TONG LU

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EDUCATION

M.S., Industrial Engineering and Management, Shanghai Jiao Tong University   **2019-2022(exp.)**
Advisor: Prof. Xinguo Ming
- GPA:3.91/4.0
- *Courses*: Advanced Operations Research, Advanced statistics, Mechanical design reliability analysis, Industrial information engineering, Error analysis and test data processing

BEng, Industrial Engineering and Management, Shanghai Jiao Tong University   **2015-2019**
Thesis Advisor: Prof. Dongmei Wang
- Overall Score:84/100
- *Courses*: Linear Algebra, Probability and Statistics, Logistics and Supply Chain, Operations Research, Production Plan and Control, Engineering Statistics, Management Information System, Service Management

PUBLICATIONS

Tong Lu, Zhao-Hui Sun*, Siqi Qiu, Xinguo Ming, "Time Window Based Genetic Algorithm for Multi-AGVs Conflict-free Path Planning in Automated Container Terminals", IEEE International Conference on Industrial Engineering and Engineering Management (IEEM 2021), *accepted*

RESEARCH INTERESTS

My research interests lies in operations research with applications in real world domains,e.g. transportation and health care.

RESEARCH PROJECTS

The Driverless Technology Innovation and Intelligent Group Control System of Outdoor Heavy-load AGV in Automated Container Terminals   **Sept. 2020 to present**
Shanghai Jiao Tong University   *Advisor: Prof. Xinguo Ming*
- Proposed a mathematical model of the conflict-free routing problem
- Developed a time window based GA to find conflict-free paths for multi-AGVs

Production scheduling for flexible job shop   **Mar. 2019 to Jun. 2019**
Shanghai Jiao Tong University   *Advisor: Prof. Ran Liu*
- Constructed the mathematical model of the flexible job shop problem
- Designed an ant colony algorithm to figure out the production schedule

Research on the influence of manufacturing station load factors on ergonomic evaluation results based on motion capture system   **Dec. 2018 to Jun. 2019**
Shanghai Jiao Tong University   *Advisor: Prof. Dongmei Wang*
- Used the cubic spline interpolation method to process the data collected in experiments
- Designed an automatic evaluation method for ergonomics considering the influence of load factors to optimize the evaluation system

Optimization of operating rooming scheduling and nurse scheduling   **Sept. 2017 to Dec. 2017**
Shanghai Jiao Tong University   *Advisor: Prof. Zhibin Jiang & Prof. Na Geng*
- Constructed the multi objective optimization model of the nurse scheduling problem
- Solved the linear programming with LINGO

TEACHING AND MENTORING EXPERIENCE

- 2021 Spring - ME6102 (Mechanical Design Reliability Analysis) Teaching Assistant

SELECTED AWARDS

- Cummins Dr.Lyn Scholarship(1%), 2020

- The A level Scholarship(5%), 2018
- The second prize in the final of the "12th Dongfeng Nissan Cup –Tsinghua IE Liangjian National Industrial Engineering Application Case Competition"(5%), 2018
- The B level Scholarship(10%), 2017
- The C level Scholarship(15%), 2016

SKILLS

Software   Python, Matlab, C++
Languages Mandarin: native. English: professional proficiency. Korean: basic conversation

SELF-ASSESSMENT

- Excellent demonstration in team-working, diligent, responsible, optimistic