

Management Review System Formats

| Doc No | QR/M5-02 |
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| Rev. No. | 00 |
| Date | 14-06-2004 |
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| No. | |

MINUTES OF THE MEETING

Date of the meeting

: 03.12.2022

Name of the meeting: Board of Studies meeting - B.E Mechatronics

Mode

: Online

Time

: 11.00 am - 01.00 pm

Attended by:

External Members:

Dr. K. Mahadevan, Professor, Department of Mechanical Engineering, Pondicherry Engineering College

Dr. J.E. Diwakar, Principal Research Scientist, DESE, IISc Bangalore 2.

- 3. Mr. N. Sampath Kumar, Head Training & Development, Roots Industries India Limited, Coimbatore
- 4. Mrs. N. Bhuvana, Senior Scientist, CSIR-National Aerospace Lab, Bangalore
- 5. Dr. M. Kumar, Former Principal Engineer, GE Health Care, Bangalore
- Mr. N Parameswaran, Senior Director, Trane Technologies, Bangalore
- Dr. L Ramanan, Chief Technology Officer, Sahajanand Medical Technologies, Mumbai

Internal Members:

- Dr. M. Palaninatha Raja, Principal in charge, Professor and Head, MECT, TCE 1.
- Dr. G. Kumaraguruparan, Professor, MECT, TCE 2.
- Dr. G. Kanagaraj, Professor, MECT, TCE 3.
- 4. Dr. S. Julius Fusic, Assistant Professor, MECT, TCE
- 5. Mr. H. Ramesh, Assistant Professor, MECT, TCE
- Mr. S. Parthasarathi, Assistant Professor, MECT, TCE
- 7. Mr. M. A. Ganesh, Assistant Professor, MECT, TCE
- 8. Mr. M.M. Devarajan, Assistant Professor, MECT, TCE
- 9. Mr. S.A.R. Sheik Masthan, Assistant Professor, MECT, TCE
- 10. Mr. S. Rajkumar, Assistant Professor, MECT, TCE
- 11. Dr. K.J. Nagarajan, Assistant Professor, MECT, TCE
- 12. Dr. S. Saravanakumar, Assistant Professor, Mathematics, TCE

| Sl. No. | Points discussed | Action Plan | Responsibility | Target date |
|------------|--|--|-----------------------------|----------------|
| 1. | 22MT210 - MATRICES AND ORDINARY DIFFERENTIAL EQUATIONS 22MT310 - PARTIAL DIFFERENTIAL EQUATIONS Brief introduction of "partial differential equations" has to be given before starting the topic of "vector calculus". Engineering Mathematics courses have to relate to the core papers in Mechatronics and taught along with applications in Engineering Latest text books are to introduced as they have the present-day engineering application and developments | To be adhered during content delivery Comments are to be incorporated into syllabus | Dr. S. Saravanakumar | 06/12/22 |
| 2. | Courses such as Design of Experiments, Numerical Methods must be introduced as electives in the later semesters to appreciate the use of Engineering Mathematics | To be adhered while passing elective courses | All faculty members | - |
| 3. | Introduction to circuit analysis to be introduced in the course 22MT220 - ANALOG ELECTRONICS Error Analysis of op-amp characteristics needs to be taught | Comments are to be incorporated into syllabus | Mr. S. Parthasarathi | 06/12/22 |
| 4. | 22MT230-FREE BODY MECHANICS - content delivery could start with application and thereby explaining the concepts 22MT330 - Kinematics and Dynamics of Machinery No Comments | To be adhered during content delivery | Dr. G. Kanagaraj | - |
| 5. | Real life problems to be given in the practical component of the course 22MT240 - PROBLEM SOLVING USING C (TCP) | To be adhered during content delivery | Mr. S.A.R. Sheik Masthan | - |
| 6. | The following topics could be added in the course 22MT250 - MANUFACTURING PROCESS LASER Cutting Role of materials and chemistry in casting Composite Manufacturing Process as they are used in drones Chemical and electro chemical machining under unconventional machining process | Suggested topics are to be considered for adding in the course | Mr. M.M. Devarajan | 06/12/22 |

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| 7. | IPC2221 standard of soldering must be taught in the course 22MT260 - MECHATRONIC WORKSHOP | Comments are to be incorporated into syllabus | Mr. S. Parthasarathi | 06/12/22 |
| 8. | • An industrial visit shall be arranged to have better exposure on any manufacturing plant, Various techniques in 3D printing based on the raw materials used can be introduced | Industrial visit to a manufacturing plant to be arranged for the students before this course. Comments are to be incorporated into syllabus | Industrial Visit Coordinator & Mr. M.M. Devarajan | 06/12/22 |
| 9. | Printers and plotters should be added along with 3D printers in the course 22MT280 - INTRODUCTION TO MECHATRONIC SYSTEMS | Comments are to be incorporated into syllabus | Mr. S. Parthasarathi | 06/12/22 |
| 10. | The following topics must be added in the course 22MT320 – DIGITAL ELECTRONICS Analog Vs. Digital Electronics, Need for Digital, and why Digital electronics is required, Applications of Automotive electronics 22MT380 - Electronic Circuits and Digital Laboratory No Comments | Suggested topics are to be considered for adding in the course | Mr. S. Parthasarathi | 06/12/22 |
| 11. | The following topics must be added in the course 22MT340 - THERMAL FLUID SYSTEMS Introduction to Airconditioning Systems Thermal Treatment in device level | Suggested topics are to be considered for adding in the course | Dr. G. Kumaraguruparan | 06/12/22 |
| 12. | A brief introduction about linear DC motors to be added in the course 22MT350 - ELECTRICAL MACHINES 22MT370 - Electrical Machines Laboratory – No Comments | Comments are to be incorporated into syllabus | Dr. S. Julius Fusic | 06/12/22 |
| 13. | In the course 22MT360 - THERMAL ENGINEERING LABORATORY , Simscape and Simulink based experiments can be retained while the experiments using bond graph can be introduced in the later semesters | Comments are to be incorporated into syllabus | Dr. G. Kumaraguruparan | 06/12/22 |
| 14. | 18MTRG0 - OOP and data structures using C++ No Comments | - | - | - |

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| 15. | The following topics must be added in the course 18MTRE0 - INDUSTRY 4.0 Industrial Automation as prerequisite Manufacturing Automation and Testing Smart Manufacturing Introduction to communications and internet can be added as prerequisite for this course | Suggested topics are to be considered for added in the course | Mr. H. Ramesh | 06/12/22 |
| 16. | The following topics must be added in the course 18MTRF0 - SEMICONDUCTOR MANUFACTURING Introduction to Electronic Packaging Assembling, interconnection and encasement in ICs Electronic Device Manufacturing Electronic Device assembling in PCB | Comments are to be incorporated into syllabus | Dr. G. Kumaraguruparan | 06/12/22 |
| 17. | All Laboratory Sessions Students has to collect information prior to performing the laboratory experiment and must prepare a one page write up regarding the experiment to have a better understanding on the experiment | To be adhered while conducting laboratory sessions | All faculty members | |

Prepared by:

Dr. G. Kanagaraj Mr. S.A.R. Sheik Masthan

Date: 03/12/2022

Approved By: / Dr. M. Palaninatharaja

Date: 05/12/2022

Note:

As the Board of Studies Meeting was conducted as an online meeting, members' signatures were not obtained.