

DEPARTMENT OF AGRICULTURE ENGINEERING

E-NEWS FOR THE YEAR 2023-24

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VISION

To serve the country by producing high-caliber technocrats who can combine farming with engineering and technology interventions and contribute to global food security and sustainable growth in agricultural production.

MISSION

To impart knowledge by establishing an environment that is conducive to teaching and learning.

To create agriculture engineers who are both technically proficient and morally admirable in order to benefit society.

To develop and enhance novel technologies to address current and foreseeable issues in agriculture.

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

PEO1: To give students a thorough understanding of the principles of mathematics, science, and agriculture engineering so they can solve problems relating to engineering and farmers as well as pursue higher education.

PEO2: To equip graduates with the knowledge they need to function successfully in the tractor, food processing, irrigation, watershed management, and renewable energy fields.

PEO3: To expose students to cutting-edge technology and inspire them to take on new challenges to address societal and national issues through research, entrepreneurship, and skill development.

PROGRAM SPECIFIC OUTCOMES (PSOs)

PSO1: Using knowledge of basic and engineering sciences, identify challenges in agriculture engineering and design sustainable solutions.

PSO2: Embrace proper technology, resources, and modelling to pursue a successful professional career in the agro-industries, government agencies, educational institutions, and research institutes.

PSO3: Take the initiative in the growth of Agriculture Engineering and related businesses for the good of society. Adapt in a world of increasing technologies while maintaining professional ethics.

IIC ACTIVITY

“Workshop on Rainwater Harvesting and Ground Water Recharging”

The department Agricultural Engineering, Alva's Institute of Engineering and Technology Moodbidri, organized a workshop on Rainwater Harvesting and Ground Water Recharging by the resource person Joseph Fernandes on 12/7/2023. The resource person explained about current scenario of the country like at the rate in which Indian population is increasing, it is said that India will surely replace China from most densely populated country in the world after 2020-2030. These will lead to high rate of consumption of most valuable resource 'water'. In order to conserve and meet our daily demands of water requirements, we need to think for alternative cost effective and relatively easier method of conserving water. During monsoons lots of water goes waste into gutters, drains. Rainwater harvesting is one of the best method fulfilling those requirements as it increases the ground water level and aquifers. Recharge wells are a valuable tool for groundwater recharging that can help to supplement natural recharge processes and ensure sustainable water supplies for communities around the world.



FORUM ACTIVITIES

“Guest lecture on Changing Scenario in cashew nut processing and Entrepreneurial Opportunities for Youth of India”

The department Agricultural Engineering, Alva's Institute of Engineering and Technology Moodbidri, organized a Guest Lecture on “Changing Scenario in cashew nut processing and Entrepreneurial Opportunities for Youth of India”, by Dr. Balasubramanian, Principal Scientist (AS & PE), ICAR- Directorate of Cashew Research, Puttur on 20/6/2023. He started the session with the basic concept of cashew nut processing followed by cashew nut machines and informed us about solutions to increase the income from cashew nut cultivation. At the end of the technical talk, students came to know the importance of tender cashew nut cultivation and existing processing industries, roasting, cutting, pre-grading, drying, peeling, re-humidification and finally concluded with packaging of cashew kernels.





**“Guest lecture on Recent Advancements in Processing
and value addition of coconut - Entrepreneurship
Opportunities”**

The department Agricultural Engineering, Alva's Institute of Engineering and Technology Moodbidri, organized a guest lecture on 'Recent Advancements in Processing and value addition of coconut - Entrepreneurship Opportunities' on 22/8/2023 by the resource person Dr. Pandiselvam R, Scientist, CPCRI, Kasargod. He started the session with the basic concept of Entrepreneurship-Oriented Technologies followed by coconut cutting machines and informed us about Solutions to increase the income from coconut cultivation. At the end of the technical talk, students came to know the importance of tender coconut cultivation and existing processing industries, Preservation protocol for trimmed tender coconut, and machinery developed for the production of VCO and kalpa krunch ready-to-eat extruded snacks, coconut milk residues and its by products and finally concluded with coconut chips.



Industrial visit (2022-23)

The students of department Agricultural Engineering, Alva's Institute of Engineering and Technology Moodbidri, visited a Megha fruit processing industry at puttur on 27/6/2023 under the guidance of Prof. Sudheer P N. The main objective of this visit is to get an industrial exposure about Bindu juice processing and value addition. They were welcome by the Namitha, HR, Admin and further explained about the plant. She started to tell about history of a company, their products, raw materials, outcome, budget etc to the students. Overall, the industrial visit to Bindu Water, Bindu Fizz Jeera Masala, Sipon, Fruzon, Zivo, and Snak Up was a valuable learning experience. Students witnessed the dedication and passion of these companies in providing high-quality beverages and snacks to consumers. It reinforced the importance of quality control, innovation, and meeting consumer demands in the competitive food and beverage industry. Students were grateful for the opportunity to gain first-hand knowledge from these industry leaders and believe that they will continue to thrive and set new benchmarks in the market.



MOU ACTIVITIES (2022-23)

**“MOU between Buhler India Bangalore & AIET, Dept.
of Agriculture Engineering”**

The Department of Agricultural Engineering, Alva's Institute of Engineering and Technology Moodbidri, made an MOU with **Buhler India Bangalore**. The MOU was made in presence of Mr. Prashanth Gokhale, Managing Director, Mr. Venkatesh and Mr. Ravindra from Buhler India Private Limited, Bangalore and also on behalf of AIET, Mr. Vivek alva, Managing trustee, Dr. Shashikumar, Head, Department of Agriculture Engineering, Dr. Satyanarayana, Head, Department of Mechanical Engineering were being a part of it. The main objectives of this MOU is to give more exposure to students regarding food processing industry and organize various events in favour of students between MOU partners.





WORKSHOP (2022-23)

Workshop on “Jackfruit processing and value addition”

The department Agricultural Engineering, Alva’s Institute of Engineering and Technology Moodbidri, organized a workshop on ‘Jackfruit processing and value addition’ on 15/7/2023 to 16/7/2023 by the resource person Mr. Shivanna and Mrs. Suma Rangappa. They were welcomed and introduced by the Head, Department of Agriculture Engineering. Later the technical session was started by the resource persons. The main objective of this workshop is to get a hands on experience about jackfruit processing and value addition. The first day of workshop had two sessions the one which was held in the morning by Dr Shivanna sir and later the other in the afternoon by Mrs Suma rangappa. The second day session was commenced on 16/7/2023 at 10 am led by Mr. Pradeep Dsouza who had gained a vast knowledge on jackfruit and its processing. He highlighted about importance of jackfruit, varieties across India, scope for becoming future entrepreneur in jackfruit processing. Later he narrated a conclusion like this, Jackfruit had indeed gained popularity as a versatile and plant-based ingredient used in various dishes like pizza, burgers, sandwiches, and smoothies. Its fibrous and meaty texture made it a sought-after meat substitute for vegetarian and vegan recipes, and it offered a unique flavor profile to these dishes. However, it's essential to remember that culinary trends and practices can evolve rapidly, and the popularity or usage of certain ingredients can change over time.





INTERNSHIP (2023-24)



Six trainees participated in an internship program at Buhler India, spanning from November 2nd, 2023 to December 7th, 2023, totalling a month and a week. Throughout the internship, the trainees rotated through various departments including corporate technology, application center, research and development, coffee processing, and aroma research for wheat flour. Key learnings from the experience encompassed teamwork, individuality, time management, and networking, highlighting the multifaceted nature of the training and the diverse skills acquired by the participants.



From November 6th, 2023, to December 1st, 2023, eight trainees participated in an internship at a bakery unit in GKVK Hebal Bangalore. Throughout the internship, they gained valuable insights into maintaining hygiene standards prior to cooking and learned the intricate processes involved in preparing various bakery products. The trainees received hands-on experience in baking cookies, biscuits, rusk, pizza, egg and veg puff, among others. Additionally, they familiarized themselves with different types of ovens, equipment, and precise ingredient measurements essential for each product. Overall, the internship provided a comprehensive learning experience and



During their internship at Escorts Tractor and Development Centre (ETDC) from October 30th, 2023, to November 30th, 2023, they were among four trainees participating in the organization's training and development program. Throughout this period, they had the opportunity to engage with various aspects of the agricultural industry, including tractor operations, farm machinery, and modern farming solutions. Being a part of ETDC's model farm and farmers' training program was an enriching experience, exposing them to the practical challenges and innovative solutions prevalent in the agricultural sector. Overall, their time at ETDC provided valuable insights into the technical and operational facets of farming, contributing to their professional growth and understanding of the industry.



The Southern Region Farm Machinery Training and Testing Institute (SRFMTTI) conducted a training program from October 30th to November 24th, 2023, with 17 trainees. The program covered tractor driving with implements, combine harvester driving, and primary and secondary tillage implements. Additionally, trainees learned about assembling and dismantling water-cooled stationary 5HP diesel engines, the 8+2 constant gear box of New Holland tractors, and various aspects of electrical systems, irrigation types, and hydraulic systems.