

Proposal for Special Session at IEEE CASE 2021

Goal:

- Health care has become a big issue in automation and management because of the inaccessible health care for urgent patients, the misdiagnosis and overtreatment of the disease, and the rapidly increased expenses worldwide. These operational deficiencies motivate us to embrace new techniques such as data-driven modeling approaches to improve the utilization of health resources and provide more precise health care for individual patients.
- In this session, we welcome all contributions that relate to using data-driven modeling and algorithmic approaches with applications to addressing healthcare operational problems, including but not limited to, online diagnosis and treatment, the fusion of online and offline health operations, patient access management, scheduling of healthcare resources, personalized medicine.

Session Title: [Data-driven Models for Healthcare Operations]

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Contributions:

1. “Allocation of Telemedicine Capacity In A Regional Hierarchical Subsystem For Community-Based Care” by Xiang Liu
2. “Time-window based Appointment Scheduling of Patient Admission” by Yuwei Lu
3. “Improving Strategies for Surveillance of Low-risk Prostate Cancer via a POMDP Approach” by Zheng Zhang
4. “Managing Patient Access with Random Length of Stay and Adaptive Admission Policy” by Zheng Zhang

More contributions to be added.

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