عنوان فارسی مقاله:
مدیریت پاسخ به تقاضا از طریق کنترل قیمت برق زمان واقعی در شبکه‌های هوشمند

عنوان انگلیسی مقاله:
Demand Response Management via Real-Time Electricity Price Control in Smart Grids

توجه!
این فایل تنها قسمتی از ترجمه می‌باشد. برای تهیه مقاله ترجمه شده کامل با فرمت ورد (قابل ویرایش) همراه با نسخه انگلیسی مقاله، اینجا کلیک نمایید.
VI. CONCLUSIONS

In this paper, we proposed an optimal real-time pricing scheme for the reduction of peak-to-average load ratio in smart grid. The proposed scheme solves a two-stage optimization problem, as which the real-time pricing scheme is formulated. At the users’ side, we can obtain the optimal energy consumption that maximizes the quality-of-usage with minimum electricity payment either in closed forms or through an efficient iterative algorithm. As the retailer side, we used a Simulated-Annealing-based Price Control (SAPC) algorithm to obtain the optimal real-time price that maximizes the profit.

In terms of practical implementation, users and the retailer interact with each other through a limited number of message exchanges over a communication network to reach the optimal prices. Simulation results showed that our proposed algorithm can lead to performance improvement for both the retailer and users.