

## **AHMAD SAFUAN BIN BUJANG**

Smart and Precision Farming Program, Engineering Research Center  
Malaysian Agricultural Research and Development Institute (MARDI)  
Serdang, 43400 Selangor  
asafuan@mardi.gov.my

### **EDUCATION**

- *Iowa State University, 2014.* Ph.D., Agricultural and Biosystems Engineering; Biorenewable Resources and Technology  
Concentrations: Biomass utilization, biorenewable resources conversion  
Dissertation: Utilization of durian biomass for biorenewable applications
- *Iowa State University, 2011.* M.A., Agricultural Engineering  
Concentrations: Biological and process engineering, biomass, bulk handling of biomass  
Dissertation: Properties and bulk drying of biomass
- *University Putra Malaysia (UPM), 2003.* B. of Engineering (Chemical)

### **RESEARCH AND WORK EXPERIENCES**

- Malaysian Agricultural Research and Development Institute (MARDI) 2019-Present  
*Deputy Director, Smart and Precision Farming Program*

Head of research and development unit that specializes in modern agriculture practices and innovations

- Developing and providing strategic research vision, strategies and processes into harmonizing national food and agriculture agendas with the integration of cyber-physical systems for modern agriculture
- Integration and optimization of precision agriculture technologies including pest detections systems and variable rate applicators of fertilizers and pesticides in large scale paddy farms
- Development of localized innovations and technical expertise related to incorporating smart farming technologies in fertigation or urban farming systems

- Malaysian Agricultural Research and Development Institute (MARDI) 2016-2019  
*Deputy Director, Youth Agropreneur Program*

Head of technology extension unit with specific interests in promotion of Agro-based technology uptake among youth.

- Planning and organizing training and hands-on programs to propagate knowledge of Agro-based technologies that can be applied by budding entrepreneurs for their business ventures.

- Creating various platforms for sustainable nexus between technology experts in MARDI and entrepreneurs, as well as external entities to ensure creative and effective involvements of entrepreneurs along the supply chain.
- Malaysian Agricultural Research and Development Institute (MARDI) 2004-2016  
*Senior Research Officer*

Diversification of bio-resources and bio-energy feedstock through utilization of post-harvest agricultural residues and food processing waste

- Establishment of best-practice methods for closed carbon cycle and energy efficient processes on farms or processing premises
- Identification and establishment of critical characteristics for the utilization of biomass in bio-chemical or thermochemical conversion techniques

Mechanization and automation of post-harvest and food processing systems

- Design and development of mechanization solutions to increase process efficiency and productivity.
- Diversification of fruit or food material utilization through innovation of mechanized processing means and alternative processing methods.

## **RECENT PUBLICATIONS & CONFERENCE PRESENTATIONS**

- Abd Rahim, M.F., Ong, J.W. & Bujang, A.S. (2018). Nurturing the entrepreneurial spirit: Agora Young Agropreneur Programme. Multimedia University Research, Innovation, Commercialization & Entrepreneurship Showcase 2018, 15<sup>th</sup> November 2018, Cyberjaya.
- Abd Rahim, M.F., Chew, K.W & Bujang, A.S. (2018). Modelling antecedents of Agroentrepreneurship intentions among youths in Malaysia. Multimedia University Research, Innovation, Commercialization & Entrepreneurship Showcase 2018, 15<sup>th</sup> November 2018, Cyberjaya.
- Bujang, A.S. (2017). Technical empowerment of Agricultural Cooperatives in Malaysia. Food and Fertilizer Technology Center (FFTC) International Seminar on Enhancing Agricultural Cooperatives' Roles in Response to Changes in Food Consumption Trend, 18-22 September 2017, Taipei, Taiwan.
- Bujang, A.S. & Said, H. (2017). Attaining National Food Security and Sustainability through Youth Engagement: MARDI Youth Agropreneur Program. International Conference on Agricultural Extension (AGREX' 17), 14-16 February 2017, Universiti Putra Malaysia, Serdang, Malaysia.
- Said, H., Bujang, A.S., Ishak, A.H. & Che Ahamad, Z. (2016). Agro-processing and product development to improve livelihood status in Malaysia. SAARC Expert Consultation Meeting on "Assessment of role of agro-processing as a key component of rural mass employment and rural development models", 16-19 August 2016, Amrita University, Coimbatore, Tamil Nadu, India.
- Bujang, A. S., Bern, C. J., & Brumm, T. J. (2016). Summary of energy demand and renewable energy policies in Malaysia. *Renewable and Sustainable Energy Reviews*, 53, 1459-1467.