Smart Irrigation System

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Abstract : In this study, irrigation automation with electronic sensors and its control with smartphones were aimed. In this context, temperature and soil humidity measurements of the area irrigated were obtained by temperature and humidity sensors. A micro controller (Arduino) was utilized for accessing values of these parameters and controlling the proposed irrigation system. The irrigation system could automatically be worked according to obtained measurement values. Besides, a GSM module used together with Arduino provided that the irrigation system was in connection to smartphones. Thus, the irrigation system can be remotely controlled. Not only can we observe whether the irrigation system is working or not via developed special android application but also we can see temperature and humidity measurement values. In addition to this, if desired, the irrigation system can be remotely and manually started or stopped regardless of measured sensor vales thanks to the developed android application. In addition to smartphones, the irrigation system can be alternatively controlled via the designed website (www.sulamadenetim.com).

Keywords : smartphone, Android Operating System, sensors, irrigation System, arduino

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