

## Foreword from Dean of Agricultural Faculty



**Assalamualaikum wr wb.**

Praise goes to the most merciful God Allah SWT for the blessings of life and knowledge for us to gather in this meaningful occasion. To start with, I would like to warmly welcome the heads of both Indonesian and foreign universities to the Faculty of Agriculture, University of Jember, Indonesia. It is a great pleasure to have you with us today. This event is a reflection of our faculty's commitment to always improve education quality and accommodate more and more opportunities in academic collaborations.

The building of food sovereignty through sustainable agriculture has been a major focus in developing countries. Such acts can involve multiple areas including development of human capital, critical infrastructure, regional competitiveness, health, safety, and other initiatives.

Therefore I believe this international conference will be able to present an interesting discussion on the aforementioned topic, with prominent speakers from Indonesia, Germany, Japan, Korea, Malaysia, Thailand, giving a contribution to the development of science, and hopefully encouraging more research on this area.

I would also like to congratulate the Faculty of Agriculture, University of Jember as the main host of this international conference. Theme of The International Conference is "Sustainability of Industrial Agriculture and Food Sovereignty in the Era of Industrial Revolution 4.0". This International Conference is a collaboration between International Seminar and Workshop on Plant Industry (ISWPI) Organizer and International Seminar for Food Sovereignty and Sustainable Agriculture (FoSSA). May it support efforts to become world-class universities in the near future. I also wish to thank all the sponsors who have provided financial support for this event.

Finally, I would like to convey a warmest welcome to all the distinguished guests and participants of this international conference. May we have a fruitful discussion and may we all gain new and valuable knowledge.

**Wassalamualaikum wr wb.**

Jember, July 31<sup>st</sup> 2019.

Dean,

**Sigit Soeparjono, Ph.D**

## Foreword from the Program Chairs



### Dear Participants,

We welcome you to the International Conference on Agriculture and Life Sciences (ICALS) held July 31<sup>st</sup> – August 2<sup>nd</sup>, 2019 in Jember, East Java, Indonesia. This conference is a joint effort of the 3<sup>rd</sup> International Seminar and Workshop of Plant Industry (ISWPI) with the 2<sup>nd</sup> International Seminar on Food Sovereignty and Sustainable Agriculture (FoSSA). We are pleased to present the conference focusing on Sustainability of Industrial Agriculture and Food Sovereignty in the Era of Industrial Revolution 4.0.

The book of abstract of the ICALS 2019 contains the agendas, schedule, and abstracts for all speakers. Briefly, this conference is divided into three programs: the International seminar, the international symposium on biotechnology, and workshop on rice development. The International Seminar presents 3 keynote speakers from the University of Jember, the Ministry of National Development Planning, Republic of Indonesia, and from Country Gateway Office of Islamic Development Bank. Also, 5 guest speakers from South Korea, Malaysia, Germany, and Indonesia supposed to give a comprehensive talk related to approaching industrial revolution 4.0.

On the second day, the symposium present 7 speakers from Thailand, South Korea, and Indonesia to give a talk about Genetic engineering, Molecular approach, Biodiversity, and Genetic manipulation on the plant, especially Rice. Finally, on the last day, a workshop intensively discusses and focus on the subject of plant breeding to produce desired characteristics and about plant variety rights (PVR). This workshop presents 1 guest lecture and 2 experts.

As information, the ICALS accommodate about 650 persons including academicians, researchers, students, public, and governments from 5 countries, 9 provinces in Indonesia (West Java, Central Java, East Java, South Sulawesi, Bali, Jakarta, Yogyakarta, Banten, and East Kalimantan). About 126 scientific papers are disseminated during this seminar both 100 oral and 26 posters presentation.

Finally, for their institutional and financial support to ICALS 2019 thank the University of Jember, IsDB Project, Pusat Unggulan Tanaman Industri (PU-BioTIn), Pascasarjana of University of Jember, and 2 sponsors (BASF and Nemadic).

We wish you all an exciting conference and an unforgettable stay in the city of Jember. We hope to meet you again next year for the same agenda.

Hardian Susilo Addy, Ph.D.

The ICALS 2019 Chair