Explain one of Algorithms to solve Production Scheduling Problems

- Genetic Algorithm
- Simulated Annealing
- Tabu Search
- Particle Swarm Optimization
- Ant Colony Algorithm
- Teaching-Learning-based Optimization
- Deep Reinforcement Learning
- …

Explain how to use an algorithm to solve scheduling problems by referring to some related literature.

Examples of referred papers

Ghasem Moslehi, Mehdi Mahnam: A Pareto approach to multi-objective flexible job-shop scheduling problem
using particle swarm optimization and local search, Interanational Journal of Production Economics, Volume 129, Issue 1, January 2011, Pages 14-22

Maroua Nouiri, Abdelghani Bekrar, Abderezak Jemai, Smail Niar, Ahmed Chiheb Ammari: An effective and distributed particle swarm optimization algorithm for flexible job-shop scheduling problem, Journal of Intelligent Manufacturing (2018) 29: Pages 603–615

Edson Flórez, Wilfredo Gómez and MSc. Lola Bautista: AN ANT COLONY OPTIMIZATION ALGORITHM FOR JOB SHOP SCHEDULING PROBLEM, 14th Argentine Symposium on Artificial Intelligence, ASAI 2013, pages 72-84

Mohammad Saidi-Mehrabad . Parviz Fattahi: Flexible job shop scheduling with tabu search algorithms, International Journal of Advanced Manufacturing Technology (2007) 32: Pages 563-570

Amir Nourmohammadi, Masood Fathi, Amos H.C. Ng: Balancing and scheduling assembly lines with human-robot collaboration tasks, Computers & Operations Research 140 (2022), 18 Pages

Sungbum Jun, Seokcheon Lee, Yuehwern Yih: Pickup and delivery problem with recharging for material handling systems utilizing autonomous mobile robots, Europian Journal of Operational Research 289 (2021): Pages 1153–1168

- Prepare your presentation material (PPT file)
  - less than 20 pages
  - Firstly, show referred paper information
  - Explain the approach of used Algorithm
  - Explain how to apply it to JSSP or FJSSP
  - Show experiment result in the paper
  - Explain your consideration
    (not only described in the paper)
- Due time:

6 July (Sun) 24:00　　3 presentations will be selected.

Presentation:　8 July (Tue) 18:55～