

Guest Editorial Preface

Special Issue on the Role of Emerging Technologies Toward Sustainability and Productivity Growth in Agriculture Part 2

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The involvement of modern equipment and technology made it possible to have an idea of productivity and sustainability. With this idea, in this special issue, we have considered various innovative ideas after rigorous review which leads to the sustainable and develop efficient methods to increase the productivity. The objective of this published special issue is to concentrate on all aspects and future research directions on the role of emerging technologies to agriculture and environment.

We have received total 12 submissions for this special issue across the globe and after the rigorous review process, only 4 manuscripts have been accepted for publication in this special issue. A short review about the commitments for this Special Issue is as underneath: First paper presents a research on linear programming algorithm for mathematical model of agricultural machinery allocation smart agriculture. The linear programming algorithm of mathematical model has been used to establish the allocation scheme of different scales. The results show that the portion of reused water with comparison to the total water gradually increases which leads to the overall reduction in water consumption. The second paper introduces the fuzzy evaluation of agricultural water conservancy facilities in reuse of wastewater applications. The method in this paper constructs a hierarchy model to evaluate the reuse value of wastewater conservancy facilities. This model later has been used to conduct empirical research on the wastewater conservancy facilities in a certain farmland. The results show that 60.8% water has been conserved in farmland. The third paper presents a model to solve the agricultural product delivery vehicle routing problem. The model proposed in this paper, solved various challenges to the logistic service providers to maintain the high-quality standards along with reliable delivery services. In this paper, hybrid algorithm has been proposed with the combination of the taboo search algorithm and the taboo hybrid algorithm. An average validation accuracy of 94% has been obtained for the proposed algorithm after completing 200 iterations while obtaining 94.37%, 94.57%, and 94.56% precision, recall and F-score provides values, respectively. The fourth paper proposed a mechanism for agricultural machinery equipment management information system based on network. This paper investigates and studies the existing agricultural machinery management information system through the application of grey theory, information system engineering, information system utility and other theories.

I hope that the quality research work published in this special issue will be able to serve the concerned humanity, science, agriculture, environment, and technology. The Guest Editor is thankful to the authors and reviewers who contributed to this special issue with their scientific work and useful comments, respectively.

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