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中国农业科学院农业信息研究所
联系人：孔令博
联系电话： 010-82106786
邮箱：agri@ckcest.cn
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前沿资讯

1．First-of-its-kind database tracks agricultural phosphorus use world-wide（全球第一个跟踪农业磷使用情况的数据库）

简介：马里兰大学环境科学中心的研究人员发布了第一份量化世界各地农田磷数据收支的研究，这将有助于确定粮食生产和消费系统中不同地区的养分管理差距。这一新的数据库将帮助各国和各地区评估其在应对磷污染和稀缺挑战方面的表现，并指导行动走向更可持续的未来。

来源：EurekAlert

发布日期:2022-10-12

全文链接:http://agri.ckcest.cn/file1/M00/03/40/CsgkOYeePgOAIi8LAAFzu2EbCe4147.pdf

学术文献

1．Remote sensing of land change: A multifaceted perspective（土地变化遥感：多方面的观点）

简介：The discipline of land change science has been evolving rapidly in the past decades. Remote sensing played a major role in one of the essential components of land change science, which includes observation, monitoring, and characterization of land change. In this paper, we proposed a new framework of the multifaceted view of land change through the lens of remote sensing and recommended five facets of land change including change location, time, target, metric, and agent. We also evaluated the impacts of spatial, spectral, temporal, angular, and data-integration domains of the remotely sensed data on observing, monitoring, and characterization of different facets of land change, as well as discussed some of the current land change products. We recommend clarifying the specific land change facet being studied in remote sensing of land change, reporting multiple or all facets of land change in remote sensing products, shifting the focus from land cover change to specific change metric and agent, integrating social science data and multi-sensor datasets for a deeper and fuller understanding of land change, and recognizing limitations and weaknesses of remote sensing in land change studies.

来源：Remote Sensing of Environment

发布日期:2022-10-07

全文链接:https://www.sciencedirect.com/science/article/pii/S0034425722003728#!

2．Efficient agricultural disaster financing using satellite data and artificial intelligence（利用卫星数据和人工智能进行高效农业灾害融资）

简介：Investigating the consequences of smallholder economic growth amid the agricultural emergency is essential. In this paper, we evaluate the agricultural promotion of inclusive financing during the disaster using satellite data. We use inclusive finance to improve the income of small farmers during agricultural disasters, improve satellite remote sensing data analysis algorithms through neural networks, and combine satellite data and Artificial Intelligence (AI) to process data during agricultural disasters. Additionally, we construct an application system for inclusive finance

of small farmers in agricultural disasters based on satellite data and AI. The proposed study verifies the effect of the application system for inclusive finance of small farmers based on satellite data and AI in agricultural disasters. The study's findings indicate that an inclusive finance system for small farmers in agricultural disasters based on satellite data and AI has a role in boosting smallholder economic development during the crisis.

来源： Computers and Electrical Engineering

发布日期:2022-10-01

全文链接:http://agri.ckcest.cn/file1/M00/03/40/CsgkOYeebmmANaEXAFJKYIwqhXo366.pdf

会议论文

1．Managing Smart Agriculture: the IoT Entity Management System (IoTEMS)(管理智能农业：物联网实体管理系统（IoTEMS））

简介： IoT Smart Applications are implemented in distributed architectures and need to deal with a large volume of data coming from different sources and formats. Handling the entities that continuously receive vast amounts of data by different software components depends on efficient access and improved control to maintain data integrity and consistency. This paper presents IoTEMS (IoT Entity Management System), an application for manipulating FIWARE data, in entities that make up the Smart Applications scenarios. To illustrate our tool, we use the SWAMP Platform for IoT-based smart irrigation. Our experience using IoTEMS reveals that centralizing the manipulation of entities ensures data consistency and improves agility.

来源： 2021 IEEE International Workshop on Metrology for Agriculture and Forestry (MetroAgriFor)

发布日期:2022-09-03

全文链接:http://agri.ckcest.cn/file1/M00/03/40/CsgkOYeebIyAU-YJABdwTd27E3M314.pdf

2．Smart Agriculture Monitoring System Using Internet of Things (IoT)(基于物联网技术的智能农业监测系统)

简介： The New beginning of computing technology is arriving such as the Internet of Things (IoT). It is a kind of Global Neural Network the cloud that interfaces various gadgets. Human life and the way work have been revolutionized by the Internet in the past decade. Currently, IoT is changing the trends of human life as the use of emerging technologies which consist of heterogeneous communication devices is increasing. IoT are relevant in different strategies of agriculture. India has agriculture as its essential occupation. As per IBEF (India Brand Equity Foundation), 58% individuals living in rural areas in India are reliant upon agriculture. The agricultural advancement is sped up with the increment in the profitability and up gradation of the plantation frameworks. The IoT has the capacity to change the world. In any case, the use of innovation like IoT in agriculture could have the best effect. Smart Agriculture is an idea wherein data and correspondence innovation is carried out to deal with every one of the exercises and cycles identified with the agriculture space. With the quick improvement of the world population, huge space of land is used to foster lodging and the capacity of creating food is decreased. Farming has gotten essential in present pattern and keeps food on the tables. Farming with IoT helps in moderating the lack of food by requesting the

current land for more grounded usage at least expense. Smart agriculture is an idea that rapidly snaps on the agricultural field. In this paper present a novel design that are developing an automated system which is able to control the crop monitoring of the agriculture lands, which is quite difficult for human beings.

来源： 2022 International Conference on Electronics and Renewable Systems (ICEARS)
发布日期:2022-04-13