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**SIMULATION OF AUTOMATIC REGULATION OF AN AIR CONDITIONING
SYSTEM BASED ON FUZZY LOGIC**

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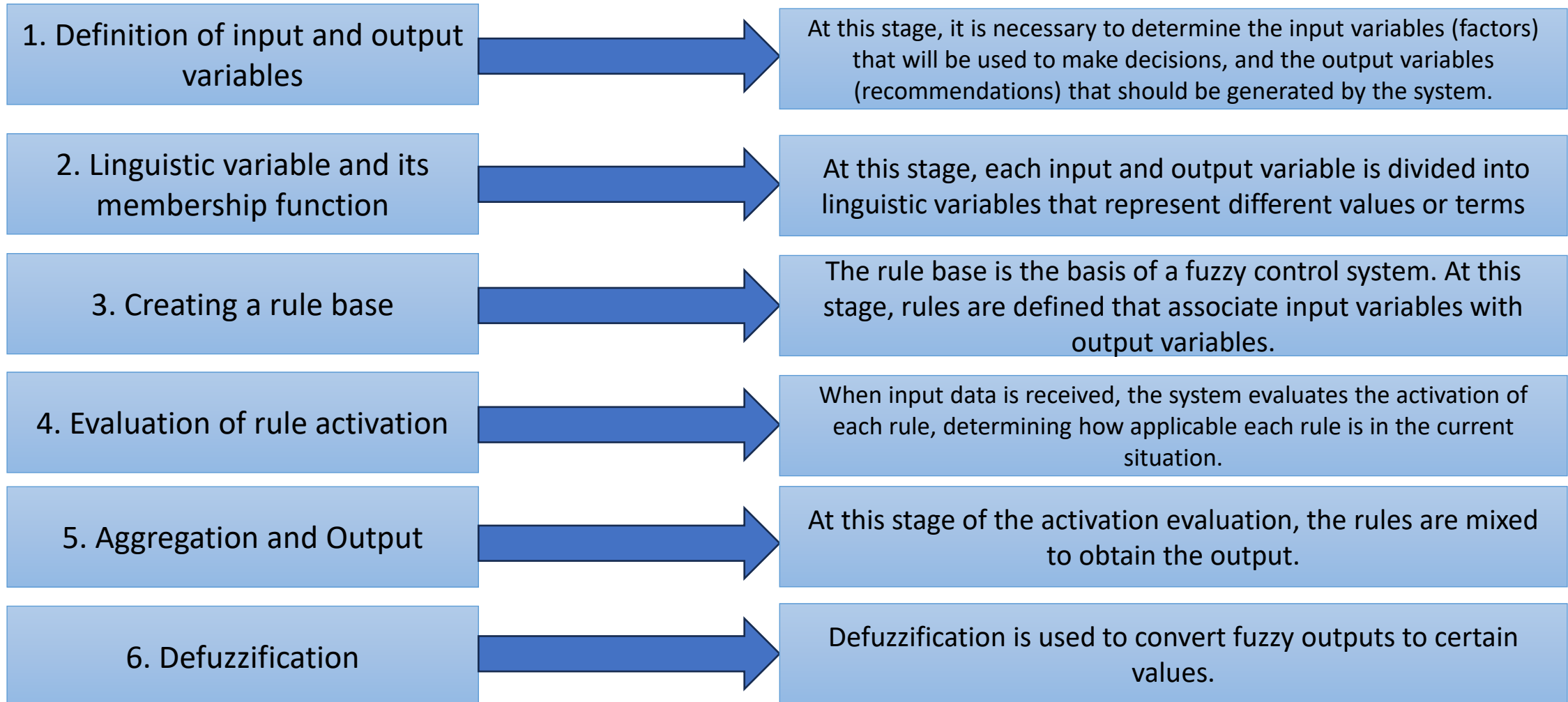
Purpose of research improve a model of automatic control and supply and exhaust ventilation based on Fuzzy Logic in the production room.

Scientific novelty is determined by the fact that the model, in addition to regulating the main parameters of the microclimate, will also control the content of harmful substances in the indoor air. To create this model, the stages were studied, including the fuzzy modeling process, which includes five main stages. With Fuzzy Logic, the model will be able to adapt to changing conditions, taking into account the fuzziness and uncertainty of the input data.

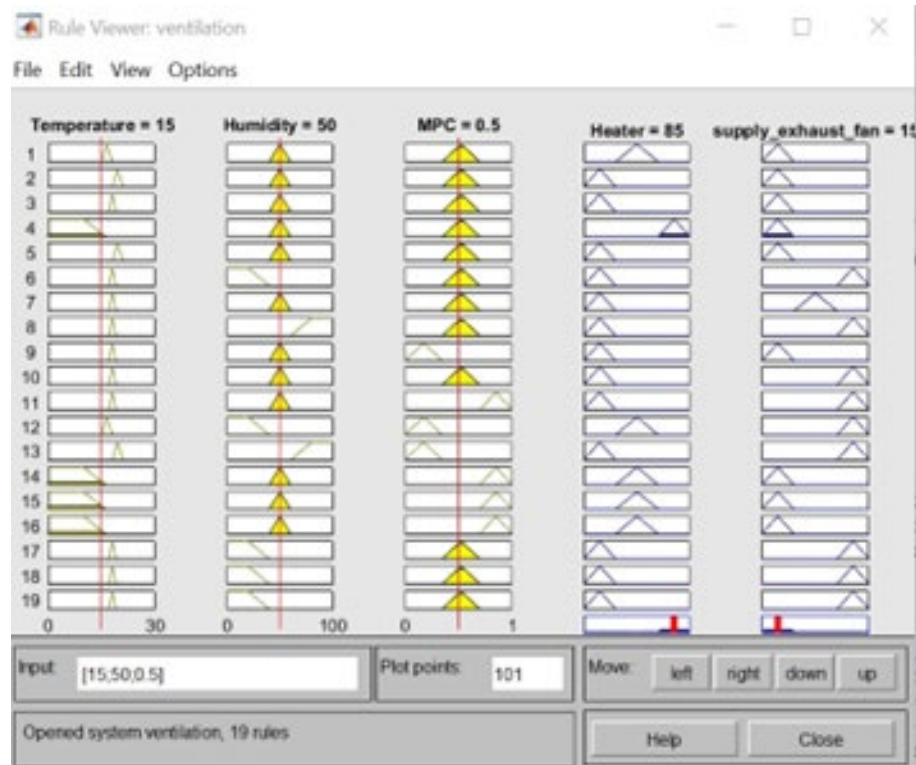
As a result, optimal working conditions in the production room will be achieved, providing a comfortable and safe environment for employees. The work will provide recommendations for the development and implementation of similar systems in other production facilities.

The 19th International Conference on “Technical and Physical Problems of Engineering” (ICTPE-2023)

The development of fuzzy inference involves several stages. Let's look at them in more detail:



The 19th International Conference on “Technical and Physical Problems of Engineering” (ICTPE-2023)



The model was built considering the permissible temperature, relative humidity and maximum permissible concentration of harmful substances in the air of the production room.

The developed model makes it possible to improve control over the parameters of the microclimate in industrial premises and ensure a faster response of the system to changes in these parameters. As a result, more efficient microclimate management is achieved.

The use of the improved model makes it possible to control the concentration of harmful substances in industrial enterprises, which is important for ensuring the safety and health of workers.