

## عنوان مقاله:

Improving Energy Consumption in Fog Computing by Tasks Scheduling

## محل انتشار:

هفتمین کنفرانس بین المللی توسعه فناوری در مهندسی برق ایران (سال: 1401)

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## خلاصه مقاله:

Thanks to the rapid growth of Internet-connected devices, we are experiencing huge advances in IoT-based applications. The IoT end devices may need to access the cloud to receive services once in a while due to battery and processing system limitations. Fog computing has turned into a proper platform for processing fast-emerging IoT applications. Although fog computing fits the processing of IoT applications, however, it encounters major challenges considering the provision and management of fog resources. Resource and process management, scheduling, and assigning resources to tasks is recognized as a fundamental concept in distributed systems. The problem of scheduling tasks aimed at minimizing the energy consumption while the requirements of the quality of service of the IoT tasks, of fog nodes was formulated in this paper. The Wave front Cellular Learning Automata Improved by Genetic Algorithm introduced in this paper and It is used to task scheduling of fog computing. The proposed method was compared with the state of the art methods. Simulation results show that the proposed method performs significantly better in terms of energy consumption, and response time.

## کلمات کلیدی:

.Task Scheduling, Internet of things, Fog computing, Energy Consumption

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1492973>

