effectiveness of an SVM depends upon_____ 1

A. kernel parameters B. selection of kernel C. soft margin parameter D. All of the above

45. Feature can be used as a_____ 0

A. predictor B. binary split C. All of above D. None of above

46. Which of the following evaluation metrics can not be applied in case of logistic regression output to compare with target? 0

A. Accuracy B. auc-roc C. logloss D. mean-squared-error

47. A measurable property or parameter of the data-set is_____ 1

A. training data B. test data C. feature D. validation data

48. Support Vector Machine is_____ 1

A. geometric model B. probabilistic model C. logical model D. none

49. Imagine a Newly-Born starts to learn walking. It will try to find a suitable policy to learn walking after repeated falling and getting up. Specify what type of machine learning is best suited? 1

A. Regression B. means algorithm C. reinforcement learning D. None

50. Different learning methods does not include?

A. Deduction B. memorization C. analogy D. Introduction 1

ADICHUNCHANAGIRI INSTITUE OF TECHNOLOGY,CHIKKAMAGALURU-577102.

DEPARTMENT OF COPMUTER SCIENCE & ENGINEERING

Add-On Course on "**Deep Learning :AI**"

OVER ALL Add-On Course PARTICIPANTS FEEDBACK

Sl.No	DESCRIPTION	EXCELLENT	GOOD	POOR
1	How would you rate the presenter's knowledge on the concept?	✓		
2	How would you rate the concepts and Information provided by the Presenter?	✓		
3	What was your overall impression of the session?			✓
4	Remarks	Got some knowledge after attending the session.		

Signature of the Participants

ADICHUNCHANAGIRI INSTITUTE OF TECHNOLOGY CHIKKAMAGALURU

Department of Computer Science & Engineering

Summary Report

The course "**Deep Learning:AI**"was conducted at CS&E Dept from **18/06/2018 to 02/07/2018.**

The main objective of this course is to make students comfortable with tools and techniques required in handling large amounts of datasets. They will also uncover various deep learning methods in NLP, Neural Networks etc. Several libraries and datasets publicly available will be used to illustrate the application of these algorithms. This will help students in developing skills required to gain experience of doing independent research and study.

Course Outcomes

Students are able to

- Understand the informed and uninformed problem types and apply search strategies to solve them.
- Apply difficult real life problems in a state space representation so as to solve them using AI techniques like searching and game playing.
- Design and evaluate intelligent expert models for perception and prediction from intelligent environment.
- Formulate valid solutions for problems involving uncertain inputs or outcomes by using decision making techniques.
- Demonstrate and enrich knowledge to select and apply AI tools to synthesize information and develop models within constraints of application area.
- Examine the issues involved in knowledge bases, reasoning systems and planning

Instructor's Signature

HOD's Signature.

Professor and H.O.D.
Department of Computer Science and
Adichunchanagiri Institute of Technology
CHIKMAGALUR - 577102

Advance In Machine Learning

VIII "A" SECTION

SL.NO	USN	NAME
1	4AI15CS051	KOUSHIK S D
2	4AI15CS103	SIDDANTH B K
3	4AI16CS008	ANUVIKA A S
4	4AI16CS011	BABITHA B
5	4AI16CS012	BHAGYASHREE H D
6	4AI16CS021	CHINTHANA M C
7	4AI16CS023	DEEPAK N R
8	4AI16CS025	GADDI CHETAN
9	4AI16CS027	HARSHA H K
10	4AI16CS028	JAYASHREE H M
11	4AI16CS030	KALPASHREE Y
12	4AI16CS031	KARTHIK N L
13	4AI16CS036	KOWSHIK V
14	4AI16CS037	KRUTHIKA G NAYAK
15	4AI16CS040	MANISHA P BEERAIAH
16	4AI16CS042	MEGHANA D Y
17	4AI16CS047	NAVEEN P PARVATHANENI
18	4AI16CS048	NAYANA K S
19	4AI16CS051	NISCHITHA K S
20	4AI16CS054	P PRADEEP KUMAR
21	4AI16CS056	POOJA B S

Advance in Andriod Application Development

VIII "B" SECTION

SL.NO	USN	NAME
1	4AI14CS092	SHREYAS C B
2	4AI15CS063	NAVANEETH G D
3	4AI15CS102	SHUSHMA N GOWDA
4	4AI15CS112	SUMAN V H
5	4AI16CS065	RAKESH T
6	4AI16CS066	RAMANANDA S BHAT
7	4AI16CS067	RAMYA R
8	4AI16CS068	RAMYASHREE C A
9	4AI16CS078	SANJANA J
10	4AI16CS079	SANJANA R
11	4AI16CS082	SHARATH K R
12	4AI16CS086	SHRIKARAN C N
13	4AI16CS087	SHRUTHA R JAIN
14	4AI16CS088	SIDDESH P
15	4AI16CS093	SOUNDARYA GOGATE T S
16	4AI16CS095	SOWMYA M
17	4AI16CS099	SPOORTHI A N
18	4AI16CS101	SRUSTI R B S
19	4AI16CS102	SUMANTHA M K
20	4AI16CS103	SUPRITH K
21	4AI16CS104	SUPRIYA S K
22	4AI16CS105	SURYA C P
23	4AI16CS106	SUSHMA S
24	4AI16CS107	SUSHMITHA C S
25	4AI16CS109	SWATHI S
26	4AI16CS110	THATPRANA J S
27	4AI16CS111	THRUPTHI L C
28	4AI16CS112	TULASIDAS M NAIK
29	4AI16CS115	VAISHNAVI RAO
30	4AI16CS116	VAMSHI MOHAN REDDY
31	4AI16CS119	VEDA B
32	4AI16CS120	VEEKSHITH GOWDA Y M
33	4AI16CS121	VIKAS BHARADWAJ H G
34	4AI16CS122	VINDYA KOPPAD
35	4AI16CS123	VIVEKANANDA A M
36	4AI16CS126	YASHASWINI K
37	4AI16CS129	CHITRA R M
38	4AI16CS128	SHREYA K V
39	4AI17CS405	SARIKA T C

Advance In Machine Learning

VIII "B" SECTION

SL.NO	USN	NAME
1	4AI16CS039	MADHUMITHA K M
2	4AI16CS070	ROJA K S
3	4AI16CS072	SADVI N B
4	4AI16CS073	SAHANA DESAI
5	4AI16CS074	SAMRUDDHI D K
6	4AI16CS075	SAMRUDH PATEL D M
7	4AI16CS076	SAMRUDHI H R
8	4AI16CS077	SANDESH S
9	4AI16CS080	SANJANA R G
10	4AI16CS081	SAVEENA M M
11	4AI16CS085	SHREYA B R
12	4AI16CS089	SINCHANA S B
13	4AI16CS090	SINCHANA S GOWDA
14	4AI16CS091	SNEHA K
15	4AI16CS092	SOUMYA H
16	4AI16CS094	SOURAB SAKLECHA
17	4AI16CS096	SPANDANA H P
18	4AI16CS097	SPANDANA S
19	4AI16CS098	SPARSHA B R
20	4AI16CS100	SRISTI BAGAMANE
21	4AI16CS108	SWATHI B S
22	4AI16CS113	VAISHNAVI A R
23	4AI16CS114	VAISHNAVI C O
24	4AI16CS117	VARUN A S
25	4AI16CS118	VATSALYA H V
26	4AI16CS125	YASHASWINI C
27	4AI17CS402	DEEPA J M
28	4AI17CS408	SHREELAKSHMI M

CAPULUS TECHNOLOGIES PRIVATE LIMITED

Email: contact@capulustech.com
Website: www.capulustech.com
CIN U72900KA2017PTC103203
Ph: +91 8262 – 298089
Recognized Under #startupindia

Date: 07 / 03 / 2020

To,
The Head of Department,
Computer Science & Engineering,
AIT, Chikmagalur

Sub: Feedback on the Add-On course we conducted for the students of CS&E

Respected Madam,

With reference to the above subject, we are happy to have conducted the add-on course in the Department of Computer Science & Engineering on Advances in Android Application Development and Machine Learning.

First thing I have to say, the commitment of the students towards the add-on course was wonderful, that too in their vacation period. We could clearly see the urge in the students to learn new technologies and practical applications of those technologies. This helped us to conduct the course in a proactive manner. The attendance of the students throughout the course was overwhelming which showed their unconditional interest in the proceedings. It was a nice experience for us too, we always feel it interesting to communicate with the students with an urge to learn.

I would like to thank you ma'am on behalf of Capulus Technologies for the opportunity and support provided to us during the course. I would also like to thank the co-ordinators of the course Dr.Taranath N.L, Associate Professor, CS&E and Mr. Darshan L.M, Assistant Professor, CS&E for their support. We hope the add-on course was useful for the students and has achieved its intended outcome.

Yours' Faithfully

Nithin Kamath

(Nithin Kamath)
Executive Director
Capulus Technologies Private Limited

About Capulus Technologies

Capulus Technologies is a Private Limited Software Firm helping companies, industries, institutions and government manage complexities in their operations by providing them smart technology solutions. Since founding, Capulus Technologies has always believed in the highest level of integrity, followed a people-oriented approach, and given back to the society whenever possible. Capulus Technologies will continue to follow the principle of "client first" in providing reliable and highly effective services. Our practical knowledge and rich experiences allow us to provide comprehensive I.T services to our clients spread across various sectors starting from small businesses to various Government departments.

Capulus Technologies Private Limited is the company which developed the official app of Karnataka State Police which has been implemented state-wide across Karnataka.

The Company has wide experience in developing software applications according to the needs of the clients. The team has good domain expertise and have provided software solutions for various Government Departments as well as Private Companies. The company is recognized by Central Government under StartUp India initiative and has received a Certificate of Recognition.

07

Toppers in Add - On Course Test

Advances in Android Application Development:

Sl.No	Name	USN	MARKS OBTAINED
1	Niswarth V Shetty	4AI16CS053	22

Advances in machine Learning:

Sl.No	Name	USN	MARKS OBTAINED
1	Karthik N L	4AI16CS031	21

Signature of the HOD

Professor and H.O.D.
Department of Computer Science and Eng
Adichunchanagiri Institute of Technolog
CHIKMAGALUR - 577 102

Advance In Machine Learning

VIII "A" SECTION

SL.NO	USN	NAME	Signature
1	4AI15CS051	KOUSHIK S D	
2	4AI15CS103	SIDDANTH B K	
3	4AI16CS008	ANUVIKA A S	
4	4AI16CS011	BABITHA B	
5	4AI16CS012	BHAGYASHREE H D	
6	4AI16CS021	CHINTHANA M C	
7	4AI16CS023	DEEPAK N R	
8	4AI16CS025	GADDI CHETAN	
9	4AI16CS027	HARSHA H K	
10	4AI16CS028	JAYASHREE H M	
11	4AI16CS030	KALPASHREE Y	
12	4AI16CS031	KARTHIK N L	
13	4AI16CS036	KOWSHIK V	
14	4AI16CS037	KRUTHIKA G NAYAK	
15	4AI16CS040	MANISHA P BEERAIAH	
16	4AI16CS042	MEGHANA D Y	
17	4AI16CS047	NAVEEN P PARVATHANENI	
18	4AI16CS048	NAYANA K S	
19	4AI16CS051	NISCHITHA K S	
20	4AI16CS054	P PRADEEP KUMAR	
21	4AI16CS056	POOJA B S	

Advance In Machine Learning

VIII "B" SECTION

SL.NO	USN	NAME	Signature
1	4AI16CS039	MADHUMITHA K M	
2	4AI16CS070	ROJA K S	
3	4AI16CS072	SADVI N B	
4	4AI16CS073	SAHANA DESAI	
5	4AI16CS074	SAMRUDDHI D K	
6	4AI16CS075	SAMRUDH PATEL D M	
7	4AI16CS076	SAMRUDHI H R	
8	4AI16CS077	SANDESH S	
9	4AI16CS080	SANJANA R G	
10	4AI16CS081	SAVEENA M M	
11	4AI16CS085	SHREYA B R	
12	4AI16CS089	SINCHANA S B	
13	4AI16CS090	SINCHANA S GOWDA	
14	4AI16CS091	SNEHA K	
15	4AI16CS092	SOUMYA H	
16	4AI16CS094	SOURAB SAKLECHA	
17	4AI16CS096	SPANDANA H P	
18	4AI16CS097	SPANDANA S	
19	4AI16CS098	SPARSHA B R	
20	4AI16CS100	SRISTI BAGAMANE	
21	4AI16CS108	SWATHI B S	
22	4AI16CS113	VAISHNAVI A R	
23	4AI16CS114	VAISHNAVI C O	
24	4AI16CS117	VARUN A S	
25	4AI16CS118	VATSALYA H V	
26	4AI16CS125	YASHASWINI C	
27	4AI17CS402	DEEPA J M	
28	4AI17CS408	SHREELAKSHMI M	

Department of CS & E, AIT, Chikkamagaluru

Add on Course Test Advances in MACHINE LEARNING

1. **In Machine Learning if 'Answers' and 'Data' are given as input, what will we get as output?**
   a. Bugs
   b. Machine Learning
   c. Rules
   d. Answers

2. **What is the process in which weinstruct a computer what the data represents (i.e. data is for walking, data is for runningetc.,)**
   a. Categorizing the Data
   b. Labelling the Data
   c. Programming the Data
   d. Learning the Data

3. **What is a Dense in keras?**
   a. A single neuron
   b. A layer of connected neurons
   c. A layer of disconnected neurons
   d. Mass over Volume

4. **What does a Loss function do?**
   a. Figures out if you win or lose
   b. Generates a guess
   c. Decides to stop training a neural network
   d. Measures how good the current guess is

5. **What does the optimizer do?**
   a. Figures out how to efficiently compile your code
   b. Measures how good the current guess is
   c. Generates a new and improved guess
   d. Decides to stop training a neural network

6. **What is Convergence?**
   a. The unknown word in the ML class
   b. The process of getting very close to the correct answer
   c. A dramatic increase in loss
   d. A programming API for AI

7. **What does model.fit do?**
   a. It makes a model fit available memory
   b. It trains the neural network to fit one set of values to another
   c. It determines if your activity is good for your body
   d. It optimizes an existing model

8. **What do the Fashion MNIST Images look like?**
   a. 100x100 Color
   b. 28x28 3d
   c. 28x28 Color
   d. 28x28 Greyscale

9. **Why are there 10 output neurons while using MNIST data set?**
   a. Purely arbitrary
   b. There are 10 different labels
   c. To make it classify 10x faster
   d. To make it train 10x faster

10. What does Relu do?

a. For a value x, it returns 1/x
b. It only returns x if x is less than zero
c. It only returns x if x is greater than zero
d. It returns the negative of x

11. Why do you split data into training and test sets?

a. To test a network with previously unseen data
b. To train a network with previously unseen data
c. To make training quicker
d. To make testing quicker

12. What method gets called when an epoch finish?

a. on_epoch_finished()
b. on_epoch_end()
c. On_training_complete()
d. on_end()

13. What parameter do you set in your fit-function to use callbacks?

a. callback=[ ]
b. oncallback=[ ]
c. callbacks=[ ]
d. oncallbacks=[ ]

14. What is a Convolution?

a. A technique to make images smaller
b. A technique to filter out unwanted images
c. A technique to isolate features in images
d. A technique to make images bigger

15. What is a Pooling?

a. A technique to make images sharper
b. A technique to isolate features in images
c. A technique to reduce the information in an image while maintaining features
d. A technique to combine picture

16. After max pooling a 26x26 image with a 2x2 filter, how big will the output be?

a. 28x28
b. 26x26
c. 56x56
d. 13x13

17. Using Image Generator, how do you label images?

a. It's based on the file name
b. It's based on the directory the image is contained in
c. You have to manually do it
d. TensorFlow figures it out from the contents

18. What method on the Image Generator is used to normalize the image?

a. normalize_image=
b. normalize=
c. Rescale_image=
d. rescale=

19. When we specify the input_shape to be (300, 300, 3), what does that mean?

a. There will be 300 images, each size 300, loaded in batches of 3
b. Every Image will be 300x300 pixels, and there should be 3 Convolutional Layers
c. Every Image will be 300x300 pixels, with 3 bytes to define color
d. There will be 300 horses and 300 humans, loaded in batches of 3

20. If your training data is close to 1.000 accuracy, but your validation data isn't, what's the risk here?

a. You're overfitting on your training data
b. You're underfitting on your validation data
c. No risk, that's a great result
d. You're overfitting on your validation data

21. What does flow_from_directory give you on the ImageGenerator?

a. The ability to easily load images for training
b. The ability to pick the size of training images
c. The ability to automatically label images based on their directory name
d. All of the above

22. Why is the validation accuracy a better indicator of model performance than training accuracy?

a. It isn't, they're equally valuable
b. There's no relationship between them
c. The validation accuracy is based on images that the model hasn't been trained with, and thus a better indicator of how the model will perform with new images.
d. The validation dataset is smaller, and thus less accurate at measuring accuracy, so its performance isn't as important

23. If my training data only has people facing left, but I want to classify people facing right, how would I avoid overfitting?

a. Use the 'flip_vertical' parameter around the Y axis
b. Use the 'flip' parameter
c. Use the 'horizontal_flip' parameter
d. Use the 'flip' parameter and set 'horizontal

24. When training with augmentation, you noticed that the training is little slower. Why?

a. Because the image processing takes cycles
b. Because the augmented data is bigger
c. Because there is more data to train on
d. Because the training is making more mistake

25. When using Image Augmentation with the ImageDataGenerator, what happens to your raw image data on-disk.?

a. It gets overwritten, so be sure to make a backup
b. A copy is made and the augmentation is done on the copy
c. Nothing, all augmentation is done in-memory
d. It gets deleted

Name of the Student : VARUN.A.S

USN : 4AI16CS117

Marks Awarded :

||Jai Sri Gurudev||

Sri Adichunchanagiri Shikshana Trust ®

ADICHUNCHANAGIRI INSTITUTE OF TECHNOLOGY
CHIKKAMAGALURU-577102

DEPARTMENT OF
COMPUTER SCIENCE & ENGINEERING

CERTIFICATE OF APPRECIATION

*This is to certify that Mr./Ms.*_____

of 8th Semester has participated and qualified in the add-on Course on "Advances in Machine Learning" organized by Department of Computer Science & Engineering, AIT, Chikkamagaluru during 27th January to 8th February 2020 in association with Capulus Technologies Private Limited, Chikkamagaluru.

Executive Director
Capulus Technologies,
Chikkamagaluru

HOD, Dept. of CS&E
AIT,Chikkamagluru

Principal
AIT, Chikkamagaluru

132

||Jai Sri Gurudev||

Sri Adichunchanagiri Shikshana Trust ®

ADICHUNCHANAGIRI INSTITUTE OF TECHNOLOGY
CHIKKAMAGALURU-577102

DEPARTMENT OF
COMPUTER SCIENCE & ENGINEERING

CERTIFICATE OF APPRECIATION

*This is to certify that Mr./Ms.*_____

of 8th Semester has participated and qualified in the add-on Course on "Advances in Machine Learning" organized by Department of Computer Science & Engineering, AIT, Chikkamagaluru during 27th January to 8th February 2020 in association with Capulus Technologies Private Limited, Chikkamagaluru.

Executive Director
Capulus Technologies,
Chikkamagaluru

HOD, Dept. of CS&E
AIT,Chikkamagluru

Principal
AIT, Chikkamagaluru

133

|| Jai Sri Gurudev ||

Sri Adichunchanagiri Shikshana Trust (R)

ADICHUNCHANAGIRI INSTITUTE OF TECHNOLOGY

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Internship Practice on "Machine Learning and its Applications"

FEEDBACK FORM

Particulars	A	B	C	D
1. How was the overall organization of the Internship?	☑	☐	☐	☐
2. How were the Resource Persons?	☑	☐	☐	☐
3. Was the content of Presentation relevant and current?	☑	☐	☐	☐
4. How were the Different sessions?	☑	☐	☐	☐
5. Generally, how was the whole experience at the meeting.	☑	☐	☐	☐

6. Comments and Suggestions:

Sadvi A.B.

Signature

Note: **A:** Excellent **B:** Very Good **C:** Good **D:** Satisfactory

Advance In Machine Learning

VIII "A" SECTION

SL.NO	USN	NAME
1	4AI15CS051	KOUSHIK S D
2	4AI15CS103	SIDDANTH B K
3	4AI16CS008	ANUVIKA A S
4	4AI16CS011	BABITHA B
5	4AI16CS012	BHAGYASHREE H D
6	4AI16CS021	CHINTHANA M C
7	4AI16CS023	DEEPAK N R
8	4AI16CS025	GADDI CHETAN
9	4AI16CS027	HARSHA H K
10	4AI16CS028	JAYASHREE H M
11	4AI16CS030	KALPASHREE Y
12	4AI16CS031	KARTHIK N L
13	4AI16CS036	KOWSHIK V
14	4AI16CS037	KRUTHIKA G NAYAK
15	4AI16CS040	MANISHA P BEERAIAH
16	4AI16CS042	MEGHANA D Y
17	4AI16CS047	NAVEEN P PARVATHANENI
18	4AI16CS048	NAYANA K S
19	4AI16CS051	NISCHITHA K S
20	4AI16CS054	P PRADEEP KUMAR
21	4AI16CS056	POOJA B S

Advance in Andriod Application Development

VIII "B" SECTION

SL.NO	USN	NAME
1	4AI14CS092	SHREYAS C B
2	4AI15CS063	NAVANEETH G D
3	4AI15CS102	SHUSHMA N GOWDA
4	4AI15CS112	SUMAN V H
5	4AI16CS065	RAKESH T
6	4AI16CS066	RAMANANDA S BHAT
7	4AI16CS067	RAMYA R
8	4AI16CS068	RAMYASHREE C A
9	4AI16CS078	SANJANA J
10	4AI16CS079	SANJANA R
11	4AI16CS082	SHARATH K R
12	4AI16CS086	SHRIKARAN C N
13	4AI16CS087	SHRUTHA R JAIN
14	4AI16CS088	SIDDESH P
15	4AI16CS093	SOUNDARYA GOGATE T S
16	4AI16CS095	SOWMYA M
17	4AI16CS099	SPOORTHI A N
18	4AI16CS101	SRUSTI R B S
19	4AI16CS102	SUMANTHA M K
20	4AI16CS103	SUPRITH K
21	4AI16CS104	SUPRIYA S K
22	4AI16CS105	SURYA C P
23	4AI16CS106	SUSHMA S
24	4AI16CS107	SUSHMITHA C S
25	4AI16CS109	SWATHI S
26	4AI16CS110	THATPRANA J S
27	4AI16CS111	THRUPTHI L C
28	4AI16CS112	TULASIDAS M NAIK
29	4AI16CS115	VAISHNAVI RAO
30	4AI16CS116	VAMSHI MOHAN REDDY
31	4AI16CS119	VEDA B
32	4AI16CS120	VEEKSHITH GOWDA Y M
33	4AI16CS121	VIKAS BHARADWAJ H G
34	4AI16CS122	VINDYA KOPPAD
35	4AI16CS123	VIVEKANANDA A M
36	4AI16CS126	YASHASWINI K
37	4AI16CS129	CHITRA R M
38	4AI16CS128	SHREYA K V
39	4AI17CS405	SARIKA T C

Advance In Machine Learning

VIII "B" SECTION

SL.NO	USN	NAME
1	4AI16CS039	MADHUMITHA K M
2	4AI16CS070	ROJA K S
3	4AI16CS072	SADVI N B
4	4AI16CS073	SAHANA DESAI
5	4AI16CS074	SAMRUDDHI D K
6	4AI16CS075	SAMRUDH PATEL D M
7	4AI16CS076	SAMRUDHI H R
8	4AI16CS077	SANDESH S
9	4AI16CS080	SANJANA R G
10	4AI16CS081	SAVEENA M M
11	4AI16CS085	SHREYA B R
12	4AI16CS089	SINCHANA S B
13	4AI16CS090	SINCHANA S GOWDA
14	4AI16CS091	SNEHA K
15	4AI16CS092	SOUMYA H
16	4AI16CS094	SOURAB SAKLECHA
17	4AI16CS096	SPANDANA H P
18	4AI16CS097	SPANDANA S
19	4AI16CS098	SPARSHA B R
20	4AI16CS100	SRISTI BAGAMANE
21	4AI16CS108	SWATHI B S
22	4AI16CS113	VAISHNAVI A R
23	4AI16CS114	VAISHNAVI C O
24	4AI16CS117	VARUN A S
25	4AI16CS118	VATSALYA H V
26	4AI16CS125	YASHASWINI C
27	4AI17CS402	DEEPA J M
28	4AI17CS408	SHREELAKSHMI M

CAPULUS TECHNOLOGIES PRIVATE LIMITED

Email: contact@capulustech.com
Website: www.capulustech.com
CIN U72900KA2017PTC103203
Ph: +91 8262 – 298089
Recognized Under #startupindia

Date: 07 / 03 / 2020

To,
The Head of Department,
Computer Science & Engineering,
AIT, Chikmagalur

Sub: Feedback on the Add-On course we conducted for the students of CS&E

Respected Madam,

With reference to the above subject, we are happy to have conducted the add-on course in the Department of Computer Science & Engineering on Advances in Android Application Development and Machine Learning.

First thing I have to say, the commitment of the students towards the add-on course was wonderful, that too in their vacation period. We could clearly see the urge in the students to learn new technologies and practical applications of those technologies. This helped us to conduct the course in a proactive manner. The attendance of the students throughout the course was overwhelming which showed their unconditional interest in the proceedings. It was a nice experience for us too, we always feel it interesting to communicate with the students with an urge to learn.

I would like to thank you ma'am on behalf of Capulus Technologies for the opportunity and support provided to us during the course. I would also like to thank the co-ordinators of the course Dr.Taranath N.L, Associate Professor, CS&E and Mr. Darshan L.M, Assistant Professor, CS&E for their support. We hope the add-on course was useful for the students and has achieved its intended outcome.

Yours' Faithfully

Nithin Kamath

(Nithin Kamath)
Executive Director
Capulus Technologies Private Limited

About Capulus Technologies

Capulus Technologies is a Private Limited Software Firm helping companies, industries, institutions and government manage complexities in their operations by providing them smart technology solutions. Since founding, Capulus Technologies has always believed in the highest level of integrity, followed a people-oriented approach, and given back to the society whenever possible. Capulus Technologies will continue to follow the principle of "client first" in providing reliable and highly effective services. Our practical knowledge and rich experiences allow us to provide comprehensive I.T services to our clients spread across various sectors starting from small businesses to various Government departments.

Capulus Technologies Private Limited is the company which developed the official app of Karnataka State Police which has been implemented state-wide across Karnataka.

The Company has wide experience in developing software applications according to the needs of the clients. The team has good domain expertise and have provided software solutions for various Government Departments as well as Private Companies. The company is recognized by Central Government under StartUp India initiative and has received a Certificate of Recognition.

07

Toppers in Add - On Course Test

Advances in Android Application Development:

Sl.No	Name	USN	MARKS OBTAINED
1	Niswarth V Shetty	4AI16CS053	22

Advances in machine Learning:

Sl.No	Name	USN	MARKS OBTAINED
1	Karthik N L	4AI16CS031	21

Signature of the HOD

Professor and H.O.D.
Department of Computer Science and Eng
Adichunchanagiri Institute of Technolog
CHIKMAGALUR - 577 102

Advance In Machine Learning

VIII "A" SECTION

SL.NO	USN	NAME	Signature
1	4AI15CS051	KOUSHIK S D	
2	4AI15CS103	SIDDANTH B K	
3	4AI16CS008	ANUVIKA A S	
4	4AI16CS011	BABITHA B	
5	4AI16CS012	BHAGYASHREE H D	
6	4AI16CS021	CHINTHANA M C	
7	4AI16CS023	DEEPAK N R	
8	4AI16CS025	GADDI CHETAN	
9	4AI16CS027	HARSHA H K	
10	4AI16CS028	JAYASHREE H M	
11	4AI16CS030	KALPASHREE Y	
12	4AI16CS031	KARTHIK N L	
13	4AI16CS036	KOWSHIK V	
14	4AI16CS037	KRUTHIKA G NAYAK	
15	4AI16CS040	MANISHA P BEERAIAH	
16	4AI16CS042	MEGHANA D Y	
17	4AI16CS047	NAVEEN P PARVATHANENI	
18	4AI16CS048	NAYANA K S	
19	4AI16CS051	NISCHITHA K S	
20	4AI16CS054	P PRADEEP KUMAR	
21	4AI16CS056	POOJA B S	

Advance In Machine Learning

VIII "B" SECTION

SL.NO	USN	NAME	Signature
1	4AI16CS039	MADHUMITHA K M	
2	4AI16CS070	ROJA K S	
3	4AI16CS072	SADVI N B	
4	4AI16CS073	SAHANA DESAI	
5	4AI16CS074	SAMRUDDHI D K	
6	4AI16CS075	SAMRUDH PATEL D M	
7	4AI16CS076	SAMRUDHI H R	
8	4AI16CS077	SANDESH S	
9	4AI16CS080	SANJANA R G	
10	4AI16CS081	SAVEENA M M	
11	4AI16CS085	SHREYA B R	
12	4AI16CS089	SINCHANA S B	
13	4AI16CS090	SINCHANA S GOWDA	
14	4AI16CS091	SNEHA K	
15	4AI16CS092	SOUMYA H	
16	4AI16CS094	SOURAB SAKLECHA	
17	4AI16CS096	SPANDANA H P	
18	4AI16CS097	SPANDANA S	
19	4AI16CS098	SPARSHA B R	
20	4AI16CS100	SRISTI BAGAMANE	
21	4AI16CS108	SWATHI B S	
22	4AI16CS113	VAISHNAVI A R	
23	4AI16CS114	VAISHNAVI C O	
24	4AI16CS117	VARUN A S	
25	4AI16CS118	VATSALYA H V	
26	4AI16CS125	YASHASWINI C	
27	4AI17CS402	DEEPA J M	
28	4AI17CS408	SHREELAKSHMI M	

Department of CS & E, AIT, Chikkamagaluru

Add on Course Test Advances in MACHINE LEARNING

1. **In Machine Learning if 'Answers' and 'Data' are given as input, what will we get as output?**
   a. Bugs
   b. Machine Learning
   c. Rules
   d. Answers

2. **What is the process in which weinstruct a computer what the data represents (i.e. data is for walking, data is for runningetc.,)**
   a. Categorizing the Data
   b. Labelling the Data
   c. Programming the Data
   d. Learning the Data

3. **What is a Dense in keras?**
   a. A single neuron
   b. A layer of connected neurons
   c. A layer of disconnected neurons
   d. Mass over Volume

4. **What does a Loss function do?**
   a. Figures out if you win or lose
   b. Generates a guess
   c. Decides to stop training a neural network
   d. Measures how good the current guess is

5. **What does the optimizer do?**
   a. Figures out how to efficiently compile your code
   b. Measures how good the current guess is
   c. Generates a new and improved guess
   d. Decides to stop training a neural network

6. **What is Convergence?**
   a. The unknown word in the ML class
   b. The process of getting very close to the correct answer
   c. A dramatic increase in loss
   d. A programming API for AI

7. **What does model.fit do?**
   a. It makes a model fit available memory
   b. It trains the neural network to fit one set of values to another
   c. It determines if your activity is good for your body
   d. It optimizes an existing model

8. **What do the Fashion MNIST Images look like?**
   a. 100x100 Color
   b. 28x28 3d
   c. 28x28 Color
   d. 28x28 Greyscale

9. **Why are there 10 output neurons while using MNIST data set?**
   a. Purely arbitrary
   b. There are 10 different labels
   c. To make it classify 10x faster
   d. To make it train 10x faster

10. What does Relu do?

a. For a value x, it returns 1/x
b. It only returns x if x is less than zero
c. It only returns x if x is greater than zero
d. It returns the negative of x

11. Why do you split data into training and test sets?

a. To test a network with previously unseen data
b. To train a network with previously unseen data
c. To make training quicker
d. To make testing quicker

12. What method gets called when an epoch finish?

a. on_epoch_finished()
b. on_epoch_end()
c. On_training_complete()
d. on_end()

13. What parameter do you set in your fit-function to use callbacks?

a. callback=[ ]
b. oncallback=[ ]
c. callbacks=[ ]
d. oncallbacks=[ ]

14. What is a Convolution?

a. A technique to make images smaller
b. A technique to filter out unwanted images
c. A technique to isolate features in images
d. A technique to make images bigger

15. What is a Pooling?

a. A technique to make images sharper
b. A technique to isolate features in images
c. A technique to reduce the information in an image while maintaining features
d. A technique to combine picture

16. After max pooling a 26x26 image with a 2x2 filter, how big will the output be?

a. 28x28
b. 26x26
c. 56x56
d. 13x13

17. Using Image Generator, how do you label images?

a. It's based on the file name
b. It's based on the directory the image is contained in
c. You have to manually do it
d. TensorFlow figures it out from the contents

18. What method on the Image Generator is used to normalize the image?

a. normalize_image=
b. normalize=
c. Rescale_image=
d. rescale=

19. When we specify the input_shape to be (300, 300, 3), what does that mean?

a. There will be 300 images, each size 300, loaded in batches of 3
b. Every Image will be 300x300 pixels, and there should be 3 Convolutional Layers
c. Every Image will be 300x300 pixels, with 3 bytes to define color
d. There will be 300 horses and 300 humans, loaded in batches of 3

20. If your training data is close to 1.000 accuracy, but your validation data isn't, what's the risk here?

a. You're overfitting on your training data
b. You're underfitting on your validation data
c. No risk, that's a great result
d. You're overfitting on your validation data

21. What does flow_from_directory give you on the ImageGenerator?

a. The ability to easily load images for training
b. The ability to pick the size of training images
c. The ability to automatically label images based on their directory name
d. All of the above

22. Why is the validation accuracy a better indicator of model performance than training accuracy?

a. It isn't, they're equally valuable
b. There's no relationship between them
c. The validation accuracy is based on images that the model hasn't been trained with, and thus a better indicator of how the model will perform with new images.
d. The validation dataset is smaller, and thus less accurate at measuring accuracy, so its performance isn't as important

23. If my training data only has people facing left, but I want to classify people facing right, how would I avoid overfitting?

a. Use the 'flip_vertical' parameter around the Y axis
b. Use the 'flip' parameter
c. Use the 'horizontal_flip' parameter
d. Use the 'flip' parameter and set 'horizontal

24. When training with augmentation, you noticed that the training is little slower. Why?

a. Because the image processing takes cycles
b. Because the augmented data is bigger
c. Because there is more data to train on
d. Because the training is making more mistake

25. When using Image Augmentation with the ImageDataGenerator, what happens to your raw image data on-disk.?

a. It gets overwritten, so be sure to make a backup
b. A copy is made and the augmentation is done on the copy
c. Nothing, all augmentation is done in-memory
d. It gets deleted

Name of the Student : VARUN.A.S

USN : 4AI16CS117

Marks Awarded :

||Jai Sri Gurudev||

Sri Adichunchanagiri Shikshana Trust ®

ADICHUNCHANAGIRI INSTITUTE OF TECHNOLOGY
CHIKKAMAGALURU-577102

DEPARTMENT OF
COMPUTER SCIENCE & ENGINEERING

CERTIFICATE OF APPRECIATION

*This is to certify that Mr./Ms.*_____

of 8th Semester has participated and qualified in the add-on Course on "Advances in Machine Learning" organized by Department of Computer Science & Engineering, AIT, Chikkamagaluru during 27th January to 8th February 2020 in association with Capulus Technologies Private Limited, Chikkamagaluru.

Executive Director
Capulus Technologies,
Chikkamagaluru

HOD, Dept. of CS&E
AIT,Chikkamagluru

Principal
AIT, Chikkamagaluru

132

||Jai Sri Gurudev||

Sri Adichunchanagiri Shikshana Trust ®

ADICHUNCHANAGIRI INSTITUTE OF TECHNOLOGY
CHIKKAMAGALURU-577102

DEPARTMENT OF
COMPUTER SCIENCE & ENGINEERING

CERTIFICATE OF APPRECIATION

*This is to certify that Mr./Ms.*_____

of 8th Semester has participated and qualified in the add-on Course on "Advances in Machine Learning" organized by Department of Computer Science & Engineering, AIT, Chikkamagaluru during 27th January to 8th February 2020 in association with Capulus Technologies Private Limited, Chikkamagaluru.

Executive Director
Capulus Technologies,
Chikkamagaluru

HOD, Dept. of CS&E
AIT,Chikkamagluru

Principal
AIT, Chikkamagaluru

133

|| Jai Sri Gurudev ||

Sri Adichunchanagiri Shikshana Trust (R)

ADICHUNCHANAGIRI INSTITUTE OF TECHNOLOGY

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Internship Practice on "Machine Learning and its Applications"

FEEDBACK FORM

Particulars	A	B	C	D
1. How was the overall organization of the Internship?	☑	☐	☐	☐
2. How were the Resource Persons?	☑	☐	☐	☐
3. Was the content of Presentation relevant and current?	☑	☐	☐	☐
4. How were the Different sessions?	☑	☐	☐	☐
5. Generally, how was the whole experience at the meeting.	☑	☐	☐	☐

6. Comments and Suggestions:

Sadvi A.B.

Signature

Note: **A:** Excellent **B:** Very Good **C:** Good **D:** Satisfactory

ADD-ON Program

2021-22