

Scientists of the Novosibirsk State University have developed a digital double of the microelectronics production process. The system is intended for technology for photolithography – the method of applying the drawing to the surface of materials, which is widely used in the creation of microcircuits and printed circuit boards.

According to the head of the NSU Center for AI Mikhail Marchenko, the platform will be located at the microelectronic industry enterprises in Novosibirsk and Nizhny Novgorod. Development will increase the efficiency of new products by optimizing technological processes.

The digital double collects data from the equipment, allows you to configure it remotely and predict possible breakdowns. Scientists have created a model of a photolithograph – a device that transfers an image from a photo show to the surface of a future chip. The system is able to simultaneously control dozens of parameters, while a person usually takes into account only a few.

According to developers, this will give significant time saving when selecting technological solutions. The project is implemented by order of Sberbank and has already aroused interest at enterprises, including the Novosibirsk plant of semiconductor devices.