



# ADITYA ENGINEERING COLLEGE

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

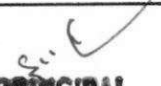
Program Name : B.Tech. in Information Technology

Syllabus Revision for the Academic Year 2020-2021

S.No	Semester	Course Code	Course Name	% of content revised for the existing year
1	I	201HS1T01	Communicative English	0
2	I	201BS1T01	Differential Equations and Linear algebra	0
3	I	201BS1T04	Engineering Chemistry	0
4	I	201ES1T02	Programming for Problem Solving using C	0
5	I	201ES1I02	Computer Engineering Workshop	0
6	I	201HS1L01	Communicative English Lab	25
7	I	201BS1L03	Engineering Chemistry Lab	0
8	I	201ES1L02	Programming for Problem Solving using C Lab	0
9	I	201MC1T01	Environmental Science	0
10	I	201BS2T07	Numerical Methods and Complex Variables	0
11	II	201BS2T09	Applied Physics	0
12	II	201ES2T11	Computer Organization	0
13	II	201ES2T04	Python Programming	25
14	II	201ES2T07	Data Structures through C	100
15	II	201BS2L04	Applied Physics Lab	0
16	II	201ES2L06	Data Structures through C Lab	0
17	II	201ES2L14	Python Programming Lab	0
18	II	201MC2L01	Professional Communication Skills Lab	0
19	II	201MC2T02	Constitution of India	0
20	III	191BS3T14	Discrete Mathematics	20
21	III	191ES3T13	Digital Logic Design	0
22	III	191HS3T02	Managerial Economics and Financial Analysis	0
23	III	191CS3T01	Software Engineering	0
24	III	191CS3T02	Object Oriented Programming through Java	100
25	III	191CS3T03	Advanced Data Structures	100
26	III	191CS3L01	Object Oriented Programming through Java Lab	0
27	III	191CS3L02	Advanced Data Structures Lab	20
28	III	191MC3A03	Employability Skills - I	0
29	III	191MC3A04	Essence of Indian Traditional Knowledge	100
30	IV	191BS4T18	Probability and Statistics	20
31	IV	191IT4T01	Theory of Computation	100
32	IV	191CS4T05	Python Programming	0
33	IV	191CS4T06	Design and Analysis of Algorithms	0
34	IV	191ES4T15	Internet of Things	0
35	IV	191CS4T07	Computer Organization	0
36	IV	191CS4L03	Python Programming Lab	0
37	IV	191ES4L17	Internet of Things Lab	0
38	IV	191MC4A05	Employability Skills - II	0
39	IV		Biology for Engineers	100
40	V	171IT5T02	Computer Networks	65
41	V	171CS5T12	Python Programming	0
42	V	171IT5T03	Unix and Shell Programming	0
43	V	171CS5T14	Operating Systems	0
44	V	171IT5E01	Artificial Intelligence	0
45	V	171CS5E02	Advanced Computer Architecture	0
46	V	171CS5E03	Computer Graphics	0
47	V	171CS5E04	Software Testing Methodologies	0

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48	V	171HS5T06	Employability Skills– III	0
49	V	171IT5L01	Operating Systems and Computer Networks Lab	60
50	V	171CS5L06	Python Programming Lab	0
51	V	171CS5L07	Software Testing Lab	0
52	V	171IT5L02	Unix and Shell Programming Lab	0
53	V	171IT5S01	MOOCs – I	0
54	VI	171IT6T04	Object Oriented Analysis and Design Using UML	0
55	VI	171CS6T16	Web Technologies	0
56	VI	171CS6T17	Data Warehousing and Data Mining	0
57	VI	171CS6E05	Software Quality Assurance	0
58	VI	171IT6E02	Neural Networks	20
59	VI	171CS6E08	Social Networks and Semantic Web	0
60	VI	171IT6E03	Design and Analysis of Algorithms	0
61	VI	171IT6E04	Advanced Computer Networks	0
62	VI	171CS6E10	Parallel Computing	0
63	VI	171IT6E05	Multimedia Programming	0
64	VI	171CS6E12	E – Commerce	0
65	VI	171HS6T07	Employability Skills– IV	0
66	VI	171IT6L03	Unified Modeling Language Lab	0
67	VI	171CS6L10	Data Warehousing and Data Mining Lab	0
68	VI	171CS6L11	Web Technologies Lab	100
69	VI	171IT6S02	MOOCs – II	0
70	VII	171CS7T18	Cryptography and Network Security	0
71	VII	171IT7T05	Big Data Analytics	35
72	VII	171CS7T20	Cloud Computing	0
73	VII	171IT7T06	Mobile Computing	0
74	VII	171CS7E13	Software Project Management	0
75	VII	171IT7E06	Machine Learning	20
76	VII	171CS7E15	Image Processing	0
77	VII	171CS7E16	Cyber Laws	0
78	VII	171CS7E19	Information Retrieval Systems	20
79	VII	171IT7E07	Human Computer Interaction	0
80	VII	171IT7E08	Distributed Systems	100
81	VII	171IT7E09	Decision Support System	0
82	VII	171IT7L04	Mobile Computing Lab	0
83	VII	171CS7L13	Big Data Analytics Lab	0
84	VII	171IT7P01	Industry Oriented (Internship) Minor Project	100
85	VIII	171CS8E21	Agile Methodologies	100
86	VIII	171CS8E22	Cyber Security	0
87	VIII	171CS8E23	Distributed Databases	100
88	VIII	171IT8E10	Pattern Recognition	100
89	VIII	171IT8O01	Management Information System	100
90	VIII	171CS8O01	Microprocessor and Multi Core Systems	0
91	VIII	171CS8O02	Embedded Systems	100
92	VIII	171IT8O02	Computer Vision	100
93	VIII	171EE8O05	Robotics	0
94	VIII	171CS8O04	Operations Research	0
95	VIII	171CS8O05	Optical Communications	0
96	VIII	171EE8O07	Internet of Things	0
97	VIII	171EC8O02	Disaster Management	0
98	VIII	171CS8O07	Nano Technology and its Applications	0
99	VIII	171IT8P02	Major Project	0
Total number of courses in the academic year 2020-2021				= 99
Number of courses having revision in syllabus content >= 20% in the academic year 2020-2021				= 24
Percentage of syllabus revision carried out in the academic year 2020-2021 = (49/135)*100				= 24.24%
				
Program Coordinator		Head of the Department		

  
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## Department of Information Technology

Date: 18-10-2020

### VI BOS Minutes of Meeting held on 15/10/2020

The 6<sup>th</sup> meeting of the BOS for IT was held on 15<sup>th</sup> October 2020 at 10.00AM, Ajivika Conference Hall, Bill Gates Bhavan. Mr. M. Raja Babu, Chairperson presided over the meeting.

#### Agenda 6.1: Welcome address by Chairperson-BOS.

Mr. M. Raja Babu, BOS Chairperson invited the distinguished members of BOS to the VI BOS Meeting.

#### Agenda 6.2: 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 08/11/2019.

#### Agenda 6.3: Discussion on proposed AR19 B.Tech (IT) Program – IV & V semester syllabus and ratification of the same.

The members of BOS ratified the AR 19 IV&V Semesters B.Tech syllabus after incorporating the following changes:

- Suggested to prepare COs in all levels of Blooms Taxonomy covering entire syllabus for all the Courses.
- Suggested to remove second text book in the course "Theory of Computation".
- Suggested to involve the students in real-time applications using IOT.
- Suggested to include practical oriented books for lab courses.
- Suggested to check the continuity of the topic Optimal randomized algorithm in Unit III of the course "Design and analysis of algorithms"
- Suggested to include IIT Delhi and IIT Kharagpur experts NPTEL weblinks in the course "Design and analysis of algorithms".
- Suggested to include Logic programming concepts as one unit in the course "Functional and logic programming".
- Suggested to add the web links of Pallab Das Gupta, Subject expert from IIT Kharagpur in the course "Artificial Intelligence".

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**Agenda 6.4: Discussion on proposed AR20 B.Tech (IT) First Year Program structure and ratification of the same.**

The members of BOS ratified the AR20 B.Tech (IT) First Year Program structure.

**Agenda 6.5: Discussion on proposed AR20 B.Tech (IT) Program – I & II semesters syllabus and ratification of the same.**

The members of BOS ratified the AR20 B.Tech (IT) Program – I & II semesters syllabus

**Agenda 6.6: Discussion on the courses having focus on employability/ entrepreneurship/ skill development in B. Tech (IT) programs and ratification of the same.**

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

**Agenda 6.7: Discussion on the new courses offered in B.Tech (IT) program and ratification of the same.**

Members of BOS noted the new courses offered in B.Tech (IT) programme and ratified the same. The percentage of new courses introduced in this academic year 2020-2021 for B.Tech (IT) is 13.13% The list of new courses is enclosed as Annexure-I.

**Agenda 6.8: Discussion on B.Tech (IT) program 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 (IT) program.

**Agenda 6.9: Discussion on the value-added courses offered for students and ratification of the same.**

Members of BOS ratified the value-added courses offered for students.

**Agenda 6.10: Discussion on the percentage of syllabus revision done in B.Tech (IT) program and ratification of the same.**

The Chairperson presented the syllabus revision done in B.Tech (IT) program based on Stakeholder's Feedback on Curriculum and the BOS members approved the same. The percentage of courses revised in this academic year 2020-2021 for B.Tech (IT) is 24.24% . The list of courses revised during the academic year is enclosed as Annexure-II.

**Agenda 6.11: Analysis of Results**

Members of BOS noted the result analysis presented by the Chairperson for the A.Y.2019-20 and ratified the same.

  
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#### **Agenda 6.12: Analysis of Students Feedback & Action Taken Report**

The Chairperson expressed the students' feedback and action taken report. Members of BOS noted the students' feedback and action taken report process initiated at the end of each semester. The BOS members noted the same.

#### **Agenda 6.13: Analysis of Stakeholder's Feedback on Curriculum**

The BOS Chairperson presented the analysis of Feedback on Curriculum which is taken from the various Stakeholders. The BOS members noted the same and advised to incorporate the suggestions as per the feasibility. The Action Taken Report is enclosed as Annexure-III.

#### **Agenda 6.14: Any other item/s**

- Suggested to follow the competitive exams pattern partially in preparation of the question paper for sessional examinations.
- Suggested to involve the Alumni students to give guest lectures on few topics in the curriculum.
- Suggested to involve the students in smart city projects of Kakinada.

#### **Agenda 6.15: Scheduling of the next BOS meeting.**

The next BOS meeting is tentatively scheduled in the month of April 2020.

#### **Agenda 6.16: Vote of Thanks**

The Chairperson presented the Vote of Thanks.

  
BOS Chairperson

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### Annexure I

#### List of New Courses in the Academic Year 2020-21

S. No	Program	Semester	Course Code	Course Name
1	B. Tech (IT)	II	201ES2T07	Data Structures Through C
2	B. Tech (IT)	III	191MC3A04	Essence Of Indian Traditional Knowledge
3	B. Tech (IT)	III	191CS3T02	Object Oriented Programming Through Java
4	B. Tech (IT)	III	191CS3T03	Advanced Data Structures
5	B. Tech (IT)	IV	191MC4A06	Biology for Engineers
6	B. Tech (IT)	IV	191IT4T01	Theory of Computation
7	B. Tech (IT)	VIII	171CS8E21	Agile Methodologies
8	B. Tech (IT)	VIII	171CS8E23	Distributed Databases
9	B. Tech (IT)	VII	171IT7E08	Distributed Systems
10	B. Tech (IT)	VII	171IT7P01	Industry Oriented (Internship) Minor Project
11	B. Tech (IT)	VIII	171IT8E10	Pattern Recognition
12	B. Tech (IT)	VIII	171IT8O01	Management Information System
13	B. Tech (IT)	VIII	171IT8O02	Computer Vision

  
BOS Chairperson

  
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### Annexure II

#### List of Courses Revised in the Academic Year 2020-21

S. No	Program	Semester	Course Code	Course Name
1	B. Tech (IT)	II	191BS3T14	Discrete Mathematics
2	B. Tech (IT)	III	191CS3L02	Advanced-Data Structures Lab
3	B. Tech (IT)	IV	191BS4T18	Probability and Statistics
4	B. Tech (IT)	V	171IT5T02	Computer Networks
5	B. Tech (IT)	VII	171CS7E19	Information Retrieval Systems
6	B. Tech (IT)	V	171IT5L01	Operating Systems and Computer Networks Lab
7	B. Tech (IT)	VI	171IT6E02	Neural Networks
8	B. Tech (IT)	VII	171IT7T05	Big Data Analytics
9	B. Tech (IT)	VII	171IT7E06	Machine Learning

  
BOS Chairperson

  
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## Department of Information Technology

### Annexure III

#### Action Taken Report on Stakeholders feedback in the Academic Year 2020-21

S. No	Agenda Item No.	Stakeholders Recommended	Action Taken
1	6.12	Students need to have an insight into emerging technologies of Industry so that they will become competitive enough in getting the placement	Computer Engineering Workshop Course is included in the I semester which gives an introduction and insight to Industry technologies like IoT, Cybersecurity, and Machine Learning.
2	6.14	Effective Soft-skill training to be provided	Industry Oriented exclusive Soft-skill trainer is going to be appointed as a trainer. Communicative English Lab & Professional Communications Skill Lab will also be included in the Syllabus. The students are encouraged to present a seminar session.
3	6.12	Include Emerging technologies in the syllabus	In the future Syllabus, Open Elective I will be introduced, and all the emerging technologies like Cybersecurity, AR/VR, Computer Vision, and Robotics will be included.
4	6.12	Some trendy courses should be introduced in the early bird stage itself so that the student can focus on basics as well as the advancements made in that technology.	Python Programming and Python Programming Lab courses are going to be introduced in the 2 <sup>nd</sup> semester.
5	6.8	Elective Courses should have a blend of courses which have a	Suggestions will be taken into consideration and in future

  
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		focus on employability and domain knowledge	semesters, in each professional elective course 2 subjects will be focused on employability and 2 subjects will be focused on providing domain knowledge.
6	6.12	Effective Soft-skill training to be provided	Industry Oriented exclusive Soft-skill trainer is going to be appointed as a trainer. Personality Development through Life Enlightenment Skills & Soft Skills will also be included in the Syllabus. The students are encouraged to present a seminar session.
7	6.12	Suggested to Include some courses that will make the students able to work on developing prototypes that will be useful for societal needs	A socially Relevant Project course will be introduced.
8	6.8	Suggested to Include more courses as professional electives as students will have a good number of options to choose	5 professional elective courses in each semester will be introduced from the Vth semester.
9	6.3	Suggested to include more labs for real-time practice	As per suggestion, Data Structures through C Lab and Internet of Things Lab will be introduced.
10	6.12	Please design the curriculum in such a way that the students come across department-related courses in the early semester itself. This helps the students in having an insight into GATE and other competitive exams as well as placements.	The computer Organization course is included in the curriculum in the 2 <sup>nd</sup> semester
11	6.3	Suggested to prescribe textbooks that have global acceptance	As per the suggestion given all the prescribed textbooks for all courses were in accordance with global acceptance.

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12	6.12	Suggested to Include some courses that will make the students able to work on developing prototypes that will be useful for societal needs	A socially Relevant Project course named Industry Oriented (Internship) Minor Project will be introduced.
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BOS Chairperson

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