

1) Title of Talk

Current Research and Development of Wireless Power Transfer via Radio Waves and the Application

[DML]

2) Abstract

Theory, technologies, applications, and current R&D status of the wireless power transfer(WPT) will be presented. The talk will cover both the far-field WPT via radio waves, especially beam-type and ubiquitous-type WPT, and energy harvesting from broadcasting waves. The research of the WPT was started from the far-field WPT via radio waves, in particular the microwaves in 1960s. In recent years this became a hot topic again due to the rapid growth of wireless devices. Theory and technologies of antenna and circuits will be presented in case of beam-type and ubiquitous-type WPT. The industrial applications and current R&D status of the WPT via radio waves will be also presented.

3) Key words

Wireless Power Transfer, Microwave Power Transmission, Energy Harvesting, Rectenna, Phased Array,