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Proceedings - 2013 International Conference on Advanced Computer Science Applications and Technologies, ACSAT 2013
2014, Article number 6836568, Pages 162-165
2nd International Conference on Advanced Computer Science Applications and Technologies, ACSAT 2013; Kuching, Sarawak; Malaysia; 23 December 2013 through 24 December 2013; Category numberP5234; Code 106250

Investigating digital watermark dynamics on carrier file by feed-forward neural network (Conference Paper)

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Abstract

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Carrier files are commonly described as host files in digital watermarking in which hidden files are embedded on it. As a result, new files are formed which contain the hidden files or messages. This paper aim at resolving the problem of capacity in Image watermarking and utilizes the bits ratios of the watermark and carrier file as the raw data for analysis. The data are obtained from the result of the first project undertaken to determine the implementation of different applications available in the public domain for embedding a watermark. Feed-forward neural network (FFNN) is used for analysis because is applicable to a wide range of forecasting problems and yields a high degree of accuracy for the bits ratios of watermark and host. The result indicates the relationship between the carrier file and the hidden file, which establishes a pattern where the larger the bits of the carrier file, the larger the watermark bits and vice versa. Although this is only in terms of Image watermarking. Further studies should apply the same technique on video and audio watermarking. © 2013 IEEE.

Author keywords

carrier file Digital watermarking feed-forward neural network hidden file watermarked file

Indexed keywords

Engineering controlled terms: Computer science Digital watermarking

Carrier files
Forecasting problems
hidden file
High degree of accuracy
Public domains
Watermark bits
watermarked file

Engineering main heading: Image watermarking

Funding details

Funding number	Funding sponsor	Acronym
FRGS12-070-0219	Ministry of Higher Education	

ISBN: 978-147992758-6
Source Type: Conference Proceeding
Original language: English
DOI: 10.1109/ACSAT.2013.39
Document Type: Conference Paper
Sponsors:
Publisher: IEEE Computer Society

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