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# Hyperconnected Architecture for High Cognitive Production Plants

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## Abstract

The HyperCOG project addresses the full digital transformation of process industry through an innovative Industrial Cyber-Physical System and Data Analytics. It is based on advanced technologies that enable the development of a hyperconnected network of digital nodes. The nodes can catch outstanding streams of data in real-time, which together with the high computing capabilities, provide sensing, knowledge and cognitive reasoning, making companies robust in the face of variant scenarios. The breaking-edge system proposed in this work is validated on productivity, environmental and replicability aspects on three use cases of three different sectors: steel, cement and chemical.

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