سیویلیکا - ناشر تخصصی مقالات کنفرانس ها و ژورنال ها
گواهی ثبت مقاله در سیویلیکا
CIVILICA.com

عنوان مقاله:

Digital Modulation Classification in Dependent Noise Using Copula

محل انتشار:

سومین کنفرانس بین المللی مهندسی برق (سال: 1397)

تعداد صفحات اصل مقاله: 7

نویسندگان:

Mohammad Hossein Gholizadeh - *Department of Electrical Engineering, Vali-e-Asr University of Rafsanjan, Rafsanjan, Iran*

Hamidreza Amindavar - *Department of Electrical Engineering, Amirkabir University of Technology, Tehran, Iran*

خلاصه مقاله:

In this paper, a new approach is introduced for the classification of digital modulation schemes based on copulatheory. Copula concept helps us to do the classification in a dependent noise environment. Using copula enables us notto confine the dependency model as a special case, but this model can be arbitrary. In the proposed method, theprobability density functions (PDFs) of the digital modulated signal and the noise are extracted separately. Then, theconglomerate PDF of the received signal is estimated using copula. Analyzing the PDF and comparing it with the PDFof the actual received data results in a powerful classification even at low signal-to-noise ratio (SNR). .Theoreticaldiscussions are verified with simulations and comparisons with other conventional methods

کلمات کلیدی:

Copula theory, dependent noise, PDF estimation, modulation classification

لینک ثابت مقاله در پایگاه سیویلیکا:

https://civilica.com/doc/832056