MONITORING SOFTWARE FOR CROP CULTIVATION

Ion FIODOROV, Irina COJUHARI, Bartolomeu IZVOREANU, Dumitru MORARU, Gheorghe VASILIU

Technical University of Moldova, Bd. Ștefan cel Mare, 168, MD-2004, Chisinău, Republic of Moldova

Corresponding author: ion.fiodorov@ati.utm.md

On the large scale, there is used the greenhouses, which are providing the most comfortable conditions for the growing of plants in limited space. The microclimate of a greenhouse must be balanced and it should be taking into account all parameters as humidity, air composition, temperature etc.

The online monitoring, via the Internet, of the temperature and humidity in the greenhouse and in the soil, as well as the automation of the control these parameters leads to the reduction of the production costs and unjustified consumption of electricity.

In this paper was done the study about climatic factors that influence directly the growing process of plants and was developed the monitoring software system for this automatic control system. This monitoring software offers to the user the possibility to monitor the parameters of the agricultural crops, especially offers possibility:

- 1. Adding agricultural crop parameters.
- 2. Monitoring the parameters of agricultural crops.
- 3. Real-time video streaming.
- 4. Remote control.
- 5. Monitoring events in the system.

Main menu Log,out	Current paramteres	Logout	Add plant Logout	Plants list Logout
3	Plants cm distance		% Seed depth	
. di 1:≣	Row cm		cm	current process is not finished then it will be interrupted and new process will begin.
Current Plants parameters List	Seed depth cm		Water quantity Liters	Select plant 3
	Irigations _ per day _		Irigations per day	4
□ 4 🐯	Water I quantity		Description	
Real time Farm bot settings	Remaining Days time		CANCEL	
Logout	Additional info	1 දිරි	2 @ii ⊆ ∰	

Keywords: crop cultivation, automatic control system, online monitoring.

References

- 1. MOISE, A., POPESCU, C. Sisteme de conducere a roboților, structuri de bază. Editura Universității Petrol-Gaze din Ploiești, 2015.
- 2. POZNA, C. Teoria sistemelor automate. București: MATRIX ROM, 2004.
- 3. FOWLER, M. *Patterns of Enterprise Aplication Architecture*, Editura Copyrighted Material, Melrose August 2002.