

ADITYA ENGINEERING COLLEGE

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Aditya Nagar, ADB Road, Surampalem - 533437, Near Kakinada, E.G.Dt., Ph:99498 76662

Program Name : M.Tech. in Computer Science and Engineering

Syllabus Revision for the Academic Year 2021-2022				
S.No	Semester	Course Code	Course Name	% of content revised for the existing year
1	I	192CS1T01	Mathematical Foundations of Computer Science	0
2	I	192CS1T02	Advanced Data Structures & Algorithms	0
3	I	192CS1E01	Big Data Analytics	0
4	I	192CS1E02	Digital Image Processing	20
5	I	192CS1E03	Advanced Operating Systems	0
6	I	192CS1E04	Advanced Computer Networks	0
7	I	192CS1E05	Internet of Things	0
8	I	192CS1E06	Object Oriented Software Engineering	0
9	I	192HS1T01	Research Methodology and IPR	0
10	I	192CS1L01	Advanced Data Structures & Algorithms Lab	0
11	I	192CS1L02	Advanced Computing Lab	0
12	II	192CS2T03	Machine learning	0
13	II	192CS2T04	MEAN Stack Technologies	0
14	II	192CS2E07	Advanced Databases and Mining	0
15	II	192CS2E08	Ad Hoc & Sensor Networks	0
16	II	192CS2E09	Soft Computing	20
17	II	192CS2E10	Cloud Computing	0
18	II	192CS2E11	Principles of computer security	20
19	II	192CS2E12	High Performance Computing	0
20	II	192CS2L03	Machine Learning with Python lab	0
21	II	192CS2L04	MEAN Stack Technologies Lab	0
22	II	192CS2P01	Mini Project with Seminar	0


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S.No	Semester	Course Code	Course Name	% of content revised for the existing year
23	I/II	192MC1A01// 192MC2A01	English for Research Paper Writing	0
24	I/II	191MC2A02 /192MC2A02	Disaster Management	0
25	I/II	192MC1A03// 192MC2A03	Sanskrit for Technical Knowledge	0
26	I/II	192MC1A04/I 92MC2A04	Value Education	0
27	I/II	192MC1A05/I 92MC2A05	Constitution of India	0
28	I/II	192MC1A06 /192MC2A06	Pedagogy Studies	0
29	I/II	192MC1A07 /192MC2A07	Stress Management by Yoga	0
30	I/II	192MC1A08 /192MC2A08	Personality Development through Life Enlightenment Skills	0
31	I/II	192MC1A09 /192MC2A09	Soft Skills	0
32	III	192CS3P02	Dissertation-I/ Industrial Project	0
33	III	192CS3E13	Deep Learning	0
34	III	192CS3E14	Social Network Analysis	0
35	III	192ST3O01	Repair & Rehabilitation of Structures	0
36	III	192ST3O02	Green Building Systems	0
37	III	192ST3O03	Basic Concrete Technology	0
38	III	192ST3O04	Basic Foundation Engineering	0
39	III	192PD3O01	Renewable Energy Technologies	0
40	III	192PD3O02	Hybrid Electric Vehicles	0
41	III	192PD3O03	Energy Audit and conservation Management	0
42	III	192PD3O04	Neural Networks and Fuzzy Logic	0
43	III	192PD3O05	Industrial Safety	0
44	III	192PD3O06	Composite Materials	0
45	III	192TE3O01	Energy Systems	0
46	III	192TE3O02	Fuels and Combustion	0
47	III	192TE3O03	Green Engineering Technology	0


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S.No	Semester	Course Code	Course Name	% of content revised for the existing year
48	III	192TE3O04	IC Engines	0
49	III	192TE3O05	Automotive Technology	0
50	III	192ES3O01	Embedded System Design	0
51	III	192ES3O02	Digital System Design	0
52	III	192ES3O03	Programming Languages for Embedded Systems	0
53	III	192ES3O04	Sensors & Actuators	0
54	III	192VD3O01	Physical Design Automation	0
55	III	192VD3O02	VLSI Technology	0
56	III	192VD3O03	Nano-electronics	0
57	III	192CS3O05	Artificial Intelligence	0
58	III	192CS3O06	Deep Learning	0
59	III	192PE3O01	Introduction to Petroleum Engineering	0
60	III	192PE3O02	Process Intensification	0
61	III	192PE3O03	Fundamentals of Liquefied Natural Gas	0
62	III	192PE3O04	Subsea Engineering	0
63	III	192PE3O05	Geology	0
64	III	192PE3O06	HSE in Petroleum Industry	0
65	IV	192CS4P03	Dissertation-II	0

Total number of courses in the academic year 2021-2022	= 65
Number of courses having revision in syllabus content $\geq 20\%$ in the academic year 2021-2022	= 3
Percentage of syllabus revision carried out in the academic year 2021-2022 = $(3/65)*100$	= 4.61%


Program Coordinator


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Head of the Department
Head of the Department
Department of CSE

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Department of Computer Science and Engineering

Date: 30-04-2022

Minutes of the VIII meeting of BoS scheduled on 27-04-2022

The VIII meeting of the BoS of CSE was held on 27-04-2022 at 10.00 AM at Ajivika Conference Hall. Prof A. Vanathi, Chairperson presided over the meeting.

Agenda 8.1: Welcome address by Chairperson.

Prof. A. Vanathi, BoS Chairperson invited the distinguished members of BoS to the VIII BoS Meeting.

Agenda 8.2: Ratification of minutes of the previous Board of Studies meeting

The BoS members have ratified the points discussed in the previous Board of Studies meeting held on 01/10/2021.

Agenda 8.3: Discussion on proposed AR20 B. Tech (CSE) Program –V, VI, VII & VIII semesters syllabus and ratification of the same.

The BoS members approved the AR 20 B. Tech (CSE) V, VI, VII and VIII semesters syllabus after making the following changes in the proposed syllabi.

- Suggested to include modify the reference links.
- Suggested to add some programs to DAA course and to include a reference book by Skeina.
- Suggested to add the weblink for DMDW course
- Suggested to add Functional programming and knowledge graph and to remove old topics expert systems
- Suggested
- Suggested to include Textbook written by Dr. N.B. Venkateshwarlu
- Suggested to add specific weblinks for the Skill oriented course and also share the syllabus of Robotic Process Automation course to ratify.
- Suggested to add the weblink of Mitesh Khapra, IIT Madras Machine Learning
- Suggested to swap Text book 1 with Text book 2 for the course Distributed Systems.
- Suggested to include weblink of NPTEL for the course Cyber Security
- Dr. M. N. Murthy, shared a material offered by Stanford university, suggested to utilize that for the course Social Networks and Semantic Web.

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- Suggested to include a textbook "Neural Networks and Deep Learning" by Charu C. Agarwal.

Agenda 8.4: Discussion on proposed syllabus for courses in V to VII Semester under Honors and Minor Degree and ratification of the same.

BoS members ratified the syllabus of Honor Degree. For Minor Degree, the members of BoS suggested to change the title of courses offered.

Agenda 8.5: Discussion on the value-added courses offered for students and ratification of the same.

- BoS members approved the list of value-added courses offered to students.
- BoS members suggested to add courses based on Hardware and Networking, which benefits the students who are not good at coding.

Agenda 8.6: Discussion on the new courses offered in all the programs and ratification of the same.

Members of BOS noted the new courses offered in the B. Tech (CSE) & M. Tech (CSE) programs and ratified the same. The percentage of new courses introduced during the academic year 2021-22 for B.Tech (CSE) is 16.56 %. The list of new courses is enclosed as Annexure-I.

Agenda 8.7: Discussion on the percentage of syllabus revision done in B. Tech (CSE) and M. Tech (CSE) program and ratification of the same.

The syllabus revision was done in B. Tech (CSE) & M. Tech (CSE) program based on the stakeholders feedback on Curriculum. The BoS members have approved and ratified all the syllabus revisions in B. Tech (CSE) & M. Tech (CSE). The percentage of courses revised in this academic year 2021-22 for B. Tech (CSE) is 44.37 % and M. Tech (CSE) is 4.61 %. The list of courses revised is enclosed as Annexure-II.

Agenda 8.8: Discussion on the courses having focus on Employability / Entrepreneurship / Skill development in B. Tech (CSE) & M. Tech (CSE) programs and ratification of the same.

The members of BOS ratified the courses having focus on employability/entrepreneurship/skill development in the B. Tech (CSE) & M. Tech (CSE) program.

Agenda 8.9: Discussion on all the programs in which Choice Based Credit System (CBCS)/Elective course system is being implemented and ratification of the same.

Members of BOS ratified the Choice Based Credit System (CBCS)/elective course system that is being implemented in B. Tech (CSE) and M. Tech (CSE) programs.

Agenda 8.10: Analysis of Stakeholders feedback on Curriculum.

The BoS Chairperson presented the analysis of Feedback on Curriculum which is taken from the various Stakeholders. The Action Taken Report is enclosed as Annexure-III.

Agenda 8.11: Analysis of Results of the Odd semester of the academic year 2021-22.

- The BoS Chairperson presented the odd semester pass percentage for the A.Y.2021-2022. The BoS members noted the same and appreciated the faculty members.
- BoS members suggested to present the students results in grade wise and subject wise. And also, to present the number of students who cleared all the subjects at the first attempt.

Agenda 8.12: Analysis of Students Feedback in the Odd semester of the academic year 2021-22.

- BOS Chairperson presented the student feedback percentage and action taken report. The BOS members noted the same.
- BoS members suggested to present the feedback with the student's remarks.

Agenda 8.13: Any other item with the approval of Chairman.

- Suggested to conduct Alumni meet frequently. And suggested to form a mentor group of Alumni students of different domains and to make them to guide the students on different technologies.
- Suggested to concentrate on CO-PO mapping for all courses.
- Suggested to include text book of new editions for all the courses.


Agenda 8.14: Scheduling of next Board of Studies meeting.

- The next BoS meeting is tentatively scheduled in the month of September 2022.

Agenda 8.15: Vote of Thanks

Prof. A. Vanathi, BoS Chairperson presented the Vote of thanks.


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Annexure-I

List of New Courses in the Academic Year 2021-22

S. No	Program	Semester	Course Code	Course Name
1	B. Tech (CSE)	III	201CS3T02	Object Oriented Programming through C++
2	B. Tech (CSE)	III	201CS3L01	Object Oriented Programming through C++ Lab
3	B. Tech (CSE)	III	201CS3L03	Unix and Shell Programming Lab
4	B. Tech (CSE)	III	201SC3L05	Applications of python-numpy
5	B. Tech (CSE)	III	201SC3L06	Web application development using full stack frontend development-module -I
6	B. Tech (CSE)	IV	201SC4L18	Applications of python-pandas
7	B. Tech (CSE)	IV	201SC4L19	Web Application development using full stack frontend development - Module-II
8	B. Tech (CSE)	IV	201CS4L05	Java Programming Lab
9	B. Tech (CSE)	IV	201CS4L06	R Programming Lab
10	B. Tech (CSE)	V	191CS5E04	Functional and Logic Programming
11	B. Tech (CSE)	V	191CS5E02	Artificial Intelligence
12	B. Tech (CSE)	V	191CS5E05	Software Requirement and Estimation
13	B. Tech (CSE)	V	191CE5O01	Basic Concrete Technology
14	B. Tech (CSE)	V	191EE5O01	Electrical Safety
15	B. Tech (CSE)	V	191EE5O02	Electrical Materials
16	B. Tech (CSE)	V	191EE5O03	Basic Electrical Measurements

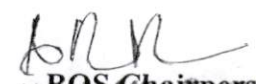
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17	B. Tech (CSE)	V	191ME5O01	Renewable Energy Sources
18	B. Tech (CSE)	V	191ME5O02	Fundamentals of Mechanical Engineering
19	B. Tech (CSE)	V	191ME5O03	Supply Chain Management
20	B. Tech (CSE)	V	191ME5O04	3D Printing
21	B. Tech (CSE)	V	191ME5O05	Entrepreneurship Development and Incubation
22	B. Tech (CSE)	V	191EC5O01	Signals & Systems
23	B. Tech (CSE)	V	191EC5O02	Digital Electronics and Logic Design
24	B. Tech (CSE)	V	191EC5O03	Semi conductor devices
25	B. Tech (CSE)	V	191IT5O01	Data Base Management Systems
26	B. Tech (CSE)	V	191IT5O02	Computer Graphics
27	B. Tech (CSE)	V	191MI5O01	Overview of Mining
28	B. Tech (CSE)	V	191PT5O01	Process Intensification in Petroleum Industry
29	B. Tech (CSE)	V	191PT5O02	Fundamentals of Petroleum Industry
30	B. Tech (CSE)	V	191AG5O01	Basic Crop Production Practices
31	B. Tech (CSE)	V	191CS5L04	Operating Systems and Computer Networks Lab
32	B. Tech (CSE)	V	191PR5P02	Socially Relevant Project
33	B. Tech (CSE)	VI	191CS6T13	Object Oriented Analysis and Design
34	B. Tech (CSE)	VI	191CS6E09	Scripting languages
35	B. Tech (CSE)	VI	191CS6E06	Advance Operating Systems
36	B. Tech (CSE)	VI	191CS6E11	C# .Net
37	B. Tech (CSE)	VI	191CS6E13	Distributed Systems
38	B. Tech (CSE)	VI	191CS6E14	Natural Language Processing
39	B. Tech (CSE)	VI	191CE6O02	Disaster Management
40	B. Tech (CSE)	VI	191EE6O04	Energy Audit and Conservation Management

41	B. Tech (CSE)	VI	191EE6O05	Non Conventional Energy resources
42	B. Tech (CSE)	VI	191EE6O06	Instrumentation
43	B. Tech (CSE)	VI	191ME6O06	Solar Energy Utilisation
44	B. Tech (CSE)	VI	191ME6O07	Basic Thermodynamics and Heat Transfer
45	B. Tech (CSE)	VI	191ME6O08	Introduction to Hydraulics and Pneumatics
46	B. Tech (CSE)	VI	191ME6O09	3D Printing
47	B. Tech (CSE)	VI	191ME6O11	Robotics
48	B. Tech (CSE)	VI	191ME6O12	Management Science
49	B. Tech (CSE)	VI	191EC6O04	Entrepreneurship Development and Incubation
50	B. Tech (CSE)	VI	191EC6O05	Biomedical Instrumentation
51	B. Tech (CSE)	VI	191ME6O08	ECAD Tools
52	B. Tech (CSE)	VI	191IT6O03	Computer Organization
53	B. Tech (CSE)	VI	191IT6O04	AI Tools & Techniques
54	B. Tech (CSE)	VI	191IT6O05	Robotic Process Automation
55	B. Tech (CSE)	VI	191MI6O02	Industrial Safety Practices
56	B. Tech (CSE)	VI	191MI6O03	Electrical Equipment's in Mines
57	B. Tech (CSE)	VI	191PT6O03	Unconventional Hydrocarbon Resources
58	B. Tech (CSE)	VI	191PT6O04	Asset Management
59	B. Tech (CSE)	VI	191AG6O02	Weather forecast in Agriculture
60	B. Tech (CSE)	VI	191AG6O03	Bio-energy systems design and applications
61	B. Tech (CSE)	VI	191CS6L06	Data Mining and Object Oriented Analysis and Design Lab


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Annexure-II

List of Courses Revised in the Academic Year 2021-22

S. No	Program	Semester	Course Code	Course Name
1	B. Tech (CSE)	III	201CS3T01	Advanced Data Structures
2	B. Tech (CSE)	III	201CS3T03	Operating Systems
3	B. Tech (CSE)	III	201CS3T04	Software Engineering
4	B. Tech (CSE)	VI	191CS6T14	Web Technologies
5	B. Tech (CSE)	VI	191CS6E10	Software Testing Methodologies
6	B. Tech (CSE)	VI	191CS6E07	Image Processing
7	M. Tech (CSE)	I	192CS1E02	Digital Image Processing
8	M. Tech (CSE)	II	192CS2E09	Soft Computing
9	M. Tech (CSE)	II	192CS2E11	Principles of computer security


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Annexure-III

Action Taken Report on Stakeholders Feedback in the Academic Year 2021-22

S. No	Agenda Item No.	Stakeholders Recommended	Action Taken
1	8.10	It is better to offer the data Structure and C++ courses separately.	As per the suggestions, the Object-Oriented Programming through C++ course is offered separately in the III semester of AR 20 curriculum.
		Apart from the regular academic curriculum, students should be exposed to latest technological trends.	Thrust areas courses are introduced in the Professional and Open Electives. The trainings on various domains of technical content are given to the students.
		Introduce Personality development courses.	Introduce Personality development courses in new syllabi.
2	8.10	Need to improve the aptitude skills and Technical skills like coding.	Encouragement is provided to improve aptitude skills by training programs and Active Learning Strategies to get clear knowledge of the various concept of coding
		Industrial Visits like ISRO, Power plant should be made as mandatory for the students.	Students are taken to Industrial visit and made them to get knowledge on Space research and Technical activities and assembling of rocket are displayed clearly.
		Conduct activities to enhance	Guest Lecture series and

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		teaching skills of students	national conferences, Celebration of national Science Day (NSD), National Mathematics Day (NMD) and National Statistics Day (NSD) Celebration are organized
3	8.10	Students need to be aware of patriotism, discipline and basic First aid tips for protecting themselves and also for societal benefits	Students are encouraged to do project on societal issues. Students are made to interact with Soldier persons regarding their duties and time management.
		Include more visual activities and role play activities to make students better understand	Special videos on specific topic are made by faculty and given to students for better understanding of concepts.
		Provide Workshop for exploration of various online teaching platform shall be arranged	Online workshop for the use of various online teaching platforms is organised.
4	8.12	To make students to face the corporate world with both technical and moral knowledge.	Extra classes on competitive exams like GATE and Higher education courses like Career guidance is provided for the students in a regular basis.
		Need to give training and hands-on Session on socially relevant projects	Made students to do socially relevant project and hands-on sessions on recent projects virtually.
		A System should be developed to appraise and track student progression	Online meet are arranged through Microsoft teams with all the students and their parents with the Vice-Chairman.
5	8.10	Suggestion to promote work environment for team work	Teachers encouraged students to work in team and positive results of working in a team are visible.

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		Good Motivation for NET SET exam	NET/ SET /TET workshops have been arranged in the Department.
		Include Emerging technologies and subjects in the syllabus	Deep learning subject has been introduced as new course.
6	8.10	Involve alumni in BOS and take their suggestions to rewrite the curriculum.	Suggestions by the alumni were considered. Prestigious alumina was invited to give motivational talks to the students
		Any Activity organized should be beneficial for development of the individuals, but the students must organize more practical oriented event.	Certificate course in computerized activities using open-source software (Python)
7	8.10	Teachers should have the right to adopt innovative strategies of teaching	Teachers were encouraged to adopt more innovative techniques and strategies for teaching.
		Commented favourable to revised necessary content of relevant courses offer good academic flexibility	Syllabus has been revised and skill-based electives core subject and audit course introduced
8	8.12	Depth of the course content needs to be increased for achieving the expected Course Outcomes	Teachers made students familiar with ideas of POs and COs and their expected outcomes.
		Suggested to concentrate more on research activities	Research methodology workshop is organised.

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