**Intelligent Supporting Systems and Technologies for Manufacturing Industry**

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**Abstract**

Facing global competition, manufacturing industries around the world have a common trend towards leveraging advanced information and communication technologies (ICT) and intelligent technologies to promote and innovate manufacturing capabilities so as to increase their competitiveness. On one hand, an intelligent manufacturing system relies on smarter equipment containing stand-alone intelligence, such as fault detection and classification, manufacturing precision conjecture, RUL prediction, and predictive maintenance, which can enhance equipment availability and production quality. On the other hand, an intelligent manufacturing system also requires intelligent supporting systems to work cooperatively as a whole to offer integrated intelligence for reaching the realm of smart factory. Therefore, developing intelligent systems and technologies that can facilitate smarter machines and manufacturing systems fits the trend of intelligent manufacturing and is a key factor for manufacturing companies to increase their competitiveness. This special session for CASE 2020 solicits papers that are relevant to intelligent supporting systems and technologies for achieving intelligent manufacturing. This special session aims to provide a forum for researchers, engineers, industrial practitioners, and academics to discuss state-of-the-art intelligent systems and technologies for smart factories. The session will be an opportunity to share both academic and industrial results and vision for the future of manufacturing industries.