

*Programme and Abstracts*

# PIMES

## PLANTATION MANAGEMENT EXHIBITION & SEMINAR

15th December 2018

Faculty of Plantation and Agrotechnology  
Universiti Teknologi MARA  
Melaka Branch, Jasin Campus  
77300 Merlimau, Melaka, Malaysia

**PLANTATION MANAGEMENT EXHIBITION AND SEMINAR 2018 (PiMES)**

*Melaka, Malaysia*

*December 15, 2018*

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## **DEAN PREFACE**



Assalamualaikum Warahmatullahi Wabarakatuh

My heartiest congratulations go to the Committees for successfully organized PIMES September 2018. PIMES September 2018 enables lecturers and panels from strong industrial background to reflect and share significant ideas, experiences and research findings in the workplace and in partnerships. It is also hoped to encourage collaboration among the lecturers and enhance the quality and performance of the faculty. The research findings derived from this substantial event shall indicate the commitment of lecturers not only in teaching, but also in striving to unfold new knowledge and processes that will benefit the nation. The efforts of our lecturers need to be further extended to a wider audience so that the nation will benefit from the research findings. It is also hoped that, the proceedings will trigger serious thought and more robust research in the field of education as well as plantation and technology so as to help Malaysia achieve Vision 2020.

As we know, agriculture production has increased tremendously today because of the demand from various sectors in the world. To meet the challenges of increasing food demand, techniques and ways should be created to improve productivity, profitability and sustainability of the agricultural system. Industrial agricultural system has led to irretrievably changes in the landscape diversity, soil quality, environment integrity, and natural resource base. This has resulted major questions and curiosity worldwide in relation to the sustainability of agricultural production system. The most significant damage to natural ecosystems and the environment was caused by habitat conversion and corresponding climate change, loss of biodiversity and ecosystem functions, soil erosion and degradation, and pollution from fertilizers and pesticides. Concepts in plant protection have changed in past decades from exclusion or destruction of pest to pest management. Serious problems with pesticides, rapid development of pest resistance, environmental effects of pesticides, and high costs led to development of new approaches and techniques in pest management based on improved knowledge of pest dynamics and their natural enemies, and the interaction between the pest and the crop.

It remains only for me to thank all those who have helped to make this events such a great and wonderful success. Much appreciation is due to the board editor, and reviewers of all papers submitted as well as to all authors whose ideas and contributions ensured rich and lively discussion during the various sessions.

*DEAN,*

*Assoc Prof Dr Asmah Awal*

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### **INTRODUCTION**

The PiMES committee and UiTM (Melaka), Jasin Campus residents are very pleased to welcome all participants in the Plantation and Management Seminar (PiMES) which is organized by Faculty and Agrotechnology.

PiMES aims to give an exposure to the students about the procedure to make a poster by extracting information from their final year project. This seminar will sharpen their communication skill as well as they can exchange and share their research result, projects, experiences and new ideas related to all aspects of studies in plantation management and agribusiness, plant sciences, soil sciences, plant protection, plant biotechnology and agricultural engineering. We sincerely hope that you will enjoy and return home with plenty of inspiration to improve agro-industry plantation practices and research activities.

**FIELD PERFORMANCE OF VARIOUS FORWARD SPEED OF  
AUTOPILOT TRACTOR IN FLAT AREA**

**Hairie Hamdan, \***

*Faculty of Plantation and Agrotechnology, UiTM (Malacca) Jasin Campus, 77300, Malacca.*

*Corresponding Author:  
darius@melaka.uitm.edu.my*

**Abstract**

New Holland tractor (TD5.75) is a vital in plantation industry because it got variety of usage in agriculture since it is complete with many equipment to improve agricultural activity such as nitrogen sensor, soil EC meter, VRA and etc. With improvement of technology, the New Holland tractor come up with the latest technology which is equip with autopilot system. The purpose of study been conducted is to measure error in each of specific level of speed as well as study of relationship between speed and accuracy of autopilot tractor. The new autopilot tractor (New Holland TD5.75) is rarely been used in Malaysia thus the stable speed that able to move forward with accurate straight line is still unknown. Currently the accuracy are totally depend on the DGPS since depending on GPS only could lead to pseudo range error. The data collection in this study was obtained through field observation at UiTM Jasin share farm where is three level of speed (1000 rpm, 1500 rpm, 2000 rpm) been test and the data been analyse using Statistical Package For Social Sciences (SPSS) version 25 and Microsoft excel 2016. The result from this study, there is a significant different between three level of speed. There is a close relationship between speed and accuracy which is the higher the level of speed, the lower the error occur. However, the result of study can be suitable only for the flat area.

*Keyword: Autopilot, Nitrogen Sensor, VRA, GPS, DGPS*