Proposal for Special Session at IEEE CASE 2021

Goal:

We live in the digital age, and most of our business today is connected. This reality has significant impacts on our behavior as citizens, workers and consumers. Also, the constant progression of e-commerce not only changes the relationship with consumption and customers' ordering habits, but it also changes the way these orders are processed by the companies that receive them. Where the assumptions of validity of an order allowed a traditional scheduling to validly organize the production systems of goods and services or the logistics systems, the possibility of creating or canceling an order at any time, in a single click, shakes up habits in this area.

In addition, production problems can also have an impact on the established schedule. Indeed, the breakdown of a machine or the delay in the arrival of raw materials may force the planner to delay the completion of certain operations. Therefore, it is important to be able to react very quickly, so as not to stop production completely. This reordering problem is also present in services as in hospital systems. For example, in operating theaters, the arrival of emergency operations or the cancellation of some other, lead to the modification of the initial schedule.

The problems of rescheduling or dynamic scheduling have taken an increasing place in industrial preoccupation in recent years. To react and adapt to different disturbances, we have to imagine new optimization methods by using new technologies, big data, IA, …. In this context, we welcome all that relate to performance evaluation and scheduling in the logistic or production systems (production or service), including but not limited to the following topics:

- Rescheduling in function of new arriving orders, disappearing of orders, new manufacturing conditions;
- Dynamic scheduling;
- Multicriteria rescheduling;
- Flexible scheduling;
- New developments and techniques;
- Applications and case studies;

Session Title: Rescheduling methods for advanced manufacturing systems

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