

國立嘉義大學 理工學院 機械與能源工程學系

Activity Title :	Department of Mechanical and Energy Engineering –Hands-on Co-creation Activity on Agricultural Waste Circular Regeneration and Green Energy Engineering by the Department of Mechanical and Energy Engineering
Activity Period :	Academic Years 113–114
Activity Location :	Off-campus Practice Site
Participants :	Undergraduate and graduate students of the Department, and interested community members
Expected Benefits of the Activity :	Through practical implementation and technological improvement, students are able to gain hands-on experience during the learning process and develop concrete and feasible solutions to real-world field challenges. These experiences also help students build confidence and direction for their future careers during their studies, enabling them to apply what they have learned in either professional practice or academic research, and to become interdisciplinary professionals with innovation capabilities and a mindset for sustainability.

In recent years, our department has guided students who are interested in hands-on learning to participate in off-campus field-based practice and co-creation activities. Through the implementation of participatory practice courses, the project assists local field sites in exploring effective approaches for the circular utilization of agricultural waste, thereby reducing environmental burdens and enhancing the benefits of resource regeneration. The selected off-campus community sites mainly cultivate agricultural crops that generate by-products such as rice straw, rice husks, and peanut shells. If these agricultural wastes are not properly managed, they may affect soil quality or cause environmental problems. Therefore, the project aims to introduce suitable regeneration technologies into the field sites, enabling these agricultural wastes to be transformed into organic fertilizers, renewable energy, or other reusable resources. This approach helps reduce waste accumulation, meet the needs of local agricultural production, and provide possible solutions through course-based practice and field participation. By promoting the application of waste management technologies, the project supports local farmers in improving resource utilization efficiency while reducing potential environmental impacts, thereby making agricultural production more sustainable and efficient. In addition, through practical implementation and technological improvement, students are able to gain hands-on experience during the learning process and develop concrete and feasible solutions to real-world field challenges. Through a series of course-based practices, field collaborations, and career development activities, the project is expected to help students build confidence and direction for their future careers during their studies. Whether entering the workplace or pursuing academic research, students will be able to apply what they have learned and become interdisciplinary professionals with innovation capabilities and a mindset for sustainability.



帶領學生至場域
進行共創活動
2023年6月28日



Examples of Off-campus Field-based Food and Agricultural Activities	Examples of Off-campus Field-based Practice and Hands-on Activities
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