Final

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

(A Govt. Aided UGC Autonomous Institute& NAAC Accredited Institute Affiliated to R.G.P.V., Bhopal MP)

Electrical Engineering Department 14/01/2020

Minutes of Meeting Board of Studies

Date: 23-11-2019

The Board of Studies (BoS) meeting of Electrical Engineering department was held on 23rd November 2019 in the office of HoD Electrical Engineering. Following external members were invited in addition to the faculty members of the department:

1. **Dr. A.K. Sharma**, Prof. & Head, Electrical Engineering Department, JEC Jabalpur **(VC, RGPV nominee)**
2. **Dr. Mukhtiar Singh**, Professor, Department of Electrical Engineering, DTU Delhi (**Subject Expert**)
3. **Dr. D.K. Chaturvedi**, Professor, Electrical Engineering Department, DEI Agra, **(Subject Expert)**
4. **Er. R.K Mahapatra**, AGM, BHEL, Jhansi **(Industry Expert)**
5. **Er. Dileep Dixit**, DGM, NTPC, Delhi, **(Alumnus)**
6. **Er Durgesh Tripathi,** Sr. Executive(Engg Service), Godrej Industry, Malanpur **(Industry Expert)**
7. **Er. Asutosh Chincholikar,** CEO, Smart Control India Ltd. Gwalior **(Industry Expert)**

Following internal members attended the meeting:

Dr. L. Srivastava	Dr. Himmat Singh	Prof. Rahul Sagwal	Prof. Tarun Shrivastava
Dr. M. Pandit	Dr. Vijay Bhuria	Prof. G.K. Naveen Kumar	Prof. R.K. Bansal
Dr. A.K. Wadhwani	Prof. Kuldeep Swarnkar*	Prof. Bhavna Rathore	Prof. Avinash Sharma
Dr. S. Wadhwani	Prof. Praveen Bansal	Prof. Shailendra Pratap	Prof. Sanjay Kulshreshtha
Prof. Ashish Patra	Prof. Vishal Chaudhary	Prof. Saurabh Kumar	Prof. Neha Para
Dr. H. M. Dubey	Prof. Punjan Dohare	Prof. Shweta Kumari	Prof. Jyoti Tomar
Dr. Shishir Dixit	Dr. Vikram	Prof. Aprajita Kumari	Prof. Neha Jadon
Prof. Rakesh Narvey	Prof. Nipun Gupta	Prof. Manoj Kumar	Prof. Gunjan Rathore

* On leave

Item EE 1:	To review and finalize the list and syllabi for all Departmental Elective (DE) Courses of VI Semester under the flexible curriculum along with their COs For VI semester following three DEs courses are proposed: i. *Computer Aided Power System Analysis* ii. *Industrial Automation (*Industry Collaborative Course Refer Item 11)* iii. *Transducers & Sensors* **Syllabi for all Departmental Elective (DE) courses to be offered in the VI Semesters under the flexible curriculum along with their COs were discussed. (Annexure-I)**
Item EE 2:	To review and finalize the list of Courses from SWAYAM/NPTEL/MOOC Platform to be offered in online mode under DE category for credit transfer in the VI Semester

i. Introduction to SMART Grid	8 Weeks
ii. Advances in UHV Transmission and Distribution	8 Weeks
iii. Semiconductor Devices and Circuits	12 Weeks
iv. Solar Energy Engineering & Technology	12 Weeks

Details Syllabi of all Departmental Elective (DE3) courses are included in (Annexure-VA)

The tentative list of courses which the students can opt from NPTEL platform under DE4 category for VII semester (These DE course will be run through SWAYAM/NPTEL/MOOC based platform) **(Annexure-VB)**

Item EE 6: To prepare the syllabi of Mandatory Course (MC) titled "Intellectual Property Rights" (IPR) of VII semester under the flexible curriculum
[This will be prepared & recommended by Institution Level Committee/Academic Development Cell]

Item EE 7: To prepare and recommend the Experiment list/ Lab manual for Laboratory Courses to be offered in VII semester

The list of experiments for laboratory courses (i) Control System (ii) Electrical Drives and to be offered in VII Semester are as below:

Control System Lab	
Experiment. 1	Introduction to MATLAB: control system toolbox.
Experiment. 2	Obtain the Operational Characteristics of real time Air Temperature Controller.
Experiment. 3	Obtain the operational characteristics of nonlinear element relay in a closed loop control system.
Experiment. 4	To find the error voltage generated for input DC voltages using potentiometer error detector.
Experiment. 5	To Plot the frequency domain characteristics of the lead lag process.
Experiment. 6	To design and analyse an electronic PID controller for a closed loop control system.
Experiment. 7	To improve the performance of the closed loop control system with PI controller.
Experiment. 8	To observe and analyse the plant dynamic response using process reaction curve method.
Experiment. 9	a) Plot step response of a given TF and system in state-space. Take different values of damping ratio ζ and natural undamped frequency w_n. b) Plot ramp response of a given TF and system in state-space.
Experiment. 10	Plot step response and obtain the time response specifications for given 2nd order system.

Electrical Drives Lab	
Experiment. 1	To perform speed Control of DC shunt motor using single phase Semi-converter
Experiment. 2	Perform the operation of single phase full wave controlled rectifier with DC motor load
Experiment. 3	Perform and analyze the Non-circulating current mode of three phase dual converter
Experiment. 4	To perform and analyze the Circulating current mode of three phase dual converter
Experiment. 5	To perform the V/f control of 3-phase Induction Motor using Voltage Source Inverter (VSI).
Experiment. 6	Perform and analyze the Open loop speed control of DC Motor using chopper in all four quadrants.
Experiment. 7	To operate and perform microcontroller (DSP) based VSI for speed control of 3-phase Induction Motor.
Experiment. 8	To perform Speed control of Induction Motor using single phase SCR based regulator
Experiment. 9	To perform Speed control of Three phase motor using Three phase SCR based regulator
Experiment. 10	Determination of performance and characteristic of single phase SCR full bridge inverter with R – load.

	The Lab manuals for above laboratory courses to be offered in VII Semester under the flexible curriculum were discussed & finalized. (Annexure-VII A and Annexure-VII B)
Item EE 8:	To review the 'Question Paper Analysis' (of mid/end semester examination) conducted for Jan-June 2019 Session *[On the basis of COs and other parameters separately]* **The 'Question Paper Analysis' (of mid/end semester examination) conducted for Jan-June 2019 Session were Reviewed and discussed(Annexure-VIII)**
Item EE 9:	To identify gaps in CO attainment levels for Jan-June 2019 semester and propose corrective measures for improvement. **The gaps in CO attainment levels for Jan-June 2019 session were reviewed and corrective measures are suggested. (Annexure-IX)**
Item EE 10:	To propose and recommend the panel of examiners (UG & PG Level) for conducting practical examinations. **The panel of examiners (UG & PG Level) for conducting practical examination is prepared & annexed at Annexure-X.**
Item EE 11:	To finalize the 'Collaborative Course' to be offered in VI semester (under DE Category) which is to be run jointly with industry person **One Industry collaborative course "Industrial Automation" is proposed for inclusion in VI Semester is prepared & annexed at Annexure-XI.**
Item EE 12:	Curricula feedback from various stakeholders, its analysis and impact **The feedbacks from various stakeholders on Curricula were taken, analyzed and impact was reviewed and corrective measures are suggested /implemented. (Annexure-XII)**
Item EE 13:	**Any other matters** **(i)The syllabi of two departmental core courses to be offered under the flexible curriculum were discussed & modified. (Power System-I 130404 and Power Electronics 130504). (Annexure-XIII)** **(ii) As suggested, Utilization & Traction subject will be included as Open category in VII sem.**

The meeting ended with vote of thanks.

Prof. Punjan Dohare Asst. Professor	Prof. G.K. Naveen Kumar Asst. Professor	Prof. R.K. Bansal Asst. Professor	Prof. Jyoti Tomar Asst. Professor
Dr. Vikram Asst. Professor	Prof. Bhavna Rathore Asst. Professor	Prof. Avinash Sharma Asst. Professor	Prof. Neha Jadon Asst. Professor
Prof. Nipun Gupta Asst. Professor	Prof. Shailendra Pratap Asst. Professor	Prof. Sanjay Kulshreshtha Asst. Professor	Prof. Gunjan Rathore Asst. Professor
Prof. Rahul Sagwal Asst. Professor	Prof. Saurabh Kumar Asst. Professor	Prof. Neha Para Asst. Professor	Prof. Tarun Shrivastava Asst. Professor
Prof. Shweta Kumari Asst. Professor	Prof. Manoj Kumar Asst. Professor	Prof. Aprajita Kumari Asst. Professor	Prof. Vishal Chaudhary Asst. Professor
Prof. Praveen Bansal Asst. Professor	Dr. Vijay Bhuria Asst. Professor	Dr. H. Singh Asst. Professor	Prof. R. Narvey Asst. Professor
Dr. Shishir Dixit Asso. Professor	Dr. H.M. Dubey Asso. Professor	Prof. A. Patra Asso. Professor	Dr. S. Wadhwani Professor
Dr. A.K. Wadhwani Professor	Er. Asutosh Chincholikar, CEO, Smart Control India Ltd. Gwalior	Er Durgesh Tripathi, Sr. Executive (Engg. Service), Godrej Industry, Malanpur	Er. Dileep Dixit, DGM,NTPC,Delhi
Er. R.K. Mahapatra, AGM, BHEL, Jhansi	Dr. D.K. Chaturvedi, Professor, EED, DEI Agra	Prof. Mukhtiar Singh, Professor, EED, DTU Delhi	Dr. A.K. Sharma, Prof & Head, EED, JEC Jabalpur
Dr. Laxmi Srivastava Prof. & Head, EED,MITS Gwalior		Dr. Manjaree Pandit Professor EED,MITS Gwalior	

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