

Information processing methods in ergatic robotic systems

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The report provides an overview of various methods and technologies for processing information received from sensors for robotic systems control. The issues of information integration for a robot when solving SLAM problems, navigation, and the priority tasks choice are considered; methods and algorithms for the man-robots interaction when using neuro-, myo-, oculos-interfaces, as well as information exchange using voice and gestures are distinguished. Information processing tasks are extended to cloud and fog computing. Examples are presented in various fields and application environments and conclusions are drawn about the technologies prospects used and the boundary conditions for the operation of one robot or group.