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IJCA Proceedings on National Conference on
Advancements in Alternate Energy Resources for Rural Applications

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AERA 2015 - Number 2

Year of Publication: 2015

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{bibtex}aera2142.bib{/bibtex}

Abstract

There have been various academic and commercial endeavours for reducing power costs and

carbon footprints by applying computing technologies, and more efficient power delivery and cooling systems. However, energy efficiency alone will slow down the growth of IT carbon footprint. To maintain safe levels of global greenhouse gases, renewable energy sources is becoming a prioritized choice for IT companies to power their rapidly expanding data centre infrastructures. The international environmental organization Greenpeace states that "Green IT = Energy Efficiency + Renewable Energy". Thus, many governments enact renewable portfolio standards and provide incentives for green power generation and usage. Additionally, the improvements in power generating efficiency and cost/Watt reductions of renewable energy will reduce the deployment cost significantly in the future. For example, the efficiency of solar panels is expected to triple but the cost/Watt of solar panels is expected to halve in 2030.

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Computer Science

Index Terms

Power Systems

Keywords

Green It Green Peace Data Centre Renewable Energy Green Ware System.

