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Abstract: Managing water resources is of utmost importance with the increasing uncertainty in rainfall escalating every year with climate change. Innovation in agriculture has accelerated in the recent years with a wide adoption of upcoming technologies like Internet of Things, Edge computing and Machine Learning. This paper proposes a design for a Smart Irrigation Solution SIrS which can be adopted at scale with low cost and high resilience. The high-level design shown below can be implemented with any commercially available databases and cloud services. Machine learning model requires farm or area specific datasets to be trained and applied in solution. Deployments using containers like Docker will enable remote deployments at large-scale.

***Keywords**:* Industry 4.0; Internet of Things Edge; Low power Long range communication; Cloud; Machine Learning