عنوان مقاله:

(Multi-objective Solution Approaches for Employee Shift Scheduling Problems in Service Sectors (RESEARCH NOTE

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خلاصه مقاله:

Today, workforce scheduling programs are being implemented in many production and service centers. These sectors can provide better quality products and/or services to their customers, taking into account employees' desires and preferences in order to increase sector productivity. In this study, an employee shift scheduling problem in the service sector is discussed. In the problem, the aim is to minimize the total amount of workloads of the employees and to provide the preferences of the employees. Under this multi-objective structure, by taking into account the needs of employees, a multi-objective decision model has been developed. After then, a multi-criteria decision-making model has been developed to obtain the weights/priorities of the objective functions. By the help of these obtained weights, the problem is scalarized by the Weighted Sum Scalarization (WSS) and Conic Scalarization (CS) methods. When Pareto solutions are compared, it is seen that more Pareto solutions are obtained with CS method. Additionally, better schedules have been obtained in a very short time in terms of the quality of the solution according to the manually .prepared schedule

کلمات کلیدی:

Employee Shift Scheduling, Multiobjective Optimization, Weighted Sum Scalarization, Conic Scalarization