

SAMRAT ASHOK TECHNOLOGICAL INSTITUTE, VIDISHA (A Govt. Aided UGC Autonomous & NAAC Accredited Institute Affiliated to RGPV, Bhopal)

Department of Electronics Engineering

Program: Electronics & Communication Engineering

BoS Meeting

(BoS Meeting Scheduled on 20 December 2023)

Date and Time

20.12.2023, 3.30PM - 6.30 PM.

of BoS

Held online at: https://meet.google.com/afy-tipd-fij

Board of Studies members

A. Dr. Ashutosh Datar, Head (Dept. of Electronics Engg.) & Chairman

B. The entire faculty of each specialization:

1. Dr. Neelesh Mehra, Course Coordinator (E&C)

2. Dr. DK Shakya, Asst. Professor

3. Prof. ML Jatav, Asst. Professor

4. Prof. Bharti Mehra, Asst. Professor

5. Dr.Suchi Mishra, Asst. Professor

6. Dr. Ankita Shrivastava, Asst. Professor

7. Dr. Sweety Jain, Asst. Professor

8. Prof. Abhishek Jain, Asst. Professor

9. Prof. Neeraj Dhakad, Asst. Professor

C. Two subject Experts from outside the university

1. Dr. Aditya Trivedi, Professor, IIITM, Gwalior

2. Dr. Vandana Vikash Thakre, Associate Professor, Department of Electronics, MITS Gwalior

D. One representative from Industry/Corporate sector, allied/area Mr. Ashutosh Patrikar, Senior Manager, EY, Pune

E. Postgraduate Meritorious Alumnus

Dr. Anand Agrawal, Assistant Professor, Department of ECE, IIIT Kota

F. One expert nominated by Vice Chancellor, RGPV.

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Department of Electronics Engineering

		Co	ourses where	revision was c	arried out	•	
(Course/subject name)	Course Code	Year/Date of introduction	Year/Date of revision	Percentage of content added or replaced	Agend a Item No.	Page No.	Link of relevant documents/minutes
Antenna and Wave Propagation	EC-403	2021	2023/ 20.12.2023	30%	2	6	https://satiengg.in/im ages/Electronics%20 Department/BoS%20 20.12.2023/4%20se m%20new.pdf
Microprocessor and Microcontroller	EC-502	2021	2023/ 20.12.2023	70%	4	5	https://satiengg.in/im ages/Electronics%20 Department/BoS%20 20.12.2023/5%20se m%20new.pdf
Embedded System Design	EC- 603(A)	2021	2023/ 20.12.2023	80%	4	7	https://satiengg.in/im ages/Electronics%20 Department/BoS%20 20.12.2023/6%20se m%20new.pdf

C	ourses focusing	g on employability/entrepreneurshi			ent"
(Course/subject name)	Course Code	Activities/contents which have a bearing on increasing skill and employability	Agend a Item No.	Page No.	Link of relevant documents/minutes
Intellectual and Cognitive Abilities	HEC	Course objectives to orient the think skills include the ability to intellectually simpler with the ability to solve a problem	14	3	https://satiengg.in/i mages/Electronics% 20Department/BoS %2020.12.2023/Fina 1%20Hollistic%20C ourse%20Syllabus% 204%20sem.pdf
Simulation Lab-II (LabVIEW)	DLC-2	Test and measurement, control systems, and embedded systems development.		15	https://satiengg.in/i mages/Electronics% 20Department/BoS %2020.12.2023/5%2 0sem%20new.pdf
Embedded System Design	EC-603(A)	Communication protocols, ARM and embedded system, peripherals interfacing and programming to solve prototype problems.	14	7	https://satiengg.in/i mages/Electronics% 20Department/BoS %2020.12.2023/6% 0sem%20new.pdf

		New Courses ad			
(Course/subj ect name)	Cour se Code	Activities/contents which have a bearing on increasing skill and employability	Agen da Item No.	Page No.	Link of relevant documents/minutes
Power Electronics	EC 504	Power electronics is the study of electronic circuits for the control and conversion of electrical energy. The technology is a critical part of our energy infrastructure and is central for a wide range of uses of	4		https://satiengg.in/images/Electronics%20Department/BoS%2020.12.2023/5%20sem%20new.pd

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		electricity.			
Bio Signal Processing	EC 603	To be able to Understand and Apply Various Methods for Analyzing Biomedical Signal Characteristics.	4	-11	https://satiengg.in/images/Electronics%20Department/BoS%202012.2023/6%20sem%20new.pd
Nano Electronics and MEMS	EC 604	Nanotechnology in electronic devices enhances the display screens of electrical devices. This entails lowering power usage while also reducing screen weight and thickness.	4	15	https://satiengg.in/images/Electronics%20Department/BoS%2020.12.2023/6%20sem%20new.pd
Adaptive Signal Processing	EC 604	Students will be able to analyze statistical properties of a signal. They can design different adaptive filters for different applications.	4	1,7	https://satiengg.in/images/Electronics%20Department/BoS%202012.2023/6%20sem%20new.pd
Industrial Electronics	OC 505	To be able to learn latest electronic devices available in industry.	4	1	https://satiengg.in/images/Electronics%20Department/BoS%202012.2023/OC%20505 Industria1%20Electronics.pdf
Medical Imaging System	OC 605	To be able to learn various aspects of imaging technology. Students can work efficiently under radiologist with knowledge and practical skills.	4	I	https://satiengg.in/images/Electronics%20Department/BoS%2020.12.2023/6%20sem%20new.pd
Probability and Statistics Approaches	НЕС	To be able to apply the concepts of probability methods in the areas of mechanical, electrical and electronics.	14	1	https://satiengg.in/images/Electronics%20Department/BoS%202 0.12.2023/Final%20Hollistic%2 0Course%20Syllabus%204%20 sem.pdf
Intellectual and Cognitive Abilities	нес	Cognitive objectives oriented to think skills include the ability to intellectually simpler with the ability to solve a problem.	14	3	https://satiengg.in/images/Electronics%20Department/BoS%202 0.12.2023/Final%20Hollistic%2 0Course%20Syllabus%204%20 sem.pdf

Feedback on curriculum received from stakeholders: Analysis& ATR*

Stakeholder	Student	Faculty	Alumni	Employ er
No. of responses	139	8	2	0
Link of Analysis	https://forms.gle/5wZ6f- dkTeXmD8M6SA	https://forms.gle/tcPjo4 YDm7G5yGCf6	. <u>https://forms.gle/av3wUC</u> <u>PThANoq59a6</u>	
ATR Link	https://satiengg.in/images	s/Electronics%20Departmen	t/BoS%2020.12.2023/ATR%20	PDF.pdf
Link showing Excel sheet of Google Form details of stakeholders	https://docs.google.com /spreadsheets/d/1VjJB VNIQ87p4jao00MssZpV Zwt9VNcbBa36nhS8eSg/ edit?usp=sharing	https://docs.google.com /spreadsheets/d/18beco ae-DbOLC n86E- 3436PJsDYCNTOzOjLZZc9 Fj4/edit?usp=sharing	https://docs.google.com/s preadsheets/d/10nFMFCIT GglP3BsKQBssUJjcxrWAb3i 6HoGyzH0xVY/edit?usp=sh aring	



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BoS Agenda Items& Resolutions

Item 1 To confirm the minutes of previous BoS meeting held in the month of June 202	
Resolution	As per the agenda point no. 1, the minutes of the last Board of Studies meeting held on 5th
	June 2023 have been confirmed and approved.

Item 2	To review, prepare, finalize and recommend the Scheme & Syllabi (along with the Course Outcomes) of IV semester B. Tech. programmes (for the batch admitted 2022-23 Session)
Resolution	The scheme and syllabus for IV semester B. Tech programmes was reviewed and finalized. In the old schemes of III and IV semester, it was observed that the students often get confused by the names of open elective subjects Communication-I and Communication-II, and assumes them as some language related subjects. Therefore, the names of the subjects were revised and approved from Communication-I to Analog Communication and Communication-II to Digital Communication. Additionally, the syllabus of subject Antenna & Wave Propagation (EC403) was also revised by keeping in view the syllabus of some reputed institutions and competitive examinations. In the discussion, Dr. Vandana Vikas Thakre suggested to have a look on "Unit 5 Radio Wave Propagation" again, so that important topics do not get discarded. The comments and suggestion from our esteemed experts have been incorporated and syllabus is revised accordingly. https://satiengg.in/images/Electronics%20Department/BoS%2020.12.2023/4%20sem%20new.pdf

Item 3	To review, prepare, finalize and recommend the list of experiments/ Lab manual and skill based mini projects for various laboratory courses to be offered in IV Semester (for the batch admitted in 2022-23).
1	The list of Experiments/ Lab Manual and Skill based Mini Projects for various laboratory courses has been reviewed and finalized for IV semester students (session 2023-24).

Item 4	To prepare and finalize tentativescheme structure of B.Tech. V & VI Semester with the provision of DC, DE and one Open Elective (OE) Coursefor the batch admitted in 2022-23. Total of 24 credits each for V & VI semesters.
Resolution	The tentative schemestructure of B.Tech. V & VI Semester has been accepted and approved for the batch admitted in 2022-23. The syllabus and CO's of DC subjectsMicroprocessor & Microcontroller (EC502), Microwave Theory (EC 503) and Embedded Systems Design (EC-603(A))were revised. Also, syllabus of some new DE and OE courses were presented and approved. https://satiengg.in/images/Electronics%20Department/BoS%2020.12.2023/5%20sem%2
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	Onew.pdf
	https://satiengg.in/images/Electronics%20Department/BoS%2020.12.2023/OC%20505_1
	ndustrial%20Electronics pdf
	https://satiengg.in/images/Electronics%20Department/BoS%2020.12.2023/6%20sem%2
	Onew.pdf

Item 5	To propose atentative pool of courses which can be opted for getting an (i) Honours Degree (for students of the parent department)(20 credits additionally to be earned between V to VIII sem.) (ii) Minor Degree (for students of other departments) (20 credits additionally to be earned between V to VIII sem.)
Resolution	A tentative pool of courses available on NPTEL/SWAYAM was presented and approved for Honours and Minor Degree. It has also been proposed that HoD can update the pool of courses as per the availability of courses offered through SWAYAM/NPTEL/MOOC based Platforms. List of courses for Honors Degree: https://satiengg.in/images/Electronics%20Department/BoS%2020.12.2023/List%20of%2
	OHonours%20Nptel%20Courses.pdf List of courses for Minor Degree: https://satiengg.in/images/Electronics%20Department/BoS%2020.12.2023/List%20of%2 OMinor%20degree%20Nptel%20Courses.pdf

	To prepare and recommend the suggestive Experiment list/ Lab manual and list of
Item 6	To prepare and recommend the suggestive Experiment list East Mandair and list of
	projects which can be assigned in various laboratorycomponent-based courses to be
	offered in B. Tech. V& VI Semester (for the batch admitted in 2022-23).
Resolution	The suggestive list of experiments mentioned along with detailed syllabus of different
	subjects of B. Tech. V& VI Semester (for the batch admitted in 2022-23) are discussed
	and approved.

Item 7	To prepare and finalize the syllabusof courses to be offered (for the batch admitted in 2020-21) under Departmental Elective (DE) Course/ Open Category (in traditional mode)/NPTEL (Course weeks equivalent credit 8 weeks=3 credits, 12 weeks = 4 credits, NO credits for courses of less than 8 weeks) for B. Tech. VIII Semesteralong with their
200	COs
Resolution	The list of NPTEL/SWAYAM courses to be offered for the batch admitted in 2020-21 under Departmental Elective (DE) Course and Open Category is discussed and approved. Student can opt. any 1 course of his/her choice for attaining the credits under Departmental Elective and Open category each. https://satiengg.in/images/Electronics%20Department/BoS%2020.12.2023/VIII%20Sem%20NPTEL.pdf

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Item 8	To propose, the list of courses which the students can opt from SWAYAM/NPTEL/MOOC based Platforms, to be offered in <i>online modeunder</i> Departmental Elective (DE)Courses, with credit transfer in the B. Tech. VI Semester (for the batch admitted in 2021-22)
Resolution	The list of NPTEL/SWAYAM courses to be offered for the batch admitted in 2021-22 under Departmental Elective (DE) Course is discussed and approved.

Item 9	To review, prepare and recommend the syllabi for all Departmental Core (DC) & Departmental Elective (DE) Courses of B. Tech. IV, VI Semester along with their COs.
Resolution	Syllabus and scheme applicable from 2018 batch (old scheme) are discussed and no changes were suggested.

Item 10	To prepare and finalize the Experiment list/ Lab manual for Departmental Laboratory Course (DLC) to be offered in B. Tech. IV, VI.
Resolution	The suggestive list of experiments for Departmental Laboratory Course (DLC) offered for B.Tech. IV& VI Semesterattached with the syllabus are discussed and approved.

Item 11	To review, prepare and recommend the scheme structure, syllabi (along with the Course
	Outcomes), list of experiments/ Lab manual and skill based mini projects for various
	laboratory courses of II semester B. Tech. programmes (for the batch admitted in
	2023-24 Session)
Resolution	Scheme structure, syllabi (along with the Course Outcomes), list of experiments for
	various laboratory courses of II semester B. Tech. programmes are discussed and
	approved.

Item 12	To review the CO attainments, to identify gaps and to suggest corrective measures for the improvement in the CO attainment levels for Jan. –June 2023.
Resolution	CO attainments have been discussed and presented along with item no. 13.

Item 13	To review PO attainment of 2018-2022 and 2019-2023 batches, CO-PO mapping matrix with attainments and gap analysis
Resolution	Result, PO attainment, placement for 2018-2022 and 2019-2023 batches are presented and discussed.



Item 14	To prepare and recommend the syllabi of proposed Holistic Education Courses (IV semester).
Resolution	
	https://satiengg.in/images/Electronics%20Department/BoS%2020.12.2023/Final%20Hollistic%20Course%20Syllabus%204%20sem.pdf

	To review curricula feedback from various stakeholders, its analysis and impact.
Item 15	{Stakeholder feedback analysis must also contain an Action Taken Report (ATR) and the details/data of the stakeholders who have responded through GOOGLE form (such as Name, organization, mail id, phone no., if available) must also be
1 2	shared along with the feedback of the alumni/employer}
Resolution	Curriculum feedback obtained from different stake holders along with its analysis and ATR has been presented and reviewed in the meeting. Based on the feedback, suggestive measures have been incorporated. Also see item no. 16. Link of Analysis: https://forms.gle/5wZ6fdkTeXmD8M6SA https://forms.gle/tcPjo4YDm7G5vGCf6 https://forms.gle/av3wUCPThANoq59a6 Link showing Excel sheet of Google Form details of stakeholders: https://docs.google.com/spreadsheets/d/1VjJB_VNIQ87p4jao00MssZpVZwt9VNcbBa36n hS8eSg/edit?usp=sharing https://docs.google.com/spreadsheets/d/1Bbecoae-DbOLC_n86E- 3436PJsDYCNT0zOjLZZc9Fj4/edit?usp=sharing https://docs.google.com/spreadsheets/d/1OnFMFCITGglP3BsKQBssLJJjcxrWAb3i6HoGvzH0xVY/edit?usp=sharing
	https://satiengg.in/images/Electronics%20Department/BoS%2020.12.2023/ATR%20PDF
	<u>.pdf</u>

	(GO) for the standard provinces its applying and
Item 16	To review the Course Outcomes (COs) feedback of various courses, its analysis, and
	ATD (for Ian - June 2023 semester)
	The Course Outcomes feedback is collected and analysed. The point is discussed with
Resolution	item no. 15.

Item 17	To discuss and recommend the scheme structure & syllabi of PG Programme (M.E./M.Tech./MCA/MBA/M.Sc.) along with their Course Outcomes (COs)
Resolution	Not Applicable. Department is not offering any PG course.

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Item 18	To recommend the scheme structure and Syllabus of Ph.D. Course Work (specific to Doctoral Research Scholars, if any)
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Item 19	Any other matter
	Regarding Student representation for changing subject "Problem solving with Data
	Structure (ECA-102) of first semester (scheme applicable from 2022 onwards)
Resolution	All BOS members have agreed to shift subject "Problem solving with Data Structure
	(ECA-102)" at some higher semester after students have completed some
	programming language course. However it should be applied from next academic
	session 2024-25.

Conclusion:

All possible suggestions are incorporated in the presented Scheme and the Syllabus of B.Tech (Electronics & Communication Engineering) course as per the Agenda.

As per the above comments and suggestions from BoS members, the existing syllabus and proposed new scheme and Syllabus have been updated and approved by the BoS Members.

The meeting concluded with Vote of Thanks from Dr. Ashutosh Datar, Head (Dept. of Electronics Engg.) & Chairman, to all the external subject expertsand facultymembers who have attended the meeting.

Dr.Aditya Trivedi, Professor, IITM, Gwalior

Dr. Vandana Vikash Thakre, Associate Professor, Department of ECE, **MITS Gwalior**

Dr. Ashutosh Datar Head. Department of Electronics

Dr.Neelesh Mehra Asst. Professor Department of Electronics

Dr.DK Shakya Asst. Professor Department of Electronics

Prof. ML Jatav Asst. Professor Department of Electronics

Prof. Bharti Mehra Asst. Professor Department of Electronics

Dr. Suchi Mishra Astt. Professor Department of Electronics Dr. Ankita Shrivastava Astt. Professor Department of Electronics

Dr. Sweety Jain Astt. Professor Department of Electronics

Prof. Abhishek Jain Asst. Professor Department of Electronics Prof. Niraj Kumar Dhakad Asst. Professor Department of Electronics