Intelligent Voice Assistant Based on Open Semantic Technology

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Abstract: The paper presents the implementation of an intelligent decision support system (IDSS) to solve a real manufacturing problem at JSC "Savushkin Product". The proposed system is intended to control the quality of product labeling, based on neuro-symbolic artificial intelligence, namely integrating deep neural networks and semantic models. The system perform localization and recognition of images from a high-speed video stream and is based on several deep neural networks. Semantic networks fulfill intelligent processing of recognition results in order to generate final decision as regards the state of the production conveyor. We demonstrate the performance of

the proposed technique in the real production process. The main contribution of this paper is a novel view at the creation of a real intelligent decision support system, which combines bio inspired approach, namely neural networks and conventional technique, based on a knowledge base.

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