# SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY

(AUTONOMOUS)
(Approved by AICTE, New Delhi& Affiliated to JNTUA, Ananthapuramu)
(Accredited by NBA for Civil, EEE, Mech., ECE & CSE
Accredited by NAAC with 'A' Grade)
Puttur -517583, Chittoor District, A.P. (India)

## DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

## BOARD OF STUDIES MINUTES OF MEETING

**SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY: PUTTUR**

**(AUTONOMOUS)**

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## 1ST BoS Meeting of Electronics and Communication Engineering (ECE)

Date: 08-07-2016

The 1st meeting of Board of Studies (BoS) in Electronics and Communication Engineering is held on 08 July 2016 at 1:30 PM in the Department of Electronics and Communication Engineering, Siddharth Institute of Engineering & Technology, Puttur, Chittoor –Dist.

As per the UGC (University Grant Commission) guidelines, the Choice Based Credit System (CBCS) and electives have been implemented in the curriculum.

Dr. M. Janardhana Raju, Chairman BoS chaired the meeting and welcomed all the members to the first BoS meeting and discussed about the following agenda

**Agenda:**

1. Preparation of course structure for UG & PG in ECE w.e.f., 2016-17.
2. Preparation of syllabi for I & II-year UG & PG in ECE w.e.f., 2016-17.
3. Preparation of syllabi for the subjects offered to various branches w.e.f., 2016-17.
4. Suggesting Panel of Question Paper setters.
5. Suggesting Panel of Examiners.
6. Methodologies for Innovative teaching.
7. Academic activities.

After a brief introduction the agenda items listed above were taken up for discussion and the following resolutions were passed.

**Minutes:**

**Agenda: 1**

Preparation of course structure for UG & PG in ECE w.e.f., 2016-17.

**Resolution: 1**

After detailed discussion the course structure for UG & PG in ECE is prepared (given in **Annexure –I**) and is applicable from the A.Y. 2016-17.

**Agenda: 2**

Preparation of syllabi for I & II-year UG & PG in ECE w.e.f., 2016-17.

**Resolution: 2**

After the thorough discussion syllabi was framed to make the students to acquire the required technical knowledge and skills. The syllabi framed for the I & II-year UG & PG in ECE (given in **Annexure-II**) and is applicable from the A.Y. 2016-17.

**A. Course & Syllabus Comparison**

With reference to the R15 regulations, the new regulation (R16) syllabus for I$^{st}$ year has the following modifications, which are given in the below table.

**I & II B.Tech**

| S.No | R15 Regulation | R16 Regulation | Percentage of course content changed |
|---|---|---|---|
| 1. | Functional English | Functional English | 0 |
| 2. | Mathematics – I | Engineering Mathematics-I | 0 |
| 3. | Engineering Chemistry | Engineering Chemistry | 0 |
| 4. | Computer Programming | Computer Programming | 0 |
| 5. | Engineering Drawing | Engineering Graphics | 20 |
| 6. | English Language Communication Skills Lab | English Language and Communication Skills Lab | 0 |
| 7. | Engineering Chemistry Lab | Engineering Chemistry Lab | 0 |
| 8. | Computer Programming Lab | Computer Programming Lab | 0 |
| 9. | English for Professional Communication | Professional English | 0 |
| 10. | Mathematics – II | Engineering Mathematics-II | 0 |
| 11. | Engineering Physics | Engineering Physics | 0 |
| 12. | | Human Values & Professional Ethics | 100 |
| 13. | Network Analysis | Network Analysis | 0 |

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|---|---|---|---|
| 14. | Engineering Physics Lab | Engineering Physics Lab | 0 |
| 15. | Network Analysis Lab | Network Analysis Lab | 0 |
| 16. | Engineering and IT Workshop | Engineering & IT workshop Lab | 0 |
| 17. | Mathematics-III | Engineering Mathematics-III | 0 |
| 18. | Electronic Devices and Circuits | Basic Electronic Devices | 0 |
| 19. | Switching Theory and Logic Design | Switching Theory & Logic Design | 0 |
| 20. | Signals and Systems | Signals and Systems | 0 |
| 21. | Probability Theory and Stochastic Processes | Random Signal & Stochastic Processes | 0 |
| 22. | Environmental Studies | Environmental Studies | 20 |
| 23. | Electronic Devices and Circuits Laboratory | Basic Electronic Devices Lab | 0 |
| 24. | Electrical Technology and Basic Simulation Laboratory | Basic Simulation Lab | 0 |
| 25. | | Data Structures through C | 100 |
| 26. | Electronic Circuit Analysis | Electronic Circuit Analysis | 0 |
| 27. | Computer Organization | Computer Organization and Architecture | 0 |
| 28. | Electromagnetic Theory and Transmission Lines | Electromagnetic Theory and Transmission Lines | 0 |
| 29. | | Pulse & Digital Circuits | 100 |
| 30. | Electrical Technology | Electrical Technology | 0 |
| 31. | Electronic Circuit Analysis Laboratory | Electronic Circuit Analysis Lab | 0 |
| 32. | | Pulse & Digital Circuits Lab | 100 |
| 33. | Electrical Technology and Basic Simulation Laboratory | Electrical Technology Lab | 0 |
| 34. | | Comprehensive Soft Skills | 100 |

**Consolidated Sheet**

| Course | Total courses | Percentage of syllabus changed |
|---|---|---|
| **ECE B.Tech I& II Year** | **34** | **15.88** |

**I & II M.Tech**

| S.No | R15 Regulation | R16 Regulation | Percentage of course content changed |
|---|---|---|---|
| 1. | Digital System Design | Digital System Design | 0 |
| 2. | Embedded System Concepts | Embedded System Concepts | 0 |
| 3. | Advanced Digital Signal Processing | Advanced Digital Signal Processing | 0 |
| 4. | Digital Communication Techniques | Digital Communication Techniques | 0 |
| 5. | Adaptive Signal Processing | Adaptive Signal Processing | 0 |
| 6. | Advanced Computer Architectures | Advanced Computer Architectures | 0 |
| 7. | DSP Processors & Architectures | DSP Processors & Architectures | 0 |
| 8. | Low Power VLSI Design | Low Power VLSI Design | 0 |
| 9. | Digital System Design Lab | Digital System Design Lab | 0 |
| 10. | Micro Computer System Design | Micro Computer System Design | 20 |
| 11. | Hi-Speed Networks | Hi-Speed Networks | 0 |
| 12. | Wireless Communications | Wireless Communications | 0 |
| 13. | Coding Theory & Techniques | Coding Theory & Techniques | 0 |
| 14. | Detection &Estimation of Signals | Detection & Estimation of Signals | 0 |
| 15. | Image & Video Processing | Image & Video Processing | 0 |
| 16. | Optical Communications | Optical Networks | 100 |
| 17. | Compression Techniques | Compression Techniques | 0 |
| 18. | Communications &Signal Processing Lab | Communications & Signal Processing Lab | 0 |
| 19. | Seminar | Seminar | 0 |
| 20. | Project work | Project work | 0 |
| 21. | Advanced DSP & Applications | Advanced DSP & Applications | 0 |
| 22. | Embedded System Concepts | Embedded System Concepts | 0 |
| 23. | Advanced Computer Architecture | Advanced Computer Architecture | 0 |
| 24. | Micro Controllers & Interfacing | Micro Controllers & Interfacing | 0 |
| 25. | Operating Systems | | 0 |
| 26. | Digital IC Design | Digital IC Design | 0 |
| 27. | VLSI Technology | VLSI Technology | 0 |
| 28. | Algorithms for VLSI Design Automation | Algorithms for VLSI Design Automation | 0 |

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|---|---|---|---|
| 29. | Microcontrollers & Interfacing Lab | Microcontrollers & Interfacing Lab | 100 |
| 30. | Testing & Testability | Testing & Testability | 0 |
| 31. | Real Time Operating Systems | Real Time Operating Systems | 0 |
| 32. | Hardware Software Co-design | Hardware Software Co-Design | 0 |
| 33. | FPGA Architecture & Applications | FPGA Architecture and Applications | 0 |
| 34. | Cryptography & Network Security | Cryptography & Network Security | 0 |
| 35. | Radio Frequency Identification | Radio Frequency Identification | 0 |
| 36. | Micro Electromechanical Systems | Micro Electromechanical Systems | 0 |
| 37. | Expert Systems | | 0 |
| 38. | RTOS & FPGA Lab | RTOS and FPGA Lab | 0 |
| 39. | Seminar | Seminar | 0 |
| 40. | Project work | Project work | 0 |
| 41. | | System Modeling & Simulation | 100 |
| 42. | VLSI Technology | VLSI Technology | 0 |
| 43. | Analog IC Design | Analog IC Design | 0 |
| 44. | Digital IC Design | Digital IC Design | 0 |
| 45. | Hardware Description Languages | Verilog HDL | 0 |
| 46. | Hardware Software Co-design | Hardware Software Co-Design | 0 |
| 47. | Embedded system Concepts | Embedded system Concepts | 90 |
| 48. | System Modeling & Simulation | System Modeling & Simulation | 0 |
| 49. | ASIC Design | ASIC Design | 0 |
| 50. | Digital IC Design Lab | Digital IC Design Lab | 0 |
| 51. | Testing & Testability | Testing & Testability | 0 |
| 52. | Low Power VLSI Design | Low Power VLSI Design | 0 |
| 53. | Algorithms for VLSI Design Automation | Algorithms for VLSI Design Automation | 0 |
| 54. | FPGA Architectures & Applications | FPGA Architectures & Applications | 0 |
| 55. | Scripting Language for VLSI Design Automation | Scripting Language for VLSI Design Automation | 0 |
| 56. | Nano Electronics | Nano Electronics | 0 |
| 57. | Cryptography & Network | Cryptography & Network | 0 |

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|---|---|---|---|
| | Security | Security | |
| 58. | Real Time Operating Systems | Real Time Operating Systems | 0 |
| 59. | Mixed Signal Lab | Mixed Signal Lab | 0 |
| 60. | Seminar | Seminar | 0 |

**Consolidated Sheet**

| Course | Total courses | Percentage of syllabus changed |
|---|---|---|
| **ECE M.Tech I& II Year** | **60** | **6.833** |

**B. Course Relevance**

The courses that come under the category of Employability, Skill or Entrepreneurship Development are shown in the table below.

**I & II B.Tech**

| S.No | Course Title | Course Code | Relevance |
|---|---|---|---|
| 1. | Functional English | 16HS601 | Skill Development |
| 2. | English Language and Communication Skills Lab | 16HS607 | Skill Development |
| 3. | Computer Programming Lab | 16CS502 | Skill Development |
| 4. | Computer Organization and Architecture | 16EC408 | Skill Development |
| 5. | Data Structures through C | 16CS503 | Skill Development |
| 6. | Network Analysis | 16EE205 | Employability |
| 7. | Network Analysis Lab | 16EE206 | Employability |
| 8. | Basic Electronic Devices | 16EC401 | Employability |
| 9. | Switching Theory & Logic Design | 16EC402 | Employability |
| 10. | Signals and Systems | 16EC403 | Employability |
| 11. | Random Signal & Stochastic Processes | 16EC404 | Employability |
| 12. | Environmental Studies | 16HS605 | Employability |

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|---|---|---|---|
| 13. | Basic Electronic Devices Lab | 16EC405 | Employability |
| 14. | Basic Simulation Lab | 16EC406 | Employability |
| 15. | Electronic Circuit Analysis | 16EC407 | Employability |
| 16. | Electromagnetic Theory and Transmission Lines | 16EC409 | Employability |
| 17. | Pulse & Digital Circuits | 16EC410 | Employability |
| 18. | Electrical Technology | 16EE212 | Employability |
| 19. | Electronic Circuit Analysis Lab | 16EC412 | Employability |
| 20. | Pulse & Digital Circuits Lab | 16EC413 | Employability |
| 21. | Electrical Technology Lab | 16EE213 | Employability |
| 22. | Computer Programming | 16CS501 | Employability |
| 23. | Professional English | 16HS610 | Employability |
| 24. | Network Analysis | 16EE205 | Employability |
| 25. | Network Analysis Lab | 16EE206 | Employability |
| 26. | Comprehensive Soft Skills | 16HS614 | Employability |

**I & II M.Tech**

| S. No | Course Title | Course Code | Relevance |
|---|---|---|---|
| 1. | Digital System Design | 16EC3801 | Employability |
| 2. | Advanced Digital Signal Processing | 16EC3802 | Employability |
| 3. | Digital Communication Techniques | 16EC3803 | Employability |
| 4. | Adaptive Signal Processing | 16EC3804 | Employability |
| 5. | Embedded System Concepts | 16EC5502 | Employability |
| 6. | Advanced Computer Architectures | 16EC5503 | Employability |
| 7. | DSP Processors & Architectures | 16EC3805 | Employability |
| 8. | Low Power VLSI Design | 16EC5709 | Employability |

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|---|---|---|---|
| 9. | Micro Computer System Design | 16EC3807 | Employability |
| 10. | Image & Video Processing | 16EC3808 | Employability |
| 11. | Wireless Communications | 16EC3809 | Employability |
| 12. | Coding Theory & Techniques | 16EC3810 | Employability |
| 13. | Detection & Estimation of Signals | 16EC3811 | Employability |
| 14. | Hi-Speed Networks | 16EC3812 | Employability |
| 15. | Optical Networks | 16EC3813 | Employability |
| 16. | Compression Techniques | 16EC3814 | Employability |
| 17. | Micro Controllers & Interfacing | 16EC5501 | Employability |
| 18. | Embedded System Concepts | 16EC5502 | Employability |
| 19. | Advanced Computer Architecture | 16EC5503 | Employability |
| 20. | Advanced DSP & Applications | 16EC5504 | Employability |
| 21. | Digital System Design | 16EC3801 | Employability |
| 22. | Digital IC Design | 16EC5703 | Employability |
| 23. | VLSI Technology | 16EC5701 | Employability |
| 24. | Algorithms for VLSI Design Automation | 16EC5710 | Employability |
| 25. | Real Time Operating Systems | 16EC5506 | Employability |
| 26. | Testing & Testability | 16EC5507 | Employability |
| 27. | Hardware Software Co-Design | 16EC5508 | Employability |
| 28. | Cryptography & Network Security | 16EC5509 | Employability |
| 29. | FPGA Architecture and Applications | 16EC5708 | Employability |
| 30. | Radio Frequency Identification | 16EC5510 | Employability |
| 31. | Micro Electromechanical Systems | 16EC5511 | Employability |
| 32. | System Modeling & Simulation | 16EC5705 | Employability |
| 33. | VLSI Technology | 16EC5701 | Employability |
| 34. | Analog IC Design | 16EC5702 | Employability |

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| 35. | Digital IC Design | 16EC5703 | Employability |
| 36. | Verilog HDL | 16EC5704 | Employability |
| 37. | Hardware Software Co-Design | 16EC5508 | Employability |
| 38. | Embedded system Concepts | 16EC5502 | Employability |
| 39. | System Modeling & Simulation | 16EC5705 | Employability |
| 40. | ASIC Design | 16EC5706 | Employability |
| 41. | FPGA Architectures & Applications | 16EC5708 | Employability |
| 42. | Testing & Testability | 16EC5507 | Employability |
| 43. | Low Power VLSI Design | 16EC5709 | Employability |
| 44. | Algorithms for VLSI Design Automation | 16EC5710 | Employability |
| 45. | Scripting Language for VLSI Design Automation | 16EC5711 | Employability |
| 46. | Nano Electronics | 16EC5712 | Employability |
| 47. | Cryptography & Network Security | 16EC5509 | Employability |
| 48. | Real Time Operating Systems | 16EC5506 | Employability |

Modifications described above are carried out to the curriculum after discussions in the BoS by considering the feedback/suggestions from the stakeholders viz. students, alumni, faculty and employers.

**Agenda: 3**

Preparation of syllabi for the subjects offered to various branches w.e.f. 2016-17.

**Resolution: 3**

After the thorough discussion syllabi was prepared and finalized for the subjects offered to various branches (given in **Annexure-III**).

**Agenda: 4**

Suggesting Panel of Question Paper setters.

**Resolution: 4**

The panel of question paper setters was suggested (given in **Annexure –IV**).

**Agenda: 5**

Suggesting Panel of examiners

**Resolution: 5**

The panel of examiners was suggested (given in **Annexure –V**)

The above items were discussed, debated and the necessary approval was accorded by the BoS. The meeting was concluded with vote of Thanks proposed by the Chairman-BoS.

**Agenda: 6**

Methodologies for Innovative teaching.

**Resolution: 6**

After the thorough discussion, innovative teaching methodologies like, ICT, smart book can be implemented in classroom teaching. Faculty and students are advised to learn advanced courses through nptel and other platforms.

**Agenda: 7**

Academic activities.

**Resolution: 7**

After the detailed discussion panel suggested to improve the quality of Academic activities and bring all of them under professional societies. Also instructed to improve the industry interactions.

**Members Present**

| S.No. | Member Name | Academic/ Industry Position | Role in the BOS | Signature |
|---|---|---|---|---|
| 1. | Prof. M.Janardhana Raju | Professor& HOD-SIETK | Chairman | |
| 2. | Mrs. M.Kalpana | Associate Professor-SIETK (ES &VLSI) | Member | |
| 3. | Mrs. K.S.Devesawari | Associate Professor-SIETK (Applied Electronics ) | Member | |
| 4. | Mr. C. Vijaya Bhaskar | Associate Professor-SIETK (VLSI system design) | Member | |
| 5. | Mr. V.Viswanadha | Associate Professor-SIETK (DECS) | Member | |
| 6. | Dr. S. Narayana Reddy | Professor, S.V. University, Tirupati | Member | |
| 7. | Dr. Rama Komaragiri | Associate Professor, NIT Calicut | Member | ABSENT |
| 8. | Dr.P.Ramana Reddy | Professor JNTUA,Ananthapuramu | Member | |
| 9. | Mr. Narendra Reddy | Scientist-C, CMTI, Bangalore | Member | |
| 10. | Mr. B.Venkatadri | Software Developer HCL Technologies | Member | |

**SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY: PUTTUR**

**(AUTONOMOUS)**

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## 2nd BoS Meeting of Electronics and Communication Engineering (ECE)

Date: 23/12/2017

The 2nd meeting of Board of Studies (BoS) in Electronics and Communication Engineering is held on 23rd December2017 at 10.00 AM in the Department of Electronics and Communication Engineering, Siddharth Institute of Engineering & Technology, Puttur, Chittoor –Dist.

As per the UGC (University Grant Commission) guidelines, the Choice Based Credit System (CBCS) and electives have been implemented in the curriculum

Mr. M. Janardhan Raju, Chairman - BoS chaired the meeting and welcomed all the members to the Second BoS meeting and discussed about the following agenda:

1. Preparation of course structure for III &IV-yearUG in ECE w.e.f., 2018-19.
2. Preparation of syllabi for III &IV-year UG in ECE w.e.f., 2018-19.
3. Preparation of syllabus for the subject offered to other branches w.e.f., 2018-19.
4. Suggesting Panel of Question Paper setters.
5. Suggesting Panel of Examiners.
6. Quality of internal Question papers.
7. Academic project evaluation.

After a brief introduction of the agenda items listed above, each agenda item was taken up for discussion and the following resolutions were passed.

**Minutes:**

**Agenda: 1**

Preparation of course structure for III &IV-year UG in ECE w.e.f.,2018-19.

**Resolution: 1**

After the detailed discussion the course structure for III &IV-year UG in ECE was prepared(given in **Annexure –I**)and is applicable from the A.Y., 2018-19.

**Agenda: 2**

Preparation of syllabus for III &IV-year UG in ECE w.e.f., 2018-19.

**Resolution: 2**

After the thorough discussion syllabi was formulated to make the students acquire the required technical knowledge and skills. The syllabi framed for the III and IVyearsof UG in ECE (given in **Annexure –II**) and is applicable from the A.Y., 2018-19.

**A. Course & Syllabus Comparison**

With reference to the R15 regulations, the new regulation (R16) syllabus for 3rd& 4th year has the following modifications, which are given in the below table.

**III & IV B.Tech.**

| S.No | R15 Regulation | R16 Regulation | Percentage of course content changed |
|---|---|---|---|
| 1. | | Pulse & Digital Circuits | 100 |
| 2. | | Pulse & Digital Circuits Lab | 100 |
| 3. | Electronic Circuit Analysis Laboratory | Electronic Circuit Analysis Lab | 0 |
| 4. | | Electrical Technology Lab | 0 |
| 5. | Computer Organization | Computer Organization and Architecture | 0 |
| 6. | Antennas and Wave Propagation | Antennas & Wave Propagation | 60 |
| 7. | | Linear Control Systems | 100 |
| 8. | Digital Communication Systems | Digital Communications | 0 |

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|---|---|---|---|
| 9. | Linear Integrated Circuits and Applications | Linear IC Applications | 25 |
| 10. | | Analog Communications Lab | 100 |
| 11. | Digital Communication Systems Laboratory | Digital Communications Lab | 0 |
| 12. | Managerial Economics and Financial Analysis | Managerial Economics & Financial Analysis | 0 |
| 13. | | Digital IC Applications | 100 |
| 14. | Microprocessors & Microcontrollers | Microprocessors & Microcontrollers | 80 |
| 15. | | Analog Communications | 100 |
| 16. | Electronic Measurements and Instrumentation | Electronic Measurements and Instrumentation | 0 |
| 17. | Digital Signal Processing | Digital Signal Processing | 20 |
| 18. | VLSI Design | VLSI Design | 50 |
| 19. | Neural Networks & Fuzzy Logic | Neural Networks & Fuzzy Logic | 35 |
| 20. | Intellectual Property Rights | Intellectual Property Rights | 0 |
| 21. | | Digital IC Applications Lab | 100 |
| 22. | Advanced English Language Communication Skills (AELCS) Laboratory (Audit Course) | Advanced English Language and Communication Skills Lab | 0 |
| 23. | Optical Fiber Communication | Optical Fiber Communication | 25 |
| 24. | | Entrepreneurship Development | 100 |
| 25. | Embedded Systems | Embedded Systems | 90 |
| 26. | Microwave Engineering | Microwave Engineering | 10 |
| 27. | Data Communications and Networking | Computer Networks | 55 |
| 28. | Radar Systems | Radar & Navigational Aids | 65 |
| 29. | | Satellite and TV Engineering | 100 |
| 30. | | Spread spectrum communications | 100 |
| 31. | Digital Image Processing | Digital Image processing | 10 |
| 32. | | Medical Electronics | 100 |
| 33. | | Elements of Road Traffic Safety | 100 |

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|---|---|---|---|
| 34. | | Non-Conventional Energy Resources | 100 |
| 35. | | Database Management systems | 100 |
| 36. | | Wireless Communication &Networks | 100 |
| 37. | Cellular & Mobile Communication | Cellular & Mobile Communication | 100 |
| 38. | Real Time Systems | Real time operating Systems | 0 |
| 39. | Microwave and Optical Communication Laboratory | Microwave & Optical Communications Lab | 0 |
| 40. | VLSI & Embedded Systems Laboratory | Embedded Systems Lab | 100 |
| 41. | Pattern Recognition & Applications | Pattern Recognition& Applications | 0 |

**Consolidated Sheet**

| Course | Total courses | Percentage of syllabus changed |
|---|---|---|
| **ECEB. Tech. III and IV Year** | **41** | **54.26** |

**B. Course Relevance**

The courses that come under the category of Employability, Skill or Entrepreneurship Development are shown in the table below.

| S. No. | Course Title | Course Code | Relevance |
|---|---|---|---|
| 1 | Analog Communications | 16EC415 | Employability |
| 2 | Electronic Measurements and Instrumentation | 16EC416 | Employability |
| 3 | Linear IC Applications | 16EC417 | Employability |
| 4 | Antennas & Wave Propagation | 16EC418 | Employability |
| 5 | Linear Control Systems | 16EE216 | Employability |
| 6 | Managerial Economics & Financial Analysis | 16MB750 | Entrepreneurship |
| 7 | Analog Communications Lab | 16EC419 | Employability |
| 8 | Linear IC Applications Lab | 16EC420 | Employability |
| 9 | Digital Communications | 16EC421 | Employability |
| 10 | Digital Signal Processing | 16EC422 | Employability |
| 11 | Microprocessors & Microcontrollers | 16EC423 | Employability |
| 12 | Digital IC Applications | 16EC424 | Employability |
| 13 | Microwave Engineering | 16EC425 | Employability |
| 14 | Advanced English Language and Communication Skills Lab | 16HS615 | Skill Development |

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|---|---|---|---|
| 15 | Digital Communications Lab | 16EC426 | Skill Development |
| 16 | Digital IC Applications Lab | 16EC427 | Skill Development |
| 17 | Entrepreneurship Development | 16MB751 | Entrepreneurship |
| 18 | Embedded Systems | 16EC429 | Employability |
| 19 | Optical Fiber Communication | 16EC430 | Employability |
| 20 | VLSI Design | 16EC431 | Employability |
| 21 | Digital Image processing | 16EC432 | Employability |
| 22 | Medical Electronics | 16EC433 | Employability |
| 23 | Pattern Recognition& Applications | 16EC434 | Employability |
| 24 | Elements of Road Traffic Safety | 16CE145 | Employability |
| 25 | Neural Networks & Fuzzy Logic | 16EE239 | Employability |
| 26 | Non-Conventional Energy Resources | 16ME313 | Employability |
| 27 | Database Management systems | 16CS511 | Employability |
| 28 | Intellectual Property Rights | 16MB752 | Entrepreneurship |
| 29 | Microwave & Optical Communications Lab | 16EC435 | Employability |
| 30 | Embedded Systems Lab | 16EC436 | Employability |
| 31 | Real time operating Systems | 16EC437 | Employability |
| 32 | Radar & Navigational Aids | 16EC438 | Employability |
| 33 | Satellite and TV Engineering | 16EC439 | Employability |
| 34 | Spread spectrum communications | 16EC440 | Employability |
| 35 | Wireless Communication &Networks | 16EC441 | Employability |
| 36 | Computer Networks | 16CS527 | Employability |
| 37 | Cellular & Mobile Communication | 16EC442 | Employability |

Modifications described above are carried out to the curriculum after discussions in the BoS by considering the feedback/suggestions from the stakeholders viz. students, alumni, faculty and employers.

**Agenda: 3**

Preparation of syllabus for the subject offered to other branches w.e.f. 2018-19.

**Resolution: 3**

After the thorough discussion syllabus was prepared for the subject offered to other branches (given in **Annexure-III**) and is applicable from the A.Y., 2018-19.

**Agenda: 4**

Suggesting Panel of question paper setters.

**Resolution: 4**

The panel of question paper setters was suggested (given in **Annexure –IV**).

**Agenda: 5**

Suggesting Panel of examiners.

**Resolution: 5**

The panel of examiners for valuation was suggested(given in **Annexure –V**).

The above items were discussed, debated and the necessary approval was accorded by the BoS. The meeting was concluded with vote of Thanks proposed by the Chairman-BoS.

**Agenda: 6**

Quality of internal Question papers.

**Resolution: 6**

After sample internal question papers verification panel suggested to prepare the questions matching with the course outcomes and also advised to follow Blooms taxonomy levels.

**Agenda: 7**

Academic project evaluation.

**Resolution: 7**

The panel revised the rubric of project evaluation and instructed to following parameters.

Significance of the project, Literature survey, knowledge in the domain, presentation and implementation.

## 2nd BoS Meeting of Electronics and Communication Engineering (ECE)

Date: 23/12/2017

### Members Present

| S.No. | Member Name | Academic/ Industry Position | Role in the BOS | Signature |
|---|---|---|---|---|
| 1. | Prof. M.Janardhana Raju | Professor& HOD-SIETK | Chairman | |
| 2. | Mrs. K.S.Devesawari | Associate Professor-SIETK (Applied electronics) | Member | |
| 3. | Mr. V.Viswanadha | Associate Professor-SIETK (DECS) | Member | |
| 4. | Mr. C. Vijaya Bhaskar | Associate Professor-SIETK (VLSI system design) | Member | |
| 5. | Mrs.J.Jhansi | Associate Professor-SIETK (Embedded systems) | Member | |
| 6. | Dr. S. Narayana Reddy | Professor, S.V. University, Tirupati | Member | |
| 7. | Dr. Rama Komaragiri | Associate Professor, NIT Calicut | Member | ABSENT |
| 8. | Dr.P.Ramana Reddy | Professor JNTUA, Ananthapuramu | Member | |
| 9. | Mr. Narendra Reddy | Scientist-C, CMTI, Bangalore | Member | |
| 10. | Mr. B.Venkatadri | Software Developer HCL Technologies | Member | ABSENT |

**SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY: PUTTUR**

**(AUTONOMOUS)**

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## 3rd BOS Meeting of Electronics & Communication Engineering (ECE)

Date: 18-06-2018

The 3rd meeting of Board of Studies (BOS) in Electronics & Communication Engineering is held on 18 June, 2018 at 2:00 PM in the Department of Electronics & Communication Engineering, Siddharth Institute of Engineering & Technology, Puttur, Chittoor –Dist.

As per the UGC (University Grant Commission) guidelines, the Choice Based Credit System (CBCS) and electives have been implemented in the curriculum.

Dr. M. Janardhana Raju, Chairman BOS chaired the meeting and welcomed all the members to the third BOS meeting and discussed about the following agenda

**Agenda:**

1. Approval of course structure for UG & PG in ECE w.e.f., A.Y.2018-19.
2. Approval of syllabus for I & II-year UG in ECE w.e.f., A.Y.2018-19.
3. Approval of syllabus PG in ECE w.e.f., A.Y.2018-19
4. Approval of syllabus for the subjects offered to various branches w.e.f. 2018-19.
5. Approval of Panel of Question Paper setters.
6. Approval of Panel of Examiners.
7. Procedures of Evaluation.
8. Academic facilities improvement.

After a brief introduction the agenda items listed above were taken up for discussion and the following resolutions were passed.

**Minutes:**

**Agenda: 1**

Approval of course structure for UG & PG in ECE w.e.f., A.Y.2018-19

**Resolution: 1**

After detailed discussion the BOS resolved to approve the course structure for UG & PG(ECE) (given in **Annexure –I**) applicable from the A.Y.2018-19.

**Agenda: 2**

Approval of syllabus for I & II-year UG in ECE w.e.f., A.Y.2018-19

**Resolution: 2**

After the thorough discussion syllabus was framed to make the students acquire the required technical knowledge and skills. The BOS resolved to approve the syllabi framed for the I and II-year B. Tech I & II-Semesters (given in **Annexure-II**)

**A. Course & Syllabus Comparison**

With reference to the R16 regulations, the new regulation (R18) syllabus for I$^{st}$ and 2$^{nd}$ year has the following modifications, which are given in the below table.

**I & II B.Tech**

| S.No | R16 Regulation | R18 Regulation | Percentage of course content changed |
|---|---|---|---|
| 1. | Functional English | English | 10 |
| 2. | Engineering Mathematics-I | Mathematics-I | 0 |
| 3. | Engineering Chemistry | Chemistry | 40 |
| 4. | Computer Programming | Programming For Problem Solving | 100 |
| 5. | Engineering Graphics | Engineering Graphics & Design | 0 |
| 6. | English Language and Communication Skills Lab | English Lab | 0 |
| 7. | Engineering & IT workshop Lab | Workshop Practice Lab | 0 |

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|---|---|---|---|
| 8. | Engineering Chemistry Lab | Chemistry lab | 40 |
| 9. | Computer Programming Lab | Programming For Problem Solving Lab | 100 |
| 10. | Engineering Mathematics-II | Mathematics-II | 0 |
| 11. | Engineering Physics | Semiconductor Physics | 20 |
| 12. | Network Analysis | Network Theory | 100 |
| 13. | | Basic Electrical Engineering | 100 |
| 14. | | Engineering Mechanics | 100 |
| 15. | | Essence of Indian Traditional Knowledge | 0 |
| 16. | Engineering Physics Lab | Physics Lab | 0 |
| 17. | Engineering Mathematics-III | Mathematics-III | 0 |
| 18. | Basic Electronic Devices | Electronic Devices | 60 |
| 19. | Switching Theory & Logic Design | Digital System Design | 40 |
| 20. | Signals and Systems | Signals & Systems | 0 |
| 21. | Random Signal & Stochastic Processes | Probability Theory and Stochastic Processes | 0 |
| 22. | Environmental Studies | Environmental Sciences | 0 |
| 23. | | Digital System Design Lab | 100 |
| 24. | Basic Electronic Devices Lab | Electronic Devices Lab | 0 |
| 25. | Basic Simulation Lab | Signals and Systems Simulation Lab | 0 |
| 26. | | Indian Constitution | 0 |
| 27. | Electronic Circuit Analysis | Analog Circuits | 45 |
| 28. | Electronic Circuit Analysis Lab | Analog Circuits Lab | 100 |
| 29. | Analog Communications | Analog Communications | 0 |
| 30. | Comprehensive Online Examination-II | Aptitude Practices | 0 |
| 31. | Comprehensive Soft Skills | Comprehensive Online Examination-II | 0 |
| 32. | | Biology for Engineers | 100 |
| 33. | Managerial Economics & Financial Analysis | Managerial Economics & Financial Analysis | 0 |
| 34. | Analog Communications Lab | Analog Communications Lab | 0 |

**Consolidated Sheet**

| Course | Total courses | Percentage of syllabus changed |
|---|---|---|
| ECE B.Tech I & II Year | 34 | 31.02 |

**I & II M.Tech**

| S.No | R16 Regulation | R18 Regulation | Percentage of course content changed |
|---|---|---|---|
| 1. | Digital System Design | Advanced Digital Signal Processing | 0 |
| 2. | Advanced Digital Signal Processing | Digital Communication Techniques | 0 |
| 3. | DSP Processors & Architectures | DSP Processors & Architectures | 0 |
| 4. | Hi-Speed Networks | High Speed Networks | 0 |
| 5. | | Antenna and Radiating Systems | 0 |
| 6. | | Voice and Data Networks | 0 |
| 7. | | Wireless Sensor Networks | 0 |
| 8. | | Advanced Digital Signal Processing Lab(Virtual Lab) | 100 |
| 9. | | Advanced Digital System Design Lab | 100 |
| 10. | | Research Methodology and IPR | 100 |
| 11. | | English for Research Paper Writing | 100 |
| 12. | | Disaster Management | 100 |
| 13. | | Sanskrit for Technical Knowledge | 100 |
| 14. | | Advanced Digital System Design | 100 |
| 15. | | Wireless Communications | 100 |
| 16. | | Coding Theory & Techniques | 100 |
| 17. | | Introduction to IoT | 100 |
| 18. | | Adaptive Signal Processing | 100 |
| 19. | | Cognitive Radio | 100 |
| 20. | | Image & Video Processing | 100 |
| 21. | | Pattern Recognition and Machine learning | 100 |
| 22. | | Detection & Estimation of Signals | 100 |

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|---|---|---|---|
| 23. | | Advanced Communications Lab (Virtual Lab) | 100 |
| 24. | | Image & Video Processing Lab | 100 |
| 25. | | Mini Project | 100 |
| 26. | | Constitution of India | 100 |
| 27. | | Pedagogy Studies | 100 |
| 28. | | Stress Management by Yoga | 100 |
| 29. | | Personality Development Through Life | 100 |
| 30. | | Enlightenment Skills. | 100 |
| 31. | Micro Controllers & Interfacing | Advanced Microcontrollers | 100 |
| 32. | Embedded System Concepts | Embedded System Design | 0 |
| 33. | | Sensors and Actuators | 100 |
| 34. | | FPGA Architectures & Applications | 100 |
| 35. | | Embedded Networking | 100 |
| 36. | | Wireless Communications | 100 |
| 37. | | Internet Protocols | 100 |
| 38. | | Embedded System Design Lab | 100 |
| 39. | | Structural Digital System Design Lab | 100 |
| 40. | | Research Methodology and IPR | 100 |
| 41. | | English for Research Paper Writing | 100 |
| 42. | | English for Research Paper Writing | 100 |
| 43. | | Disaster Management | 100 |
| 44. | | Sanskrit for Technical Knowledge | 100 |
| 45. | | Value Education | 100 |
| 46. | | Introduction to IoT | 100 |
| 47. | Digital System Design | Structural Digital System Design | 0 |
| 48. | Digital IC Design | Digital IC Design | 100 |
| 49. | VLSI Technology | VLSI Technology | 0 |
| 50. | | Wireless Sensor Networks | 0 |
| 51. | | Internet of Things Lab | 100 |

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|---|---|---|---|
| 52. | Microcontrollers & Interfacing Lab | Microcontrollers & Interfacing Lab | 100 |
| 53. | Real Time Operating Systems | Real Time Operating Systems | 0 |
| 54. | Testing & Testability | Testing & Testability | 100 |
| 55. | Hardware Software Co-Design | Hardware Software Co-Design | **10** |
| 56. | | Mini Project | 0 |
| 57. | | Constitution of India | 0 |
| 58. | | Pedagogy Studies | 100 |
| 59. | | Stress Management by Yoga | 100 |
| 60. | | Personality Development Through Life Enlightenment Skills. | 100 |
| 61. | | Advanced Digital Signal Processing | 100 |
| 62. | | System on Chip Architecture | 100 |
| 63. | | Business Analytics | 100 |
| 64. | | Industrial Safety | 0 |
| 65. | | Advanced Operations Research | 100 |
| 66. | | Cost Management of Engineering Projects | 100 |
| 67. | | Composite Materials | 100 |
| 68. | | Waste to Energy | 100 |
| 69. | FPGA Architecture and Applications | FPGA Architectures & Applications | 100 |
| 70. | Radio Frequency Identification | Radio Frequency Identification | 100 |
| 71. | Micro Electromechanical Systems | Micro Electromechanical Systems | 100 |
| 72. | | Dissertation-I | 0 |
| 73. | Project work | Dissertation –II | 30 |
| 74. | VLSI Technology | VLSI Technology | 0 |
| 75. | Analog IC Design | Analog IC Design | 0 |
| 76. | Digital IC Design | Digital IC Design | 0 |
| 77. | Verilog HDL | Verilog HDL | 0 |
| 78. | Embedded system Concepts | Embedded System Design | 0 |
| 79. | System Modeling & Simulation | System Modeling & Simulation | 0 |

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|---|---|---|---|
| 80. | ASIC Design | ASIC Design | 0 |
| 81. | | Image & Video Processing | 100 |
| 82. | | Digital Electronic Circuits Lab (Virtual Lab) | 100 |
| 83. | | Research Methodology and IPR | 100 |
| 84. | Digital IC Design Lab | Digital IC Design Lab | 0 |
| 85. | | English for Research Paper Writing | 100 |
| 86. | | Disaster Management | 100 |
| 87. | | Sanskrit for Technical Knowledge | 100 |
| 88. | | Value Education | 100 |
| 89. | FPGA Architectures & Applications | FPGA Architectures & Applications | 0 |
| 90. | Testing & Testability | Testing & Testability | 0 |
| 91. | Low Power VLSI Design | Low Power VLSI Design | 0 |
| 92. | Algorithms for VLSI Design Automation | Algorithms for VLSI Design Automation | 0 |
| 93. | | Advanced Digital System Design | 100 |
| 94. | | Solid State Device Modeling and Simulation | 100 |
| 95. | | Digital VLSI Design Lab (Virtual Lab) | 100 |
| 96. | | Mini Project | 100 |
| 97. | | Constitution of India | 100 |
| 98. | | Pedagogy Studies | 100 |
| 99. | | Personality Development Through Life Enlightenment Skills. | 100 |
| 100. | | Stress Management by Yoga | 100 |
| 101. | Scripting Language for VLSI Design Automation | Scripting Language for VLSI Design Automation | 96 |
| 102. | Nano Electronics | Nano Electronics | 0 |
| 103. | Real Time Operating Systems | Real Time Operating System | |
| 104. | Mixed Signal Lab | Real Time Operating System | 0 |
| 105. | | Scripting Language for VLSI Design Automation | 100 |
| 106. | | Nano Materials and Nanotechnology | 100 |

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|---|---|---|---|
| 107. | | Wireless Sensor Networks | 100 |
| 108. | | Business Analytics | 100 |
| 109. | | Industrial Safety | 100 |
| 110. | | Advanced Operations Research | 100 |
| 111. | | Cost Management of Engineering Projects | 100 |
| 112. | | Composite Materials | 100 |
| 113. | | Waste to Energy | 100 |

**Consolidated Sheet**

| Course | Total courses | Percentage of syllabus changed |
|---|---|---|
| ECE M.Tech I& II Year | 113 | 71.75 |

**B. Course Relevance**

The courses that come under the category of Employability, Skill or Entrepreneurship Development are shown in the table below.

**I & II B.Tech**

| S.No | Course Title | Course Code | Relevance |
|---|---|---|---|
| 1. | English Lab | 18HS0811 | Skill Development |
| 2. | Basic Electrical Engineering | 18EE0239 | Employability |
| 3. | Programming For Problem Solving | 18CS0501 | Skill Development |
| 4. | Programming For Problem Solving Lab | 18CS0503 | Employability |
| 5. | Electronic Devices | 18EC0401 | Employability |
| 6. | Digital System Design | 18EC0402 | Employability |
| 7. | Signals & Systems | 18EC0403 | Employability |
| 8. | Network Theory | 18EE0242 | Employability |
| 9. | Electronic Devices Lab | 18EC0404 | Employability |
| 10. | Digital System Design Lab | 18EC0405 | Employability |
| 11. | Signals and Systems Simulation Lab | 18EC0406 | Employability |
| 12. | Analog Circuits | 18EC0407 | Employability |
| 13. | Analog Communications | 18EC0408 | Employability |

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|---|---|---|---|
| 14. | Managerial Economics and Financial Analysis | 18HS0812 | Entrepreneurship |
| 15. | Analog Circuits Lab | 18EC0410 | Employability |
| 16. | Analog Communications Lab | 18EC0411 | Employability |

**I & II M.Tech**

| S.No | Course Title | Course Code | Relevance |
|---|---|---|---|
| 1. | Advanced Digital Signal Processing | 18EC4002 | Employability |
| 2. | Radio Frequency Identification | 18EC4116 | Employability |
| 3. | System on Chip Architecture | 18EC4117 | Employability |
| 4. | Business Analytics | 18HS0824 | Entrepreneurship |
| 5. | Industrial Safety | 18ME3121 | Employability |
| 6. | Advanced Operations Research | 18ME3122 | Employability |
| 7. | Cost Management of Engineering Projects | 18CE1028 | Skill Development |
| 8. | Composite Materials | 18ME3123 | Skill Development |
| 9. | Waste to Energy | 18EE2128 | Skill Development |
| 10. | Dissertation-I | 18EC4118 | Skill Development |
| 11. | Dissertation -II | 18EC4119 | Skill Development |
| 12. | Embedded System Design | 18EC4101 | Employability |
| 13. | Sensors and Actuators | 18EC4102 | Employability |
| 14. | Structural Digital System Design | 18EC4103 | Employability |
| 15. | FPGA Architectures & Applications | 18EC4209 | Employability |
| 16. | Real Time Operating Systems | 18EC4104 | Employability |
| 17. | Embedded Networking | 18EC4105 | Employability |
| 18. | Wireless Communications | 18EC4011 | Employability |
| 19. | Internet Protocols | 18EC4106 | Employability |
| 20. | Embedded System Design Lab | 18EC4107 | Skill Development |
| 21. | Structural Digital System Design Lab | 18EC4108 | Skill Development |
| 22. | Research Methodology and IPR | 18HS0823 | Skill Development |
| 23. | English for Research Paper Writing | 18HS0818 | Skill Development |
| 24. | Disaster Management | 18CE1029 | Skill Development |
| 25. | Sanskrit for Technical Knowledge | 18HS0825 | Skill Development |
| 26. | Value Education | 18HS0826 | Skill Development |

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| 27. | Introduction to IoT | 18EC4109 | Employability |
| 28. | Advanced Microcontrollers | 18EC4110 | Employability |
| 29. | Hardware Software Co-Design | 18EC4111 | Employability |
| 30. | Testing & Testability | 18EC4213 | Employability |
| 31. | Micro Electromechanical Systems | 18EC4112 | Employability |
| 32. | VLSI Technology | 18EC4201 | Employability |
| 33. | Digital IC Design | 18EC4202 | Employability |
| 34. | Wireless Sensor Networks | 18EC4008 | Employability |
| 35. | Internet of Things Lab | 18EC4113 | Skill Development |
| 36. | Microcontrollers & Interfacing Lab | 18EC4114 | Skill Development |
| 37. | Mini Project | 18EC4115 | Skill Development |
| 38. | Constitution of India | 18HS0829 | Skill Development |
| 39. | Pedagogy Studies | 18HS0827 | Skill Development |
| 40. | Stress Management by Yoga | 18HS0828 | Skill Development |
| 41. | Personality Development Through Life Enlightenment Skills | 18HS0819 | Skill Development |
| 42. | Optical Networks | 18EC4021 | Employability |
| 43. | Testing & Testability | 18EC4213 | Employability |
| 44. | RF and Microwave Circuit Design | 18EC4022 | Employability |
| 45. | Business Analytics | 18HS0824 | Entrepreneurship |
| 46. | Industrial Safety | 18ME3121 | Employability |
| 47. | Advanced Operations Research | 18ME3122 | Employability |
| 48. | Cost Management of Engineering Projects | 18CE1028 | Employability |
| 49. | Composite Materials | 18ME3123 | Skill Development |
| 50. | Waste to Energy | 18EE2128 | Skill Development |
| 51. | Dissertation-I | 18EC4023 | Skill Development |
| 52. | Dissertation -II | 18EC4024 | Skill Development |
| 53. | Advanced Digital System Design | 18EC4001 | Employability |
| 54. | Advanced Digital Signal Processing | 18EC4002 | Employability |
| 55. | Antenna and Radiating Systems | 18EC4003 | Employability |
| 56. | Digital Communication Techniques | 18EC4004 | Employability |
| 57. | DSP Processors & Architectures | 18EC4005 | Employability |
| 58. | High Speed Networks | 18EC4006 | Employability |

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| 59. | Voice and Data Networks | 18EC4007 | Employability |
| 60. | Wireless Sensor Networks | 18EC4008 | Employability |
| 61. | Advanced Digital Signal Processing Lab(Virtual Lab) | 18EC4009 | Skill Development |
| 62. | Advanced Digital System Design Lab | 18EC4010 | Skill Development |
| 63. | Research Methodology and IPR | 18HS0823 | Skill Development |
| 64. | English for Research Paper Writing | 18HS0818 | Skill Development |
| 65. | Disaster Management | 18CE1029 | Skill Development |
| 66. | Sanskrit for Technical Knowledge | 18HS0825 | Skill Development |
| 67. | Value Education | 18HS0826 | Skill Development |
| 68. | Wireless Communications | 18EC4011 | Employability |
| 69. | Coding Theory & Techniques | 18EC4012 | Employability |
| 70. | Introduction to IoT | 18EC4109 | Employability |
| 71. | Adaptive Signal Processing | 18EC4013 | Employability |
| 72. | Cognitive Radio | 18EC4014 | Employability |
| 73. | Image & Video Processing | 18EC4015 | Employability |
| 74. | Pattern Recognition and Machine learning | 18EC4016 | Employability |
| 75. | Detection & Estimation of Signals | 18EC4017 | Employability |
| 76. | Advanced Communications Lab (Virtual Lab) | 18EC4018 | Skill Development |
| 77. | Image & Video Processing Lab | 18EC4019 | Skill Development |
| 78. | Mini Project | 18EC4020 | Skill Development |
| 79. | Constitution of India | 18HS0829 | Skill Development |
| 80. | Pedagogy Studies | 18HS0827 | Skill Development |
| 81. | Stress Management by Yoga | 18HS0828 | Skill Development |
| 82. | Personality Development Through Life Enlightenment Skills | 18HS0819 | Skill Development |
| 83. | Scripting Language for VLSI Design Automation | 18EC4218 | Employability |
| 84. | Nano Materials and Nanotechnology | 18EC4219 | Employability |
| 85. | Wireless Sensor Networks | 18EC4008 | Employability |
| 86. | Business Analytics | 18HS0824 | Entrepreneurship |
| 87. | Industrial Safety | 18ME3121 | Employability |

| | | | |
|---|---|---|---|
| 88. | Advanced Operations Research | 18ME3122 | Employability |
| 89. | Cost Management of Engineering Projects | 18CE1028 | Employability |
| 90. | Composite Materials | 18ME3123 | Skill Development |
| 91. | Waste to Energy | 18EE2128 | Skill Development |
| 92. | Dissertation Phase I | 18EC4220 | Employability |
| 93. | Dissertation Phase II | 18EC4221 | Employability |
| 94. | VLSI Technology | 18EC4201 | Employability |
| 95. | Digital IC Design | 18EC4202 | Employability |
| 96. | ASIC Design | 18EC4203 | Employability |
| 97. | System Modeling & Simulation | 18EC4204 | Employability |
| 98. | Embedded System Design | 18EC4101 | Employability |
| 99. | Verilog HDL | 18EC4205 | Employability |
| 100. | Analog IC Design | 18EC4206 | Employability |
| 101. | Image & Video Processing | 18EC4015 | Employability |
| 102. | Digital Electronic Circuits Lab (Virtual Lab) | 18EC4207 | Skill Development |
| 103. | Digital IC Design Lab | 18EC4208 | Skill Development |
| 104. | Research Methodology and IPR | 18HS0823 | Skill Development |
| 105. | English for Research Paper Writing | 18HS0818 | Skill Development |
| 106. | Disaster Management | 18CE1029 | Skill Development |
| 107. | Sanskrit for Technical Knowledge | 18HS0825 | Skill Development |
| 108. | Value Education | 18HS0826 | Skill Development |
| 109. | FPGA Architectures & Applications | 18EC4209 | Employability |
| 110. | Low Power VLSI Design | 18EC4210 | Employability |
| 111. | Nano Electronics | 18EC4211 | Employability |
| 112. | Algorithms for VLSI Design Automation | 18EC4212 | Employability |
| 113. | Advanced Digital System Design | 18EC4001 | Employability |
| 114. | Testing & Testability | 18EC4213 | Employability |
| 115. | Real Time Operating System | 18EC4104 | Employability |
| 116. | Solid State Device Modeling and Simulation | 18EC4214 | Employability |
| 117. | Mixed Signal Lab | 18EC4215 | Employability |
| 118. | Digital VLSI Design Lab (Virtual Lab) | 18EC4216 | Employability |
| 119. | Mini Project | 18EC4217 | Employability |
| 120. | Constitution of India | 18HS0829 | Skill Development |

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|---|---|---|---|
| 121. | Pedagogy Studies | 18HS0827 | Skill Development |
| 122. | Stress Management by Yoga | 18HS0828 | Skill Development |
| 123. | Personality Development Through Life Enlightenment Skills | 18HS0819 | Skill Development |

Modifications described above are carried out to the curriculum after discussions in the BoS by considering the feedback/suggestions from the stakeholders viz. students, alumni, faculty and employers.

**Agenda: 3**

Approval of syllabus for PG in ECE w.e.f., A.Y.2018-19

**Resolution: 3**

After the thorough discussion syllabus was framed to make the students acquire the required technical knowledge and skills. The BOS resolved to approve the syllabi framed for the PG (given in **Annexure-III**)

**Agenda: 4**

Approval of syllabus for the subjects offered to various branches w.e.f. 2018-19

**Resolution: 4**

After the thorough discussion syllabus was framed to make the students acquire the required technical knowledge and skills. The BOS resolved to approve the syllabi framed for the subjects offered to various branches (given in **Annexure-IV**).

**Agenda: 5**

Approval of Panel of Question Paper setters

**Resolution: 5**

Approved the panel of question paper setting (given in **Annexure –V**) to be submitted to the college academic council for approval.

**Agenda: 6**

Approval of Panel of Examiners

**Resolution: 6**

Approved the panel of examiners prepared for valuation (given in **Annexure –VI**) to be submitted to the college academic council for approval.

The above items were discussed, debated and the necessary approval was accorded by the BOS. The meeting was concluded with vote of Thanks proposed by the Chairman-BOS.

**Agenda: 7**

Procedures of Evaluation.

**Resolution: 7**

The internal examination answer sheets are evaluated firmly according to the scheme of evaluation. Unit tests and assignments should help us to analyze the understanding of concepts by the students.

**Agenda: 8**

Academic facilities improvement

**Resolution: 8**

Looking at the facilities in the department committee suggested to improve the facilities to implement ICT in the classrooms and also add additional lab facilities that will helpful to the students to perform additional experiments.

## 3rd BOS Meeting on 18/06/2018

### Members Present

| S.No. | Member Name | Academic/ Industry Position | Role in the BOS | Signature |
|---|---|---|---|---|
| 1. | Dr. M.Janardhana Raju | Professor& HOD-SIETK | Chairman | |
| 2. | Dr.P.Rathnakamala | Professor-SIETK (Wireless Communication) | Member | |
| 3. | Mr. V.Viswanadha | Associate Professor-SIETK (DECS) | Member | |
| 4. | Mr. C. Vijaya Bhaskar | Associate Professor-SIETK (VLSI ) | Member | |
| 5. | Mrs.J.Jhansi | Associate Professor-SIETK (Embedded Systems) | Member | |
| 6. | Dr. S. Narayana Reddy | Professor, S.V. University, Tirupati | Member | |
| 7. | Dr. Rama Komaragiri | Associate Professor, NIT Calicut | Member | -Absent- |
| 8. | Dr.P.Ramana Reddy | Professor JNTUA,Ananthapuramu | Member | |
| 9. | Mr. Narendra Reddy | Scientist-C, CMTi, Bangalore | Member | |
| 10. | Mr. B.Venkatadri | Software Developer HCL Technologies | Member | -Absent- |

**SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY: PUTTUR**
**(AUTONOMOUS)**

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**4thBoS Meeting of Electronics and Communication Engineering (ECE)**

Date: 14/08/2019

The 4thmeeting of Board of Studies (BoS) in Electronics and Communication Engineering is held on 14thAugust,2019 (Wednesday) at 2.00PM in the Department of Electronics and Communication Engineering, Siddharth Institute of Engineering & Technology, Puttur, Chittoor –Dist.

As per the UGC (University Grant Commission) guidelines, the Choice Based Credit System (CBCS) and electives have been implemented in the curriculum.

Dr. P.Ratna Kamala, Chairman - BoS chaired the meeting and welcomed all the members to the fourth BoS meeting and discussed the following agenda:

1. Approvalof course structure for I year UG and PGin ECE w.e.f., 2019-2020.
2. Approval of syllabi for I year UG and PG in ECE w.e.f., 2019-2020.
3. Approval of Panel of Question Paper setters.
4. Approval of Panel of Examiners.
5. Any other item with the permission of Chair.

After a brief introduction of the agenda items listed above, each agenda item were taken up for discussion and the following resolutions were passed.

**Minutes:**

**Agenda: 1**

Approval of course structure for I year UG and PG in ECE w.e.f.,2019-2020.

**Resolution: 1**

After detailed discussion, the BOS resolved to approve the course structure for PG and I year UG(given in **Annexure –I**) applicable from the A.Y.2019-2020.

**Agenda: 2**

Approval of syllabus for I year UG and PG in ECE w.e.f., 2019-2020.

**Resolution: 2**

After thorough discussion, syllabus was framed to make the students acquire with the required technical knowledge and skills. The BOS resolved to approve the syllabi framed for the I Year B.Tech I & II Semesters and PG
(given in **Annexure-II**).

**A. Course & Syllabus Comparison**

With reference to the R18 regulations, the new regulation (R19) syllabus for I$^{st}$ year has the following modifications, which are given in the below table.

**I B.Tech**

| S.No | R18 Regulation | R19 Regulation | Percentage of course content changed |
|---|---|---|---|
| 1. | Mathematics-I | Algebra and Calculus | 60 |
| 2. | Chemistry | Applied Chemistry | 40 |
| 3. | Engineering Graphics | Engineering Graphics& Design | 20 |
| 4. | Chemistry lab | Applied Chemistry lab | 0 |
| 5. | Workshop Practice Lab | Workshop Practice Lab | 0 |
| 6. | | Python Programming Lab | 100 |

| | | | |
|---|---|---|---|
| 7. | | Communicative English | 100 |
| 8. | Mathematics-II | Differential Equations and Vector Calculus | 60 |
| 9. | Semiconductor Physics | Semiconductor Physics | 0 |
| 10. | Basic Electrical Engineering | Basic Electrical Engineering | 0 |
| 11. | | Switching Theory and Logic Design | 100 |
| 12. | | Communicative English Lab | 100 |
| 13. | | Semiconductor Physics Lab | 100 |
| 14. | | Essence of Indian Traditional Knowledge | 100 |
| 15. | Python Programming | Python Programming | 0 |

**Consolidated Sheet**

| Course | Total courses | Percentage of syllabus changed |
|---|---|---|
| **ECE B.Tech I Year** | **15** | **52** |

**I M.Tech**

| S.No | R18 Regulation | R19 Regulation | Percentage of course content changed |
|---|---|---|---|
| 1. | VLSI Technology | VLSI Technology | 0 |
| 2. | Digital IC Design | Digital IC Design | 0 |
| 3. | ASIC Design | ASIC Design | 0 |
| 4. | System Modeling & Simulation | System Modeling & Simulation | 0 |
| 5. | Embedded System Design | Embedded System Design | 0 |
| 6. | Verilog HDL | Verilog HDL | 0 |
| 7. | Analog IC Design | Analog IC Design | 0 |
| 8. | Image & Video Processing | Image & Video Processing | 0 |

| | | | |
|---|---|---|---|
| 9. | Digital Electronic Circuits Lab (Virtual Lab) | Digital Electronic Circuits Lab (Virtual Lab) | 0 |
| 10. | Digital IC Design Lab | Digital IC Design Lab | 0 |
| 11. | Research Methodology and IPR | Research Methodology and IPR | 0 |
| 12. | English for Research Paper Writing | English for Research Paper Writing | 0 |
| 13. | FPGA Architectures & Applications | FPGA Architectures & Applications | 0 |
| 14. | Low Power VLSI Design | Low Power VLSI Design | 0 |
| 15. | Nano Electronics | Nano Electronics | 0 |
| 16. | Algorithms for VLSI Design Automation | Algorithms for VLSI Design Automation | 0 |
| 17. | Advanced Digital System Design | Advanced Digital System Design | 0 |
| 18. | Testing & Testability | Testing & Testability | 0 |
| 19. | Real Time Operating System | Real Time Operating System | 0 |
| 20. | Solid State Device Modeling and Simulation | Solid State Device Modeling and Simulation | 0 |
| 21. | Mixed Signal Lab | Mixed Signal Lab | 0 |
| 22. | Digital VLSI Design Lab (Virtual Lab) | Digital VLSI Design Lab (Virtual Lab) | 0 |
| 23. | Mini Project | Mini Project | 0 |
| 24. | Constitution of India | Constitution of India | 0 |
| 25. | Advanced Digital System Design | Advanced Digital System Design | 0 |
| 26. | Advanced Digital Signal Processing | Advanced Digital Signal Processing | 0 |
| 27. | Antenna and Radiating Systems | Antenna and Radiating Systems | 0 |
| 28. | Digital Communication Techniques | Digital Communication Techniques | 100 |
| 29. | DSP Processors & Architectures | DSP Processors & Architectures | 0 |
| 30. | High Speed Networks | High Speed Networks | 100 |
| 31. | Voice and Data Networks | Voice and Data Networks | 100 |
| 32. | Wireless Sensor Networks | Wireless Sensor Networks | 100 |
| 33. | Advanced Digital Signal Processing Lab(Virtual Lab) | Advanced Digital Signal Processing Lab(Virtual Lab) | 20 |
| 34. | Advanced Digital System Design Lab | Advanced Digital System Design Lab | 0 |
| 35. | Research Methodology and IPR | Research Methodology and IPR | 0 |

| | | | |
|---|---|---|---|
| 36. | English for Research Paper Writing | English for Research Paper Writing | 0 |
| 37. | Wireless Communications | Disaster Management | 100 |
| 38. | Coding Theory & Techniques | Sanskrit for Technical Knowledge | 100 |
| 39. | Introduction to IoT | Value Education | 100 |
| 40. | Adaptive Signal Processing | Wireless Communications | 0 |
| 41. | Cognitive Radio | Coding Theory & Techniques | 0 |
| 42. | Image & Video Processing | Introduction to IoT | 0 |
| 43. | Pattern Recognition and Machine learning | Adaptive Signal Processing | 0 |
| 44. | Detection & Estimation of Signals | Cognitive Radio | 0 |
| 45. | Advanced Communications Lab (Virtual Lab) | Image & Video Processing | 0 |
| 46. | Image & Video Processing Lab | Pattern Recognition and Machine learning | 0 |
| 47. | Mini Project | Detection & Estimation of Signals | 0 |
| 48. | Constitution of India | Advanced Communications Lab | 0 |
| 49. | Wireless Communications | Image & Video Processing Lab | 0 |
| 50. | | Mini Project | 0 |
| 51. | | Constitution of India | 100 |
| 52. | | Pedagogy Studies | 100 |
| 53. | | Stress Management by Yoga | 100 |
| 54. | | Personality Development through Life Enlightenment Skills. | 100 |
| 55. | Embedded System Design | Embedded System Design | 0 |
| 56. | Sensors and Actuators | Sensors and Actuators | 0 |
| 57. | Structural Digital System Design | Structural Digital System Design | 0 |
| 58. | FPGA Architectures & Applications | FPGA Architectures & Applications | 0 |
| 59. | Real Time Operating Systems | Real Time Operating Systems | 0 |
| 60. | Embedded Networking | Embedded Networking | 0 |
| 61. | Wireless Communications | Wireless Communications | 0 |
| 62. | Internet Protocols | Internet Protocols | 0 |
| 63. | Embedded System Design Lab | Embedded System Design Lab | 0 |

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|---|---|---|---|
| 64. | Structural Digital System Design Lab | Structural Digital System Design Lab | 0 |
| 65. | Research Methodology and IPR | Research Methodology and IPR | 0 |
| 66. | English for Research Paper Writing | English for Research Paper Writing | 0 |
| 67. | | Research Methodology and IPR | 100 |
| 68. | Introduction to IoT | Introduction to IoT | 0 |
| 69. | Advanced Microcontrollers | Advanced Microcontrollers | 0 |
| 70. | Hardware Software Co-Design | Hardware Software Co-Design | 0 |
| 71. | Testing & Testability | Testing & Testability | 0 |
| 72. | Micro Electromechanical Systems | Micro Electromechanical Systems | 0 |
| 73. | VLSI Technology | VLSI Technology | 10 |
| 74. | Digital IC Design | Digital IC Design | 0 |
| 75. | Wireless Sensor Networks | Wireless Sensor Networks | 0 |
| 76. | Internet of Things Lab | Internet of Things Lab | 0 |
| 77. | Microcontrollers & Interfacing Lab | Microcontrollers & Interfacing Lab | 0 |
| 78. | Mini Project | Mini Project | 0 |
| 79. | Constitution of India | Constitution of India | 80 |
| 80. | | Digital IC Design | 100 |

## Consolidated Sheet

| Course | Total courses | Percentage of syllabus changed |
|---|---|---|
| **ECEM.TechI Year** | **80** | **17.62** |

**B. Course Relevance**

The courses that come under the category of Employability, Skill or Entrepreneurship Development are shown in the table below.

**I B.Tech**

| S.No | Course Title | Course Code | Relevance |
|---|---|---|---|
| 1. | Switching Theory and Logic Design | 19EC0401 | Employability |
| 2. | Python Programming | 19CS0501 | Skill Development |
| 3. | Python Programming Lab | 19CS0502 | Skill Development |
| 4. | Communicative English | 19HS0810 | Skill Development |
| 5. | Communicative English Lab | 19HS0811 | Skill Development |

**I M.Tech**

| S.No | Course Title | Course Code | Relevance |
|---|---|---|---|
| 1. | Research Methodology and IPR | 19HS0823 | Skill Development |
| 2. | VLSI Technology | 19EC4201 | Employability |
| 3. | Digital IC Design | 19EC4202 | Employability |
| 4. | ASIC Design | 19EC4203 | Employability |
| 5. | System Modeling & Simulation | 19EC4204 | Employability |
| 6. | Embedded System Design | 19EC4101 | Employability |
| 7. | Verilog HDL | 19EC4205 | Employability |
| 8. | Analog IC Design | 19EC4206 | Employability |
| 9. | Image & Video Processing | 19EC4015 | Employability |
| 10. | Digital Electronic Circuits Lab (Virtual Lab) | 19EC4207 | Skill Development |
| 11. | Digital IC Design Lab | 19EC4208 | Skill Development |

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|---|---|---|---|
| 12. | English for Research Paper Writing | 19HS0818 | Skill Development |
| 13. | FPGA Architectures & Applications | 19EC4209 | Employability |
| 14. | Low Power VLSI Design | 19EC4210 | Employability |
| 15. | Nano Electronics | 19EC4211 | Employability |
| 16. | Algorithms for VLSI Design Automation | 19EC4212 | Employability |
| 17. | Advanced Digital System Design | 19EC4001 | Employability |
| 18. | Testing & Testability | 19EC4213 | Employability |
| 19. | Real Time Operating System | 19EC4104 | Employability |
| 20. | Solid State Device Modeling and Simulation | 19EC4214 | Employability |
| 21. | Mixed Signal Lab | 19EC4215 | Skill Development |
| 22. | Digital VLSI Design Lab (Virtual Lab) | 19EC4216 | Skill Development |
| 23. | Constitution of India | 19HS0829 | Skill Development |
| 24. | Research Methodology and IPR | 19HS0823 | Skill Development |
| 25. | Advanced Digital System Design | 19EC4001 | Employability |
| 26. | Advanced Digital Signal Processing | 19EC4002 | Employability |
| 27. | Antenna and Radiating Systems | 19EC4103 | Employability |
| 28. | Digital Communication Techniques | 19EC4004 | Employability |
| 29. | DSP Processors & Architectures | 19EC4005 | Employability |
| 30. | High Speed Networks | 19EC4006 | Employability |
| 31. | Voice and Data Networks | 19EC4007 | Employability |
| 32. | Wireless Sensor Networks | 19EC4008 | Employability |
| 33. | Advanced Digital Signal Processing Lab(Virtual Lab) | 19EC4009 | Skill Development |
| 34. | Advanced Digital System Design Lab | 19EC4010 | Skill Development |

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|---|---|---|---|
| 35. | English for Research Paper Writing | 19HS0818 | Skill Development |
| 36. | Wireless Communications | 19EC4011 | Skill Development |
| 37. | Coding Theory & Techniques | 19EC4012 | Employability |
| 38. | Introduction to IoT | 19EC4109 | Skill Development |
| 39. | Adaptive Signal Processing | 19EC4013 | Employability |
| 40. | Cognitive Radio | 19EC4014 | Employability |
| 41. | Image & Video Processing | 19EC4015 | Employability |
| 42. | Pattern Recognition and Machine learning | 19EC4016 | Employability |
| 43. | Detection & Estimation of Signals | 19EC4017 | Employability |
| 44. | Advanced Communications Lab | 19EC4018 | Skill Development |
| 45. | Image & Video Processing Lab | 19EC4019 | Skill Development |
| 46. | Mini Project | 19EC4020 | Skill Development |
| 47. | Constitution of India | 19HS0829 | Skill Development |
| 48. | Research Methodology and IPR | 19HS0823 | Skill Development |
| 49. | Embedded System Design | 19EC4101 | Employability |
| 50. | Sensors and Actuators | 19EC4102 | Employability |
| 51. | Structural Digital System Design | 19EC4103 | Employability |
| 52. | FPGA Architectures & Applications | 19EC4209 | Employability |
| 53. | Real Time Operating Systems | 19EC4104 | Employability |
| 54. | Embedded Networking | 19EC4105 | Employability |
| 55. | Wireless Communications | 19EC4011 | Employability |
| 56. | Internet Protocols | 19EC4106 | Employability |
| 57. | Embedded System Design Lab | 19EC4107 | Skill Development |
| 58. | Structural Digital System Design Lab | 19EC4108 | Skill Development |

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|---|---|---|---|
| 59. | English for Research Paper Writing | 19HS0818 | Skill Development |
| 60. | Introduction to IoT | 19EC4109 | Skill Development |
| 61. | Advanced Microcontrollers | 19EC4110 | Employability |
| 62. | Hardware Software Co-Design | 19EC4111 | Employability |
| 63. | Testing & Testability | 19EC4213 | Employability |
| 64. | Micro Electromechanical Systems | 19EC4112 | Skill Development |
| 65. | VLSI Technology | 19EC4201 | Employability |
| 66. | Digital IC Design | 19EC4202 | Employability |
| 67. | Wireless Sensor Networks | 19EC4008 | Employability |
| 68. | Internet of Things Lab | 19EC4113 | Skill Development |
| 69. | Microcontrollers & Interfacing Lab | 19EC4114 | Skill Development |
| 70. | Mini Project | 19EC4115 | Employability |
| 71. | Constitution of India | 19HS0829 | Skill Development |

Modifications described above are carried out to the curriculum after discussions in the BoS by considering the feedback/suggestions from the stake holders viz. students, alumni, faculty and employers.

**Agenda: 3**

Approval of Panel of question paper setters

**Resolution: 3**

Approved the panel of question paper setting (given in **Annexure –IV**) to be submitted to the college Academic council for approval.

**Agenda: 4**

Approval of Panel of examiners

**Resolution:4**

Approved the panel of examiners prepared for valuation (given in **Annexure –V**) to be submitted to the college Academic council for approval.

The above items were discussed, debated and the necessary approval was accorded by the BOS. The meeting was concluded with vote of thanks proposed by the Chairman-BOS.

**Members Present**

| S. No. | Member Name | Designation/Organisation | Role of BOS | Signature |
|---|---|---|---|---|
| 1. | Dr. P. Ratna Kamala | Professor & HOD | Chairman | |
| 2. | Dr. P.G.Kuppaswamy | Professor (Signal Processing) | Member | |
| 3. | N. Vamsi Praveen | Associate Professor (VLSI System Design) | Member | |
| 4. | J. Rajanikanth | Associate Professor (DECS) | Member | |
| 5. | S. Sundara Babu | Associate Professor (Embedded Systems) | Member | |
| 6. | Dr T. Ramashri | Professor Sri Venkateswara University College of Engineering, Tirupati | Member | |
| 7. | Dr. K.P. Naveen | Assistant Professor, IIT Tirupathi | Member | |
| 8. | Dr R.V.S. Satyanarayana | Professor, S.V. University, Tirupati | Member | |
| 9. | Mr. M. Lakshmi Narayana | Junior Telecom Officer, BSNL OFC Transmission maintenance STR Wing, Kolar Karnataka | Member | |
| 10. | Mr V. Prasanth | Software Developer Dxc Technologies Chennai. | Member | |

**SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY: PUTTUR**

**(AUTONOMOUS)**

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**5thBoS Meeting of Electronics and Communication Engineering (ECE)**

Date: 28/08/2020

The 5th meeting of Board of Studies (BoS) in Electronics and Communication Engineering is held on 28thAugust,2020 (Friday) at 10.00AM online through ZOOM.

As per the UGC (University Grant Commission) guidelines, the Choice Based Credit System (CBCS) and electives have been implemented in the curriculum.

Dr. P. Ratna Kamala, Chairman - BoS chaired the meeting and welcomed all the members to the fifth BoS meeting and discussed the following agenda:

1. Approval of course structure and syllabi for II year B.Tech. under R19 Regulation.
2. Approval of course structure and syllabi for III year B.Tech. under R18 Regulation.
3. Approval of course structure and syllabi for I & II years M.Tech. under R20 Regulation and II year M. Tech under R19 regulation.
4. Approval of examiners and paper setters for II and III B.Tech. that comes under R20, R19 & R18 respectively.
5. Approval of panel of examiners and paper setters for I & II M.Tech. that comes under R20 regulation and II M.Tech. under R19 regulation.
6. Any other item with the permission of Chair.

After a brief introduction of the agenda items listed above, each agenda item were taken up for discussion and the following resolutions were passed.

**Minutes:**

**Agenda: 1**

Approval of course structure and syllabi for I year B.Tech. under R20 Regulation in ECE w.e.f., 2020-2021.

**Resolution: 1**

After detailed discussion, the BOS resolved to approve the course structure and syllabi for I year B.Tech. under R20 Regulation (given in **Annexure –I and II** respectively) applicable from the A.Y.2020-2021.

**Agenda: 2**

Approval of course structure and syllabi for II year B.Tech. under R19 Regulation in ECE w.e.f., 2020-2021.

**Resolution: 2**

After detailed discussion, the BOS resolved to approve the course structure for II year B.Tech. under R19 Regulation (given in **Annexure –I and II** respectively) with minor suggestions applicable from the A.Y.2020-2021.

**A. Course & Syllabus Comparison**

With reference to the R16 regulations, the new regulation (R18) syllabus for 3rd year has the following modifications, which are given in the below table.

**III B.Tech**

| S.No | R16 Regulation | R18 Regulation | Percentage of course content changed |
|---|---|---|---|
| 1. | Analog Communications | Analog Communications | 0 |
| 2. | Electronic Measurements and Instrumentation | Electronic Measurements and Instrumentation | 0 |
| 3. | Linear IC Applications | | 0 |

| | | | |
|---|---|---|---|
| 4. | Antennas & Wave Propagation | Antennas and Wave Propagation | 0 |
| 5. | Linear Control Systems | Control Systems | 0 |
| 6. | Managerial Economics & Financial Analysis | Managerial Economics and Financial Analysis | 0 |
| 7. | | Biology for Engineers | 0 |
| 8. | Analog Communications Lab | Analog Communications Lab | 0 |
| 9. | Linear IC Applications Lab | | 0 |
| 10. | | Environmental Sciences | 0 |
| 11. | Comprehensive Online Examination-III | | 0 |
| 12. | Aptitude Practice-I | | 0 |
| 13. | Digital Communications | Digital Communications | 0 |
| 14. | Digital Signal Processing | Digital Signal Processing | 100 |
| 15. | Microprocessors & Microcontrollers | Microprocessors and Microcontrollers | 60 |
| 16. | Digital IC Applications | | 0 |
| 17. | | Data Communication and Networking | 100 |
| 18. | Microwave Engineering | Microwave Theory and Techniques | 45 |
| 19. | | Scientific Computing | 100 |
| 20. | | Industrial Instrumentation | 100 |
| 21. | | Python Programming | 100 |
| 22. | | Information Theory and Coding | 100 |

| | | | |
|---|---|---|---|
| 23. | Advanced English Language and Communication Skills Lab | English for Corporate Communication Skills Lab | 0 |
| 24. | Digital Communications Lab | Digital Communications Lab | 0 |
| 25. | Digital IC Applications Lab | Antennas and Wave Propagation Lab (Virtual Lab) | 0 |
| 26. | | Microcontroller and Applications Lab | 100 |
| 27. | | Digital Signal Processing Lab | 100 |
| 28. | | Electronic Measurements Lab | 100 |
| 29. | | Internship (60 Hours) | 100 |

With reference to the R18 regulations, the new regulation (R19) syllabus for 2nd year has the following modifications which are given in the below table.

**II B.Tech**

| S.No | R18 Regulation | R19 Regulation | Percentage of course content changed |
|---|---|---|---|
| 1. | Mathematics-III | Numerical Methods and Transforms | 20 |
| 2. | Electronic Devices | Electronic Devices and Circuits | 40 |
| 3. | Digital System Design | | 0 |
| 4. | Signals & Systems | Signals, Systems and Random Processes | 35 |
| 5. | Network Theory | Network Theory | 0 |
| 6. | | Water Technology | 100 |

| | | | |
|---|---|---|---|
| 7. | | Generation of Energy through Waste | 100 |
| 8. | | Fundamentals of Mechanical Engineering | 100 |
| 9. | | Linux Programming | 100 |
| 10. | Electronic Devices Lab | Electronic Devices and Circuits Lab | 0 |
| 11. | Digital System Design Lab | Switching Theory and Logic Design Lab | 15 |
| 12. | Signals and Systems Simulation Lab | Basic Simulation Lab | 0 |
| 13. | Indian Constitution | Indian Constitution | 0 |
| 14. | | Linear & Digital IC Applications | 100 |
| 15. | Analog Circuits | Electronic Circuit Analysis | 0 |
| 16. | Analog Communications | Analog Communications | 80 |
| 17. | | Fundamentals of Urban Planning | 0 |
| 18. | | Mechanical Measurements & Control Systems | 0 |
| 19. | | Java Programming | 0 |
| 20. | Probability Theory and Stochastic Processes | | 0 |
| 21. | Managerial Economics and Financial Analysis | Managerial Economics and Financial Analysis | 0 |
| 22. | | Electronic Circuit Analysis Lab | 100 |
| 23. | Analog Circuits Lab | | 0 |
| 24. | Analog Communications Lab | Analog Communications Lab | 0 |
| 25. | | Linear & Digital IC Applications Lab | 100 |
| 26. | Environmental Sciences | Environmental Science | 0 |

## Consolidated Sheet

| Course | Total courses | Percentage of syllabus changed |
|---|---|---|
| ECE B.Tech II& III Year | 55 | 36.27 |

With reference to the R18 regulations, the new regulation (R19) syllabus for 2nd year has the following modifications which are given in the below table.

## II M.Tech

| S.No | R18 Regulation | R19 Regulation | Percentage of course content changed |
|---|---|---|---|
| 1. | Scripting Language for VLSI Design Automation | Scripting Language for VLSI Design Automation | 0 |
| 2. | Nano Materials and Nanotechnology | Nano Materials and Nanotechnology | 0 |
| 3. | Wireless Sensor Networks | Wireless Sensor Networks | 0 |
| 4. | Business Analytics | Business Analytics | 100 |
| 5. | Industrial Safety | Industrial Safety | 0 |
| 6. | Advanced Operations Research | Advances in Operations Research | 100 |
| 7. | Cost Management of Engineering Projects | Cost Management of Engineering Projects | 100 |
| 8. | Composite Materials | Composite Materials | 100 |
| 9. | Waste to Energy | Waste to Energy | 20 |
| 10. | Dissertation Phase I | Dissertation Phase- I | 0 |
| 11. | Dissertation Phase II | Dissertation Phase- II | 0 |
| 12. | Optical Networks | Optical Networks | 0 |

| | | | |
|---|---|---|---|
| 13. | Testing & Testability | Testing & Testability | 0 |
| 14. | RF and Microwave Circuit Design | RF and Microwave Circuit Design | 100 |
| 15. | Business Analytics | Business Analytics | 0 |
| 16. | Industrial Safety | Industrial Safety | 100 |
| 17. | Advanced Operations Research | Advances in Operations Research | 100 |
| 18. | Cost Management of Engineering Projects | Cost Management of Engineering Projects | 100 |
| 19. | Composite Materials | Composite Materials | 20 |
| 20. | Waste to Energy | Waste to Energy | 0 |
| 21. | Dissertation Phase I | Dissertation Phase- I | 0 |
| 22. | Dissertation Phase II | Dissertation Phase- II | 0 |
| 23. | Pedagogy Studies | | 0 |
| 24. | Stress Management by Yoga | | 0 |
| 25. | | Digital IC Design | 100 |
| 26. | | Disaster Management | 100 |
| 27. | | Sanskrit for Technical Knowledge | 100 |
| 28. | | Value Education | 100 |
| 29. | Personality Development Through Life Enlightenment Skills. | | 0 |
| 30. | Advanced Digital Signal Processing | Advanced Digital Signal Processing | 0 |
| 31. | Radio Frequency Identification | Radio Frequency Identification | 0 |
| 32. | System on Chip Architecture | System on Chip Architecture | 0 |
| 33. | Business Analytics | Business Analytics | 100 |

| | | | |
|---|---|---|---|
| 34. | Industrial Safety | Industrial Safety | 0 |
| 35. | Advanced Operations Research | Advances in Operations Research | 100 |
| 36. | Cost Management of Engineering Projects | Cost Management of Engineering Projects | 100 |
| 37. | Composite Materials | Composite Materials | 100 |
| 38. | Waste to Energy | Waste to Energy | 20 |
| 39. | Dissertation-I | Dissertation Phase-I | 0 |
| 40. | Dissertation –II | Dissertation Phase -II | 0 |

**Consolidated Sheet**

| Course | Total courses | Percentage of syllabus changed |
|---|---|---|
| **ECE M.Tech II Year** | **40** | **41.05** |

**B. Course Relevance**

The courses that come under the category of Employability, Skill or Entrepreneurship Development are shown in the table below.

**II& III B.Tech**

| S.No | Course Title | Course Code | Relevance |
|---|---|---|---|
| 1. | Analog Communications | 18EC0408 | Employability |
| 2. | Electronic Measurements and Instrumentation | 18EC0413 | Employability |
| 3. | Antennas and Wave Propagation | 18EC0419 | Employability |
| 4. | Control Systems | 18EE0211 | Employability |
| 5. | Managerial Economics and Financial Analysis | 18HS0812 | Employability |
| 6. | Biology for Engineers | 18HS0803 | Employability |

| | | | |
|---|---|---|---|
| 7. | Analog Communications Lab | 18EC0411 | Employability |
| 8. | Environmental Sciences | 18HS0804 | Employability |
| 9. | Digital Communications | 18EC0415 | Employability |
| 10. | Digital Signal Processing | 18EC0414 | Employability |
| 11. | Microprocessors and Microcontrollers | 18EC0420 | Employability |
| 12. | Data Communication and Networking | 18EC0451 | Employability |
| 13. | Microwave Theory and Techniques | 18EC0428 | Employability |
| 14. | Scientific Computing | 18EC0430 | Employability |
| 15. | Industrial Instrumentation | 18EE0234 | Employability |
| 16. | Python Programming | 18CS0517 | Skill Development |
| 17. | Information Theory and Coding | 18EC0429 | Employability |
| 18. | English for Corporate Communication Skills Lab | 18HS0859 | Employability |
| 19. | Digital Communications Lab | 18EC0418 | Employability |
| 20. | Antennas and Wave Propagation Lab (Virtual Lab) | 18EC0421 | Employability |
| 21. | Microcontroller and Applications Lab | 18EC0422 | Employability |
| 22. | Digital Signal Processing Lab | 18EC0417 | Employability |
| 23. | Electronic Measurements Lab | 18EC0416 | Employability |
| 24. | Internship (60 Hours) | 18EC0425 | Employability |
| 25. | Numerical Methods and Transforms | 19HS0834 | Employability |
| 26. | Electronic Devices and Circuits | 19EC0402 | Employability |
| 27. | Signals, Systems and Random Processes | 19EC0403 | Employability |
| 28. | Network Theory | 19EE0242 | Employability |
| 29. | Water Technology | 19CE0136 | Skill Development |

| | | | |
|---|---|---|---|
| 30. | Generation of Energy through Waste | 19EE0238 | Skill Development |
| 31. | Fundamentals of Mechanical Engineering | 19ME0349 | Skill Development |
| 32. | Linux Programming | 19CS0549 | Skill Development |
| 33. | Electronic Devices and Circuits Lab | 19EC0405 | Employability |
| 34. | Switching Theory and Logic Design Lab | 19EC0404 | Employability |
| 35. | Basic Simulation Lab | 19EC0406 | Employability |
| 36. | Indian Constitution | 19HS0816 | Employability |
| 37. | Linear & Digital IC Applications | 19EC0409 | Employability |
| 38. | Electronic Circuit Analysis | 19EC0407 | Employability |
| 39. | Analog Communications | 19EC0408 | Employability |
| 40. | Fundamentals of Urban Planning | 19CE0143 | Employability |
| 41. | Mechanical Measurements & Control Systems | 19ME0350 | Employability |
| 42. | Java Programming | 19CS0551 | Skill Development |
| 43. | Managerial Economics and Financial Analysis | 19HS0812 | Employability |
| 44. | Electronic Circuit Analysis Lab | 19EC0411 | Employability |
| 45. | Analog Communications Lab | 19EC0413 | Employability |
| 46. | Linear & Digital IC Applications Lab | 19HS0805 | Employability |

**II M.Tech**

| | | | |
|---|---|---|---|
| 1. | Scripting Language for VLSI Design Automation | 19EC4218 | Employability |
| 2. | Nano Materials and Nanotechnology | 19EC4219 | Employability |
| 3. | Wireless Sensor Networks | 19EC4008 | Employability |
| 4. | Optical Networks | 19EC4021 | Employability |
| 5. | Testing & Testability | 19EC4213 | Employability |
| 6. | RF and Microwave Circuit Design | 19EC4022 | Employability |
| 7. | Advanced Digital System Design | 19EC4001 | Employability |
| 8. | Radio Frequency Identification | 19EC4116 | Employability |
| 9. | System on Chip Architecture | 19EC4117 | Employability |
| 10. | Business Analytics | 19HS0824 | Entrepreneurship |
| 11. | Cost Management of Engineering Projects | 19CE1028 | Skill Development |
| 12. | Waste to Energy | 19EE2128 | Skill Development |
| 13. | Industrial Safety | 19ME3121 | Skill Development |
| 14. | Advances in Operations Research | 19ME3021 | Skill Development |
| 15. | Composite Materials | 19ME3022 | Skill Development |
| 16. | Dissertation Phase-I | 19EC4220 | Skill Development |
| 17. | Dissertation Phase- II | 19EC4221 | Skill Development |

Modifications described above are carried out to the curriculum after discussions in the BoS by considering the feedback/suggestions from the stakeholders viz. students, alumni, faculty and employers.

**Agenda: 3**

Approval of course structure and syllabi for III year B.Tech. under R18 Regulation in ECE w.e.f., 2020-2021.

**Resolution: 3**

After thorough discussion, course structure and syllabus was framed to make the students acquire required technical knowledge and skills. The BOS resolved to approve the course structure for III year B.Tech. under R18 Regulation (given in **Annexure –I and II** respectively) applicable from the A.Y.2020-21.

**Agenda: 4**

Approval of course structure and syllabi for I & II years M.Tech. under R20 Regulation and II year M. Tech under R19 regulation.

**Resolution:4**

The BOS resolved to approve the syllabi framed for I & II years M.Tech. under R20 Regulation and II year M. Tech under R19 regulation (given in **Annexure –I and II** respectively).

**Agenda: 5**

Approval of Panel of examiners and Question paper setters for various regulations under UG.

**Resolution:5**

Approved the panel of examiners prepared for valuation and panel of question paper setters (given in **Annexure–IV and V** respectively) to be submitted to the college Academic council for approval.

**Agenda: 6**

Approval of Panel of examiners and Question paper setters for various regulations under PG.

**Resolution:6**

Approved the panel of examiners prepared for valuation and panel of question paper setters (given in **Annexure–IV and V** respectively) to be submitted to the college Academic council for approval.

The above items were discussed, debated and the necessary approval was accorded by the BOS. The meeting was concluded with vote of thanks proposed by the Chairman-BOS.

**Members Present**

| S. No. | Member Name | Designation/Organisation | Role of BOS | Signature |
|---|---|---|---|---|
| 1. | Dr. P. Ratna Kamala | Professor & HOD | Chairman | 28/8/2020 |
| 2. | Dr. P.G.Kuppaswamy | Professor (Signal Processing) | Member | 28/08/2020 |
| 3. | Dr. P.G.Gopinath | Professor (VLSI) | Member | 28/8/2020 |
| 4. | J. Rajanikanth | Associate Professor (DECS) | Member | 28/8/20 |
| 5. | P.Pavan Kumar | Assistant Professor (Embedded Systems) | Member | 28/8/2020 |
| 6. | Dr T. Ramashri | Professor Sri Venkateswara University College of Engineering, | Member | 28/08/2020 |
| 7. | Dr. K.P. Naveen | Assistant Professor, IIT Tirupathi | Member | 28/08/2020 |
| 8. | Dr. R.V.S. Satyanarayana | Professor, Sri Venkateswara University College of Engineering, | Member | |
| 9. | Mr. M. Lakshmi Narayana | Junior Telecom Officer, BSNL OFC Transmission maintenance | Member | 28/08/2020 |
| 10. | Mr V. Prasanth | Software Developer DXC Technologies Chennai. | Member | 28/8/2020 |

**SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY: PUTTUR**

**(AUTONOMOUS)**

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**6thBoS Meeting of Electronics and Communication Engineering (ECE)**

Date: 19/01/2021

The 6thmeeting of Board of Studies (BoS) in Electronics and Communication Engineering is held on 19thJanuary,2021 (Tuesday) at 10.30AMonline through ZOOM.

As per the UGC (University Grant Commission) guidelines, the Choice Based Credit System (CBCS) and electives have been implemented in the curriculum.

Dr. P.Ratna Kamala, Chairman - BoS chaired the meeting and welcomed all the members to the sixth BoS meeting and discussed the following agenda:

1. Approval of course structure and syllabi for I year B.Tech. under R20 Regulation.
2. Approval of panel of examiners and Question paper setters for I B.Tech. that comes under R20 Regulation.
3. Any other item with the permission of Chair.

After a brief introduction of the agenda items listed above, each agenda item were taken up for discussion and the following resolutions were passed.

**Minutes:**

**Agenda: 1**

Approval of course structure and syllabi for I year B.Tech. under R20 Regulation in ECE w.e.f., 2020-2021.

**Resolution: 1**

After detailed discussion, the BOS resolved to approve the course structureand syllabi forI year B.Tech. under R20 Regulation(given in **Annexure –I& II respectively**) applicable for the A.Y.2020-2021.

**A. Course & Syllabus Comparison**

With reference to the R19 regulations, the new regulation (R20) syllabus for I[st] year has the following modifications, which are given in the below table.

**I B.Tech**

| S.No | R19 Regulation | R20 Regulation | Percentage of course content changed |
|---|---|---|---|
| 1. | Applied Chemistry | Applied Chemistry | 20 |
| 2. | Algebra and Calculus | Algebra and Calculus | 30 |
| 3. | Engineering Graphics | Engineering Graphics | 0 |
| 4. | Applied Chemistry lab | Applied Chemistry Lab | 10 |
| 5. | Workshop Practice Lab | Workshop Practice Lab | 0 |
| 6. | Communicative English | Communicative English | 0 |
| 7. | Differential Equations and Vector Calculus | Differential Equations and Complex Analysis | 40 |
| 8. | Semiconductor Physics | Applied Physics | 20 |
| 9. | Basic Electrical Engineering | Electrical Technology | 0 |
| 10. | Communicative English Lab | Communicative English Lab | 0 |
| 11. | Semiconductor Physics Lab | Applied Physics Lab | 0 |
| 12. | | Principles of Electrical Circuits | 100 |
| 13. | | C Programming and Data Structures | 100 |

| | | | |
|---|---|---|---|
| 14. | | Fundamentals of Digital Computing Systems | 100 |
| 15. | | C Programming and Data Structures Lab | 100 |
| 16. | | Electrical Technology Lab | 100 |
| 17. | | Indian Constitution | 100 |

**Consolidated Sheet**

| Course | Total courses | Percentage of syllabus changed |
|---|---|---|
| **ECE B.Tech IYear** | **17** | **42.35** |

**B. Course Relevance**

The courses that come under the category of Employability, Skill or Entrepreneurship Development are shown in the table below.

| Sno | Course Title | Course Code | Relevance |
|---|---|---|---|
| 1. | Communicative English | 20HS0810 | Skill Development |
| 2. | C Programming and Data Structures Lab | 20CS0502 | Skill Development |
| 3. | Communicative English Lab | 20HS0811 | Skill Development |
| 4. | C Programming and Data Structures | 20CS0501 | Skill Development |
| 5. | Fundamentals of Digital Computing Systems | 20EC0401 | Employability |
| 6. | Electrical Technology | 20EE0254 | Employability |
| 7. | Fundamentals of Electrical Circuits | 20EE0253 | Employability |
| 8. | Electrical Technology Lab | 20EE0255 | Employability |

Modifications described above are carried out to the curriculum after discussions in the BoS by considering the feedback/suggestions from the stakeholders viz. students, alumni, faculty and employers.

**Agenda:2**

Approval of Panel of examiners and Question paper setters for various regulations under UG.

**Resolution:2**

Approved the panel of examiners prepared for valuation and panel of question paper setters (given in **Annexure–IV and V** respectively) to be submitted to the college Academic council for approval.

**Members Present**

| S. No. | Member Name | Designation/Organisation | Role of BOS | Signature |
|---|---|---|---|---|
| 1. | Dr. P. Ratna Kamala | Professor & HOD | Chairman | 19/1/21 |
| 2. | Dr. P.G.Kuppaswamy | Professor (Signal Processing) | Member | 19/01/2021 |
| 3. | Dr.P.G.Gopinath | Professor (VLSI) | Member | 19/01/2021 |
| 4. | J. Rajanikanth | Associate Professor (DECS) | Member | 19/1/2021 |
| 5. | P.Pavan Kumar | Assistant Professor (Embedded Systems) | Member | 19/1/2021 |
| 6. | Dr T. Ramashri | Professor Sri Venkateswara University College of Engineering, | Member | 19.1.2021 |
| 7. | Dr. K.P. Naveen | Assistant Professor, IIT Tirupathi | Member | |
| 8. | Dr R.V.S. Satyanarayana | Professor, Sri Venkateswara University College of Engineering, | Member | |
| 9. | Mr. M. Lakshmi Narayana | Junior Telecom Officer, BSNL OFC Transmission maintenance | Member | M. L. N |
| 10 | Mr V. Prasanth | Software Developer DXC Technologies Chennai. | Member | V. Prasanth 19/1/21 |