



Hindusthan College of Engineering and Technology
Approved by AICTE, New Delhi and Accredited with 'A' Grade by NAAC
(An Autonomous Institution, Affiliated to Anna University, Chennai)
Valley Campus, Pollachi Highway, Coimbatore



Date: 12.06.23

MINUTES OF BOS MEETING

Name of the Department: BE Electronics and Communication Engineering

The Twelfth Board of Studies meeting for BE Electronics and Communication Engineering for the academic year even 2022-23 was conducted on 03.06.2023 at 10.00am in Hybrid mode with Google meet (<https://meet.google.com/ipy-hoob-pdg>) and

The following members were present.

S.No	Name of the Person	Department	Position
1.	Dr.P.Vijayalakshmi Professor Hindusthan College of Engineering and Technology	ECE Dept	Chairperson
2.	Dr.S.J.Thiruvengadam, Professor and Dean(Academics), Thiagarajar College of Engineering, Madurai 625 015	ECE Dept	University Nominee
3.	Dr.C.Shanthi Professor & Head of the Department, Govt. College of Technology, Coimbatore-641 013.	ECE Dept	Subject Expert
4.	Dr.Krishaveni V, Professor (CAS) and Head, PSG College of Technology, Coimbatore-641 004.	ECE Dept	Subject Expert
5.	Ms.T.Vidhya Sri, Director, Institute Relations and HR, Adroit technologies Innovation Solutions (IBM Partner), Coimbatore.	Director	Industry Expert (IBM Partner)
6.	Dr.R.Michaelraj Kingston, Professor, Sri Eshwar College of Engineering, Coimbatore.	ECE Dept	Alumni
7.	Dr.M.Pachiyaannan, Associate Professor Vignan's foundation for Science,Technology and Research, Guntur,AndraPradesh	ECE Dept	Member from QIS rated Institution

8.	Dr.B.Paulchamy, Professor Hindusthan Institute of Technology	ECE Dept	Member from sister concern
9.	Dr.R.Sabitha Professor Hindusthan College of Engineering and Technology	ECE Dept	Member & Autonomous Coordinator
10.	Dr.K.Kalaiselvi Associate Professor Hindusthan College of Engineering and Technology	ECE Dept	Member
11.	Dr.P.Geetha Associate Professor Hindusthan College of Engineering and Technology	ECE Dept	Member
12.	Dr.J.Ramya Associate Professor Hindusthan College of Engineering and Technology	ECE Dept	Member
13.	Mr.Hiteshwar R IV ECE A Hindusthan College of Engineering and Technology	ECE Dept	Student Member
14.	Ms.Keerthana Devi R III ECE B Hindusthan College of Engineering and Technology	ECE Dept	Student Member
15.	Ms.Hariniya S II ECE A Hindusthan College of Engineering and Technology	ECE Dept	Student Member

- The Chairman-BoS welcomed the University nominee, Subject experts, special invitees and all the internal members for the eleventh Board of Studies meeting.
- Followed by, Chairman presented the suggestions given by the experts and the action taken report during the Previous BoS meeting which was held during 11.02.2023 was approved.
- Chairman also gave an outline of the changes to be made in the curriculum given by the Curriculum Development Cell & Department Advisory Committee (DAC) and emphasized the importance of including the cutting-edge technology courses as electives in the curriculum to be in line with the industry needs.

The following are the recommendations put forth by the BoS members,

1. Chairman also put forward the syllabus for minor degree in R2019(for the students admitted from 2021 onwards) and R2022(for the students admitted from 2022 onwards).
 2. Chairman also put forward the syllabus for degree with honors, degree with honors specialization in R2022(for the students admitted from 2021 onwards) and R2022(for the students admitted from 2022 onwards).
 3. Chairman gave an outline of the feedback on curriculum received from the stakeholders.
- The changes in syllabus for R2019 was passed by the board of Electronics and Communication Engineering and the same was approved by the BoS members of Electronics and Communication Engineering for the students admitted in the academic year of 2020-2021 and onwards
 - The syllabus for R2022 with inclusion of minor degree, degree with honors and degree with honors specialization was passed by the board of Electronics and Communication Engineering and the same was approved by the BoS members of Electronics and Communication Engineering for the students admitted in the academic year of 2022-2023 and onwards.
 - BoS members suggested to include more number of courses to be included in Minor Major and honor degree verticals so that students could opt for choices while selecting the courses.
 - The syllabus for the subject 'Circuits and Networks' in Regulation 2022 (for the students admitted in the academic year of 2022-23 onwards) is passed and approved by the BoS members of Electronics and Communication Engineering.
 - The third semester syllabus for courses of R2022 was passed by the board of Electronics and Communication Engineering and the same was approved by the BoS members of Electronics and Communication Engineering for the students admitted in the academic year of 2022-2023 and onwards.
 - The Regulation 2022, Curriculum and Syllabi of semester III (for the students admitted in the academic year of 2022-2023 and semester V (for the students admitted in the academic year 2021-2022 and onwards) is forwarded by the Board of Studies to the Standing committee/Academic Council and recommends for approval.
 - 22EC6254-VLSI design (Lab and Theory component) in Regulation 2022 (for the students admitted in the academic year of 2022-2023 and onwards)to be included in VI Sem.

22EC7001- Optical Communication and Microwave Engineering (Theory with Lab component) (for the students admitted in the academic year of 2022-2023 and onwards) to be included in VII Sem

Introduction of new courses

1. 'Industry based courses' are identified and to be included in V Sem (for the students admitted in the academic year of 2022-2023).
2. 22HS6101-Professional Ethics added in the VI semester (for the students admitted in the academic year of 2022-2023).
3. 22HE4101-IPR and Startups in the IV semester (for the students admitted in the academic year of 2022-2023).
4. 22EC7201-Wireless Communication Networks in the VII semester (for the students admitted in the academic year of 2022-2023).
5. 22EC3204-Circuits and Networks in the III semester (for the students admitted in the academic year of 2022-2023).
6. Additional Courses added in the honor verticals:
 1. Digital switching Systems
 2. Wireless Systems and standards
 3. Advanced Processor Architectures
 4. Long term Evolution Technologies

%revision in the syllabus

S.No	Subject	% revision
1	22EC6254-VLSI design (Theory with Lab component)	40
2	22EC7001- Optical Communication and Microwave Engineering (Theory with Lab component)	40
3	22CE3203-Digital Electronics – revision in Unit V	20
4	22CE3202-Signals and Systems – revision in Unit I	15
5	22CE3001-Electronics Circuits Lab- Addition of new experiments	15

% revision in the curriculum(BE ECE)

Total Number of courses passed in this BOS	30
No. of courses revised	5
% Revision in courses	36.7%

The following resolutions were made in the Board of Studies meeting,

For Regulations 2022:

- In almost all the courses, changes have been done as per the current needs.
- The curriculum for all semesters with the inclusion of minor and honors degree of B.E Electronics and Communication Engineering program for the students admitted during the academic year 2022- 2023 and onwards was permitted to move on to Academic Council
- The curriculum and syllabi of 2019 with amendments for the III, V, VII semester courses of B.E Electronics and Communication Engineering program for the students admitted

during the academic year 2022- 2023 and onwards was permitted to move on to Academic Council.

- Chairman conveyed that, the Suggestions given by the Previous Board of Studies members are ratified and resolved.

The meeting ended with thanks to the Chair at 03.30 P.M.



Chairman

(Board of Studies)

Enclose:

1. CDC Minutes
2. DAC meeting Minutes –ATR
3. Previous BoS Minutes-ATR
4. Regulation 2022
5. Curriculum and Syllabi of R2019 and R2022

Copy:

1. The Principal
2. Dean Academics
3. Controller of Examinations
4. All the Members of BoS
5. File



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9.	Dr.R.Sabitha Professor Hindusthan College of Engineering and Technology	ECE Dept	Member & Autonomous Coordinator
10.	Dr.K.Kalaiselvi Associate Professor Hindusthan College of Engineering and Technology	ECE Dept	Member
11.	Dr.A.Udhaya Kumar Associate Professor Hindusthan College of Engineering and Technology	ECE Dept	Member & Autonomous Coordinator
12.	Dr.P.F.Khaleelur Rahiman, Associate Professor Hindusthan College of Engineering and Technology	ECE Dept	Member
13.	Dr.J.Ramya Associate Professor Hindusthan College of Engineering and Technology	ECE Dept	Member
14.	Mr.Manikandan IV ECE B Hindusthan College of Engineering and Technology	ECE Dept	Student Member
15.	Ms.Hariniya S III ECE A Hindusthan College of Engineering and Technology	ECE Dept	Student Member
16.	Ms.Durga II ECE A Hindusthan College of Engineering and Technology	ECE Dept	Student Member



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- The Chairman-BoS welcomed the University nominee, Subject experts, special invitees and all the internal members for the Thirteenth Board of Studies meeting.
- Followed by, Chairman presented the suggestions given by the experts and the action taken report during the Previous Twelfth BoS meeting which was held on 03.06.2023.
- Chairman also gave an outline of the changes to be made in the curriculum given by the Curriculum Development Cell & Department Advisory Committee (DAC) and emphasized the importance of including the cutting-edge technology courses as electives in the curriculum to be in line with the industry needs.
- Chairman presented the syllabus for
 - R-2022-IV Semester (for the students admitted from 2022 onwards),
 - R-2019A-VI Semester (for the students admitted from 2021 onwards), and
 - R-2019 -VIII Semester (for the students admitted from 2020 onwards)
- Chairman also presented the syllabus for Honors and Minor degree courses offered during this even semester under R-2022 (for the students admitted from 2022 onwards) and R-2019A (for the students admitted from 2021 onwards) and R2019.
- Chairman gave an outline of the feedback on curriculum received from the various stakeholders in the meeting. Mission, Vision, PEs and PSOs are also disseminated to the stakeholders.

The following are the suggestions/recommendations put forth by the BoS members,

Common Suggestions Given by All Expert Members

1. Theory courses: Pre Requisite to be added for courses wherever applicable.
2. Lab Courses:
 - COs should represent Report/ Document/ Record preparation
 - Tools used for experimentation to be mentioned
- 3) In text books of courses it is not necessary to mention units covered by the books for the courses.

Regulation 2022 :

1. Subject Expert (Dr. C. Shanthi) & suggested to include more topics in Demodulator in the course 22EC4202 - Analog Communication. She also suggested to include the topics like Random processes, Friss formula, Multiplexing, TDM, Quantization in the same.

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2. Subject Expert Dr.C.Shanthi & Dr.R.Michaelraj Kingston(Alumni) suggested to include experiment on noise, all 3 AM waveforms and PAM in 22EC4002 Analog Communication Lab. Also they insisted to mention hardware and software tools used for the same.

3. Member from QIS rated Institution (Dr.M.Pachiyannan) suggested that, Units I and II in 22EC4201 - Electro Magnetic Fields course has to be revised and suggested to include the text book "Elements Of Electromagnetics" by Sadiku as Text book.

4. University Nominee (Dr.S.J.Thiruvengadam) suggested revision in unit titles for the course 22EC4304 - Transmission Lines and Waveguides.

Regulation 2019A:

1. Dr.M.Pachiyannan (Member from QIS rated Institution) suggested to swap the units II & III and modify the Unit IV title as Frequency Independent antennas in 21EC6202 -Antenna and Wave Propagation course. He also suggested to include topics on Antenna and Measurement in the same course.

2. University Nominee (Dr.S.J.Thiruvengadam) suggested to include the topic 3G/4G/5G Transitions as basics in Unit-I. He suggested to reduce the contents of unit III as it is vast. He also suggested to Include OFDM topic in Unit IV and to distribute contents uniformly for the course 21EC6303 -Mobile Communication.

3. Dr.R.Michaelraj Kingston(Alumni) and Dr.V.Krishnaveni suggested to include the topics Nyquiste sampling, Eye pattern, Pulse shaping criteria, Base band signaling, Constellation diagrams, BPSK (in unit 3), 2PAM, 4PAM, Parity check codes, NSR calculations, Line coding in 21EC6253-Digital Communication course.

4. Member from QIS rated Institution (Dr.M.Pachiyannan) suggested that ARM processors has to be included in 21EC6251-Embedded Systems and IOT course also depth is needed in 21EC7401-Introduction to IOT course.

5. Subject expert Dr.V.Krishnaveni has suggested to add the book titles as "Digital Communication" Authored by John G. Proakis as one of the Text Books for the course 21EC6253-Digital Communication.

% revision in the syllabus(BE ECE)

S.No	Course code	Course name	% revision
Regulation 2022			
1	22EC4201	Electro Magnetic Fields	25
2	22EC4202	Analog Communication	25
3	22EC4304	Transmission Lines and Waveguides	5
4	22EC4002	Analog Communication Lab	10
Regulation 2019A			
5	21EC6202	Antenna and Wave Propagation	20
6	21EC6303	Mobile Communication	20
7	21EC7401	Introduction to IOT	10
8	21EC6251	Embedded Systems and IOT	20
9	21EC6253	Digital Communication	30

% Revision in the Curriculum

Total number of courses passed in this BOS	$33(\text{regular}) + (6 \times 3) = 18(\text{Honors}) + (1 \times 6) = 6(\text{Minor}) = 57$
No. of courses revised	10
% revision in courses	17.5 %



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Regulation 2019 and 2019A:

Chairman presented the syllabi for the following Honor Degree Verticals I, II, III and the Minor Degree Courses.

	Regulation	Course Name	Name	Credits
Honor Degree Vertical I				
Emerging Technologies in Communication Engineering				
1.	R2022	22EC6201/19EC6201R	Optical Communication Networks	3
2.	R2022	22EC6202/ 19EC6202R	Wireless Broadband Networks	3
3.	R2022	22EC7202/19EC7202R	Software Defined Networks	3
4.	R2022	22EC7203 19EC7203R	4G/5G Communication Networks	3
5.	R2022	22EC8201/19EC8201R	Underwater Communication	3
Honor Degree Vertical II				
Sensor Technologies and IoT				
6.	R2022	22EC6204/19EC6204R	Sensor for IOT Applications	3
7.	R2022	22EC6205/19EC6205R	Advanced Processor Architectures	3
8.	R2022	22EC7205/19EC7205R	Wearable Devices	3
9.	R2022	22EC7206/19EC7206R	IOT Processors	3
10.	R2022	22EC8202/19EC7207R	IOT based system design	3
Honor Degree Vertical III				
Semiconductor Chip Design and Testing - TESSOLVE Semiconductors				
11.	R2022	22EC6207/19EC6207R	CMOS VLSI Design	3
12.	R2022	22EC6208/19EC6208R	Low Power VLSI Design	3
13.	R2022	22EC7208/19EC7208R	ASIC Design	3
14.	R2022	22EC7209/19EC7209R	System Verilog	3
15.	R2022	22EC8203/19EC5203R	VLSI Testing and Design for Testability	3
Minor Degree Vertical				
Embedded and IoT				
16.	R2022	22EC6601/19EC6601R	Microcontroller and its Applications	3
17.	R2022	22EC6602/19EC6602R	Sensor and Embedded Systems	3
18.	R2022	22EC7601/19EC7601R	Fundamentals of IoT	3
19.	R2022	22EC7602/19EC7602R	IoT for Smart Agriculture	3
20.	R2022	22EC8601/19EC8601R	IoT for Smart Cities	3



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The following resolutions were made in the Board of Studies meeting

The following Syllabi was permitted to move on to Academic Council members under various regulations, after incorporating the suggestions and corrections given by BoS members.

- Syllabi for
 - R-2022-IV Semester (for the students admitted from 2022 onwards),
 - R-2019A-VI Semester (for the students admitted from 2021 onwards), and
 - R-2019 -VIII Semester (for the students admitted from 2020 onwards) and
- The syllabi for Honors and Minor degree courses offered during this even semester under R-2022 (for the students admitted from 2022 onwards), R-2019A (for the students admitted from 2021 onwards) and R2019.

The meeting ended with thanks to the Chair at 02.00 P.M.

P. Hayle
Chairman

(Board of Studies)

**Chairman - Bos
ECE - HICET**

Enclose:

1. CDC Minutes
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