Amplifier-Coupled Tone Reservation for Minimization of OFDM Nonlinear Distortion
ABSTRACT

• This paper proposes an Amplifier-Coupled Tone Reservation algorithm for the reduction of nonlinear distortion power, utilizing knowledge on the predistorted PA characteristic.

• The optimization problem is defined. Its convexity is proved.

• A computationally-efficient solution is presented. Finally, its performance is compared against two state-of-the-art TR algorithms by means of simulations and measurements.
EXISTING SYSTEM

• Nonlinear distortion of an OFDM signal is a serious problem when it comes to energy-efficient Power Amplifier utilization.

• Typically, Peak-to-Average Power Ratio reduction algorithms and digital pre distortion algorithms are used independently to fight the same phenomenon.
PROPOSED SYSTEM

• The utilization of the knowledge on effective PA characteristics obtained by digital pre-distortion methods can significantly improve TR algorithm efficiency in terms of the resultant SDR.

• The proposed AC-TR algorithm provides the highest SDR in comparison to two other state-of-the-art TR algorithms, at a typically lower number of operations required.
HARDWARE REQUIREMENTS

- Processor: Intel Core i3
- RAM: 2 GB
- Hard Disk: 20 GB
SOFTWARE REQUIREMENTS

- Operating System: LINUX
- Tool: Network Simulator-2
- Front End: OTCL (Object Oriented Tool Command Language)
REFERENCE


