Problem statement

The growing world population has come up with many unprecedented crises. Among those issues, ensuring food security has been considered as one of the major ones. Leading countries have taken many initiatives over the years. But the shrinking farmland and natural resources across the globe have made the problem even harder. As the farmers cannot get enough land to cultivate, they are forced to increase the crop yield from the available farmland.
The researchers are looking forward to coming up with sustainable solutions for this problem. They have implemented many technologies in agriculture to increase production with the available land resource. Among these solutions, the implementation of the Internet of Things (IoT) and data analysis has shown tremendous potential to solve this issue. This paper reviews the current application of IoT devices and data analysis applications in the agriculture industry. The paper also discusses the IoT device architecture and different data analysis tools. In addition to that, to analyse the recent trends of agriculture, the paper reviews recent research in this domain. In addition to the review of the ongoing research, the paper also discusses the possible future trends in agriculture.
Conclusions

The following conclusions can be drawn from this research:

- IoT will overtake most of the classic agriculture equipment.
- Data analysis will be more precise in future, which will result in better crop yield.
- Most of the agriculture sensors will be connected to the internet in near future and can be controlled remotely.
- Human effort in agriculture will reduce and more production will be possible from the same amount of farmland.
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