

Shri G. S. Institute of Technology and Science

23, Park Road, Indore (MP)-452003

Department of Electronics and Instrumentation Engineering

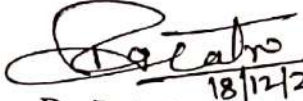
Agenda for Board of Studies (BOS) Meeting to be held 27th Dec. 2023

Date: 18/12/2023

A Board of Studies (BOS) meeting for faculty in Electronics and Instrumentation Engineering is scheduled to be held in conference room of the department on 27th Dec. 2023 at 3.30 PM. The agenda for the proposed meeting is as follows.

1. Discuss & approve Scheme, NPTEL Courses for IV year January 2024 to June 2024.
2. Discuss & approve the CO ~~of~~ of Subject(s).
3. Analysis of CO & PO attainment of previous sem January 2023 to June 2023.
4. Analysis of result of individual faculty member for April 2023 exam.
5. Any other point with the permission of chair.

Please find it convenient to attend the meeting.


18/12/2023

Dr. Rajesh Khatri
Chairman BoS

Department of Electronics & Instrumentation Engineering

Copy to :

1. Prof. S. Vishwakarma, Prof. Electrical Engineering Department, IIT Indore. (Expert outside Parent University)
2. Dr. Vaibhav Neema. Assistant Professor, Electronics and Communication Engineering, IET, DAVV, Indore. (Expert outside Parent University)
3. Prof. R. B. Pachori, Professor, Electrical Engineering Department, IIT Indore. (Expert Nominated by VC)
4. Mr. Anuj Upadhyay, Director, M/S. Farm Electronics Ltd., Electronics Complex, Indore. (Expert from Industry)
5. Dr. Bhupendra Reniwal, Assistant Professor, Electrical Engineering Department, IIT Jodhpur (Postgraduate Alumnus)
6. All the regular and contract faculty members in the department with three years of experience.



Copy to: For information

① Dean (Academics)

② Registrar, for intimation to experts.

Shri G. S. Institute of Technology and Science, Indore
Electronics and Instrumentation Engineering
Minutes of Board of Studies

Date: 27/12/2023

A board of studies (BOS) meeting for Electronics and Instrumentation Engineering was held in the Conference room of the department on 27th Dec-2023 at 3.30PM. Following members were present.

- | | |
|----------------------------------|--|
| 1. Dr. Rajesh Khatri | Chairman (BOS) |
| 2. Dr. P. P. Bansod | Member |
| 3. Dr. R. C. Gurjar | Member |
| 4. Dr. Gireesh G. Soni | Member |
| 5. Dr. R. B. Pachori | External Expert (IIT Indore) nominated by VC. |
| 6. Dr. Vaibhav Neema | Expert, Outside Parent University, IET DAVV Indore |
| 7. Mr. Anuj Upadhyay | Expert (Industry), M/S. Farm Electronics, Indore |
| 8. All contract faculty members' | Special invitee. |

Dr. Santosh Vishwakarma (Expert, Outside Parent University, IIT Indore), Dr. Bhupendra Singh Reniwal, Alumni Member, IIT Jodhapur and Prof. D.S. Ajar could not attend the meeting.

The deliberations of meeting are as under:

1. Members discussed in detail the NPTEL courses to be offered to IVyr/VIII sem B.Tech E & I commencing from Jan 2024 session in place of **Automation in Instrumentation (EI 4776) & Medical Instrumentation (BM47001)** currently available in the departmental scheme. Regarding (BM47001) medical Instrumentation, the consent from HOD-BM was taken.

The NPTEL courses viz **i) Industrial Automation & Control ii) Biomedical Signal Processing** to be offered in lieu of above mentioned courses were discussed in the meeting. Courses contents and credits of 3 (three) were found to be matching & suitable as per current scheme.

Hence, BOS recommends the academic council/standing committee for these two NPTEL courses to be offered to IV yr/VIII sem B.Tech students from Jan-June 2024 session. The decision of transfer of NPTEL credits will be as per institute norms.

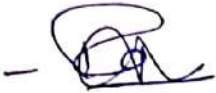






2. As per the evaluation & suggestion by the NBA team, the department has modified the scale of the threshold value to 40% in attainment calculation process. The BOS approved this change.
3. The department presented the CO-PO articulation matrix for all courses contained in 2nd, 3rd & 4th year as a part of syllabus itself. This was found to be appropriate.
4. The attainment process (CO & PO) & gap analysis was compiled for all courses and samples were displayed to committee, and found reasonably well.
5. In correlation with defining the Program specific outcomes & program education outcomes, corrections recommended by NBA have been incorporated. These were further discussed & approved in meeting. A sample of same was presented & it was approved.



6. The subjects to be offered as per exit policy (as per NEP-2020) after first year, second year and third year were discussed and recommended to Academic council for approval. This will be applicable from July 2023 admitted I year batch (NEP-2020)
7. The Scheme and syllabus of P.G. course – M. Tech. (Microelectronics and VLSI Design) was discussed. There were no changes in the same.

The meeting ended with vote of thanks by Chairman, BOS.

Signature of members of BOS members:

1. Dr. Rajesh Khatri 
2. Dr. P. P. Bansod 
3. Dr. R. B. Pachori 
4. Dr. Vaibhav Neema 
5. Mr. Anuj Upadhyay 
6. Dr. R. C. Gurjar 
7. Dr. Gireesh G. Soni 

Encl.: (i) Updated Scheme and Syllabus of UG (with CO-PO articulation matrix)
(ii) Approved statements of CO-PO matrix, PEOs and PSOs

**I YEAR B.Tech. (4YDC)
Common To All Branches**

2023

Semester - A

S. No.	Subject Category	Subject Code	Subject Name	Hours per Week			Credits		Maximum Marks				
				L	T	P	Th	Pr	Theory		Practical		Total
				Th.	CW	SW	Pr.						
1	BSC	MA 10001	Mathematics - I	3	1	0	4	0	70	30	0	0	100
2	BSC	PH10017	Physics	3	-	-	3	-	70	30	-	-	100
3	ESC	EE10015	Fundamentals of Electrical Engineering	2	1	-	3	0	70	30	0	0	100
4	ESC	CE10013	Fundamentals of Civil Engineering & Applied Mechanics	2	1	-	3	0	70	30	0	0	100
5	ESC	ME10049	Engineering Graphics	2	-	-	2	-	70	30	-	-	100
6	BSC (LC)	PH10151	Applied Physics Lab	-	-	2	-	1	-	-	20	30	50
7	ESC (LC)	EE10152	Electrical Engineering Lab	-	-	2	-	1	-	-	20	30	50
8	ESC (LC)	ME10153	Engineering Graphics Lab	-	-	4	-	2	-	-	40	60	100
9	HSMC	HU10191	Extra /Co curricular Activity	-	-	2	-	1	-	-	50	0	50
10	MC		Induction program & Universal Human Values	2-3 weeks in the beginning of I Year & 1 hour per week during semester									
TOTAL				12	3	10	15	5	350	150	130	120	750

Semester - B

S. No.	Subject Category	Subject Code	Subject Name	Hours per Week			Credits		Maximum Marks				
				L	T	P	Th	Pr	Theory		Practical		Total
				Th.	CW	SW	Pr.						
1	BSC	MA 10501	Mathematics - II	3	1	-	4	-	70	30	0	0	100
2	BSC	CH10516	Chemistry	3	-	-	3	-	70	30	-	-	100
3	HSMC	HU10551	Technical English	2	-	-	2	-	70	30	0	0	100
4	ESC	CO10507	Programming for Problem Solving	2	1	-	3	-	70	30	0	0	100
5	ESC	EC10508	Basic Electronics Engineering	2	-	-	2	-	70	30	0	0	100
6	BSC (LC)	CH10656	Chemistry Lab	-	-	2	-	1	-	-	20	30	50
7	HSMC (LC)	HU10653	Language Lab	-	-	2	-	1	-	-	20	30	50
8	ESC (LC)	CO10654	Computer Programming Lab	-	-	2	-	1	-	-	20	30	50
9	ESC (LC)	IP10655	Manufacturing Practices	-	-	4	-	2	-	-	40	60	100
10	HSMC	HU10691	Extra /Co curricular Activity	-	-	2	-	1	-	-	50	-	50
11	MC		Induction program & Universal Human Values	2-3 weeks in the beginning of I Year & 1 hour per week during semester									
TOTAL				12	2	12	14	6	350	150	150	150	800

Engineering Certificate shall be awarded after acquiring additional 10 credits out of which 6 credits as 2 Months industrial training within five years

II Year B.Tech (Electronics and Instrumentation Engineering)

Batch: 2023-2027 (NEP-20)
Academic Year: 2024-25

Semester- III

S.No.	Subject Category	Subject Code	Subject Name	Hours per Week			Credits		Maximum Marks				
				L	T	P	Th	Pr	Theory		Practical		Total
									Th.	CW	SW	Pr.	
1	BSC	MA-27014	Mathematics-III	3	1	-	4	-	70	30	-	-	100
2	PCC	EI-27001	Circuit Analysis & Synthesis	3	-	-	3	-	70	30	-	-	100
3	PCC	EI-27007	Digital Electronics	3	-	-	3	-	70	30	-	-	100
4	PCC	EI-27003	Electronics Devices & Circuits	3	-	-	3	-	70	30	-	-	100
5	ESC	EI-27002	Fundamentals of Measurement	3	-	-	3	-	70	30	-	-	100
6	LC(EI)	EI-27001	Circuit Analysis & Synthesis	-	-	2	-	1	-	-	40	60	100
7	LC(EI)	EI-27006	Digital Electronics	-	-	2	-	1	-	-	40	60	100
8	LC(EI)	EI-27003	Electronics Devices & Circuits	-	-	2	-	1	-	-	40	60	100
9	LC(EI)	EI-27002	Fundamentals of Measurement	-	-	2	-	1	-	-	40	60	100
10	LC (EI)	EI-27498	Electronics Workshop Lab	-	-	2	-	1	-	-	40	60	100
11	MC	CHM-2002	Environmental Science*	2	-	-	-	-	-	50	0	0	50
TOTAL				17	1	10	16	5	350	200	200	300	1050

*Non-credit mandatory subject

Semester – IV

S.No	Subject Category	Subject Code	Subject Name	Hours per Week			Credits		Maximum Marks				
				L	T	P	Th	Pr	Theory		Practical		Total
									Th.	CW	SW	Pr.	
1	HSMC	HU-27005	Economics for Engineers	3	-	-	3	-	70	30	-	-	100
2	PCC	EI-27501	Analog Electronics	3	-	-	3	-	70	30	-	-	100
3	PCC	EI-27551	Sensors & Transducers	3	-	-	3	-	70	30	-	-	100
4	BSC	MA-27563	Mathematics – IV	3	1	-	4	-	70	30	-	-	100
5	PCC	EI-27XXX	Circuit Design using HDLs	3	-	-	3	-	70	30	-	-	100
6	LC (EI)	EI-27501	Analog Electronics	-	-	2	-	1	-	-	40	60	100
7	LC (EI)	EI-27551	Sensors & Transducers	-	-	2	-	1	-	-	40	60	100
8	LC (EI)	EI-27XXX	Circuit Design using HDLs	-	-	2	-	1	-	-	40	60	100
9	LC (EI)	EI-27992	Software workshop	-	-	2	-	1	-	-	40	60	100
10	MC	HU-27881	Values, Humanity and Professional Ethics	2	-	-	2	-	-	100	-	-	100
11	MC	EI-27XXX	Essence of India Knowledge & Traditions*	2	-	-	-	-	-	50	-	-	50
12	PROJ	Internship-1	4-6 weeks – during vacation. Evaluation & Credit in V Semester										
Total				19	1	8	18	4	350	300	160	240	1050

*Non-credit mandatory subject

Diploma in Electronics & Instrumentation Engg. will be awarded after acquiring additional 10 credits out of which 6 credits as 3 months industrial training within 5 years.

II Year B.Tech(Electronics and Instrumentation Engineering)

Semester- V

Batch: 2022-2026
Academic Year: 2024-25

S.No.	Subject Category	Subject Code	Subject Name	Hours per Week			Credits		Maximum Marks				
				L	T	P	Th	Pr	Theory		Practical		Total
									Th.	CW	SW	Pr.	
1	PCC	IT-37005	Data Structures	3	-	-	3	-	70	30	-	-	100
2	PCC	EI-37006	Microprocessor systems	3	-	-	3	-	70	30	-	-	100
3	PCC	EI	VLSI design	3	-	-	3	-	70	30	-	-	100
4	PEC	EI	Program elective Course -I	3	-	-	3	-	70	30	-	-	100
5	OEC		Open Elective Course -I	3	-	-	3	-	70	30	-	-	100
6	LC(IT)	IT-37005	Data structure Lab	-	-	2	-	1	-	-	40	60	100
7	LC(EI)	EI-37006	Microprocessor System Lab	-	-	2	-	1	-	-	40	60	100
8	LC(EI)	EI	VLSI design Lab	-	-	2	-	1	-	-	40	60	100
9	LC(EI)	EI-37481	Test & calibration lab	-	-	4	-	2	-	-	40	60	100
10	PROJ	EI-37482	Internship-1 Evaluation	-	-	-	-	2	-	-	50	-	50
11	HSMC	HU	Constitution of India	2	-	-	-	-	-	50	-	-	50
TOTAL				17	0	10	15	7	350	240	210	240	1000

*Non-credit mandatory subject

Semester - VI

S.No	Subject Category	Subject Code	Subject Name	Hours per Week			Credits		Maximum Marks				
				L	T	P	Th	Pr	Theory		Practical		Total
									Th.	CW	SW	Pr.	
1	PCC	EI-37511	Filter design & Simulation	3	-	-	3	-	70	30	-	-	100
2	PCC	EI-37513	High frequency Engineering	3	-	-	3	-	70	30	-	-	100
3	PCC	EE-37003	Control Systems	3	-	-	3	-	70	30	-	-	100
4	PEC	EI	Program Elective Course-II	3	-	-	3	-	70	30	-	-	100
5	OEC		Open Elective Course -II	3	-	-	3	-	70	30	-	-	100
6	LC (EI)	EI-37511	Filter design & Simulation lab	-	-	2	-	1	-	-	40	60	100
7	LC (EE)	EE-37003	Control system Lab	-	-	2	-	1	-	-	40	60	100
8	PEC LC (EI)	EI	Program Elective Course-II Lab	-	-	2	-	1	-	-	40	60	100
9	PROJ	EI	Minor Project	-	-	4	-	2	-	-	40	60	100
10	PROJ		Internship-2	4-6 weeks - during vacation. Evaluation & Credit in VII Semester									
Total				15	0	10	15	5	350	150	160	240	900

*Non-credit mandatory subject

Vocational Degree in Electronics & Instrumentation Engg. Shall be awarded after acquiring additional 10 credits out of which 6 credits as 3 months industrial training within 5 years.

List of elective courses in Electronics & Instrumentation Engineering

Code	Program Electives
PEC-I V semester	<ol style="list-style-type: none"> 1. Analog & digital Communication 2. Artificial Intelligence 3. Smart Sensors
PEC-II VI semester	<ol style="list-style-type: none"> 1. Microcontroller & Embedded System 2. Analog Integrated Circuit 3. Analytical Instrumentation
PEC-III VII semester	<ol style="list-style-type: none"> 1. VLSI technology 2. Mechatronics 3. Digital Signal Processing
PEC-IV VII semester	<ol style="list-style-type: none"> 1. Power electronics 2. RF IC 3. Advance control systems
PEC-V VIII Semester	<ol style="list-style-type: none"> 1. Internet of Things 2. Computer Networks 3. Digital Image Processing 4. NPTEL/ SWAYAM/MOOC courses
PEC-VI VIII semester	<ol style="list-style-type: none"> 1. Automation In instrumentation 2. Process Control 3. Intelligent Instrumentation 4. NPTEL/ SWAYAM/MOOC courses

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Shri G. S. Institute of Technology and Science, Indore
Department of Electronics and Instrumentation Engineering

Exit clause subjects (As per NEP-2020)

I-Year (Engineering Certificate)

S. No.	Subject code	Subject Name	Hours per week			Credits	
			L	T	P	T	P
1.	EI27003	Electronics Devices & Circuits	2	-	-	2	0
2.	EI27498	Electronics Workshop	-	-	4	-	2
3.	EI27XXX	Internship/Industrial Training	-	-	12	-	6

II-Year (Diploma in Electronics & Instrumentation Engg.)

S. No.	Subject code	Subject Name	Hours per week			Credits	
			L	T	P	T	P
1.	EI37006	Microprocessor System	2	-	-	2	0
2.	EI37991	Mini Project	-	-	4	-	2
3.	EI37XXX	Industrial Training	-	-	12	-	6

III-Year (Vocational degree in Electronics & Instrumentation Engg.)

S. No.	Subject code	Subject Name	Hours per week			Credits	
			L	T	P	T	P
1.	EI47053	Process Instrumentation	2	-	-	2	0
2.	EI47999	Major Project	-	-	4	-	2
3.	EI47XXX	Industrial Training	-	-	12	-	6

*L=Lecture, T=Tutorial, P=Practical