

ECE5658: Operating Systems Design – Paper Critique

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이성우

1. Power provisioning for a warehouse-sized computer, ISCA 2007

- This paper shows the analysis of the power usage of large collections of the server with different applications for 6 months. One of the analysis shows that even well-optimized application shows different power consumption than ideal power consumption. Moreover, it shows many power usage patterns. By this evaluation, they present the power saving approaches and power provisioning strategies. This is the first paper which mentions about power issue in datacenter to me. Almost paper about power are with mobile system, so I thought the power issue is only important to mobile system. However, I could know more ways in power issue by this paper.

2. Where is the energy spent inside my app? Fine Grained Energy Accounting on Smartphones with Eprof, Eurosys 2012

- This paper proposes the eprof which is the fine-grained energy profiler for smartphone apps. Through the eprof, users can get the energy usage pattern in each application in detail. By this evaluation, they propose additional interface which helps app developers to optimize the energy efficiency. This is interesting to me because I know that there is energy profiler, but eprof shows more detail than I know. For example, the advertisement module really surprised me. This could be improved by adapting to real-time. The real-time profiler consumes many resources and occur overheads, so more considerations are required.