関係各位

講演会　開催のお知らせ

南山大学理工学部長　大石　泰章
南山大学大学院理工学研究科長　三浦英俊
南山大学理工学研究センター長　鈴木　敦夫

下記のとおり，南山大学理工学部・理工学研究科・理工学研究センターの共催講演会を開催します．
多くの方のご参加をお待ちしております．

記

日　時　：　2023 年 5 月 31 日(水)　15:30 ～ 18:00
場　所　：　南山大学　S 棟 1 階会議室 1
講演者 1　：　Prof. Janny Leung, the University of Macau, President of International Federation of Operational Research Societies
題　目　：　Public Transport for Smart Cities
概　要　：　The idea of a smart city is one that utilizes IoT technologies and data analytics to optimize the efficiency of city operations and services, so as to provide a high quality of life for its citizens. For a smart city, the goal of public transportation is not simply the movement of people, but the facilitation of mobility for living. Public transport must offer ubiquitous access, real-time response capabilities, convenience and quality service, and energy-efficient operations. To meet these goals, an integrated co-ordinated multi-modal public transportation system is needed, leading to substantial increase in planning and operational complexity. This talk will discuss the challenges in network design, operations planning, scheduling and management of smart public transport systems.

講演者 2　：　Dr. Yong-Hong Kuo, the University of Hong Kong, President of Operations Research Society of Hong Kong
題　目　：　Operations research and data science for managing hospital emergency department operations
概　要　：　Hospital emergency department (ED) overcrowding is a significant and persistent issue in many countries and cities worldwide. This talk　presents a collaborative project with an ED in Hong Kong that utilizes both operations research and data science techniques to improve patient flows and system efficiency. Machine learning models are used to provide real-time and personalized patient waiting times. A simulation model that captures many complicating factors has been developed to examine possible solutions that could relieve overcrowding. The talk also discusses challenges in obtaining key types of data for direct estimation of stochastic components in the system. Computational results show that the simulation model produces results consistent with actual observations. Simulation optimization approaches are developed to determine resource allocation decisions, and insights into managing ED operations are derived from simulation results.

連絡先：南山大学理工学部データサイエンス学科　鈴木　敦夫（atsuo@nanzan-u.ac.jp）
講演会はハイブリッド形式で開催されます．南山大学以外の方は，リモートでの参加をお願いします．参加を希望される方は，鈴木宛メイルでご連絡ください．講演会の Zoom のアクセス情報を講演会の直前にお送りします．

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南山大学理工学部長　大石　泰章
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南山大学理工学研究センター長　鈴木　敦夫

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下記のとおり，南山大学理工学部・理工学研究科・理工学研究センターの共催講演会を開催します．多くの方の参加をお待ちしております．特にオペレーションズ・リサーチやその周辺分野を学んでいる大学院生の皆様の参加をお待ちしています．

<div style="text-align: center">記</div>

日　時　：　2023 年 6 月 1 日(木)　17:30 ～ 19:00
場　所　：　南山大学　S 棟 1 階会議室 1
講演者 1　：　Prof. Janny Leung, the University of Macau, President of International Federation of Operational Research Societies
題　目　：　Sports Scheduling
概　要　：　Sports is a multi-billion dollar global industry. Hugh investments are made by teams in their players, staff and facilities. Sports leagues across many sports (soccer, basketball, baseball, etc.) have millions of fans. The smooth running of games in a tournament is a major scheduling and logistical challenge. In this talk, we focus on the sports scheduling problem of determining the date, venue and match-up of opponents for the games to be played in a tournament. We discuss some graph models and integer-programming models for scheduling round-robin tournaments. We also discuss scheduling issues for some new tournament modes, e.g. dynamic scheduling.

講演者 2　：　Dr. Yong-Hong Kuo, the University of Hong Kong, President of Operations Research Society of Hong Kong
題　目　：　Spatial planning of public electric vehicle charging infrastructure in a　high-density city: case studies of Beijing and Hong Kong, China
概　要　：　This talk will present two case studies that optimized the deployment of　public electric vehicle (EV) charging stations in Beijing and Hong Kong,　China. The first study utilized three classic facility location models to　analyze the effectiveness of locating EV charging facilities. The results　showed that the p-median model outperformed the other two models by　providing charging stations closer to communities with higher EV demand,　making charging facilities more accessible to the majority of EV users.　Additionally, the study recommended that policymakers use the p-median　model to locate EV charging facilities. The second study proposed a
contextualized EV charger optimization model incorporating　supply-and-demand constraints to minimize charging demand shortfall and　travel time. The study conducted a spatial analysis of potential charging　sites and a questionnaire survey with local residents to estimate their EV purchase intention. These constraints were subsequently incorporated into a　location-allocation model to optimize the deployment of public EV charging　facilities. The study recommended expanding the charging network beyond the　central business district and urban core, building more chargers at　existing stations, and expanding the charging network to meet projected　demand. The two case studies provide insights for policymakers and　stakeholders into spatial planning and deployment strategies for public EV　charging infrastructure in high-density cities.

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