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Authors: K. Narsaiah, T. Srinivas

Paper Title: A Unified Control Strategy for Three-Phase Inverter in Distributed Generation

Abstract: This project presents a unified control strategy that enables both islanded and grid-tied operations of three-phase inverter in distributed generation, with no need for switching between two corresponding controllers or critical islanding detection. The proposed control strategy composes of an inner inductor current loop, and a novel voltage loop in the synchronous reference frame. The inverter is regulated as a current source just by the inner inductor current loop in grid-tied operation, and the voltage controller is automatically activated to regulate the load voltage upon the occurrence of islanding. Furthermore, the waveforms of the grid current in the grid-tied mode and the load voltage in the islanding mode are distorted under nonlinear local load with the conventional strategy. Finally, the effectiveness of the proposed control strategy is validated by the simulation and experimental results.

Keywords: Distributed generation (DG), islanding mode, load current, seamless transfer, three-phase inverter, unified control strategy.

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2.

Authors: Mokhtar Said El-Negamy, Abeer Galal, G. M. El-Bayoumi

Paper Title: Extraction of The unknown Parameters of a Photovoltaic Module From Manufacture Data Sheet

Abstract: This paper represents an approach to identify the parameters of the equivalent circuit of a photovoltaic (PV) module and other parameters that are needed to determine the performance characteristics of the module. The proposed approach is based on the remarkable points given by the manufacture datasheet and considering the effect of irradiance and temperature change on the PV module characteristics. The implementation of this methodin MATLAB® script provides the model parameters which have to minimize as soon as possible the error involved between the calculated and measured output current. The proposed approach explains the relation which governs the exchange in the series resistance, shunt resistance, the light photo current, and the maximum power of the PV module due to the variation of the cell temperature. The used model is implemented as a MATLAB® script which yields the I-V and P-V characteristics of the PV panel under variations of cell temperature and solar irradiance.The formulated model results were validated with rated power output of a photovoltaicmodule provided by manufacturers using local meteorological data, which gave ±0.1688% error for MSP290AS module and ±0.156 % error for MSMD290AS module at standard test condition. It is found that the proposed model is more practical in terms of precise estimations of photovoltaic module power output for any required location and number of variables used.

Keywords: Photovoltaic model, Parameters Estimation,manufacture data.

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3.

Authors:	**Monika Kohli, Harmeet Kaur**
Paper Title:	**Exploring Mobile Application Development Tools**

Abstract: With the advent of Smartphone, constant up gradations in developing smartphone's through apps are growing at a rapid speed. Wide variety of platform, operating system and tools market is growing. In this paper, we have discussed different tools which are available for native and cross-platform mobile application development. Long-term and viable solution will prevail the market and comparing different tools and techniques in app development help the developer to choose as per the requirement. Cross-platform apps development is also escalating but Native app development is a better contender so far. But Developers are migrating to cross platform application development tools in order to reduce the cost of development and reach out to maximum users across several platforms.

Keywords: Smartphone's, developing, different, Crossplatform, Developers, tools, platforms

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Authors: **Waheed Iqbal**

Paper Title: **On The Metric Dimension of Pendent and Prism Graphs of Dodecahedral Other Embedding**

Abstract: The findings in the present research paper on the metric dimension of the Dodecahedral Other Embedding (denoted here by G) for pendent and prism graphs are bounded. Further it is concluded that only three vertices chosen appropriately suffice to resolve all the vertices of these graphs for $n = 0 \pmod 4$, $n \geq 16$, $n = 2 \pmod 4$, $n \geq 18$ and $n = 3 \pmod 4$, $n \geq 11$ for pendent and prism graphs respectively and only four vertices chosen appropriately suffice to resolve all the vertices of these graphs for $n = 1 \pmod 4$, $n \geq 17$.

Keywords: Metric Dimension, Basis, Resolving Set, Dodecahedral Other Embedding.

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