

Welcoming Remarks from the Chair

Assalamualaikum. Wr. Wb.

Distinguished Speakers, Guests, and all participants of ICoSIA 2023.

Good morning, welcome to the 4th International Conference on Smart and Innovative Agriculture (ICoSIA 2023) in Eastparc Hotel Yogyakarta, Indonesia. As the Chairman of ICoSIA 2023, I am deeply honoured to stand before you, to extend a warm welcome to all of you to Indonesia, especially to Yogyakarta with its warmth and culture. "*Sugeng rawuh wonten Yogyakarta*".

ICoSIA 2023 holds a special place in our hearts to explore the theme of "Food Security and Resilience in Multidimensional Crises." In a world where challenges are multifaceted and ever-evolving, the pursuit of food security is not only a noble endeavor but also a vital one for humanity. This theme underscores the urgency of our discussions during the next two days.

I would like to take this moment to express my sincere gratitude to our distinguished speakers, whose unwavering commitment to agricultural innovation and food security has brought us here today. We are privileged to have with us an exceptional lineup of experts:

1. Prof. Ts. Dr. Rosnah Shamsudin from Universiti Putra Malaysia, Malaysia
2. Dr. Glenn Gregorio from Southeast Asian Regional Center for Graduate Study and Research in Agriculture, Philippines
3. Dr. Sinichi Takashima Sobue from Japan Aerospace Exploration Agency, Japan
4. Dr. Anthony Young from The University of Queensland, Australia
5. Ahasanul Hoque from the World Bank, Bangladesh
6. Asst. Prof. Piyapong Tongdeenok from Kasetsart University, Thailand

This year, ICoSIA 2023 has brought together a wealth of knowledge under the umbrella of seven distinct symposia, including Agricultural Big Data Analysis Symposium; Agricultural Geography Symposium; Land and Environmental Management Symposium; Precision Nutrition Technology Symposium; Smart and Precision Farming Symposium; Smart Genetics Resource Management and Utilization Symposium and Sustainable Food Production Symposium.

With a total of 95 submissions from several countries around the world such as Indonesia, South Korea, Pakistan, Bangladesh, France, Thailand, Ethiopia, India, Australia, Japan, and Hungary, ICoSIA 2023 has indeed become a global forum for agricultural excellence. The diversity of perspectives and experiences represented here today is a testament to the conference's international reach and significance.

In conclusion, I want to express my sincere appreciation to the organizing committee, reviewers, and all those who have worked hard to make ICoSIA 2023 happen. Your dedication and hard work have not gone unnoticed, and we are grateful for your contributions.

Thank you very much for your presence and participation in ICoSIA 2023. I am confident that our collective efforts will lead to transformative outcomes that will benefit our world for generations to come.

Let us embark on this enriching journey together. Thank you.
Wassalamualaikum. Wr. Wb.

Yogyakarta, October 10, 2023

Chair of ICoSIA 2023

Dr. Ir. Mohammad Zainal Abidin, S.Pt., M.Biotech., IPM.

Welcoming Remarks from the Rector of Universitas Gadjah Mada

Dear distinguished keynote speakers,
Distinguished invited speakers and participants,
Conference's committee,
Ladies and gentlemen.

On behalf of Universitas Gadjah Mada, it is my pleasure to welcome all of you today at the 4th International Conference on Smart and Innovative Agriculture (ICoSIA 2023), hosted by the Directorate of Research Universitas Gadjah Mada. First of all, I would like to express my sincere appreciation for our speakers, Prof. Ts. Dr. Rosnah Shamsudin, Asst. Prof. Piyapong Tongdeenok, Dr. Anthony Young, Dr. Sinichi Takashima Sobue, Dr. Glenn Gregorio, and Mr. Ahasanul Hoque.

As a pioneering university, the history of UGM's education has opened the boundaries between academics and professionals across the world, to discover critically scientific inventions as the precious roots of knowledge for the benefit of humankind. The 4th International Conference on Smart and Innovative Agriculture (ICoSIA 2023) also provides an ideal academic platform for researchers to present the latest research findings and describe emerging technologies and directions in agriculture.

This year, the selected theme for the conference will focus on "**Food security and resilience in multidimensional crises**". Food security has been a longstanding area of emphasis in research and policy concerned with development. Food security is accomplished when individuals, regardless of their circumstances, have consistent and equitable access to an adequate quantity of safe and nutritious food that meets their dietary requirements and preferences for an active and healthy life. The challenge of food security is situated at the intersection of the fundamental rights to food and health, affecting not only developing nations but also prosperous, industrialized countries. On the other hand, resilience has emerged as a more recent field of study. Considering the intricate nature of both topics, the endeavor of integrating the inherently multidimensional concepts of resilience and food security is a challenging undertaking.

The 4th ICoSIA plays a crucial role preserving our commitment to nurturing an intellectual culture. It is our sincere hope that this year's conference will serve as a powerful source of inspiration for academicians and researchers, motivating them to achieve even greater impact in the field of life sciences. Furthermore, we aspire to encourage students to actively engage in scholarly writing and strive towards publishing their work in esteemed journals.

We are deeply honored and humbled by the presence of numerous esteemed experts who attend this year's conference. We extend our sincere gratitude to the speakers for their exceptional expertise and knowledge, which will enrich the discussions during the conference. Additionally, we would like to express our special thanks to the hardworking organizing committee members of ICoSIA 2023 for

their dedication in preparing the conference, and also to the staff of the Directorate of Research for their valuable contributions. Lastly, we would like to express our gratitude to all the conference participants whose valuable contributions have made ICoSIA 2023 a truly remarkable event. We sincerely hope that the outcomes of this conference will have a lasting impact on the fields of science, agriculture, and humanity for many years to come. Moreover, we anticipate that this conference will foster stronger connections and friendships among the attendees. We are confident that you will engage in fruitful and rewarding exchanges, leading to valuable insights and collaborations.

Thank you.

Rector of Universitas Gadjah Mada,
Prof. dr. Ova Emilia, M.Med.Ed., Sp.OG(K)., Ph.D.