

**VIGNAN'S**

Foundation for Science, Technology & Research

(Deemed to be University)

Ftd u/s 3 of UGC Act 1956

DEPARTMENT OF APPLIED ENGINEERING**Minutes of Board of Studies Meeting held on 20/04/2020**

The following members were present while finalizing the structure of M. Tech in Farm Machinery. BoS was held on 20/04/2020 in U-Block Fourth floor at AFTF 05 from 02:00 to 05:00pm.

External Members: (Given their suggestions online through Zoom)

S. no	Name	Details
1	Dr. Vidhu Kampurath Poduvattil	Joint Director (PHE), NIPHM, Hyderabad, Email id: kpvidhu@gmail.com M: 7230916661
2	Dr. A. Mani	Associate Dean College of Agricultural Engineering, Bapatla – 522 101, Guntur Dist., Acharya NG Ranga Agricultural University, Email id: caebpt@gmail.com M: 99896 25205
3	Dr. Shaji James P.	Professor, Dept .of Farm Power, Machinery and Energy, KCAET, Kerala Agricultural University, Email Id: shajijames.p@kau.in M: 9447924629
4	Mr. Biren Mahato	Manager, Design at Mahindra & Mahindra Limited, Email id: mahato.biren@mahindra.com M: +91-9500191807
5	Mr. Manoj Ranjan Jha	Escorts tractor LTD India , Email id: manoj.jha@escort.co.in M:9911368558

Internal Members:

S no	Name	Details
1	Mr. N. Narayan Rao (PhD)	Asst. Prof & Head, Chairman of BoS, Vignan's Foundation for Science, Technology & Research (Deemed to be University), Vadlamudi
2	Dr. Ayyanna DS	Asst. Prof, Vignan's Foundation for Science, Technology & Research (Deemed to be University), Vadlamudi
3	Mr. Bibek B	Asst. Prof, Vignan's Foundation for Science, Technology & Research (Deemed to be University), Vadlamudi
4	Ms. Manogna K	Asst. Prof, Vignan's Foundation for Science, Technology & Research (Deemed to be University), Vadlamudi
5	Ms. Tejaswini	Asst. Prof, Vignan's Foundation for Science, Technology & Research (Deemed to be University), Vadlamudi.

The following were the discussions of the meeting:

- Dr. Ayyanna DS, PG – Coordinator addressed the meeting about the procedure followed while framing new curriculum and changes incorporated in proposed R20 Curriculum to that of R17 Curriculum.
- Dr. Ayyanna DS informed the members that the feedback from wide array of stakeholders are carefully collected, analyzed and their suggestions are taken into account while designing the Curriculum.
- PG – Coordinator also addressed that the same Choice Based Credit System (CBCS) is practiced in the curriculum.
- Dr. Ayyanna DS addressed the main essence of R20 Curriculum that major restructuring has taken place in the curriculum which is oriented towards Project based learning.
- Advanced Internal Combustion Engines and Computer Aided Design are restructured and offered as Computer Aided Manufacturing with more emphasis on case based real time scenarios as per suggestions from stakeholder's such as faculty, students, employers and parents.

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Appendix I

I Year I Semester

Course Title	L	T	P	C
Design of Farm Machinery Systems	3	-	2	4
Tractor Systems Design	3	-	-	3
Alternative Energy Sources	3	-	-	3
Computer Aided Design and Manufacturing	3	-	-	4

I Year II Semester

Course Title	L	T	P	C
Research Methods	2	-	-	2
Employment Orientation Program(EOP)	2	-	-	2
Soil Dynamics in Tillage and Traction	3	1	3	5
Ergonomics in Agro Systems	3	1	3	5
Testing of Tractors and Agricultural Machinery	4	-	3	5
Credit Seminar	-	-	3	2

II Year I & II Semester

Course Title	L	T	P	C
I Semester				
Project/ Internship Phase – I	-	-	20	10
II Semester				
Project/ Internship Phase – II	-	-	32	16

Pool of Electives

Course Title	L	T	P	C
Machinery Systems for Precision Agriculture	3	-	-	3
Instrumentation and Research Techniques	3	-	-	3
Production Technology for Machinery Components	3	-	-	3
Agro-Energy Audit and Management	3	-	-	3
Land Grading and Earth Moving Machinery	3	-	-	3
Optimization Techniques	3	-	-	3
Introduction to Intellectual Property Law	3	-	-	3
Simulation Modeling in Farm Machinery and Power Engineering	3	-	-	3
Advances in Hydraulics and Electro Pneumatics Controls	3	-	-	3
Advanced Internal Combustion Engines	3	-	-	3
Energy Conservation and Management in Farm Machinery and Power Engineering	3	-	-	3
Mechanical Vibrations	3	-	-	3

Narasimhan

Chairman -BoS

Appendix-II

List of Courses that enable Employability or Entrepreneurship or Skill development in the R-20 M. Tech- FARM MACHINERY (Agriculture Engineering)

Year	Course Name	Course Nature
I	Design of Farm Power Machinery System	Employability
I	Tractor Systems Design	Skill development
I	Alternative Energy Design	Employability
I	Computer Aided Design and Manufacturing	Skill development
I	Research Methods	Skill development
I	Employment Orientation Program (EOP)	Employability
I	Soil dynamics in Tillage and Traction	Employability
I	Ergonomics in Agro Systems	Skill development
I	Testing of Tractors and Agricultural Machinery	Skill development
I	Credit Seminar	Skill development
II	Project/ Internship Phase – I	Skill development
II	Project/ Internship Phase - II	Skill development
E	Machinery Systems for Precision Agriculture	Employability
E	Instrumentation and Research Techniques	Employability
E	Production Technology for Machinery Components	Skill development
E	Agro-Energy Audit and Management	Entrepreneurship
E	Land Grading and Earth Moving Machinery	Employability
E	Optimization Techniques	Employability
E	Introduction to Intellectual Property Law	Employability
E	Simulation Modeling in Farm Machinery and Power Engineering	Employability
E	Advances in Hydraulics and Electro Pneumatics Controls	Employability
E	Advanced Internal Combustion Engines Energy Conservation and Management in	Entrepreneurship
E	Farm Machinery and Power Engineering	Skill development
E	Mechanical Vibrations	Skill development

Narayanappa
Chairman BoS

Appendix –III
LIST OF NEW COURSES IN THE R-20 M.TECH- FARM
MACHINERY (AGRICULTURE ENGINEERING)

S.No	Semester (Year)	Course Name
1	I-Year- I SEMESTER	Design of Farm Power Machinery System
2	I-Y E A R- I SEMESTER	Tractor Systems Design
3	I-Y E A R- I SEMESTER	Alternative Energy Design
4	I-Y E A R- I SEMESTER	Computer Aided Design and
5	I-Y E A R- II SEMESTER	Research Methods
6	I-Y E A R- II SEMESTER	Employment Orientation Program (EOP)
7	I-Y E A R- II SEMESTER	Soil dynamics in Tillage and Traction
8	I-Y E A R- II SEMESTER	Ergonomics in Agro Systems
9	I-Y E A R- II SEMESTER	Testing of Tractors and Agricultural Machinery
10	I-Y E A R- II SEMESTER	Credit Seminar
12	II-Y E A R- I SEMESTER	Project/ Internship Phase - I
13	II-Y E A R- II SEMESTER	Project/ Internship Phase - II
14	Pool of Electives	Machinery Systems for Precision Agriculture
15		Instrumentation and Research Techniques
16		Production Technology for Machinery Components
17		Agro-Energy Audit and Management
18		Land Grading and Earth Moving Machinery
19		Optimization Techniques
20		Introduction to Intellectual Property Law
21		Simulation Modeling in Farm Machinery and Power Engineering
22		Advances in Hydraulics and Electro Pneumatics Controls
23		Advanced Internal Combustion Engines
24		Energy Conservation and Management in
25		Farm Machinery and Power Engineering
26		Mechanical Vibrations

Naveen
Chairman –BoS