Connected Objects with Optical Rectenna for Wireless Information Systems

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Abstract : Harvesting and transport of optical and radiofrequency signals are a topical subject with multiple challenges. In this paper, we present a Optical RECTENNA system. We propose here a hybrid system solar cell antenna for 5G mobile communications networks. Thus, we propose rectifying circuit. A parametric study is done to follow the influence of load resistance and input power on Optical RECTENNA system performance. Thus, we propose a solar cell antenna structure in the frequency band of future 5G standard in 2.45 GHz bands.

Keywords : antenna, IoT, optical rectenna, solar cell

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