

Integrating Artificial Cognitive Systems in Smart Agriculture

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Agriculture is one of the most crucial sectors in the world since the lives of both human beings and animals depend on the attempts taken to uplift and sustain the agricultural sector. The concept of smart agriculture has been a research arena that has been broadly researched and discussed by researchers around the world, and is being applied in almost all aspects of the agricultural sector, namely, soil, weed, cultivation, and crop management. Yet, all the systems deployed in smart agriculture still try to automate a narrow action thus increasing the efficiency. The integration of cognition into the agricultural process by utilizing the new trends in artificial intelligence can result in major improvements in the concept of smart agriculture. Nevertheless, artificial cognition and embodiment of cognition in the agricultural process have not been achieved to a greater extent. A comprehensive literature review has been carried out in this research and this study aims on overviewing the role of artificial cognition in smart agriculture. In future research, the agricultural aspects namely, soil, crops, and plant diseases have been overviewed with the contemporary artificial systems along with the challenges to the concepts of smart agriculture and artificial cognition.

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