

## **List of Figures**

<b>Fig No</b>	<b>Figure Name</b>	<b>Page No</b>
3.1	Arduino Uno	10
3.2	Soil Moisture Sensor	12
3.3	ECH <sub>2</sub> O EC-5 moisture sensor	13
3.4	ECH <sub>2</sub> O 10HS moisture sensor	14
3.5	ECH <sub>2</sub> O 5TM moisture sensor	15
3.6	TEROS 12	16
3.7	0.5 hp water pump	17
3.8	Four channel relay	18
3.9	Working of relay	19
3.10	Solenoid Valve	20
3.11	GSM	21
4.1	Flow Chart	24
4.2	Block Diagram of the Model	25
4.3	Interfacing Soil Moisture Sensor with Arduino	27
4.4	Interfacing Relay with Arduino	29
4.5	Interfacing Relay with Solenoid Valve	29
4.6	Interfacing GSM Module with Arduino	31
4.7	Project outlook	33
5.1	Dry and Wet Soil Samples	38
5.2	Project Output	39
5.3	Screenshot of Messages Received	40

5.4	Graph between moisture Vs time	41
5.5	Arduino i2c Expander	44
6.1	Wireless Soil Moisture Sensor	52
6.2	Manifold	53

## **List of Tables**

<b>Table No</b>	<b>Table Name</b>	<b>Page No</b>
5.1	Comparison between Different Arduino	43
5.2	Minimum number of sensors required	46
5.3	Cost Estimation for a Real world Model	47