Postdoctoral Researcher Position in Optimization at Sabanci University

A postdoctoral researcher position is available in the Faculty of Engineering and Natural Sciences at Sabanci University within the project "Large-Scale Optimization Problems Involving Matrix Multiplication with Applications". This project is funded by TÜBİTAK 2247A Program, recently awarded to Assist. Prof. Burak Kocuk.

Qualifications
Required:

- Ph.D. in Industrial Engineering/Operations Research or related field
- Strong background in optimization (especially in mixed-integer linear programming)
- Extensive experience with one of the programming languages
- Extensive experience with one of the MIP solvers

Preferred:

- Background in mixed-integer nonlinear programming
- Background in stochastic programming
- Experience with Python
- Experience with Gurobi, BARON, IPOPT, MOSEK

Project Background
The project is concerned with large-scale optimization problems involving matrix multiplication. This general class of non-convex mixed-integer nonlinear programming problems appear in numerous application areas. The project will focus on the Antibiotic Time Machine Problem from biology, which aims to reverse antibiotic resistance, and Multi-layer Thin Film Problem from material science, which aims to increase the reflectance of metallic substrates using coating.

Background in biology or material science is NOT necessary, but willingness to learn some basic concepts is required.

Project Duration
April 2021-April 2024 (at least one-year commitment is expected from the candidate)

Benefits
- Monthly stipend (net 6.000 TL)
- On-campus housing (subject to availability)
- Conference travel budget
- Health insurance

Application
Interested candidates should contact Assist. Prof. Burak Kocuk directly (burak.kocuk@sabanciuniv.edu) with their CV, transcripts, sample publication(s) and a brief cover letter. Evaluation of the candidates will start in March and continue until the position is filled.