

The review introduces novel approaches at the rack level cooling, including baffles, variable airflow management, and optimal server placement. Key findings stress the efficacy of ...

We offer a system dynamic model and simulation input data selected from the existing literature for replicating this study and applying alternative parameters to it. We further ...

Therefore, optimized energy management of data center's cooling system is a highly profitable research area. Generally, a cooling system is made up of a mechanical refrigeration ...

By evaluating techniques to improve data center energy efficiency at the server level, rack/cluster level, and data center level, the technologies developed during this project can reduce the ...

Identify the future research directions for improving data centers' energy efficiency. This study provides an overview of power consumption models of servers in data centers. The ...

Based on the literature review conducted on the generation of electricity through footstep tiles, most of the research has focused on utilizing piezoelectric or hybrid combinations involving ...

To expedite the achievement of energy conservation and consumption reduction in data centers, it is essential to not only utilize ambient energy effectively and maximally but also ...

The conversion of kinetic energy from human footsteps into the electricity energy is considered as one of the renewable energy techniques. This research had demonstrated the feasibility of ...

The government and electricity-generating firms, particularly in power plants, endure large losses in electrical power generation because of ineffective methods and a variety of additional ...

Introduction AI training and inference servers use accelerators and processors with high thermal design power (TDP)<sup>1</sup>. Air-cooling these chips becomes less practical when considering heat ...

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