1st Latin-American Workshop on Service-Oriented, Holonic and Multi-Agents Manufacturing Systems for Industry of the Future
Pontificia Universidad Javeriana.
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SOHOMA 2020
Latin america

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Special Session: Natural Language Processing in Industry 4.0 and Supply Chain Management

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Theme:

Modern manufacturing systems produce tremendous amounts of data through sensors, cyber-physical systems, and software. Among them, text and speech data, directly generated by humans may encapsulate meaningful knowledge to create intelligent decision support systems. For example, harnessing text and speech data is likely to improve customer relations in the supply chain, quality control in manufacturing, distribution, maintenance and production planning and control. Nevertheless, natural language data can be chaotic and highly unstructured, which poses big challenges when exploiting it. To tackle this problem, Natural Language Processing (NLP) has been widely used to process and analyze large volumes of natural language data. It is an active and growing research domain with potentially promising applications. For instance, chatbots are now widespread in customer service, sentiment analysis techniques allow efficient recommendation systems that support marketing strategies, and virtual assistants embedded in smartphones have automated tedious tasks. However, text mining and NLP seem to be seldom employed in manufacturing and supply chain management when compared to consumer applications. Hence, this invited session aims to gather original research regarding novel systems, tools or theoretical frameworks involving NLP and text mining to tackle the challenges of the industry of the future. Examples of these are mass customization, environmental sustainability, enhanced customer service, predictive maintenance, and human interaction with machines. This invited session calls for research papers or case studies providing original contributions to the enhancement of manufacturing and supply chain management through text mining and NLP.

Key Topics:

- NLP for future manufacturing systems
- NLP for supply chain management
- Predictive resource maintenance and risk management supported by NLP techniques
- Human-machine systems using NLP
- Analytics and text mining for the industry of the future
- Intelligent Manufacturing Systems
- Artificial Intelligence for the industry of the future

Important dates:

Proposals of Special Sessions: **March 20, 2020**

Full paper submission: **May 25, 2020**

Notification of acceptance/Rejection: **June 22, 2020**

Camera-ready paper submission: **June 30, 2020**

Early Registration and fee payment: **July 10, 2020**

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