World Academy of Science, Engineering and Technology International Journal of Materials and Metallurgical Engineering Vol:17, No:01, 2023

Towards a Standardization in Scheduling Models: Assessing the Variety of Homonyms

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Abstract : Terminology is a critical instrument for each researcher. Different terminologies for the same research object may arise in different research communities. By this inconsistency, many synergistic effects get lost. Theories and models will be more understandable and reusable if a common terminology is applied. This paper examines the terminological (in) consistency for the research field of job-shop scheduling through a literature review. There is an enormous variety in the choice of terms and mathematical notation for the same concept. The comparability, reusability, and combinability of scheduling methods are unnecessarily hampered by the arbitrary use of homonyms and synonyms. The acceptance in the community of used variables and notation forms is shown by means of a compliance quotient. This is proven by the evaluation of 240 scientific publications on planning methods.

Keywords: job-shop scheduling, terminology, notation, standardization

Conference Title: ICMMSP 2023: International Conference on Mesoscale Manufacturing Systems and Processes

Conference Location : London, United Kingdom

Conference Dates: January 23-24, 2023