

3rd International Conference on

Computer Graphics & Animation

November 07-09, 2016 Las Vegas, USA

On some possibilities of studying characteristics of periodic signals based on cluster analysis

V Znak

The Institute of Computational Mathematics and Mathematical Geophysics, Russia

Periodic (harmonic and frequency-modulated – FM) signals are widely used, and an appropriate research can be of interest in different fields of activity. Our purpose is to study the above signals for estimating their parameters and characteristics such as locus of a signal on a time axis and the degree of their presence in noise. Such indications determine the degree of trust to consequent estimations. At the same time, we assume that a signal is recorded at a discrete time t_1, \dots, t_N , where $t_{i-1} - t_i = \Delta t = \text{const}$, $i=2, \dots, N$. We propose to use the cluster analysis for studying periodic signals. According to this, we consider the corresponding approach, the statement of a problem and specify the way of its decision. Finally, we intend to present some results of the data obtained of a model of the FM signal.

Biography

V Znak (Vladimir Ilich Znak) is Senior Scientific Researcher at The Institute of Computational Mathematics and Mathematical Geophysics, Russia. He received his PhD in 1980 at The Sevastopol instrument-making institute, Sevastopol. His research interests were in the field of signal processing, estimation of signal parameters and characteristics, computational mathematics, applied statistics, computational technologies, development of algorithms and computer programs, formal logic, etc. He is Author of more than 70 publications, including inventor's certificates.

znak@opg.sccc.ru

Notes: