

REF: RUAS/FET/CSE/BOS-MOM/2020-21

## Minutes of the Board of Studies Meeting

Department of Computer Science and Engineering

Faculty of Engineering and Technology

M. S. Ramaiah University of Applied Sciences

Date: 06<sup>th</sup> July 2020

Time: 10:00 AM to 02:00 PM

Venue: Board Room, Peenya Campus, RUAS

### Members Present

Dr. PVR Murthy, Head-CSE, RUAS	Chairperson
Prof. N. D. Gangadhar, Assoc. Head-CSE, RUAS	Internal Member
Dr. C. Narendra Babu, CSE, RUAS	Internal Member
Dr. Rinki Sharma, CSE, RUAS	Internal Member
Dr. Divya B. S, CSE, RUAS	Internal Member
Dr. T. P Pushphavathi, CSE, RUAS	Invited Member
Ms. Pallavi R. Kumar, CSE, RUAS	Invited Member
Mr. Mohan Kumar, CSE, RUAS	Invited Member
Gp Capt. N Rath VSM, CSE, RUAS	Invited Member
Dr. Subarna Chatterjee, CSE, RUAS	Invited Member
Prof. Ashitava Ghoshal, IISc	External Member
Dr. Balamuralidhara P, TCS	External Member
Dr. P. Muralikrishna, CAIR-DRDO	External Member

### Leave of Absence

Dr. Monika Ravishankar	Internal Member
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### Call to Order and Quorum

The meeting was called to order by Dr. PVR Murthy (Chairperson) at 10.00 AM. With sufficient quorum being present, the proceedings of the meeting were commenced.

*[Signature]*  
Dean - Academics  
M.S. Ramaiah University of Applied Sciences  
Bangalore-560054

*[Signature]* Dean  
Faculty of Engineering and Technology  
M.S. Ramaiah University of Applied Sciences  
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1) **Agenda 1: Welcome and Overview**

Dr. PVR Murthy welcomed the members of Board of Studies to the meeting. He briefed the Members about the existing programmes being offered by the department.

2) **Agenda 2: Apologies for Absence**

Apologies for the absence due to unforeseen personal circumstances were received from members and were accepted.

3) **Agenda 3: Review of Programme Specifications and Course Specifications of the UG and PG Programmes**

**Documents:** Program Specification (PS) and Course Specifications (CS) documents of the B. Tech. and M. Tech. programmes

**Observations/Remarks made by the members**

1. The chairperson highlighted how the global, national and local needs have been sought to be addressed in the curriculum design. He presented the focus of each course in terms of Employability, Skill Development and Entrepreneurship development
2. There was a discussion by the members on why the first year courses of UG programmes are common. Prof. Ashitava Ghoshal felt that this is not a requirement at several universities, including the IITs. It was clarified by the internal members that this cannot be bypassed as it is a AICTE requirement
3. External members suggested that more electives may be added to UG and PG programmes
4. External members also suggested that students may be given a chance to earn additional credits through electives and may be awarded an Honors Degree
5. The members expressed the view that while the Theory of Machine Learning course is appropriate for inclusion in B. Tech. (AIML) programme, a judicious choice of the contents needs to be considered for the UG students
6. Members have suggested that courses on Gene Editing, AI in Machine Diagnostics may be introduced as electives for B. Tech. (AIML) programme
7. It was suggested that a component on Speech Processing may be added to the elective course on Natural Language Processing
8. The chairperson informed that the suggestions by the members would be given due consideration for their incorporation

**Resolution:** It was unanimously resolved that the Programme Specification and Course Specifications documents of B. Tech. and M. Tech. programmes are acceptable and may be presented to the Academic Council for consideration and approval.

4) **Any other matters**

**Renaming M. Tech. (Machine Learning and Intelligent Systems)**

  
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The Chairperson has informed the members that the M. Tech. in Machine Learning and Intelligent Systems is proposed to be renamed as **M. Tech. in Artificial Intelligence and Machine Learning**. He said that this change would make the programme easily recognizable as most of the comparable programmes in India and abroad use the latter name. Such a change will be beneficial to the students graduating from the programme and the programme will be more attractive to prospective students.

**Resolution:** The members agreed to the proposal and have unanimously consented for renaming the M. Tech. (Machine Learning and Intelligent Systems) programme as M. Tech. (Artificial Intelligence and Machine Learning) programme.

**Review of two elective courses for 7<sup>th</sup> Semester students of the academic year 2020-21**

The chairperson has presented the specifications for a Professional Core Elective course on Computer Vision for B. Tech. (CSE) 7<sup>th</sup> Semester students and an Open Elective course on Machine Learning for the 7<sup>th</sup> Semester students of the University for the current academic year 2020-21

**Resolution:** Members have reviewed the same and agreed that the courses are appropriate for the final year students

**5) Vote of Thanks & Adjournment**

The Chairperson thanked all the members of the Board, especially the external member, for their participation and valuable inputs. The meeting concluded with the vote of thanks to the Chairperson. There being no further business the Chairperson declared the meeting adjourned.

  
Prof. PVR Murthy

Chairperson, Board of Studies in Computer Science and Engineering  
MS Ramaiah University of Applied Sciences, Bengaluru

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## M. Tech. (Artificial Intelligence and Machine Learning)

  
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**M. Tech. (Artificial Intelligence and Machine Learning)**

**Programme Structure for Batch 2020 Onwards**

SEMESTER 1							
Sl.No.	Code	Course Title	Theory (h/W/S)	Tutorials (h/W/S)	Practical (h/W/S)	Total Credits	Max. Marks
1	19MIC501A	Mathematics for Machine Learning	3	2		4	100
2	19DSC501A	Programming for Data Science	3		2	4	100
3	19DSC502A	Data Mining	3	2		4	100
4	19MIC502A	Artificial Intelligence	3		2	4	100
5	19MIE501A	Professional Elective - 1	3		2	4	100
6	19FET509A	Research Methodology & IPR	2	--	--	2	50
7	19FET510A	Audit Course	1	--	--	0	0
<b>Total</b>			<b>18</b>	<b>4</b>	<b>6</b>	<b>22</b>	<b>550</b>
<b>Total no. of Hours per Week</b>			<b>38</b>				

SEMESTER 2							
Sl.No.	Code	Course Title	Theory (h/W/S)	Tutorials (h/W/S)	Practical (h/W/S)	Total Credits	Max. Marks
1	19MIC504A	Artificial Neural Networks	3	2	2	5	100
2	19MIC505A	Pattern Recognition	3	2	2	5	100
4	19MIE502A	Professional Elective - 2	3		2	4	100
5	19MIE503A	Professional Elective - 3	3	2		4	100
6	19MIE504A	Professional Elective 4	3	2		4	100
7	19FET520A	Audit Course	1			0	
<b>Total</b>			<b>16</b>	<b>8</b>	<b>6</b>	<b>22</b>	<b>500</b>
<b>Total no. of Hours per Week</b>							

  
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SEMESTER 3							
Sl.No.	Code	Course Title	Theory (h/W/S)	Tutorials (h/W/S)	Practical (h/W/S)	Total Credits	Max. Marks
1	19MIC521A	Internship			10	4	100
2	19MIC522A	Group project			15	8	200
<b>Total</b>			-	--	25	12	300
<b>Total number of contact hours per week</b>			<b>25 hours</b>				

SEMESTER 4							
Sl.No.	Code	Course Title	Theory (h/W/S)	Tutorials (h/W/S)	Practical (h/W/S)	Total Credits	Max. Marks
1	19MIC523A	Dissertation and Publication		--	24	24	400
<b>Total</b>					24	24	400
<b>Total number of contact hours per week</b>			<b>24 hours</b>				

**Note:** Students are required to select Professional Elective courses in the 1st Semester and 2<sup>nd</sup> Semester, from Elective list given as follows:

**Electives:**

Stream /Specialization	S.No.	Course Code	Course Title
<b>AI for Healthcare</b>	1	19MIE501A	Computational Intelligence
	2	19MIE502A	Deep Learning
	3	19MIE503A	Probabilistic Graphical Models
	4	19MIE504A	AI for Healthcare
	5	20MIE507A	Advanced Machine Learning
<b>AI for Robots</b>	1	19MIE505A	Computer Vision
	2	19MIE506A	AI for Robots
	3	20MIE508A	Reinforcement Learning
	4	19MIE501A	Computational Intelligence
	5	19MIE502A	Deep Learning

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