



# ADITYA ENGINEERING COLLEGE

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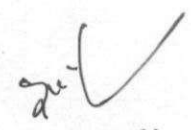
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Program Name : B.Tech. in Computer Science and Engineering

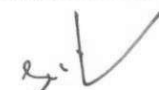
Syllabus Revision for the Academic Year 2017-2018				
S.No	Semester	Course Code	Course Name	% of content revised for the existing year
1	I	171HS1T01	English – I	0
2	I	171BS1T01	Mathematics – I	25
3	I	171BS1T02	Mathematics – II	20
4	I	171BS1T04	Applied Physics	20
5	I	171ES1T03	Engineering Drawing	0
6	I	171ES1T01	Computer Programming	0
7	I	171HS1L01	English Communication Skills Lab – I	80
8	I	171BS1L04	Applied Physics Lab	0
9	I	171ES1L01	Computer Programming Lab	40
10	II	171HS2T03	English – II	0
11	II	171BS2T06	Mathematics – III	20
12	II	171HS2T02	Environmental Studies	20
13	II	171BS2T05	Applied Chemistry	20
14	II	171ES2T02	Engineering Mechanics	0
15	II	171CS2T01	Data Structures through C	100
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	R1621051	Statistics with R Programming	0
20	III	R1621052	Mathematical Foundations of Computer Science	0
21	III	R1621053	Digital Logic Design	0

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S.No	Semester	Course Code	Course Name	% of content revised for the existing year
22	III	R1621054	Python Programming	0
23	III	R1621055	Data Structures through C++	0
24	III	R1621056	Computer Graphics	0
25	III	R1621057	Data Structures through C++Lab	0
26	III	R1621058	Python Programming Lab	0
27	IV	R1622051	Software Engineering	60
28	IV	R1622052	Java Programming	0
29	IV	R1622053	Advanced Data Structures	0
30	IV	R1622054	Computer Organization	50
31	IV	R1622055	Formal Languages and Automata Theory	0
32	IV	R1622056	Principles of Programming Languages	0
33	IV	R1622057	Advanced Data Structures Lab	70
34	IV	R1622058	Java Programming Lab	0
35	V	RT31051	Compiler Design	0
36	V	RT31052	Data Communication	0
37	V	RT31053	Principles Of Programming Languages	0
38	V	RT31054	Data Base Management Systems	0
39	V	RT31055	Operating Systems	0
40	V	RT31056	Compiler Design Lab	0
41	V	RT31057	Operating Systems & Linux Programming Lab	0
42	V	RT31058	Database Management Systems Lab	0
43	V	RT31059	Seminar	0
44	VI	RT32051	Software Engineering	0
45	VI	RT32052	Data Ware housing and Mining	0

  
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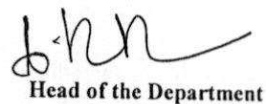
S.No	Semester	Course Code	Course Name	% of content revised for the existing year
46	VI	RT32053	Computer Networks	0
47	VI	RT32054	Design and Analysis of Algorithms	0
48	VI	RT32055	Web Technologies	0
49	VI	RT32056	IPR and Patents	0
50	VI	RT32057	Computer Networks And Network Programming Lab	0
51	VI	RT32058	Software Engineering Lab	0
52	VI	RT32059	Web Technologies Lab	0
53	VII	RT41051	CRYPTOGRAPHY AND NETWORK SECURITY	0
54	VII	RT41052	UML AND DESIGN PATTERNS	0
55	VII	RT41053	MOBILE COMPUTING	0
56	VII	RT41054	SOFTWARE TESTING METHODOLOGIES	0
57	VII	RT41055	Simulation Modeling	0
58	VII	RT41056	Information Retrieval Systems	0
59	VII	RT41057	Artificial Intelligence	0
60	VII	RT41058	Multimedia Computing	0
61	VII	RT41059	High Performance Computing	0
62	VII	RT4105A	Digital Forensics	0
63	VII	RT4105B	Hadoop and Big Data	0
64	VII	RT4105C	Software Project Management	0
65	VII	RT4105D	Machine Learning	0
66	VII	RT4105E	Advanced Databases	0
67	VII	RT4105M	Mobile Application Development Lab	0
68	VII	RT4105N	Software Testing Lab	0
69	VII	RT4105O	Hadoop and Bigdata Lab	0
70	VII	RT4105L	UML and Design Patterns Lab	0

  
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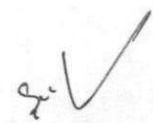
S.No	Semester	Course Code	Course Name	% of content revised for the existing year
71	VII	RT42051	Distributed Systems	0
72	VIII	RT42052	Management Science	0
73	VIII	RT42053A	Human Computer Interaction	0
74	VIII	RT42053B	Advanced Operating Systems	0
75	VIII	RT42053C	Mobile Adhoc & Sensor Networks	0
76	VIII	RT42053D	Pattern Recognition	0
77	VIII	RT42053E	Digital Image Processing	0
78	VIII	RT42053F	Micro processors and Multi Core Systems	0
79	VIII	RT42043B	Embedded and Real Time Systems	0
80	VIII	RT42043C	Neural Networks & Soft Computing	0
81	VIII	RT42043D	Social Networks and the Semantic Web	0
82	VIII	RT42043E	Cloud Computing	0
83	VIII	RT42055	PROJECT	0

Total number of courses in the academic year 2017-2018	= 83
Number of courses having revision in syllabus content $\geq 20\%$ in the academic year 2017-2018	= 12
Percentage of syllabus revision carried out in the academic year 2017-2018 = $(12/83) \times 100$	= 14.46 %

  
Program Coordinator

  
Head of the Department

Head of the Department  
Department of CSE  
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## Department of Computer Science and Engineering

Date: 01-06-2017

### Minutes of the I meeting of BOS scheduled on 29-05-2017

The I meeting of the BOS of CSE was held on 29<sup>th</sup> May 2017 at 09.30 AM, Ajivika Conference Hall, Bill Gates Bhavan. Prof A. Vanathi, Chairperson presided over the meeting.

#### Agenda 1.1: Welcome address by Chairperson

Prof. A. Vanathi, BOS Chairperson invited the distinguished members of BOS to the 1<sup>st</sup> BOS Meeting.

#### Agenda 1.2: Discussion and ratification of the Vision and Mission of the department and Program Educational Objectives (PEOs), Program Outcomes (POs) and Program Specific Outcomes (PSOs) of the Programs under the Department.

Members of BOS ratified the Vision and Mission of the department, PEOs, POs and PSOs of the Programs under the Department.

#### Agenda 1.3: Discussion on proposed AR17 Program Structures of B. Tech, (CSE) & M. Tech (CSE) and ratification of the same.

- The BOS members approved the AR 17 M. Tech (CSE) course structure and ratified the same.
- The BOS members approved the AR17 B. Tech (CSE) course structure after making the following changes in the proposed syllabi:
  1. Recommended to see the possibility of including few experiments as virtual labs in Applied Physics Lab in I-I.
  2. Advised to practice the Engineering Drawing using AutoCAD software in I-I.
  3. Recommended to change the DS with C++ to DS with C and insisting the students to write in non- recursive code.
  4. Instructed to see that the Computer Organisation course is studied after Digital Logic Design (II-I) subject.
  5. Discussed regarding the need of R- Programming lab and advised to remove the Lab and suggested to include in the Practice hour of Statistics with R Programming Theory.
  6. Strongly recommended to implement Java Programming in III-I and Python Programming in II-II.

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7. Highly recommended to remove Digital forensics and Open Source Software.
8. Recommended to shift Artificial intelligence and Machine Learning to IV-I in Professional Elective.
9. Advised to include Soft Computing in IV-II Elective.
10. Suggested to remove Advances in Computing from Professional Elective-II, as Mobile, Cloud and parallel computing is already included in various Professional Electives.
11. Suggested to remove Advanced Databases from Elective-II.
12. Highly recommended to include Distributed Systems as compulsory subject in IV-I.
13. Suggested to remove Robotics from Professional Elective and include it in Open Elective.
14. Discussed regarding Open Elective and recommended to include two core subjects along with other disciplinary Subjects.
15. Recommended to include the text book "The Algorithm Design Manual, Steven S. Skiena, Springer, 2008" for M. Tech Advanced Data Structures and Algorithm Analysis as a reference book.
16. The percentage of new courses introduced during the academic year 2017-18 for B. Tech (CSE) is 1.20 % and M. Tech (CSE) is 19.23 %. The list of new courses is enclosed as Annexure-I.
17. The percentage of courses revised in the academic year 2017-18 for B. Tech (CSE) is 14.46 % and M. Tech (CSE) is 26.92 %. The courses revised are listed in Annexure-II.
18. Suggested to include more courses which enhances the employability skills of students.

**Agenda 1.4: Discussion on proposed AR17 B. Tech (CSE) & M. Tech (CSE) programs I & II semesters syllabus and ratification of the same.**

BOS members approved AR 17 B. Tech (CSE) First Year course syllabus of Computer Programming, Computer Programming Lab, IT Workshop and Data structures through C and AR17 M. Tech (CSE).

**Agenda 1.5: Ratification of the proposed model question papers for sessional and external examinations of AR17 B. Tech (CSE) & M. Tech (CSE) programs.**

BOS members have approved the pattern of the model papers for the internal and external examinations.

**Agenda 1.6: Finalization of names of reputed institution for setting question paper and valuation of answer scripts.**

BOS members accepted the list consisting of the names of reputed autonomous institution for setting question paper and valuation of answer scripts.

#### **Agenda 1.7: Analysis of Results**

The BOS Chairperson presented the odd and even semesters pass percentage for the A.Y.2016-2017. The BOS members noted the same.

#### **Agenda 1.8: Analysis of student feedback and action taken report**

BOS Chairperson expressed that the student feedback & action taken report process initiated at the end of each semester. BOS Chairperson presented the student feedback percentage and action taken report and the members noted the same.

#### **Agenda 1.9: Analysis of Stakeholder's Feedback on Curriculum**

The BOS Chairperson presented the analysis report of Stakeholder's feedback on curriculum. 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 1.10: Any other item/s**

- Recommended to reduce Employability skills credits from 4 to 2.
- Highly recommended to increase credits for Main Project.
- Advised to reduce the no of units to 5 from 6.
- Suggested to include more activities to improve the Communication skills of students.
- Recommended to include the "How to solve it by Computer" by Dromey in Design and Analysis of Algorithm.
- Bos members noted the syllabus revision done in AR 17 B.Tech(CSE).
- Suggested to encourage the students to develop the project from their second year onwards.
- Discussed the need for the practical and technical skills for the students and advised to form a club, where each and every student should work on a program and the logic of the same should be explained to his fellow classmates. And also, to develop innovative applications.
- Advised the faculty members to share their research work with the students.

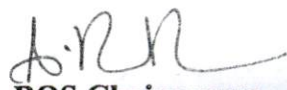
#### **Agenda 1.11: Scheduling of next BOS meeting**

- The next BOS meeting is tentatively scheduled in the month of November 2017.

#### **Agenda 1.12: Vote of Thanks**

- Prof. A. Vanathi, BOS Chairperson presented the Vote of thanks.

  
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**BOS Chairperson**  
Head of the Department  
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## Department of Computer Science and Engineering

### Annexure-I

#### List of New Courses in the Academic Year 2017-18

S. No	Program	Semester	Course Code	Course Name
1	B. Tech (CSE)	II	171CS2T01	Data Structures through C
2	M. Tech (CSE)	I	172CO1E04	Human Computer Interaction
3	M. Tech (CSE)	I	172CO1L01	Advanced Data Structures & Database Management Systems Lab
4	M. Tech (CSE)	II	172CO2E09	Internet of Things
5	M. Tech (CSE)	II	172CO2E10	Bio Informatics
6	M. Tech (CSE)	II	172CO2L02	Advanced Unix Programming and Hadoop & Bigdata Lab

*Signature*

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*Signature*

BOS Chairperson  
Head of the Department  
Department of CSE  
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## Department of Computer Science and Engineering

### Annexure-II

#### List of Courses Revised in the Academic Year 2017-18

S. No	Program	Semester	Course Code	Course Name
1	B. Tech (CSE)	I	171BS1T01	Mathematics – I
2	B. Tech (CSE)	I	171BS1T02	Mathematics – II
3	B. Tech (CSE)	I	171BS1T04	Applied Physics
4	B. Tech (CSE)	I	171HS1L01	English Communication Skills Lab – I
5	B. Tech (CSE)	I	171ES1L01	Computer Programming Lab
6	B. Tech (CSE)	II	171BS2T06	Mathematics – III
7	B. Tech (CSE)	II	171HS2T02	Environmental Studies
8	B. Tech (CSE)	II	171BS2T05	Applied Chemistry
9	B. Tech (CSE)	IV	R1622051	Software Engineering
10	B. Tech (CSE)	IV	R1622054	Computer Organization
11	B. Tech (CSE)	IV	R1622057	Advanced Data Structures Lab
12	M. Tech (CSE)	I	172CO1T03	Computer Organization and Architecture
13	M. Tech (CSE)	I	172CO1T05	Computer Networks

  
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BOS Chairperson  
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## Department of Computer Science and Engineering

### Annexure-III

### Action Taken Report on Stakeholders Feedback in the Academic Year 2017-18

S. No	Agenda Item No.	Stakeholders Recommended	Action Taken
1	1.9	Employer suggested to improve the logical and reasoning skills.	As per the suggestion the Employability Skills courses are introduced in AR 17 from the second year as audit course and in the third year as Credit courses, enabling them to enhance their logical and reasoning skills.
		Industrial training should be made as mandatory for the students.	Industry oriented Internship is made mandatory for the AR 17 curriculum with 1 credit.
		Suggestion to facilitate telephonic / online interview for students	Conducted Interviews a by the CRT trainers regularly.
2	1.9	Suggested to include the IT workshop course and to impart knowledge on real time applications like system trouble shooting, LATEX, or introduction to any Open source Software.	Based on the Alumni opinion course named Engineering Workshop & IT workshop in included in the AR 17 Curriculum.
		Suggested to include courses which are in Latest trends.	The Elective Courses are designed in such a way covering the Courses which are in trends in the current software industries.
		Strengthen Alumni network through alumni association	Suggestions are forwarded to higher authority to organize alumni meet

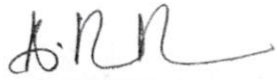


			and it was conducted.
3	1.9	It is better to give orientation about outcome based education to faculty members and students.	FDP on "Outcome Based Education(OBE)" is arranged and all the faculty members are attended and gain the knowledge on OBE. The students are given the orientation on OBE.
		Concentrate on topics which is focused in the GATE syllabus or any other competitive syllabus.	It is instructed all the course coordinator to compare the syllabus with all competitive syllabi.
		For online teaching various platforms such as Zoom, Google Meet, Microsoft 365, webex meet etc. shall be used	All faculty members with students are using online platforms like Microsoft teams and google
4	1.8	Students requested to conduct Project Expo regularly	The Final year students project is displayed as Project expo and the other students are invited as spectators.
		Need Company specific training	It is decided to conduct technical training in specific with the company. The Latest placement papers and pattern related to that company are made available for the students to get practised.
		Platform for performing other activities like sports in the form of competitions.	Very spacious ground, required number of PD's are present in the campus and State level competitions are conducted regularly in the campus.
5	1.9	Suggestion to include Emerging subjects and technologies in the syllabus	In the revised Syllabus, Advanced Unix Programming and Hadoop & Bigdata Lab has been introduces as new course and training on emerging technologies like cloud technologies is planned.
		Suggestion to enhance general communication skills	Seminar presentation on recent technologies are made mandatory for the students to improve communication and presentation



			skills. The course Comprehensive Viva-Voce is also enhances the communication skill and technical knowledge on various courses.
6	1.9	Suggested to include the ways to write SCI papers and checking Plagiarism to get published in reputed journals.	Based on the Alumni opinion training has been given to the M.Tech students to get more experience in research and publishing paper.
		Add more programming skills courses in curriculum.	Programming subjects like Python and R programming are included.
7	1.9	Apart from regular teaching, social awareness, and human values to be imparted to students.	The centres like Dr. Ambedkar Studies centres all over the world offered co-curricular courses which can be opted by any student during his/her period of study.
		Future career orientation and Trending concepts in technical field	More innovative and recent technologies in software were introduced.
8	1.8	Students requested to conduct Latex training regularly.	To write a better document using Latex, Bibliography, an instructor has been invited to conduct online coaching classes and conducted.
		Provide more internship programmes for career development.	As part of curriculum, Internships are also made available to students.

  
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**BOS Chairperson**  
**Head of the Department**  
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