

R-20 Regulation V to VIII Sem Syllabus

**SWARNANDHRA COLLEGE OF ENGINEERING AND TECHNOLOGY**  
**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**

**BOARD OF STUDIES-MINUTES OF MEETING**

**Date:24.06.2022**

The Board of Studies meeting of the ECE department held on 24<sup>th</sup> June 2022 at 10.00 AM through online mode for the approval of R20 V to VIII sem Syllabus as per the Revised Engineering Curriculum-2020 framed by the **Andhra Pradesh State Council of Higher Education (APSCHE)**.

The following members were attended the BOS meeting

S.NO.	Name of BOS Member	Designation in BOS
1	Dr.B.Subrahmanyeswa Rao	Chairman
2	Dr.K.Chandra Bhushana Rao,JNTUK	University Nominee
3	Dr.Anil Kumar Vuppala,IIIT Hyderabad	Subject Expert Nominated by Institute
4	Dr.Kota Naga Srinivasarao Batta,NIT Warangal	Subject Expert Nominated by Institute
5	Mr.V.Govindha Rao,Microlink,Vijayawada	Industrial Expert
6	Mr.Dasari Jaswanthsai,SOPHOS Technologies,Bangalore	Alumni Member
7	Dr.B.Sada Siva Rao	Internal Member
8	Dr.K.Balamurugan	Internal Member
9	Mr.J.E.N. Abhilash	Internal Member
10	Mr. D. Sekhar	Internal Member
11	Mr.Srilali Siragam	Internal Member
12	Mrs.G.B.Christina	Internal Member
13	Mr.M Prem Chand	Internal Member
14	Mr.Ch.K.L.Rao	Internal Member
15	Mr.T.J.Alexander	Internal Member
16	Mrs.E.Suma	Internal Member
17	Mrs.M.Kanaka Durga	Internal Member

The BOS Chairman Dr.B.Subrahmanyeswara Rao welcomed all the Experts and Members. He presented the following,

1. The Revised Engineering Curriculum-2020 framed by APSCHE in detail for all the Semesters.
2. Proposed R20 Course Structure of the ECE Department according to Revised Engineering Curriculum-2020, APSCHE
3. Comparison of R19 & R 20 Course Structure with AICTE Curriculum.
4. R20 proposed Syllabus from Semester V to VIII sem courses.
5. Various degrees such as B.Tech-Regular, B.Tech Honor, and B.Tech Minor offered by APSCHE

After the presentation of the BOS Chairman, the room is given to the experts for discussion.

**Dr.K.Chandra Bhushana Rao, Professor, ECE Dept., UCEV, JNTUK, Kakinada, University Nominee,**

1. Suggested that the COs of each course should cover the entire syllabus.
2. Advised to remove the repeated topics in the proposed syllabus which are already available in the respective prerequisite courses.
3. Suggested to include design topics in antennas, which will be helpful for the student to gain more knowledge about antenna parameters.
4. Discussed about the text books and suggested to include the text books which will be easy for the students to study.
5. He added that prescribed text books should be available in the library. BOS chairman replied that most of the books are available in our library. New books will be purchased before the start of next academic year.
6. Suggested to include recently launched satellites and Indian developed GPS system in Radar and Satellite Communication systems and Global Positioning & Navigational Systems courses respectively. He suggested to look into the ISRO website for the recent and advanced satellites.
7. Suggested to midify the COs of the courses according to the quality of the students for achieving CO-PO mapping.

**Dr.Kota Naga Srinivasarao Batta, Assistant. Prof., ECE Dept, NIT Warangal, Subject Expert**

1. Advised to design CO for each unit of the syllabus.
2. Suggested to concentrate more on the interested topics such as patch antenna in the antenna wave propagation syllabus.
3. Asked about the simulation tools and advised to use the virtual lab offered by IIT Bombay.And also advised to encourage the students to do mini projects on micro procesors.
4. Advised to maintain atleast two text books and two reference books for each course.He added to use the latest edition text books.
5. Discussed about the title of the course Processors & Controller and advised to change the title as Microprocessors & Microcontroller.
6. Discussed about the Processors & Controller course and suggested that the syllabus should have equal weightage for both basic processors amd advanced processors.
7. He also suggested to rename the title of Radar and Satellite Systems course as Radar and Satellite Communication Systems.
8. Asked about the procedure of choosing the electives.BOS chairman answered that the students will choose the elective from the elective list by their own.
9. Suggested to include the recent topics such as LED,LCD in TV Engineering syllabus.
- 10.Suggested to include the advanced topics in sensor and instrumentation course.

BOS Chairman informed that no student is interested to choose the subject speech processing.The expert responded that he will provide the syllabus which creates interest for the student.

**Dr.Anil Kumar Vuppala, Assoc. Prof., Speech Processing Lab, IIIT Hyderabad, Subject Expert,**

1. He appreciated the proposed syllabus and the course structure.
2. Appreciated that Electives are well organized.
3. He suggested to include the real time topics in few courses and include the related E-sources.
4. He suggested to change the reference book in the 'Microwave and Optical Communications'course as text book..
5. He informed that only 1 book is included for optical communications. He advised to provide 2 books for Microwave and 2 books for Optical Communications.

**Mr.V.Govinda Rao, Managing Director, Microlink peripherals &Controls, Vijayawada, Industrial Expert,**

1. He satisfied about the syllabus framing and gave the suggestion to add topics related to advanced controllers as per market need.
2. He promised to provide the details of advanced controllers such a Texas Instruments etc.

**Mr.Dasari Jaswanthsai, Network Security Engineer, SOPHOS Technologies, Bangalore, Alimni Member,**

- 1.He appreciated the course structure and syllabus.
- 2.He added that the R20 syllabus contains more advanced courses and topics compared to R16 course structure.

#### **General**

1. BOS chairman informed the expert members about the equipment purchased for our laboratory last year worth 30 Lakhs.
2. Mr.JEN Abilash explained that the students are implementing the python programs in Arduino,Pynq board etc
3. Mr.D.Sekar enlightened the experts that he will include the topic "Patch Antenna" in the course Antenna and Wave Propagation.
4. Dr.K.Balamurugan enlightened the experts that recent topics in Satellite Communication System course will be added by referring the syllabus of Indian Institute of Space Science and Technology (IISST), Trivandrum.

The BOS Chairman concluded the session and informed that the corrected R20 course structure and syllabus will be mailed to the experts for approval. He requested the Experts to approve the corrected R20 course structure and syllabus.

The meeting ended with vote of thanks.



Zoom Meeting

Recording

16

Video

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
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End

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DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING									
R20 Revised Engineering Curriculum Semester- V									
S. No.	Category	Code	Course Title	Level	P	T	Th	Practical	Credits
1	Professional Core Courses	2		1	0	0		3	
2	Professional Core Courses			1	0	0		3	
3	Professional Core Courses			1	0	0		3	
4	Open Elective Course- Job oriented electronic			1	0	0		3	
5	Professional Elective Courses			1	0	0		3	
6	Professional Core Courses- Lab			0	0	1		1.5	
7	Professional Core Courses- Lab			0	0	1		1.5	
8	Skill advanced course- soft skill course*			1	0	0		3	
9	Summer Internship (AICTE recommended)			2	0	0		0	
Summer Internship 2 Months (Mandatory) after second year can be evaluated during 5th semester									15
TOTAL CREDITS									21.5
Honors/Memor courses (The honors distribution can be 3-0-3 or 3-1-0 also)									
					4	0	0		4

Category	CREDITS
Professional Core Courses	12
Professional Elective courses	9
Open Elective Course- Job oriented electronic	3
Skill advanced course- soft skill course*	3
Summer Internship	15
<b>TOTAL CREDITS</b>	<b>21.5</b>

Close

Participants (17)

Search

GB

GB CHRISTINA (me)

DP

Dr.K. Balamurugan,... (Host)

DS

Dr.B S Rao,HOD,ECE

D

Dr.B.K.N.Srinivas

Govinda Rao (MICROLINK,VI...

SS

Sada Siva Rao Bathula

SD

Sekhar Didde

AJ


Abhilash JULURU

AV

Anil Vuppala

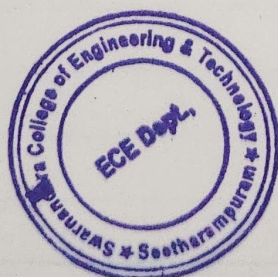
CK

Challa Kanakalingeswararac

  
Dr. B.S. Rao

**Dr.B.S.Rao**  
**Chairman BOS**  
**Department of ECE**

CHAIRMAN  
BOARD OF STUDIES  
Department of ECE  
Jawahar College of Engineering & Technology





**SWARNANDHRA COLLEGE OF ENGINEERING AND TECHNOLOGY**  
**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**  
**BOARD OF STUDIES-MINUTES OF MEETING**

Date: 11/10/2023

The Board of Studies meeting of the ECE department held on 11<sup>th</sup> October 2023 at 10.00 AM through online mode for the revision and approval of R23, 1<sup>ST</sup> SEM Basic Electronics , Electronics workshop ,network Analysis ,Network Analysis Lab Syllabus .

S. No.	Name of BoS Member	Designation in BOS
1	Dr. B. Subrahmanyeswra Rao	Chairman
2	Dr. K. Chandra Bhushana Rao, JNTUV	University Nominee
3	Dr. Kota Naga Srinivasarao Batta, NIT Warangal	Subject Except Nominated by Institute
4	Mr. V. Govindha Rao, Microlink, Vijayawada	Industrial Expert
5	Mr. Dasari Jaswanth sai, SOPHOS Technologies, Bangalore	Alumni Member
6	Dr. B. Sada siva Rao	Internal Member
7	Dr. K. Balamurugan	Internal Member
8	Dr. Y S V. Raman	Internal Member
9	Dr. B. Ramana Kumar	Internal Member
10	Dr. D. Natraja	Internal Member
11	Dr. T. J. Alexander	Internal Member
12	Mr. J.E.N. Abhilash	Internal Member
13	Mr. K V C B Rao	Internal Member
14	Mr. D. Sekhar	Internal Member
15	Mr. I.V. Ravi kumar	Internal Member



**SWARNANDHRA COLLEGE OF ENGINEERING AND TECHNOLOGY****DEPARTMENT OF ECE****MINUTES OF BoS MEETING**

The BoS meeting for the approval of First Year Subjects Syllabus of R23 Regulations is held on 11.10.2023 started at 10.30 A.M.

1. BoS Chairman welcomed the BoS committee and other Faculty members.
2. BoS Chairman presented the 1<sup>st</sup> year, Part-B Electronics Engineering section of Basic Electrical and Electronics Engineering, Network Analysis, Electrical & Electronics workshop and Network Analysis lab of R23 Regulations.
3. BoS Chairman, Dr. D. Natraj and Mr. I.V. Ravi Kumar asked the University Nominee for the possibility of changing the topic-"Elementary Treatment of CE Amplifier" in Unit-1 and to add the topics such as FET. BoS committee suggested to refer the 1<sup>st</sup> year physics syllabus and modify accordingly.
4. Dr. D. Natraj asked the BoS committee about the necessity of the topic "Frequency Analysis of amplifier" for the 1<sup>st</sup> year students. Resolved to modify the content without Analysis.
5. BoS Chairman suggested to include the Halfwave and Fullwave Rectifiers in Unit-2, as it is available in the laboratory syllabus. Resolved to include it.
6. BoS Chairman asked the BoS committee about the possibility of reducing Unit -1 syllabus in the Network Analysis subject by keeping only the topics such as "Mesh Analysis and Nodal Analysis", Resolved to modify
7. Subject handling faculty are requested to shift the 2<sup>nd</sup> part of Unit-2 and 2<sup>nd</sup> part of Unit-5 of network analysis subject in other related subjects. Resolved to modify accordingly.
8. Dr. B. Ramana Kumar asked the BoS Committee about the possibility of handling the Network Analysis Lab in Virtual mode. Resolved to conduct the lab as 50% of the lab experiments in Hardware and remaining 50% in Software.
9. Electrical & Electronics Engineering Workshop and Network Analysis and Simulation Laboratory syllabi was presented and got approved

The meeting came to end at 12.30 P.M. with vote of Thanks.











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Narsapur, West Godavari District, A.P. 534280

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**

BoS Meeting

Dt.:16.07.2024

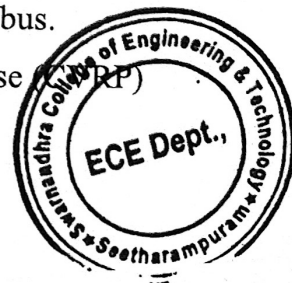
The Board of Studies (BoS) meeting of the ECE department held on 16.07.2024 at 10.30 A.M. through online mode for the review and approval of III and IV SEMS course structure and syllabus.

The following members are attended the meeting

S. No.	Name of the Member	Designation in BoS
1.	Dr. B. Subrahmanyeswara Rao	Chairman
2.	Dr. K. Chandra Bhushana Rao, Director of Academic Planning, JNTUGV, Vijayanagaram	JNTUK University Nominee
3.	Dr. N.N. Murthy, Dean, IIT, Tirupathi	Subject Expert
4.	Dr. B. Kota Naga Srinivasa Rao, Professor, NIT, Warangal	Subject Expert
4.	Mr. V. Govinda Rao, Microlink Technologies, Vijayawada	Industrial Expert
5.	Ms. K. Madhu Harshitha, Software Associate, CTS, Chennai	Alumni Member
6.	Dr. Y.S.V. Raman	Member
7.	Dr. B. Ramana Kumar	Member
8.	Dr. D. Nataraj	Member
9.	Mr. J.E.N. Abhilash	Member
10.	Mr. D. Sekhar	Member
11.	Mrs. G.B. Christina	Member
12.	Mrs. E. Suma	Member

Agenda:

- 1) Review & Approval of R-23 III & IV SEM Course structure and syllabus.
- 2) Exchange of courses III SEM (U.H.V) to IV SEM (M.E.F.A.) and IV SEM (M.E.F.A.) to III SEM (U.H.V).
- 3) Discussion on EDC syllabus with reference to I SEM Basic Electronics syllabus.
- 4) Discussion on STLD syllabus with reference to I SEM Basic Electronics syllabus.
- 5) Replace of ECE III SEM course (P.T.S.P) by Basic Science Mathematics course (P.T.S.P)
- 6) Review on syllabus of all other in III SEM & IV SEM courses.
- 7) Approval of R-24 M, Tech. course structure.







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## DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

### MINUTES OF BoS MEETING

1. BoS Chairman welcomed the University Nominee Dr. K. Chandhra Bushana Rao, Subject Experts Dr. N.N. Murthy and Dr. B. Kota Naga Srinivasa Rao, Industrial Expert Mr. V. Govinda Rao, Alumni Member Ms. K. Madhu Harshitha and Faculty members.
2. BoS Chairman presented the all above agenda points and later room is given to the experts for discussion and suggestions

**Dr. K. Chandra Bhushana Rao, Director of Academic Planning, JNTUGV, Vijayanagaram**

**University Nominee Suggested the following:**

- 1) To delete the repeated topics which are already covered in Basic Electronics course in I st semester and replace them with IoT related electronic devices & components used for IoT Projects.
- 2) To include design of Gates using Universal Gates topics instead of Basic logic Gates in STLD Course.
- 3) Given acceptance for exchange of course III SEM (U.H.V) to IV SEM (M.E.F.A.) and IV SEM (M.E.F.A.) to III SEM (U.H.V).
- 4) To replace the III SEM (PTSP) with Basic Science related Mathematics course and get the approval from Academic Council
- 5) To place the study of IC version topics in laboratory courses.
- 6) To submit any minor changes in few courses like EDC, STLD, EMWTL, EDC lab and STLD lab for approval of BoS members.
- 7) Given approval for all other courses syllabus in III & IV Semesters.
- 8) R-24 M.Tech course structure approved.

**Dr. N.N. Murthy, Dean, IIT, Tirupathi, Subject Expert suggested the following:**

- 1) To replace the Basic Concepts of EDC with relevant useful advanced topics.
- 2) To add few P.D.C concepts in III unit of E.D.C. which are not covered in IV SEM Courses like E.C.A etc.,
- 3) To include transistor amplifier characteristics in place of CE, CB, CC configurations which are already covered in I SEM Basic Electronics course.
- 4) To delete topic CMOS amplifier in unit 5 of EDC and place in further forth coming courses.
- 5) To place the study of IC version topics in laboratory courses.





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**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**

- 7) Given approval for all other courses syllabus in III & IV Semesters.
- 8) R-24 M.Tech course structure approved.

**Mr. V. Govinda Rao, Microlink Technologies, Vijayawada, Industrial Expert:**

- 1) Suggested to include Electronics syllabus which is useful for designing latest IOT interfaces used for Project development.
- 2) Suggested to include few more design experiments in laboratory courses.
- 3) Suggested to include all GATE topics in syllabus.
- 4) Expressed other courses syllabus are satisfactory.
- 5) R-24 M.Tech course structure approved.

**Ms. K. Madhu Harshitha, Software Associate, CTS, Chennai, Alumni Suggested.**

- 1) Instead of basic electronic devices to add Project related electronic devices.
- 2) To add design of Gates using universal gates instead of introduction to logic gates.





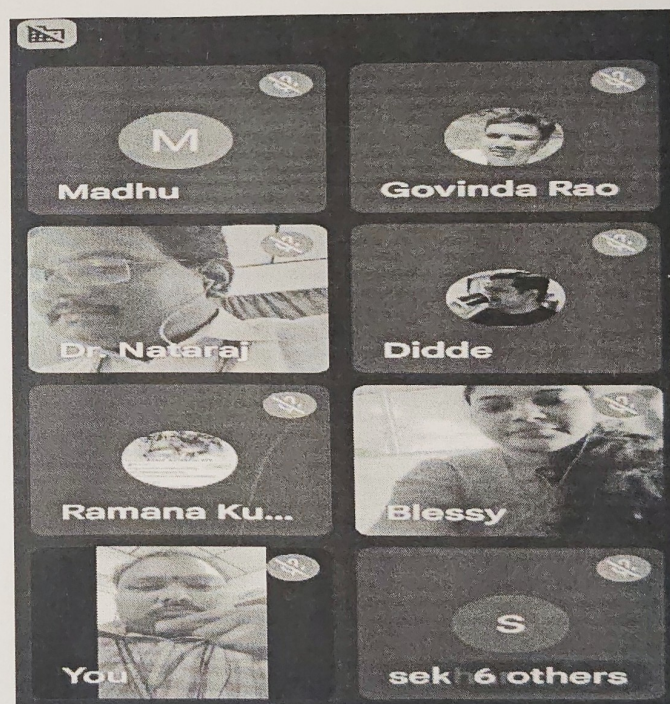
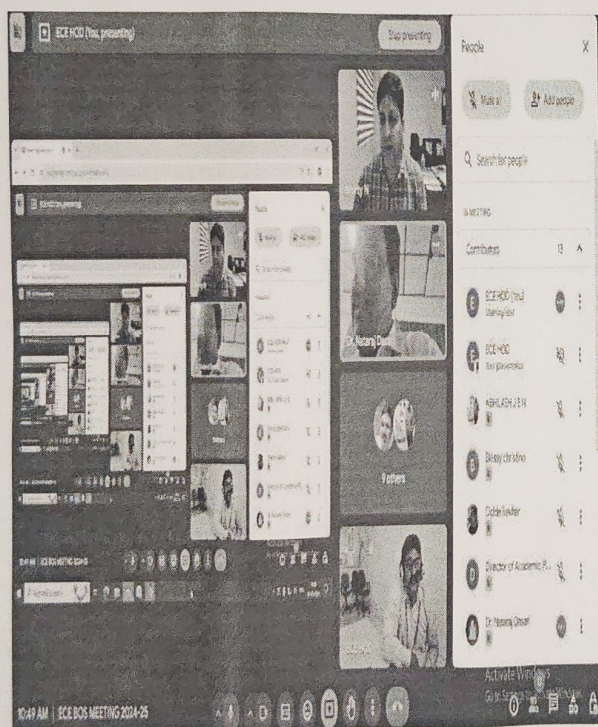
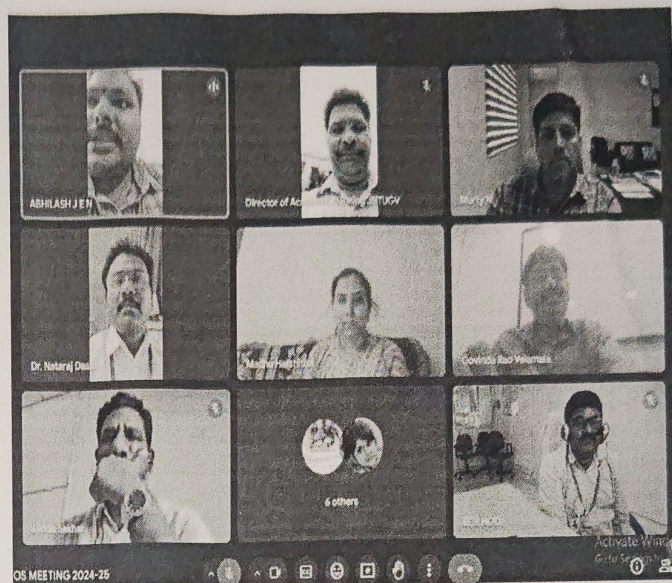
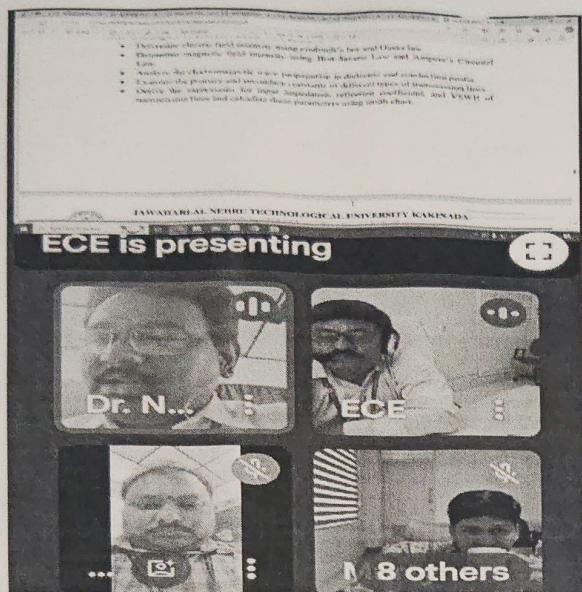


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## DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



*Dr. B. S. Rao*

Dr. B. S. Rao  
Chairman BoS,  
Department of ECE