



# 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 Electronics and Communication Engineering

## Syllabus Revision for the Academic Year 2018-19

| 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                             | 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       | 171ES2T06   | Electrical and Mechanical Technology        | 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 And IT Workshop        | 0  |
| 19   | III      | 171EC3T01   | Electronic Devices and Circuits             | 16.6                                       |
| 20   | III      | 171EC3T02   | Switching Theory and Logic Design           | 0  |
| 21   | III      | 171EC3T03   | Signals and Systems                         | 8  |
| 22   | III      | 171ES3T15   | Network Analysis                            | 0  |
| 23   | III      | 171EC3T04   | Random Variables and Stochastic Processes   | 5.5  |
| 24   | III      | 171HS3T04   | Managerial Economics and Financial Analysis | 20   |
| 25   | III      | 171EC3L01   | Electronic Devices and Circuits Lab         | 20   |
| 26   | III      | 171ES3L08   | Networks and Electrical Technology Lab      | 20   |
| 27   | III      | 171HS3A09   | Professional Ethics and Human Values        | 20   |

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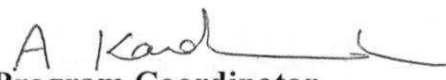
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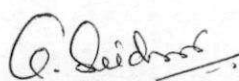
| S.No | Semester | Course Code | Course Name                                  | % of content revised for the existing year |
|------|----------|-------------|--|--|
| 28   | III      | 171HS3A10   | Employability Skills – I                     | 100  |
| 29   | IV       | 171EC4T05   | Electronic Circuit Analysis                  | 16.6                                       |
| 30   | IV       | 171EC4T06   | Electromagnetic Waves and Transmission Lines | 0  |
| 31   | IV       | 171EC4T07   | Analog Communications                        | 0  |
| 32   | IV       | 171EC4T08   | Pulse and Digital Circuits                   | 0  |
| 33   | IV       | 171HS4T05   | Management Science                           | 18   |
| 34   | IV       | 171ES4T28   | Linear Control Systems                       | 0  |
| 35   | IV       | 171HS4T08   | IPR and Patents                              | 0  |
| 36   | IV       | 171EC4L02   | Electronic Circuit Analysis Lab              | 17.6                                       |
| 37   | IV       | 171EC4L03   | Analog Communications Lab                    | 50   |
| 38   | IV       | 171HS4A11   | Employability Skills – II                    | 100  |
| 39   | V        | R1631041    | Computer Architecture and Organization       | 15   |
| 40   | V        | R1631042    | Linear I C Applications                      | 5  |
| 41   | V        | R1631043    | Digital I C Applications                     | 33   |
| 42   | V        | R1631044    | Digital Communications                       | 0  |
| 43   | V        | R1631045    | Antenna and Wave Propagation                 | 0  |
| 44   | V        | R1631046    | Pulse and Digital Circuits Lab               | 0  |
| 45   | V        | R1631047    | Linear I C Applications Lab                  | 5  |
| 46   | V        | R1631048    | Digital I C Applications Lab                 | 30   |
| 47   | V        | R1631049    | Professional Ethics & Human Values           | 100  |
| 48   | VI       | R1632041    | Micro Processors & Micro Controllers         | 18   |
| 49   | VI       | R1632042    | Micro Wave Engineering                       | 0  |
| 50   | VI       | R1632043    | VLSI Design                                  | 15   |
| 51   | VI       | R1632044    | Digital Signal Processing                    | 5  |
| 52   | VI       | R163204A    | OOPs through Java                            | 100  |
| 53   | VI       | R163204B    | Data Mining                                  | 100  |
| 54   | VI       | R163204C    | Industrial Robotics                          | 100  |
| 55   | VI       | R163204E    | Power Electronics                            | 100  |
| 56   | VI       | R163204D    | Bio-Medical Engineering                      | 0  |
| 57   | VI       | R163204F    | Artificial Neural Networks                   | 100  |
| 58   | VI       | R1632046    | Micro Processors & Micro Controllers Lab     | 15   |
| 59   | VI       | R1632047    | VLSI Lab                                     | 20   |
| 60   | VI       | R1632048    | Digital Communications Lab                   | 0  |

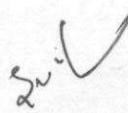
| S.No | Semester | Course Code | Course Name                                 | % of content revised for the existing year |
|------|----------|-------------|---|--|
| 61   | VI       | R1632049    | IPR & Patents                               | 18   |
| 62   | VII      | RT41041     | VLSI Design                                 | 0  |
| 63   | VII      | RT41042     | Computer Networks                           | 0  |
| 64   | VII      | RT41043     | Digital Image Processing                    | 0  |
| 65   | VII      | RT41044     | Computer Architecture & Organization        | 0  |
| 66   | VII      | RT41045     | 1. Electronic Switching Systems             | 0  |
| 67   | VII      | RT41046     | 2. Analog IC Design                         | 0  |
| 68   | VII      | RT41047     | 3. Object Oriented Programming & O S        | 0  |
| 69   | VII      | RT41048     | 4. Radar Systems                            | 0  |
| 70   | VII      | RT41049     | 5. Advanced Computer Architecture           | 0  |
| 71   | VII      | RT4104A     | 1. Optical Communication                    | 0  |
| 72   | VII      | RT4104B     | 2. Digital IC Design                        | 0  |
| 73   | VII      | RT4104C     | 3. Speech Processing                        | 0  |
| 74   | VII      | RT4104D     | 4. Artificial Neural Network & Fuzzy Logic  | 0  |
| 75   | VII      | RT4104E     | 5. Network Security & Cryptography          | 0  |
| 76   | VII      | RT4104L     | V L S I Lab                                 | 0  |
| 77   | VII      | RT4104M     | Microwave Engineering Lab                   | 0  |
| 78   | VIII     | RT42041     | Cellular Mobile Communication               | 0  |
| 79   | VIII     | RT42042     | Electronic Measurements and Instrumentation | 0  |
| 80   | VIII     | RT42043A    | 1. Satellite Communication                  | 0  |
| 81   | VIII     | RT42043B    | 2. Mixed signal Design                      | 0  |
| 82   | VIII     | RT42043C    | 3. Embedded systems                         | 0  |
| 83   | VIII     | RT42043D    | 4. RF Circuit Design                        | 0  |
| 84   | VIII     | RT42043E    | 5. Cloud Computing                          | 0  |
| 85   | VIII     | RT42044A    | 1. Wireless Sensors and Networks            | 0  |
| 86   | VIII     | RT42044B    | 2. System on Chip                           | 0  |
| 87   | VIII     | RT42044C    | 3. Low Power IC Design                      | 0  |
| 88   | VIII     | RT42044D    | 4. Bio-Medical Instrumentation              | 0  |
| 89   | VIII     | RT42044E    | 5. EMI/EMC                                  | 0  |
| 90   | VIII     | RT42045     | Project & Seminar                           | 0  |

  
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|--|----------|
| Total number of courses in the academic year 2018-19   | = 90     |
| Number of courses having revision in syllabus content $\geq 20\%$ in the academic year 2018-19 | = 15     |
| Percentage of syllabus revision carried out in the academic year 2018-19 =<br>( 15/90)*100     | = 16.66% |

  
Program Coordinator

  
Head of the Department  
Head of the Department  
Department of E.C.E.  
Aditya Engineering College (A9)

  
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Aditya Nagar, ADB Road, Surampalem-533 437, E.G.Dt., Ph: 99498 76662, 99897 76661

## Department of Electronics and Communication Engineering

Date: 11-11-2018

### Minutes of the III meeting of BOS scheduled on 10-11-2018

The III meeting of the BOS of Electronics and Communication Engineering Department was held on 10-11-2018 at 09.30 AM.

The Members discussed the agenda items and made the following resolutions.

#### **Agenda 3.1: Welcome address by Chairman**

Prof. G. Sridevi, Chairman of BOS, invited all the distinguished members of BOS to the first 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 11-11-2017.

#### **Agenda 3.3: Discussion on proposed course syllabus of each course in B.Tech V, VI, VII and VIII semesters.**

The BOS members have discussed about course content in, VI, VII & VIII semesters of Electronics and Communication Engineering Department subjects, suggested some minor modifications and Ratified

- Suggested to change the title of the course "DSP Processors and Applications" as "DSP Processors and Architectures".
- Suggested to make the students to do programming experiments as assignments and the interfacing experiments to be performed in Lab sessions in MPMC lab in VI semester.
- Suggested to prepare evaluation process in internship program based on individual or group of students of VII semester.
- Suggested to plan two MOOCS courses for the students with the duration of at least 16 weeks (4+12 or 8+8 or 10+6) before the completion of VII semester.
- Suggested to allocate 4 hours to practical session and evaluate student performance on the basis of objective and subjective evaluation for the major project of VIII semester.
- The BOS members discussed the courses which improved the skill set of the students.

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- The BOS members discussed the new courses which focus on new trend and technologies. Percentage of new courses introduced in the academic year 2018-2019 for B.Tech (ECE) is 5.56 %. The percentage of courses revised in the academic year 2018-2019 for the B.Tech (ECE) is 16.66%, M.Tech (VLSI Design) is 10.7% and M.Tech(ES) is 6.66%. The list of new courses is enclosed as Annexure-I and revised courses as Annexure II.

**Agenda 3.4: Discussion on proposed program structure AR19 B.Tech (ECE), AR19 M.Tech (VLSI Design) & AR19 M.Tech (ES) based on the AICTE model curriculum.**

The BOS members have discussed the proposed course structure of AR19 B.Tech (ECE), AR19 M.Tech (VLSI Design) & AR19 M.Tech (ES) based on the AICTE model curriculum and the members Suggested to prepare a credit plan for the Humanity sciences courses, Basic Sciences Courses, Professional Core Courses, and Professional Elective Courses and Open elective Courses in line with AICTE model curriculum.

**Agenda 3.5: Ratification of the proposed model question paper for sessional and external examinations of B.Tech (ECE), M.Tech (VLSI Design) and M.Tech (ES) programs.**

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

**Agenda 3.6: 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 and ratified.

**Agenda 3.7: Analysis of results.**


The BOS Chairperson presented the odd and even semesters pass percentage for the A.Y.2017-2018. The BOS members noted the same.

**Agenda 3.8: Analysis of Students feedback and action taken report.**

Students feedback and actions taken report is presented by the BOS chairperson to the BOS members and BOS members approved the same.

**Agenda 3.9: Analysis of Stakeholder's Feedback on Curriculum.**

Analysis of Stakeholder's Feedback on Curriculum is presented by the BOS, chairperson to the BOS members and BOS members noted the same and the Action Taken Report is enclosed as Annexure-III.

  
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**Agenda 3.10: Any other item/s with the approval of Chairperson.**

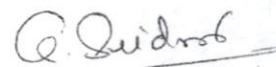
- Suggested to reduce Employability skills credits from 4 to 2 and ratified.
- Suggested to replace Industrial oriented mini project in IV Year I Semester with Internship Program with a period of 2 to 3 weeks with 2 credits and ratified.

**Agenda 3.11: Scheduling of next Board of Studies meeting.**

The next BOS meeting is tentatively scheduled in the month of July 2019.

**Agenda 3.12: Vote of Thanks**

Prof. G. Sridevi, BOS Chairperson presented the Vote of thanks.



**BOS Chairperson**

Head of the Department  
Department of E.C.E.  
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## Department of Electronics and Communication Engineering

### Annexure-I

#### List of New Courses in the Academic Year 2018-2019

| S. No | Program       | Semester | Course Code | Course Name               |
|-------|---------------|----------|-------------|---------------------------|
| 1     | B. Tech (ECE) | III      | 171HS3A10   | Employability Skills - I  |
| 2     | B. Tech (ECE) | IV       | 171HS4A11   | Employability Skills – II |
| 3     | B. Tech (ECE) | VI       | R163204B    | Data Mining               |
| 4     | B. Tech (ECE) | VI       | R163204C    | Industrial Robotics       |
| 5     | B. Tech (ECE) | VI       | R163204E    | Power Electronics         |

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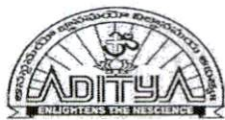
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B. Seidrol

BOS Chairperson

Head of the Department  
Department of E.C.E.  
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## Department of Electronics and Communications Engineering

### Annexure-II

#### List of Courses Revised in the Academic Year 2018-2019

| S. No | Program       | Semester | Course Code | Course Name                                 |
|-------|---------------|----------|-------------|---|
| 1     | B. Tech (ECE) | III      | 171HS3T04   | Managerial Economics and Financial Analysis |
| 2     | B. Tech (ECE) | III      | 171EC3L01   | Electronic Devices and Circuits Lab         |
| 3     | B. Tech (ECE) | III      | 171ES3L08   | Networks and Electrical Technology Lab      |
| 4     | B. Tech (ECE) | IV       | 171EC4L03   | Analog Communications Lab                   |
| 5     | B. Tech (ECE) | V        | R1631042    | Digital I C Applications                    |
| 6     | B. Tech (ECE) | V        | R1631048    | Digital I C Applications Lab                |
| 7     | B. Tech (ECE) | VI       | R1632047    | VLSI Lab                                    |
| 8     | M.Tech (ES)   | I        | 172EM1E02   | Sensors and actuators                       |
| 9     | M.Tech (ES)   | I        | 172EM1E05   | Device drivers                              |
| 10    | M.Tech(VLSID) | I        | 172EM1E01   | Cyber security                              |
| 11    | M.Tech(VLSID) | I        | 172VD1E02   | CPLD/FPGA architecture and applications     |
| 12    | M.Tech(VLSID) | II       | 172VD2E04   | CAD for VLSI                                |

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BOS Chairperson

Head of the Department  
Department of E.C.E.

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## Department of Electronics and Communication Engineering

### Annexure III

#### Action Taken Report on Stakeholders Feedback

| S. No | Agenda Item No. | Stakeholders Recommended   | Action Taken  |
|-------|-----------------|--|---|
| 1     | 3.14            | IT industry is one of the rapidly growing industries. Accommodate more relevant courses in the curriculum so that the students can meet the industry requirements. | DATA MINING is included in open elective so that it can be opted by the students who are interested in choosing their career towards IT industry. |
| 2     | 3.14            | IC design industry is rapidly growing and provides vast opportunities. Students should be encouraged in this aspect.   | A course is included in the curriculum facilitating an insight to the domain.   |
| 3     | 3.14            | Encourage students to visit industries and corporate work places so that they can inculcate the industry requirements in them personally.                          | Will be discussed with the concerned body for providing space for such activities to be a part of curriculum only with proper approval.           |
| 4     | 3.14            | Include courses which will help the students in getting through competitive exams and placements as well.  | Employability skills I and II in the III and IV semesters respectively are introduced to facilitate this suggestion.                              |
| 5     | 3.14            | Suggestions made by alumni to include small-scale project works to inculcate technical skills in the students.   | Suggestion will be taken to the concerned body and necessary action will be taken by the expertise with proper approval.                          |
| 6     | 3.14            | Suggested to invite core companies such as domain specific companies more in number for placements.  | This will be discussed and necessary action will be taken by the expertise.   |
| 7     | 3.14            | facilitate more industrial training sessions and engage the students with more live projects.  | This will be incorporated in the revised syllabus in the upcoming regulation.   |
| 8     | 3.14            | Make sure theory course and lab related to the theory appears in the   | Exercise will be done on this suggestion and with proper  |

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|    |      | same semester.  | approval by the expertise, it will be looked into.   |
| 9  | 3.14 | In the course Linear IC Applications unit III and unit V are really tough to be dealt by an average student. And also, the content is large. This may be changed in favour of an average student with expertise suggestion. | Will be discussed with the expertise and necessary changes will be made if needed.   |
| 10 | 3.13 | Students are very much enthusiastic in practical and project-oriented courses. It will help the student community if courses related to these are included in the curriculum.   | Students will come across INDUSTRIAL ROBOTICS and POWER ELECTRONICS in their VI semester to provide practical exposure in them.              |
| 11 | 3.13 | Requested for more industrial visits to be incorporated in the curriculum.  | Will be discussed with the expertise and necessary changes will be made if needed.   |
| 12 | 3.13 | Suggestions are recommended by students to change the exam paper pattern.   | Taking students feedback into account, and looking into the possibilities with the expertise suggestions, this will be discussed thoroughly. |
| 13 | 3.14 | Incorporate courses in the curriculum so as to get the students ready to meet the industry requirements.  | Suggestion will be discussed with the concerned body and will bring the changes with proper approval.  |
| 14 | 3.14 | Include courses which will help the students in getting through competitive exams and placements as well.   | Suggestion will be discussed with the concerned body and will bring the changes with proper approval.  |
| 15 | 3.14 | Course content should be in such a way that the students can get ready for placement point of view and also higher studies.   | Will be discussed with the concerned body for facilitating the suggestion.   |
| 16 | 3.13 | Students are very much enthusiastic in practical and project-oriented courses. It will help the student community if such courses are included in the curriculum.   | Suggestion will be taken forward and will be discussed with the concerned body for necessary inclusions.                                     |
| 17 | 3.14 | Incorporate courses in the curriculum so as to get the students ready to meet the industry requirements.  | Suggestion will be discussed with the concerned body and will bring the changes with proper approval.  |
| 18 | 3.14 | Include courses which will help the students in getting through competitive exams and   | Suggestion will be discussed with the concerned body and will bring the changes with   |



|   |   |  |
|---|---|--|
|   | placements as well.   | proper approval.   |
| 4 | Course content should be in such a way that the students can get ready for placement point of view and also higher studies.                                       | Will be discussed with the concerned body for facilitating the suggestion.                               |
| 3 | Students are very much enthusiastic in practical and project-oriented courses. It will help the student community if such courses are included in the curriculum. | Suggestion will be taken forward and will be discussed with the concerned body for necessary inclusions. |

*C. Seidm*  
BOS Chairperson

Head of the Department  
Department of E.C.E.  
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