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 on 30th Nov. 2022

Date: 24-11-2022

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 30th Nov. 2022 at 3.30PM. The agenda for the proposed meeting is as follows.

1. To discuss and approve the changes, if any, suggested by DPAQIC in the scheme and Syllabus of UG course B. Tech. (Electronics and Instrumentation Engineering).
2. To discuss and approve the changes, if any, suggested by DPAQIC in the scheme and Syllabus of PG course M. Tech. (Microelectronics and VLSI Design).
3. To discuss and approve the Course Outcomes (COs), Program Specific Outcomes (PSOs) and Program Educational Objectives (PEOs) for UG and PG courses.
4. Any other item with permission of chair.

Please find it convenient to attend the meeting.

Department of Electronics & Instrumentation Engineering SGSITS Indore (M.P.)

Prof. R. S. Gamad
Electronics & Instrumentation Department
S. G. S. Institute of Tech. & Science
INDORE (INDIA)
Chairman, BOS
Department of Electronics and Instrumentation Engineering

Copy to:

1. Prof. S. Vishwakarma, Professor, Electrical Engineering Department, IIT Indore.
   (Expert outside Parent Unversity)
2. Dr. Vaibhav Neema. Assistant Professor, Electronics and Communication Engineering, IET, DAVV, Indore.
   (Expert outside Parent Unversity)
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.

To,
The Registrar

For official intimation to hon. Members

Shri G. S. Institute of Technology and Science, Indore

Minutes of Board of Studies of Electronics and Instrumentation Engineering

Date: 30/11/2022

A board of studies (BOS) meeting for Electronics and Instrumentation Engineering was held in the Department on 30th NOV 2022 at 3.30 PM in the hybrid mode. Few external members attended the meeting On-line on Google meet platform. Following members were present.

1. Dr. R .S. Gamad	Chairman (BOS)
2. Dr. D. K. Mishra	Member
3. Mr. D. S. Ajnar	Member
4. Mr. Rajesh Khatri	Member
5. Mr. R. C. Gurjar	Member
6. Dr. Gireesh Soni	Member
6. Dr. Santosh Vishwakarma	Expert, Outside Parent University, IIT Indore
7. Dr. R. B. Pachori	External Expert nominated by VC, IIT Indore
8. Dr. Vaibhav Neema	Expert, Outside Parent University, IET DAVV Indore
9. Mr. Anuj Upadhyay	Expert (Industry), M/S. Farm Electronics, Indore
10. All contract faculty members'	Special invitee.

Dr. P. P. Bansod, Professor and Dr. Bupendra Reniwal, Assistant Professor (IIT, Jodhpur) and Postgraduate Alumnus could not attend the meeting.

The deliberations of meeting are as under:

1. The PEOs and PSOs for UG course- B. Tech (Electronics and Instrumentation) were reframed and discussed in the meeting as recommended by NBA committee in the recent visit in Sep.2022.

2. The scheme for UG course was reframed as per requirements of National Education Policy (NEP). Exit policy with additional mandatory credits after 1st, 2nd, 3rd and 4th year were proposed. The student can exit after one year with Engineering Certificate, after two years with diploma, after three years with Vocational degree and after four years with Bachelor's with research. The New scheme with NEP is recommended to academic council for approval.

3. Changes in the COs of some subjects and their practical's were discussed in the meeting and recommended to Academic council for approval.

4. The Scheme and syllabus of P.G. course – M. Tech. (Microelectronics and VLSI Design) was discussed and as there were no major changes, it is recommended to the Academic council for approval

30/11/2022 30/11/22 30.11.22 30/11/2022

30.11.22 30/11/2022 30.11.22 30/11/2022

The meeting ended with vote of thanks by Dr. R. S. Gamad, Head of the department.

Signature of members of BOS members:

1. Dr. R .S. Gamad
2. Dr. D. K. Mishra
3. Mr. D. S. Ajnar
4. Mr. Rajesh Khatri — 30/11/2022
5. Mr. R. C. Gurjar
6. Dr. Gireesh Soni — 30.11.22
7. Dr. Santosh Vishwakarma — 30/11/2022
8. Dr. R. B. Pachori
9. Dr. Vaibhav Neema
10. Mr. Anuj Upadhyay — 30.11.22

Encl.: (i) Updated Scheme and Syllabus of UG (As per NEP-2020)
(ii) Updated Scheme and Syllabus of PG
(iii) Approved statements of COs, PEOs and PSOs

SHRI G.S. INSTITUTE OF TECHNOLOGY AND SCIENCE , INDORE

II YEAR B.Tech. (Electronics & Instrumentation Engg.)

II YEAR Diploma (Electronics & Instrumentation Engg.)

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-	Mathematics - III	3	1	0	4	-	70	30	-	-	100
2	PCC	EI-	Circuit Analysis & Synthesis	3	-	-	3	-	70	30	-	-	100
3	PCC	EI-	**Digital Electronics**	3	-	-	3	-	70	30	-	-	100
4	PCC	EI-	Electronics Devices & Circuits	3	-	-	3	-	70	30	-	-	100
5	ESC	EI-	Fundamentals of Measurement	3	-	-	3	-	70	30	-	-	100
6	LC (EI)	EI-	Circuit Analysis & Synthesis Lab	-	-	2	-	1	-	-	20	30	50
7	LC (EI)	EI-	**Digital Electronics Lab**	-	-	2	-	1	-	-	20	30	50
8	LC (EI)	EI-	Electronics Devices & Circuits Lab	-	-	2	-	1	-	-	20	30	50
9	LC (EI)	EI-	Electronics workshop Lab	-	-	2	-	1	-	-	40	60	100
10	HSMC	HU-	Environmental Science	2	-	-	2	-	-	100	0	0	100
			TOTAL	**17**	**1**	**8**	**18**	**4**	**350**	**250**	**100**	**150**	**850**

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-	Economics for Engineers	3	-	-	3	-	70	30	-	-	100
2	PCC	EI-	Analog Electronics	3	-	-	3	-	70	30	-	-	100
3	PCC	EI-	Sensors & Transducers	3	-	-	2	-	70	30	-	-	100
4	BSC	MA-	Mathematics - IV	3	1	-	4	-	70	30	-	-	100
5	PCC	EI-	**Circuit Design using HDLs**	3	-	-	3	-	70	30	-	-	100
7	LC (EI)	EI-	Analog Electronics Lab	-	-	2	-	1	-	-	20	30	50
8	LC (EI)	EI-	Sensors & Transducers Lab	-	-	2	-	1	-	-	20	30	50
9	LC (EI)	EI-	**Circuit Design using HDLs Lab**	-	-	2	-	1	-	-	20	30	50
10	LC(EI)	EI-	Software Workshop	-	-	2	-	1	-	-	40	60	100
11	MC	HU-	Essence of Indian Knowledge Tradition	2	-	-	2	-	70	30	0	0	100
			TOTAL	**17**	**1**	**8**	**17**	**4**	**420**	**180**	**100**	**150**	**850**

Diploma in Electronics and Instrumentation Engg.will be awarded after acquiring additional 10credits out of which 6credits as three months industrial training within five yea

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SHRI G.S. INSTITUTE OF TECHNOLOGY AND SCIENCE , INDORE

IIIYEAR B.Tech. (Electronics & Instrumentation Engg.)

III YEAR Diploma (Electronics & Instrumentation Engg.)

Semester - V

S. No.	Subject Category	Subject Code	Subject Name	Hours per Week			Credits		Maximum Marks				
									Theory		Practical		Total
				L	T	P	Th	Pr	Th.	CW	SW	Pr.	
1	PCC	IT	Data Structure	3	-	-	3	-	70	30	0	0	100
2	PCC	EI	Microprocessor System	3	-	-	3	-	70	30	0	0	100
3	PCC	EI	VLSI Design	3	-	-	3	-	70	30	0	0	100
4	PEC	EI	Program Elective Course - I	3	-	-	3	-	70	30	0	0	100
5	OEC		Open Elective Course - I	3	-	-	3	-	70	30	0	0	100
6	LC (IT)	IT	Data Structure Lab	-	-	2	-	1	-	-	20	30	50
7	LC (EI)	EI	Microprocessor System Lab	-	-	2	-	1	-	-	20	30	50
8	LC (EE)	EI	VLSI Design Lab	-	-	2	-	1	-	-	20	30	50
9	LC-(EI)	EI	Test & calibration Lab	-	-	2	-	1	-		40	60	100
10	PROJ	EI	Internship	-	-	2	-	1	-	-	50	-	50
11	HSMC	HU	Indian Constitution	2	-	-	2	-	-	100	-	-	100
			TOTAL	17	0	10	17	5	350	250	150	150	900

Semester - VI

S. No.	Subject Category	Subject Code	Subject Name	Hours per Week			Credits		Maximum Marks				
									Theory		Practical		Total
				L	T	P	Th	Pr	Th.	CW	SW	Pr.	
1	PCC	EI	Filter Design & Simulation	3	-	-	3	-	70	30	0	0	100
2	PCC	EI	High Frequency Engineering	3	-	-	3	-	70	30	0	0	100
3	PCC	EE	Control Systems	3	-	-	3	-	70	30	0	0	100
4	PEC	EI	Program Elective Course - II	3	-	-	3	-	70	30	0	0	100
5	OEC		Open Elective Course - II	3	-	-	3	-	70	30	0	0	100
6	LC (EI)	EI	Filter Design & Simulation Lab	-	-	2	-	1	-	-	20	30	50
7	LC (EE)	EE	Control Systems Lab	-	-	2	-	1	-	-	20	30	50
8	PEC LC (EI)	EI	Program Elective Course - II Lab	-	-	2	-	1	-	-	20	30	50
9	PROJ	EI	Minor Project	-	-	4	-	2	-	-	50	0	50
10	HSMC	IP	Industrial Engineering & Management	2	-	-	2	-	70	30	0	0	100
			TOTAL	17	0	10	17	5	420	180	110	90	800

V Vocational degree in Electronics & Instru Engg shall be awarded after acquiring additional 10credits out of which 6credits as three months industrial training within five years

SHRI G.S. INSTITUTE OF TECHNOLOGY AND SCIENCE , INDORE

IV YEAR B.Tech. (Electronics & Instrumentation Engg.)

IV YEAR Diploma (Electronics & Instrumentation Engg.)

Semester - VII

S. No.	Subject Category	Subject Code	Subject Name	Hours per Week			Credits		Maximum Marks				
									Theory		Practical		Total
				L	T	P	Th	Pr	Th.	CW	SW	Pr.	
1	PCC	EI	Process Instrumentation	3	-	-	3	-	70	30	-	-	100
2	PCC	BM	Medical Instrumentation	3	-	-	3	-	70	30	-	-	100
3	PCC	EI	Fiber Optics and Photonics	3	-	-	3	-	70	30	-	-	100
4	PEC	EI	Program Elective Course - III	3	-	-	3	-	70	30	-	-	100
5	PEC	EI	Program Elective Course - IV	3	-	-	3	-	70	30	-	-	100
6	LC(EI)	EI	Process Instrumentation Lab	-	-	2	-	1	-	-	20	30	50
7	LC(EI)	EI	Medical Instrumentation Lab	-	-	2	-	1	-	-	20	30	50
8	LC(EE)	EI	Fiber Optics and Photonics Lab	-	-	2	-	1	-	-	20	30	50
9	PROJ	EI	Major Project	-	-	8	-	4	-	-	40	60	100
			TOTAL	**15**	**0**	**14**	**15**	**7**	**350**	**150**	**100**	**150**	**750**

Semester - VIII

S. No.	Subject Category	Subject Code	Subject Name	Hours per Week			Credits		Maximum Marks				
									Theory		Practical		Total
				L	T	P	Th	Pr	Th.	CW	SW	Pr.	
1	PEC	EI	Program Elective Course - V	3	-	-	3	-	70	30	0	0	100
2	PEC	EI	Program Elective Course - VI	3	-	-	3	-	70	30	0	0	100
3	PROJ	EI	Industrial Training / Internship	-	-	16	-	8	-	-	100	0	100
4	PROJ	EI	Research Work	-	-	12	-	6	-	-	40	60	100
5	MC	EI	Research Paper*	2						50			50
			TOTAL	**8**	**0**	**28**	**6**	**14**	**140**	**110**	**140**	**60**	**450**

*** Minimum one research paper in the year should be submitted for publication in a Reputed Conference or Journal**

CW (Class Work) marks will be based on Assignments and/or quizes

SW (Sessional Work) marks will be based on Performance in Practical + final internal submission

Pr (Practical End semester Exam Viva voce) marks will be based on Quiz and or Viva Voci Examination by External Examiner

All the evaluations will be done on the basis of Rubrics prepared for that purpose.

Duration of Internship is minimum 20xPractical hours (e.g. 20x16hours=320hours=40 working days for 8hours per day)

A minor certificate will be awarded if additional 20 credits are earned in a particular area/specialisation

30/11/2022 30/11/2022

List of Elective coursses in Electronics & Instrumentation Engineering

Program Electives

PEC-I 1 Analog and Digital Communication (I) 5th Sem
2 Signals & Systems
3 Smart Sensors

PEC-II 1 Microcontroller and Embedded System (II)-6th Sem
2 Analog Integrated Circuits
3 Analytical Instrumentation

PEC-III 1 VLSI technology (I) 7th Sem
2 Mechatratonics
3 Digital Signal Processing

PEC-IV 1 Power Electronics (II) 7th Sem
2 Radio Frequency Integrated Circuits
3 Advanced Control Systems

PEC-V 1 Internet of Things(I) 8th Sem
2 Computer Networks
3 Digital Image Processing

PEC-VI 1 Automation in Instrumentation(II) 8th Sem
2 Process Control
3 Intelligent Instrumentation

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