



# ADITYA ENGINEERING COLLEGE

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Aditya Nagar, ADB Road, Surampalem - 533437, Near Kakinada, E.G.Dt., Ph:99498 76662

## DEPARTMENT OF AGRICULTURAL ENGINEERING

### Minutes of the VIII meeting of BOS scheduled on 25-04-2022 and 30-04-2022

Date: 03-05-2022

The VIII BOS meeting of Agricultural Engineering was virtually held in Microsoft Teams on 25-04-2022 and 30-04-2022 at 9.30 AM. **Mr. B. Krishna Kanth**, Chairperson presided over the meeting.

#### **Agenda 8.1: Welcome address by chairperson BOS.**

Mr. B. Krishna Kanth, Chairperson of BOS, invited all the distinguished members of BOS to the VIII BOS meeting.

#### **Agenda 8.2: Ratification of minutes of VII BOS meeting.**

The BOS members accepted and ratified the minutes of VII BOS meeting unanimously.

#### **Agenda 8.3.: Discussion on proposed AR20 B. Tech Program – V, VI, VII & VIII semesters syllabus and ratification of the same.**

The BOS members approved the AR20 B.Tech. (Ag.E) V, VI, VII and VIII semesters syllabus after making the following changes in the proposed syllabi.

1. Suggested to change CO's, add topics on creep, epicyclic gear train, speed of governors, coefficient of fluctuation of speed and energy, design of flywheel and add textbook in Theory of Machines.
2. Suggested to add minor changes in COB's, CO's and add direct and indirect methods of stream flow measurements, Simple storm and complex storm and Unit hydrograph derivation in Watershed Hydrology.
3. Suggested to add Modified Penman Monteith Method in Evapotranspiration estimation methods, List of irrigation water control & diversion structures instead of irrigation structures and add new text books and remove topics of Lacey's and Kennedy's theory in design of irrigation canal capacity in Irrigation and Drainage Engineering.
4. Suggested to improve COB's, CO's and to add head loss calculation of the sprinkler and drip irrigation system topics in Sprinkler and Micro Irrigation Systems.

5. Suggested to add mean areal rainfall measurement topic instead of rainfall measurement and shift exercise on unit hydrograph lab from augmented experiments to main list of experiments in Watershed Hydrology Lab.
6. Suggested to change CO5 in Irrigation and Drainage Engineering Lab.
7. Suggested a minor change in CO's and add term tillage implements instead of tillage implement, levelers instead of levelled, combine harvester instead of combine, types of threshers and losses and troubleshooting in Farm Machinery and Equipment.
8. Suggested to add splash erosion, roughness coefficient instead of roughness and add a book from reference books to textbooks in Soil and Water Conservation Engineering.
9. Suggested to add methods of drying topic in Post Harvest Engineering of Cereals, Pulses and Oil Seeds.
10. Suggested to add wider and narrow tools topic in Mechanics of Tillage and Traction.
11. Suggested to add a minor change in COB and add planning of warabandhi irrigation system, Water control and diversion structures topics in Management of Canal Irrigation System.
12. Suggested to change COB1 and CO1 and add CIP principals- techniques, FSSAI standards and regulations for dairy products topics in Dairy and Food Engineering.
13. Suggested to add Short-term harvesting techniques - contour bunds, semicircular hoop, trapezoidal bunds, graded bunds, rock catchment and ground catchment, Design of Gabion structures, drop inlet spillway- design criteria topics in Water Harvesting and Soil Conservation Structures.
14. Suggested to change Wastewater treatment and management course title as Agricultural Structures and Protected Cultivation.
15. Suggested to add combine harvester instead of combine and add experiment on land levelling using the laser guided land leveler in augmented experiments list in Farm Machinery and Equipment Lab.
16. Suggested to add visit to watershed project for studying erosion control and water conservation measures in list of experiments and move Study of rainfall simulator for erosion assessment to list of augmented experiments and add Field Manual on Watershed Management in Soil and Water Conversation Engineering Lab.



17. Suggested to add experiment on determination of EMC of food grains in list of augmented experiments in Post Harvest Engineering of Cereals, Pulses and Oilseeds Lab.
18. Suggested to add watershed atlas, prioritization of watersheds topics in Watershed Planning and Management.
19. Suggested to add CO6 and add terms rice bran, commercial products of coconut, Cashew nut based products in Waste and By-Products Utilization.
20. Hydraulic Devices And Control.
21. Suggested to remove term civil engineering in Remote Sensing and GIS Applications.
22. Human Engineering And Safety
23. Suggested to change COB3 and add term materials instead of material and add text book on Building Material, Construction and Planning in Building Construction and Cost Estimation.
24. Suggested to add FSSAI standard codes for layout of Food Processing Plant Design and Layout.
25. Suggested to add shade nets topic in green house technology.
26. Suggested to add hydraulic hitch and ADDC topics in Hydraulic devices and control.
27. Suggested to change title as Introduction to Remote sensing and GIS, add important features of remote sensing satellites, vegetation indices, NDVI, identification of layers, application of RS and GIS in land and water use.
28. Suggested to align the concepts in continuity and change the title as Applications of RS and GIS in Land and Water Resources Management for GIS essentials in agriculture and its application.

**Agenda 8.4: Discussion on proposed syllabus for courses in V to VII semesters under AR20 Honors and Minor Degree and ratification of the same.**

The BOS members approved the AR20 B.Tech. (Ag.E) III and IV semesters syllabus program after making the following changes in the proposed AR20 B.Tech. (Ag.E) syllabi.

1. Suggested to add new textbooks and reference books in Integral Transforms and Applications of Partial Differential Equations.
2. Suggested to follow the fifth deans committee syllabus for all the courses.
3. Suggested to add Struts topic in Strength of Materials course.

4. Suggested to add simulation topics and keep it as a complete unit in Computer Aided Manufacturing course.
5. Suggested to keep Entrepreneurship Development and Business Management course under HSS category.
6. Suggested to elaborate HACCP concept in skill oriented course in Food Quality and Control.

**Agenda 8.5: Discussion on the value-added courses to be offered for students and ratification of the same.**

The BOS members approved the list of value-added courses offered to students and ratified the same.

**Agenda 8.6: Discussion on the new courses offered in the B.Tech. (Ag.E), programme and ratification of the same.**

The BOS members have discussed and approved the new courses introduced in all the B.Tech. (Ag.E), programme. The list of new courses during the academic year 2021-2022 enclosed as Annexure-I.

**Agenda 8.7: Discussion on the percentage of the syllabus revision done in the B. Tech (Ag.E) program and ratification of the same.**

The BOS Members approved the change in of syllabus revision done in the B.Tech. (Ag.E) program. The list of courses revised during the academic year 2021-2022 is enclosed as Annexure-II.

**Agenda 8.8: Discussion on the courses having focus on employability/entrepreneurship/skill development in the B.Tech (Ag.E) program and ratification of the same.**

The members of BOS ratified the courses having focus on employability/entrepreneurship/skill development in the B.Tech. (Ag.E). program.

**Agenda 8.9: Discussion on the B.Tech. (Ag.E), programme in which Choice Based Credit System (CBCS)/elective course system is being implemented and ratification of the same.**

The members discussed and approved the choice-based credit system for all the B.Tech. (Ag.E), programme.

**Agenda 8.10: Analysis of Feedback on Curriculum from Stakeholders.**

The BoS chairperson presented the analysis report of Stakeholder's feedback on curriculum. The BOS members noted the same and advised to incorporate the suggestions as per the feasibility. The Action Taken Report is enclosed as Annexure-III.

**Agenda 8.11: Analysis of results**

The BOS chairperson presented the results. The BOS members appreciated the faculty for achieving better pass percentages

**Agenda 8.12: Analysis of student's feedback**

Student feedback and action report is presented by BOS Chairperson to the BOS members and BOS members approved the same.

**Agenda 8.13: Any other item/s with the approval of chairperson**

Suggested to keep more basic professional core courses before starting of professional electives.


Suggested to inculcate self learning practices in students with the adoption of innovative teaching methods.

**Agenda 8.14: Scheduling of next BOS meeting**

After discussions with BOS members, the next BOS meeting will be planned in the month of March/April 2022.

**Agenda 8.15: Vote of Thanks**

Mr. B. Krishna Kanth, BOS chairperson presented the Vote of thanks.

  
BOS Chairperson  
Head of the Department  
Department of Agricultural Engineering  
ADITYA ENGINEERING COLLEGE (A9)





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## Department of Agricultural Engineering

### ANNEXURE-I

#### LIST OF NEW COURSES IN THE ACADEMIC YEAR 2021-2022

S. No	Program	Semester	Course Code	Course Name
1	B. Tech (Ag.E)	III	201AG3L03	Thermodynamics, Refrigeration and Air Conditioning Lab
2	B. Tech (Ag.E)	III	201SO3L10	1) Computer Aided Manufacturing
3	B. Tech (Ag.E)	III	201SO3L11	2) Computer Aided Design using SolidWorks
4	B. Tech (Ag.E)	IV	201ES4T21	Soil Mechanics
5	B. Tech (Ag.E)	IV	201HS4T07	Entrepreneurship Development and Business Management
6	B. Tech (Ag.E)	IV	201SC4L22	1) Analysis/Simulation using MATLAB
7	B. Tech (Ag.E)	IV	201SC4L23	2) Food Quality and Control
8	B. Tech (Ag.E)	V	191AG5O01	Basic Crop Production Practices
9	B. Tech (Ag.E)	V	191AG5L07	Soil Mechanics Lab
10	B. Tech (Ag.E)	V	191AG5L08	Theory and Design of Agricultural Machine LAB
11	B. Tech (Ag.E)	V	191PR5P02	Socially Relevant Project
12	B. Tech (Ag.E)	VI	191AG6O02	Weather Forecast in Agriculture
13	B. Tech (Ag.E)	VI	191AG6O03	Bio-Energy Systems Design and Applications
14	B. Tech (Ag.E)	VI	191AG6L10	Irrigation and Drainage Engineering LAB

BOS Chairperson  
Head of the Department  
Department of Agricultural Engineering  
ADITYA ENGINEERING COLLEGE (AG)



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## Department of Agricultural Engineering

### ANNEXURE-II

#### LIST OF COURSES REVISED IN THE ACADEMIC YEAR 2021-2022

S. No	Program	Semester	Course Code	Course Name
1	B. Tech (Ag.E)	III	201AG3T03	Thermodynamics, Refrigeration and Air Conditioning
2	B. Tech (Ag.E)	IV	201AG4T06	Tractor Systems and Controls
3	B. Tech (Ag.E)	IV	201AG4L04	Tractor Systems and Controls Lab
4	B. Tech (Ag.E)	V	191AG5T10	Theory and Design of Agricultural Machinery
5	B. Tech (Ag.E)	V	191AG5T11	Agricultural Process Engineering and Food Quality
6	B. Tech (Ag.E)	V	191AG5E01	Engineering Properties of Biological Materials
7	B. Tech (Ag.E)	VI	191AG6T14	Agricultural Machinery and Equipment
8	B. Tech (Ag.E)	VI	191AG6E07	Design of Agricultural Machinery
9	B. Tech (Ag.E)	VI	191AG6L11	Agricultural Machinery and Equipment Lab

BOS Chairperson

Head of the Department

Department of Agricultural Engineering  
ADITYA ENGINEERING COLLEGE (AG)





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## DEPARTMENT OF AGRICULTURAL ENGINEERING

### ANNEXURE III

S. No	Agenda Item No.	Stakeholders Recommended	Action Taken
1	8.10	Suggested to include more Skill Oriented Courses for better employability.	As per suggestions, Skill Oriented Courses will be included in course curriculum.
2	8.3	Suggested to add Modified Penman Monteith Method in Evapotranspiration estimation methods in Irrigation and Drainage Engineering.	As per suggestions, Modified Penman Monteith Method in Evapotranspiration estimation methods will be included in Irrigation and Drainage Engineering.
3		Suggested to add FSSAI standard codes for layout of Food Processing Plant in Food Processing Plant Design and Layout.	As per suggestions, FSSAI standard codes for layout of Food Processing Plant in Food Processing Plant Design and Layout.
4	8.10	More exposure to field visits to gain practical knowledge.	As per suggestions, more field visits will be conducted in coming semesters.
5	8.3	Suggested to add FSSAI standards and regulations for dairy products topics in Dairy and Food Engineering.	As per suggestions, FSSAI standards and regulations for dairy products topics will be included in Dairy and Food Engineering.
6	8.10	Suggested to bring more core companies for Internships and placements.	As per suggestions, necessary steps will be taken.
7	8.3	Suggested to add head loss calculation of the sprinkler and drip irrigation system topics in Sprinkler and Micro Irrigation Systems.	As per suggestions, head loss calculation of the sprinkler and drip irrigation system topics will be included in Sprinkler and Micro Irrigation Systems.
8	8.10	For better understanding of Thermodynamics, Refrigeration and Air	As per suggestions, Thermodynamics, Refrigeration and Air Conditioning Lab will be included in course curriculum.



		Conditioning subject, practical knowledge is required. ,	
9	8.3	Suggested to add direct and indirect methods of stream flow measurements, Simple storm and complex storm and Unit hydrograph derivation in Watershed Hydrology.	As per suggestions, mentioned topics will be included in Watershed Hydrology.
10	8.12	Suggested to modify some topics in Irrigation and Drainage Engineering.	As per suggestions, modifications will be included in course curriculum.
11		Suggested free access to online journals	As per suggestions and discussions made, Free access facility was provided to faculty and research scholars and students. Recently college has introduced mLibrary for off-campus access to cater its resources and services to the user community effectively.
12		Suggested to arrange some guest lectures with industry experts.	As per suggestions, guest lectures will be included in coming semesters.



**BOS Chairperson**

**Head of the Department**  
**Department of Agricultural Engineering**  
**ADITYA ENGINEERING COLLEGE (A9)**