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**«Agribusiness, Environmental Engineering
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**«Control system for a process of fermentation unit based on a fuzzy
controller»**

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Problem statement

- The priority tasks are to improve the fermentation process and make production process most profitable, with the least energy consumption and maximum output.
- It is necessary to replace the outdated CS with a newer and modern one, which will improve product quality, lead to lower production costs and also ensure the safety.



Solution methods

Input Variables:

- the level of the prefermenter - $L_v, 0 \div 100\%$;
- the filling level of the first - sixth fermentation tanks is $L_{ch1} - L_{ch6}, 0 \div 100\%$.

Output Variables:

- the position of the valve for feeding the wort to the first - sixth fermentation tanks - $F_{s1} - F_{s6} (0; 100\%)$;

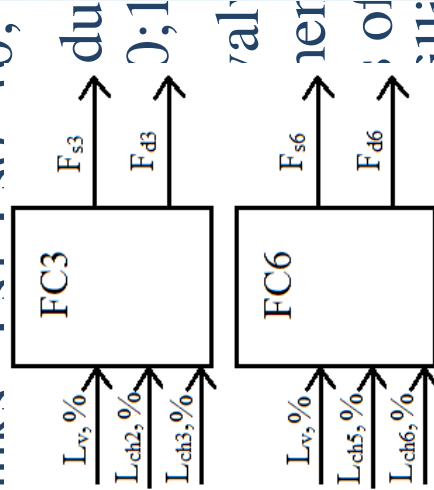
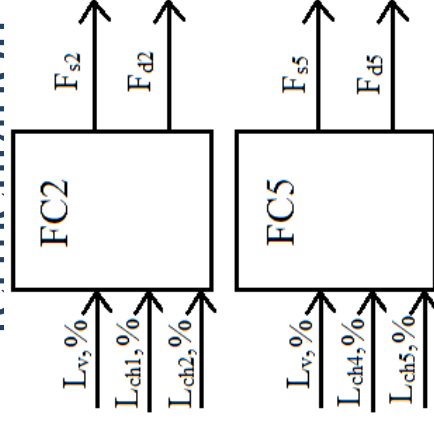
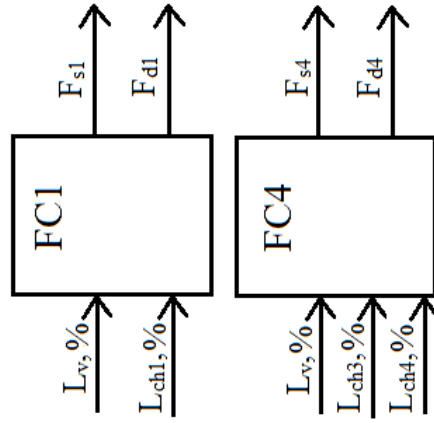


Figure 1.1.11. Schematic diagram of the control system for the filling level in the prefermenter

Conclusions

Results, implementation

- The introduction of an automatic control system that takes into account the main parameters of a multidimensional object and is able to control the entire process of the fermentation unit made it possible to solve the next problem: stabilization of the input parameters and control of the output parameters of the process.

Contacts

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