



# PRAGATI ENGINEERING COLLEGE (Autonomous)

# 1-378, ADB Road, Surampalem, E.G.District, A.P. - 533 437  
(Approved by AICTE & Permanently Affiliated to JNTUK, Kakinada & Accredited by NAAC with 'A' Grade)  
(Recognised by UGC Under Sections 2 (f) and 12 (b) of UGC act, 1956)  
Ph : 08852 - 252233, 252234, 252235, Fax : 252232, Website : www.pragati.ac.in  
(Sponsored by Gayatri Educational Society)

D.No. 2-24-4/2, Ground Floor, Janmabhoomi Park Road, Srinagar, Kakinada - 3, Ph : 0884 - 2355900, Fax : 2363900

## DEPARTMENT OF MECHANICAL ENGINEERING

Date: 04-07-2016

### CIRCULAR

All the members of Board of Studies(BoS) are here by informed that there will be a meeting on 09<sup>th</sup> and 10<sup>th</sup> July 2016 for discussing the following agenda.

#### Agenda:

1. Discussion on proposed course structure of R16 regulations of B.Tech & M.Tech and ratification of the same.
2. Discussion on proposed B.Tech First Year courses syllabi & M.Tech courses syllabi and ratification of the same.
3. Ratification of the proposed model papers for internal and external examination of both theory and laboratory courses.
4. Ratification of question paper setting and valuation of answer scripts from premier institutions.
5. Finalization of text books and reference books.
6. Any other item.

HoD-Dept.

Copy to:

1. All members of BoS.
2. Department circular file.



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## DEPARTMENT OF MECHANICAL ENGINEERING

Date: 09-07-2016

Minutes of meeting of UG & PG Board of Studies (BoS) of Mechanical Engineering conducted on 09<sup>th</sup> and 10<sup>th</sup> July 2016 for approval/ratification of R16 regulation.

### Members Present:

- Mr. G. Avinash - Chairman & HoD
- Dr. Ch. Srinivasa Rao - University Nominee
- Dr. N. Mohan Rao - University Nominee
- Dr. S. Sambhu Prasad - Faculty Member
- Mr. P. Sukumar - Faculty Member
- Mrs. Ch. Vasantha Lakshmi - Faculty Member
- Mr. D.J. Johnson - Faculty Member
- Mr. A.V. Ramana Rao - Faculty Member

### Agenda:

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6. Any other item.

### Proceedings:

- The meeting began at 10.00AM in the CAD/CAM Laboratory. The Chairman of the Board Mr. G Avinash welcomed all the members for the meeting.
- The Chairman explained the Vision, Mission of the College and the Department and the agenda for discussion and requested the members to give their valuable inputs.
- The external experts suggested to add new courses in the curriculum by following the AICTE guidelines.

- With respect to point 1 of agenda, the following changes were suggested in B.Tech course structure:
  - Number of lecture and practical hours for Engineering Drawing for I Year B.Tech are modified as 2 & 3.
  - CAD/CAM/CFD Lab in B.Tech IV year I Semester is changed as CAD/CFD Lab and CAM/Mechatronics Lab with number of practical hours as 3.
- With respect to point 1 of agenda, the following changes were suggested in M.Tech course structure:
  - Advanced CAD is replaced with Industrial Robotics in I Semester and Rapid Prototyping Technologies is replaced with Materials Technology in II Semester.
- With respect to point 2 of agenda, the following changes were suggested in B.Tech syllabi:
  - Concept of 'Analysis of plane trusses' is to be included in Unit II of Engineering Mechanics.
  - For B.Tech I Year ECE, the syllabus of Unit V of Electrical and Mechanical Technology is replaced with Basics of Fluid Mechanics and Mechanics of Solids.
- With respect to point 2 of agenda, the following changes were suggested in M.Tech syllabi:
  - The syllabus for Advanced Finite element Method is modified by removing solution of system of equations in Unit I.
  - The syllabus for Advanced Finite element Method is modified by removing concepts of 3-D problems from Unit III and introducing them in Unit IV.
- With respect to point 5 in agenda, discussions are done and the following changes were suggested:
  - For subject, Engineering Drawing:
    - a. Engineering Drawing+AutoCad K. Venugopal, V. Prabhu Raja, New Age International, was changed from reference book to textbook.
    - b. Engineering Drawing by Agarwal & Agarwal, Tata McGraw Hill Publishers, was changed from text book to reference book.
  - For subject, Electrical & Mechanical Technology, with respect to Mechanical Technology,
    - a. A textbook of Fluid Mechanics and Hydraulic Machines, R.K. Bansal, Firewall Media was added as textbook.
    - b. A textbook of Strength of Materials, R.K. Bansal, Laxmi Publications, was added as textbook.
  - For subject, Engineering Mechanics:
    - a. Engineering Mechanics S.S. Bhavikatti, New Age International, was added as textbook
- The external experts suggested identifying courses that would enhance the employability skills and also suggested to add few value added courses for the students.
- The suggestions given by the external experts with respect to the content inclusion in the courses was noted down and the same has been informed to the subject expert for incorporating in the syllabus.

- The external experts are suggested to prepare rubrics for all the Theory, Laboratory, Mini project/Term Paper, Seminar and Project for assessment of the same.

### **Resolutions:**

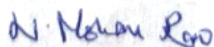
The following resolutions have been made in the meeting

- The changes suggested were thoroughly discussed and the course structure of R16 regulations of B.Tech & M.Tech is finalized and approved.
- The syllabus for B.Tech & M.Tech course was thoroughly discussed, finalized and approved. BOS Chairman is authorized to endorse the syllabus.
- The proposed model papers for internal and external examination of both theory and laboratory courses were discussed and ratified.
- The question paper setting and valuation of answer scripts from premier institutions like IITs, NITs, Deemed Universities & Autonomous Institutions etc., was ratified.
- The textbooks suggested for various courses were finalized.
- The members decided to convey the same to Academic Council members for approval.

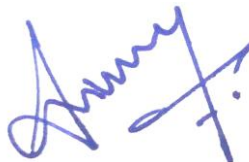
The meeting came to an end with vote of thanks.



Dr. Ch. Srinivasa Rao



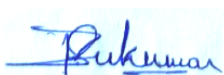
Dr. N. Mohan Rao



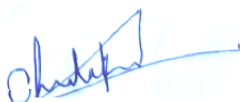
Mr. G. Avinash



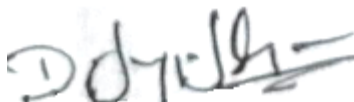
Dr. S. Sambhu Prasad



Mr. P. Sukumar



Mrs. Ch. Vasantha Lakshmi



Mr. D.J. Johnson



Mr. A.V. Ramana Rao



**PRAGATI ENGINEERING COLLEGE: SURAMPALEM**  
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**I Year-I Semester**

S.No.	Subject Code	Subjects	L	T	P	C
1	16BH1T01	English-I	4	--	--	3
2	16BH1T03	Mathematics-I	4	--	--	3
3	16BH1T11	Engineering Chemistry	4	--	--	3
4	16ME1T01	Engineering Mechanics	4	--	--	3
5	16CS1T01	Computer Programming Using C	4	--	--	3
6	16BH1T13	Environmental Studies	4	--	--	3
7	16BH1L05	Engineering/Applied Chemistry Laboratory	--	--	3	2
8	16BH1L01	English-Communication Skills Lab -I	--	--	3	2
9	16CS1L10	C-Programming Lab	--	--	3	2
<b>Total Credits</b>						<b>24</b>

**I Year- II Semester**

S.No	Subject Code	Subjects	L	T	P	C
1	16BH2T02	English -II	4	--	--	3
2	16BH2T04	Mathematics-II (Mathematical	4	--	--	3
3	16BH2T06	Mathematics-III	4	--	--	3
4	16BH2T09	Engineering Physics	4	--	--	3
5	16EE2T03	Basic Electrical and Electronics Engineering	4	--	--	3
6	16ME2T02	Engineering Drawing	2	--	3	3
7	16BH2L02	English-Communication Skills Lab-II	--	--	3	2
8	16BH2L03	Engineering/Applied Physics Lab	--	--	3	2
9	16BH2L04	Engineering/Applied Physics- Virtual Labs-Assignments	--	--	2	--
10	16ME2L01	Engineering Workshop & IT Workshop	--	--	3	2
<b>Total Credits</b>						<b>24</b>

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**I Semester**

S.No.	Subject Code	Subject	L	T	C
1	16061T01	Industrial Robotics	4	-	3
2	16061T02	Computer Aided Manufacturing	4	-	3
3	16061T03	Special Manufacturing Processes	4		3
4	16061T04	Geometric Modeling	4	-	3
5	<b>Elective I</b>		4	-	3
	16061D01	Computational Methods in Engineering			
	16061D02	Mechanical Vibrations			
	16061D03	Nano Technology			
6	<b>Elective II</b>		4	-	3
	16061D04	Design for Manufacturing			
	16061D05	Mechatronics			
	16061D06	Computer Aided Process Planning			
7	16061L01	Advanced CAD Lab	-	3	2
<b>Total Credits</b>					<b>20</b>

**II Semester**

S.No.	Subject Code	Subject	L	T	C
1	16062T05	Simulation Modeling of Manufacturing Systems	4	-	3
2	16062T06	Optimization and Reliability	4	-	3
3	16062T07	Computer Graphics	4		3
4	16062T08	Advanced Finite Element Method	4	-	3
5	<b>Elective III</b>			-	3
	16062D07	Quality Engineering in Manufacturing			
	16062D08	Fracture Mechanics			
	16062D09	Concurrent Engineering			
6	<b>Elective IV</b>			-	3
	16062D10	Mechanics And Manufacturing Methods of Composites			
	16062D11	Materials Technology			
	16062D12	Intelligent Manufacturing Systems			
7	16062L02	Modeling and Analysis of Manufacturing Processes Lab	-	6	4
<b>Total Credits</b>					<b>22</b>

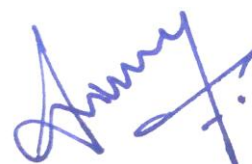
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### III Semester

S.No.	Subject Code	Subject	L	T	C
1		Comprehensive Viva	-	-	2
2	16063S01	Seminar-I	-	-	2
3	16063P01	Project Work Part – I	-	-	14
<b>Total Credits</b>			-	-	<b>18</b>

### IV Semester

S.No.	Subject Code	Subject	L	T	C
1	16064S02	Seminar-II	-	-	2
2	16064P02	Project Work Part – II	-	-	18
<b>Total Credits</b>			-	-	<b>20</b>



HoD-Dept.