Proposal for Special Session at IEEE CASE 2021

Goal:

A great deal of attention is being paid today to the development of effective scientific and engineering solutions for achieving sustainable manufacturing. The driving factors are not only rising energy costs and growing shortage of natural resources but also green behavior for EU directives and ISO 14001 certification. This interest has received the wide concerns in industries, governments and academia to the sustainable development. This invited session aims at presenting the advanced theoretical development and applications in this area, and bringing academy and industry practitioners to discuss promising problems with international concerns.

Session Title: Advance in Sustainable Manufacturing Automation

Organizers:

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Contributions:

1. "Integrated optimization design of the machining unit of hobbing machine tool for energy saving" by Yan Lv, Congbo Li.
2. "Surface roughness prediction method of CNC milling based on multi-source heterogeneous data" by De Zhao, Congbo Li.
3. "Cutting parameter optimization for reducing energy consumption of a multi-pass hobbing process" by Xingzheng Chen, Lingling Li, Shuzu Wu.
4. "An intelligent design method for used product mass customization remanufacturing" by Zhigang Jiang
5. "A Data-driven method for predicting spindle acceleration energy consumption of machine tool" by Zhigang Jiang
6. "Disassembly planning using reinforcement learning" by Xikun Zhao, Congbo Li.

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