

PREFACE

The 5th International Conference for Agriculture and Bio-engineering under title of "THE ROLE OF AGRICULTURAL AND BIOLOGICAL ENGINEERING FOR ADVANCEMENT OF THE AGRICULTURAL SECTOR" hosted by the Agricultural Engineering Research institute (AEnRI) under patronage of Prof. Dr. ABDEL MONAEM EL-BANA His Excellency Minister of Agriculture and Land Reclamation, and under presidency of Prof. Dr. MAHMOUD MEDANY, the president of Agricultural Research Center (ARC), during the period of 26-27 September 2017, to provide a podium for experts from different countries who are working on specific areas of agricultural engineering and bio-engineering systems, and are believing in the advantages of integration and cooperation. So, the main target of the 5th International Conference for Agriculture and Bio-engineering introduces all ongoing scientific researches in the fields of agriculture mechanization systems, on-farm irrigation systems and energy and renewable energy use that enhance sustainable development of Egyptian agricultural sector, in harmony with the environment.

Now, in Egypt there is a necessity to exist unified approach among of agriculture environment and industry towards mechanization, smart irrigation systems, and energy use in agriculture to ensure the sustainable development of the agriculture sector. The unvariable relationship among soil, water, bio-engineering systems and energy turned out a discipline that deals with topics of this conference as integrated management of irrigation and drainage systems, integrated applications of agricultural mechanization systems and bio-engineering systems and its applications.

Our wishes as organizers of this conference are to pave the way for applying the results of applied researches that discussed by experts from private sector, and scientific institutions and universities. We are greatly thankful to all individuals participated to these institutions and companies for their kind support given to our conference.

Finally, we would like to express our special thanks to the project board of "Sustainable Agriculture Mechanization System Improvement in Minya and Fayoum Governorates" have enabled this proceeding to be printed. Also, we would like express our best wishes to all members of scientific committee for their exemplary efforts.

Prof.Dr. Essam Wassif

Coordinator of conference,

director of AEnRI

Proceeding of 5th International Conference For Agricultural & Bio-engineering titled
“The Role Of Agricultural And Biological Engineering For Advancement Of The Agricultural Sector”

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