



SATHYABAMA

INSTITUTE OF SCIENCE AND TECHNOLOGY

(DEEMED TO BE UNIVERSITY)

Accredited with 'A' grade by NAAC
Jeppiaar Nagar, Rajiv Gandhi Salai, Chennai - 600 119.



Department of Mechatronics Engineering

School of Mechanical Engineering

Minutes of Board of Studies Meeting held on 04-06-2018 (Monday)

Meet Time: 10.30 a.m. to 12.30 pm

The meeting started with the welcome address delivered by Dr. S. Prakash, Professor and Dean (Session chair). He introduced the newly formed Mechatronics Engineering Program curriculum to the BOS panel members. The following are the BOS members were present during the Mechatronics Engineering BOS meeting.

Sl. No.	Name	Designation	Institution	Role
1	Dr. S. Prakash	Professor and Dean	Sathyabama Institute of Science & Technology	Chair person
2	Dr.L.Vijayaraghavan	Professor	IIT Madras, Chennai	BoS Member (External)
3	Dr.N.GaneshKumar	Associate Professor	PSG Tech, Coimbatore	BoS Member (External)
4	Mr. S. Sivasaravanan	Assistant Professor	Sathyabama Institute of Science & Technology	Member
5	Mrs. M Sangeetha	Assistant Professor	Sathyabama Institute of Science & Technology	Member
6	Mr. J. R. Deepak	Assistant Professor	Sathyabama Institute of Science & Technology	Member
7	Mrs.J. Lilly Mercy	Assistant Professor	Sathyabama Institute of Science & Technology	Member
8	Mr. V. Jayaprakash	Assistant Professor	Sathyabama Institute of Science & Technology	Member
9	Mr. J. Senthil Kumar	Assistant Professor	Sathyabama Institute of Science & Technology	Member

Agenda for the BOS Meeting:

Newly proposed programs – B.E Mechatronics Engineering – Expert Review and Comments on the syllabus

The BOS meeting has been convened on 04th June 2018 to frame the new curriculum and syllabi for the newly proposed program B.E Mechatronics Engineering implemented for the Academic Year 2018-19

- Dr. S. Prakash (Dean and Professor) session chair started the meeting briefing the programmes offered in the Institution. He enumerated the process of framing the syllabus for the new programme B.E Mechatronics Engineering based on the industrial needs and recent advancement in automation sector before the panel for approval.
- The new syllabus for a total of 43 Theory papers and 15 Practical papers was discussed in the meeting.
- The credited assigned for Theory, Practical, Professional Training and Project work has been prepared and submitted as follows
 - ♦ **Lecture Hours (Theory)** : 1 credit per lecture hour per week, 1credit per tutorial hour per week,
 - ♦ **Laboratory Hours** : 1 credit for 2 Practical hours, 2 credits for 3or 4 hours of practical's per week.

- ◆ **Project Work** : 1 credit for 2 hours of project work per week
 - ◆ **Professional Training** : 5 credits for minimum of 3 weeks of training during summer vacations
- The Chair clearly explained the split up of Internal (50) and External (50) weightage to the members of the board. The Internal marks includes the Continuous Assessment Exam (CAE) 1 (Unit 1, 2), CAE 2 (Unit 3, 4), Assignments (Unit 5). The End Semester Exam (ESE) will be carried out for 100 marks.
 - Dr. L. Vijayaraghavan External BoS member reviewed the curriculum and glanced the content of the syllabus in which the changes were incorporated as per his suggestions.
 - The content of syllabus for each courses were discussed in the meeting considering the prerequisite knowledge, references of syllabi followed in other premier Universities and feedback obtained from various stakeholders as per the emerging trends and technologies.
 - Dr. N. Ganesh Kumar, External BoS member suggested few textbooks and reference books along with existing list of books.
 - The Members of the Board approved the new programme B.E Mechatronics Engineering for the Academic Year 2018-2019
 - **New Program Detailed Curriculum Entitled BE – Mechatronics Engineering**

**PROGRAMME: B.E MECHATRONICS ENGINEERING
CURRICULUM
SEMESTER 1**

Sl. No. THEORY	COURSE CODE	COURSE TITLE	L	T	P	C	PAGE No.
1.	SHS1101	English for Science and Technology	3	0	0	3	1
2.	SMT1101	Engineering Mathematics – I	3	1	0	4	3
3.	SPH1101	Physics of Engineering Materials	3	0	0	3	5
4.	SCY1101	Engineering Chemistry	3	0	0	3	7
5.	SME1101	Engineering Mechanics	3	1	0	4	9
6.	SIC1102	Science of Measurements & Instrumentation	3	1	0	4	11
PRACTICAL							
7.	SPH4051	Engineering Physics Lab	0	0	2	1	13
8.	SCY4051	Engineering Chemistry Lab	0	0	2	1	14
9.	SME4051	Engineering Graphics – I	1	0	2	2	15
TOTAL CREDITS 25							

SEMESTER 2							
Sl. No. THEORY	COURSE CODE	COURSE TITLE	L	T	P	C	PAGE No.
1.	SCH1101	Environmental Science and Engineering	3	0	0	3	17
2.	SMT1105	Engineering Mathematics – II	3	1	0	4	19
3.	SPH1103	Engineering Physics	3	0	0	3	21
4.	SCY1102	Chemistry of Electronic Materials	3	0	0	3	23
5.	SCS1102	Fundamentals of Programming	3	0	0	3	25
6.	SMR1101	Digital Electronics	3	0	0	3	27
PRACTICAL							
7.	SCS4101	Programming in C Lab	0	0	4	2	29
8.	SME4052	Engineering Graphics– II	1	0	2	2	30

TOTAL CREDITS 23

L - LECTURE HOURS, T – TUTORIAL HOURS, P – PRACTICAL HOURS, C – CREDITS

SEMESTER 3

SI. No.	COURSE CODE	COURSE TITLE	L	T	P	C	PAGE No.
THEORY							
1	SMT1201	Engineering Mathematics – III	3	1	0	4	32
2	SME1203	Kinematics of Machines	3	1	0	4	34
3	SME1211	Strength of Materials	3	1	0	4	36
4	SMR1201	Mechanics of Fluids	3	1	0	4	38
5	SPR1202	Engineering Metrology	3	0	0	3	40
6	SEC1204	Electronic Devices and Circuits	3	0	0	3	42
PRACTICAL							
7.	SME4054	Fluid Mechanics and Machinery Lab	0	0	4	2	44
8.	SEC4077	Devices and Electric Circuit Laboratory	0	0	4	2	45
TOTAL CREDITS 26							

SEMESTER 4

SI. No.	COURSE CODE	COURSE TITLE	L	T	P	C	PAGE No.
THEORY							
1	SMT1204	Engineering Mathematics – IV	3	1	0	4	46
2	SME1208	Applied Thermal Engineering	3	1	0	4	48
3	SME1206	Dynamics of Machinery	3	1	0	4	50
4	SPR1206	Manufacturing Processes	3	0	0	3	52
5	SIC1201	Industrial Instrumentation	3	1	0	4	54
6	SEC1201	Microprocessors And Microcontrollers	3	1	0	4	56
PRACTICAL							
7	SPR4051	Manufacturing Process Lab – I	0	0	4	2	58
8	SEC4084	Microprocessor and Microcontroller Lab	0	0	4	2	59
9	S05PT1	Professional Training – 1	0	0	10	5	
– TOTAL CREDITS 32							

SEMESTER 5

SI. No.	COURSE CODE	COURSE TITLE	L	T	P	C	PAGE No.
THEORY							
1	SME1301	Design of Machine Elements	3	1	0	4	60
2	SEC1208	Signals and Systems	3	0	0	3	62
3	SEE1203	Control Systems	3	0	0	3	64
4	SEE1305	Power Electronics	3	0	0	3	66
5	SME1302	Fluid Power Systems	3	0	0	3	68
6	SPR1304	Industrial Mechatronics	3	0	0	3	70
PRACTICAL							
7	SEE4057	Power Electronics Lab	0	0	4	2	72
8	SME4058	Mechatronics Lab	0	0	4	2	73
TOTAL CREDITS 23							

SEMESTER 6

SI. No.	COURSE CODE	COURSE TITLE	L	T	P	C	PAGE No.
THEORY							
1	SPR1307	Resource Management Techniques	2	1	0	3	74
2	SMR1301	Micro Electro Mechanical Systems	3	0	0	3	76
3	SMR1302	Sensors and Instrumentation	3	0	0	3	78
4	SMR1303	PLC And Automation	3	0	0	3	80
5	SAU1302	Automotive Electrical And Electronics	3	0	0	3	82
6		Elective – 1	3	0	0	3	
PRACTICAL							
7	SMR4051	Sensors and Instrumentation Laboratory	0	0	4	2	84
8	SAU4052	Automotive Electrical And Electronics Laboratory	0	0	4	2	85
9	S05PT 2	Professional Training - 2	0	0	10	5	


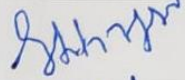

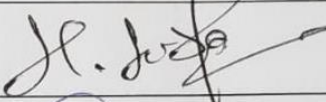
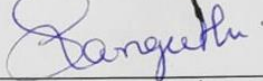

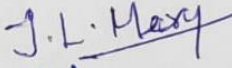
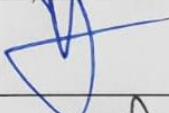
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Sl. No.	COURSE CODE	COURSE TITLE	L	T	P	C	PAGE No.
THEORY							
1	SMR1401	Robotics And Machine Vision System	3	0	0	3	86
2	SMR1402	Computer Aided Design	3	0	0	3	88
3		Elective – 2	3	0	0	3	
4		Elective – 3	3	0	0	3	
PRACTICAL							
5	SPR4054	CAD / CAM Lab	0	0	4	2	90
6	SMR4052	Robotics Lab	0	0	4	2	91
7	S05PROJ	Project Work (Phase – 1)					
TOTAL CREDITS 16							

SEMESTER 8							
Sl. No.	COURSE CODE	COURSE TITLE	L	T	P	C	PAGE No.
THEORY							
1	SBA1101	Principles of Management and Professional Ethics	3	0	0	3	92
2	SPR1403	Modern Manufacturing Processes	3	0	0	3	94
3		Elective – 4	3	0	0	3	
4	S05PROJ	Project Work (Phase - 1 & 2)	0	0	30	15	

TOTAL CREDITS 24

TOTAL CREDITS FOR THE PROGRAMME 196

- Signature of BOS members

Sl. No.	Name	Signature
1	Dr. S. Prakash	
2	Dr.L.Vijayaraghavan	
3	Dr.N.Ganesh Kumar	
4	Mr. S. Sivasaravanan	
5	Mrs. M Sangeetha	
6	Mr. J. R. Deepak	
7	Mrs.J. Lilly Mercy	
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