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(57) Abstract :

An access-controlled smart irrigation system that irrigates an agricultural area, that operates both manually and remotely using a mobile device through a wireless network. The access-controlled smart irrigation system comprises an irrigation device having a plurality of sensors, a controller, a biometric unit, a pump, and a display. The plurality of sensors is configured to measure one or more attributes of the agricultural area. The controller is configured to analyze attributes of the agricultural area being received from the plurality of sensors and analyze unique identification features of the users being scanned by the biometric unit. The pump is configured to facilitate a bi-directional flow of water for supplying water to the agriculture field and/or retrieving logged water from the agricultural field. The display unit displays one or more attributes of the agricultural area.

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