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Smart Agricultural Services Using Deep Learning, Big Data, and IoT

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Description & Coverage

Description:

The agricultural sector can benefit immensely from developments in the field of smart farming. However, this research area focuses on providing specific fixes to particular situations and falls short on implementing data-driven frameworks that provide large-scale benefits to the industry as a whole. Using deep learning can bring immense data and improve our understanding of various earth sciences and improve farm services to yield better crop production and profit.

Smart Agricultural Services Using Deep Learning, Big Data, and IoT is an essential publication that focuses on the application of deep learning to agriculture. While highlighting a broad range of topics including crop models, cybersecurity, and sustainable agriculture, this book is ideally designed for engineers, programmers, software developers, agriculturalists, farmers, policymakers, researchers, academicians, and students.

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Chapter 9

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ABSTRACT

IoT technology is used in many areas like the smart wearables, connected devices, automated machines, and driverless cars. However, in agriculture, the IoT has brought the greatest impact. The industrial IoT is a driving force behind increased agricultural production at a lower cost. In the next several years, the use of smart solutions powered by IoT will increase in the agriculture operations. The number of connected devices in agriculture will grow from 13 million in 2014 to 225 million by 2024. The applications of IoT in the agriculture industry have helped the farmers to monitor the water tank levels in real-time, which make the irrigation process more efficient. The advancement of IoT technology in agriculture operations has brought the use of sensors in every step of the farming process like how much time and resources a seed takes to become a fully grown vegetable. Internet of things in agriculture has come up as a second wave of the green revolution.

INTRODUCTION

A wireless sensor network (WSN) is used to observe environment situations like pressure, humidity, temperature, pollution etc. Earlier it was used for civilian application scenarios. But now it is used in several applications including environment

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