

# ADITYA ENGINEERING COLLEGE An Autonomous Institutuion

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Recognised by UGC under sections 2(f) and 12(B) of UGC Act, 1956 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 2018-2019

S.No	Semester	Course Code	Course Name	% of content revised for the existing year
1	I	171HS1T01	English – I	0
2	Ι.	171BS1T01	Mathematics – I	0
3	I	171BS1T02	Mathematics – II	. 0
4	I	171BS1T04	Applied Physics	0
5	I	171ES1T03	Engineering Drawing	0
6	I	171ES1T01	Computer Programming	0
7	I	171HS1L01	English Communication Skills Lab – I	0
8	I	171BS1L04	Applied Physics Lab	0
9	I	171ES1L01	Computer Programming Lab	. 0
10	II	171HS2T03	English – II	0
11	II	171BS2T06	Mathematics – III	0
12	II	171HS2T02	Environmental Studies	0
13	II	171BS2T05	Applied Chemistry	0
14	II	171ES2T02	Engineering Mechanics	0
15	II	171CS2T01	Data Structures through C	0
16	II-	171HS2L02	English Communication Skills Lab – II	0
17	II	171BS2L03	Applied Chemistry Lab	. 0
18	II	171ES2L02	Engineering Workshop & IT Workshop	0
19	III	171BS3T08	Mathematical Foundations of Computer Science	25
20	III	171ES3T23	Digital Logic Design	0
21	III	171CS3T02	Statistics with R Programming	80
22	III	171CS3T03	Object Oriented Programming through C++	0
23	III	171HS3T04	Managerial Economics & Financial Analysis	. 0
24	III	171CS3T04	Advanced Data Structures	0
25	III	171CS3L01	Object Oriented Programming Lab	80
26	III	171CS3L02	Advanced Data Structures Lab	30
27	III	171HS3A10	Employability Skills – I	100
28	IV	171HS3A09	Professional Ethics & Human Values	0
29	IV	171CS4T05	Software Engineering PRINCIPA	50

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30	IV	171IT4T01	Language Processors 10	
31	IV	171CS4T07	Java Programming	0
32	IV	171CS4T08	Database Management Systems	
33	IV	171HS4T05	Management Science 2	
34	IV	171CS4T10	Computer Organization	20
35	IV	171CS4L03	Java Programming Lab	50
36	IV	171CS4L04	Database Management Systems Lab	20
37	IV	171HS4A11	Employability Skills – II	100
38	ν.	171HS4A08	IPR & Patents	. 0
39	V	R1631121	Human Computer Interaction	100
40	37	R1631052	Unix and Shell Programming	8 0
41	V	R1631122	Advanced Java Programming	0
42	V	R1631054	Database Management Systems	0
43	V	R1631055	Operating Systems	м 0
44	V	R1631123	Advanced Java Programming Lab	. 0
45	V	R1631124	Unix and Operating Systems Lab	50
46	V	R1631125	Database Management System Lab	20
47	V	R1631049	Professional Ethics & Human Values	0
48	VI	R1632051	Computer Networks	0
49	VI	R1632121	Data Mining	100
50	VI	R1632122	Web Technologies	0
51	VI	R1632054	Software Testing Methodologies	70
52	VI.	R163205A	Artificial Intelligence	. 0
53	VI	R1632123A	Social Networks and Semantic Web	100
54	VI	R1632055D	Digital Signal Processing	0
55	VI	R1632055E	Embbeded Systems	0
56	VI	R1632025D	Robotics	0
57	VI	R1632123B	Operations Research	100
58	VI	R1632124	Web Technologies Lab	. 0
59	VI	R1632125	Software Testing Lab	20
60	VI	R1632126	Data Mining Lab	
61	VI	R1632049	IPR & Patents	0
62	VII	RT41051	Cryptography and Network Security	
63	VII	RT41052	UML & Design Patterns 0	
64	VII	RT41053	Mobile Computing	/ 0
65	VII	RT41121	Embedded and Real Time Sytems	0
66	VII	RT41056	Information Retreival Systems	· 0

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67	VII	RT41058	Multimedia Computing	0
68	VII	RT4105B	Haddop and Big Data	0
69	VII	RT4105C	Software Project Management	0
70	VII	RT41122	Computer Vision	0
71	VII	RT4105E	Advanced Databases	0
72	VII	RT4112L	UML & Design Patterns Lab	0
73	VII	RT4112M	Mobile Application Development Lab	0
74	VII	RT4112O	Software Engineering Lab	0
75	VII	RT4112N	Hadoop & BigData Lab	0
76	VII	RT42053A	Human Computer Interaction	0
77	VII	RT42053B	Advanced Operating Systems	0
78	VII	PT42053C	Mobile Adhoc & Sensor Networks	
79	VII	PT42053D	Pattern Recognition	0
80	VIII	RT42051	Distributed Systems	0
81	VIII	RT42121	Mathematical Opimization ( LP, Scheduling, Simulation, QT, Markov analysis, NLP, PERT CPM Network related	0
82	VIII	RT42052	Management Science	0
Total number of courses in the academic year 2018-2019			= 82	
Number of courses having revision in syllabus content >/= 20% in the academic year 2018-2019			21	
Percentage of syllabus revision carried out in the academic year 2018-2019 = (49/135)*100			= 25.06%	

Program Coordinator

Head of the Department

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### Department of Information Technology

Date:19-11-2018

### III BOS Minutes of Meeting held on 17/11/2018

The 3<sup>rd</sup> meeting of the BOS for IT was held on 17<sup>th</sup> November 2018 at 10.00AM, Ajivika Conference Hall, Bill Gates Bhavan. Mr. M. Raja Babu, Chairperson presided over the meeting.

### Agenda 3.1: Welcome address by Chairperson-BOS.

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

### Agenda 3.2: 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 25/11/2017.

# Agenda 3.3: Discussion on proposed AR17 B.Tech(IT) Program – VI,VII&VIII semester syllabus and ratification of the same.

The members of BOS ratified the AR17 VI, VII&VIII Semesters B. Tech(IT) syllabus after incorporating the following changes:

- Suggested to add POP3 before SMTP in Computer Networks.
- Include an experiment at the end of Web Technologies Lab to implement the real time web application by including all security issues.
- Suggested to use more tools in Data Mining Lab.
- Include web links like course era in Pattern recognition.
- Suggested to include payment gateways in Unit II in E-commerce Course.
- Suggested to include distributed transactions in the distributed database.
- Suggested to include WBS( Work Breakdown Structure) in UNIT- III in Software Project Management.
- Include filters, salt& pepper, Gaussian and noisy removal techniques in Color Images in Image Processing.
- Suggested to include burned down and burned up topics and to include Ken Schwaber as main Text book in Agile Methodologies.
- Suggested to make the Cloud Computing as core subject instead of Elective.
- Suggested to include any one of cloud DB like Mango DB in Cloud Computing Course.

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- Suggested to teach the practical application of cloud deployment in the cloud computing.
- Suggested to include dimensionality reduction, optimization, bagging and boosting concepts in Machine Learning.
- Suggested to use open-source tools for UML Lab in addition to Rational Rose.
- Members of BOS ratified the new courses offered in B.Tech (IT). The percentage
  of new courses introduced in the academic year 2018-2019 for B.Tech (IT) is
  9.75 %. The list of new courses is enclosed as Annexure-I.
- 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 2018-2019 for B.Tech (IT) is 25.06 % and M.Tech (Software Engineering) is 3.84 %. The list of courses revised is enclosed as Annexure-II.
- Agenda 3.4: Discussion on the proposed AR19 B.Tech Program & AR19 M.Tech program as per the guidelines of APSCHE & AICTE.

The members of BOS ratified the AR19 B.Tech (IT) Program & AR19 M.Tech (Software Engineering) program as per the guidelines of APSCHE & AICTE.

Agenda 3.5: Discussion on the courses having focus on employability/entrepreneurship/skill development in B.Tech(IT) and M.Tech(SE) programs and ratification of the same.

Members of BOS ratified the the courses having focus on employability/entrepreneurship/skill development in B.Tech(IT) and M.Tech (Software Engineering)programs.

Agenda 3.6: Discussion on B.Tech (IT) and M.Tech (Software Engineering) programs in which Choice Based Credit System(CBCS)/Elective course system is being implemented and ratification of the same.

Members of BOS ratified the B.Tech (IT) and M.Tech (Software Engineering) programs, in which Choice Based Credit System(CBCS)/elective course system is being implemented.

Agenda 3.7: 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 3.8: 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 3.11: 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 3.12: Analysis of Results

Members of BOS noted the result analysis presented by the Chairperson for the A.Y.2017-18 and ratified the same.

#### Agenda 3.13: Any other item/s

- Suggested to follow the competitive exams pattern partially in preparation Suggested to Include latest editions of textbooks for the Courses.
- Suggested to include labs for the courses like Cloud Computing, IOT, Neural Networks and Machine Learning.
- · Suggested to Remove why, what and? from the syllabus.
- Advised to teach beyond the course content by discussing need and applications of topics in industry.
- Suggested to Include recent technologies like Block Chain in electives.
- BOS members discussed about the elective course, Suggested to Fix no of hours for subject to teach as 48 to 54 hrs and for electives 44-48 hrs.
- Suggested to focus on the courses, which intern enhance the skill set of the students.
- Suggested to offer the open elective subjects as MOOCS courses in VIII Semester

### Agenda 3.14: Scheduling of the next BOS meeting.

The next BOS meeting is tentatively scheduled in the month of April/May 2019.

### Agenda 3.15: Vote of Thanks

The Chairperson presented the Vote of Thanks.

BOS Chairperson

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## Department of Information Technology

### Annexure I

## List of New Courses in the Academic Year 2018-19

S. No	Program	Semester	Course Code	Course name
1	B. Tech (IT)	III	171HS3A10	Employability Skills -I
2	B. Tech (IT)	IV	171HS4A11	Employability Skills -II
3	B. Tech (IT)	IV .	171IT4T01	Language Processors
4	B. Tech (IT)	V	R1631121	Human-Computer Interaction
5	B. Tech (IT)	VI	R1632121	Data Mining
6	B. Tech (IT)	VI	R1632123A	Social Networks and Semantic Web
7	B. Tech (IT)	VI	R1632123B	Operations Research
8	B. Tech (IT)	VI	R1632126	Data Mining Lab

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### Annexure II

# List of Courses Revised in the Academic Year 2018-19

S. No	Program	Semester	Course Code	Course Name
1	B. Tech (IT)	III	171BS3T08	Mathematical Foundations of Computer Science
2	B. Tech (IT)	III	171CS3T02	Statistics with R Programming
3	B. Tech (IT)	III	171CS3L01	Object Oriented Programming Lab
4	B. Tech (IT)	III	171CS3L02	Advanced-Data Structures Lab
5	B. Tech (IT)	IV	171CS4T05	Software Engineering
6	B. Tech (IT)	IV	171HS4T05	Management Science
7	B. Tech (IT)	IV	171CS4T10	Computer Organization
8	B. Tech (IT)	IV	171CS4L03	Java Programming Lab
9	B. Tech (IT)	IV	171CS4L04	Database Management Systems Lab
10	B. Tech (IT)	V	R1631124	Unix and Operating Systems Lab
11	B. Tech (IT)	VI	R1632125	Software Testing Lab
12	B. Tech (IT)	VI	R1632054	Software Testing Methodologies
13	M. Tech (SE)	I	172SO1T03	Software Project and Process Management

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### Department of Information Technology

#### Annexure III

### Action Taken report on Stakeholders Feedback in the Academic Year 2018-19

S. No	Agenda Item No.	Stakeholders Recommended	Action Taken
1	3.3	Include courses that will make students industry-ready.	Web Technologies, Data Ware Housing & Data Mining, Big Data Analytics, and Cloud Computing courses will be introduced.
2	3.13	Include courses that should focus on Artificial Intelligence and its sub domains	Artificial Intelligence, Neural Networks, and Machine Learning courses will be introduced.
3	3.10	Include courses that can improve student management skills for the real-time industry.	Suggestions will be considered, and a management science course will be introduced.
4	3.3	Include some trending courses that should provide employability and also knowledge on a specific domain	Image Processing, Information Retrieval Systems, Decision Support Systems, Agile Methodologies, Cyber Security, and Distributed Databases courses will be introduced.
5	3.10	Should have basic knowledge of different domains.	Professional Ethics & Human Values and Mathematical Optimization course has been introduced.
6 .	3.10	Suggested to include more lab courses for practical purpose	Suggestions will be taken into account and Software Engineering Lab will be introduced.



		•	
7	3.13	Elective Courses should have a blend of courses which have a focus on employability and domain knowledge	In each professional elective course2 subjects focus on employability and 2 subjects focus on providing domain knowledge.
8	3.13	Include open elective courses to make the students work in interdisciplinary domains	10 different open elective courses have been introduced.
9	. 3.10	Include some courses that will make the students able to work on new technologies and innovations	As per suggestion, Robotics course will be included.
10	3.3	Design and Analysis of Algorithms and Machine Learning courses should be made as professional courses as they are having more weightage in getting placement.	Taken into consideration and can be implemented in the next regulation.
11	3.13	Only 3 open electives are related to other streams. Include more open electives related to another stream so that working in interdisciplinary domains becomes easier.	Taken into consideration and can be implemented in the next regulation.
12	3.3	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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BOS Chairperson

Head of the Department
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