

عنوان مقاله:

A Novel Multicarrier Transmission Chaotic Communication System

محل انتشار:

همایش مهندسی برق و توسعه پایدار با محوریت دستاوردهای نوین در مهندسی برق (سال: 1392)

تعداد صفحات اصل مقاله: 8

نویسندگان:

Azadeh Alipoor - *khavaran Institute of Higher Education*

Saeed Shaerbafe-Tabrizi - *Imam Reza International University*

Ali Akbar Khazaei - *Islamic Azad University Mashhad Branch*

Hamed Yaghoobian - *Islamic Azad University Mashhad*

خلاصه مقاله:

Some properties of chaotic signals are spread spectrum, non-periodic waveform and sensitivity to initial conditions. Therefore, chaotic communication is resistant to noise, is highly secure, and the possibility of eavesdropping is quite low. Due to many of these advantages, till now many researches have been performed in this area. Some of the most important chaotic modulations are Chaos Shift Keying (CSK), Differential Chaos Shift Keying (DCSK), and Frequency-modulated Differential Chaos Shift Keying (FM-DCSK). In this paper, In order to enhance the performance of chaotic communication systems OFDM has been used. Besides, the performance of multicarrier chaotic systems (OFDM-CSK, OFDM-DCSK, OFDM-FM-DCSK) has been analyzed for length changes of two parameters of Cyclic prefix (CP) and Fast Fourier Transform (FFT) in OFDM. Furthermore the impact of frequency modulation on OFDM-CSK system is examined. Simulation results indicate that the performance of the proposed OFDM-FM-DCSK over frequency selective communication channels has been improved considerably in comparison to the bit error rates achieved in previous chaos-based schemes.

کلمات کلیدی:

chaotic modulation, multicarrier modulation, frequency selective communication channels, FFT, CP

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/252668>

