A proof of ownership based on digital forensics evidence is the way forward in solving ownership disputes in the ever growing cyberspace that confronts us today. A strong proof beyond all reasonable doubts with the good standing of the law provides victory for a case before a competent court of law. The Society we live in is governed by laws and laws need evidence to pass judgments and not any kind of evidence but evidence compelling enough to attract the passing of judgment. Lessons learnt from the past of the failures of the court to
provide and use strong verified evidence due to limitations of scientific evidence such as DNA, surveillance videos, authenticable images etc. have cost human life’s freedom and having access to a fair trial. We cannot wait till certain loopholes are exploited in our digital cyber evolution before we get it fixed. Hence stronger and a more compelling techniques are needed for image authentication and identification. In our work, we proposed a spatial domain watermarking approach for digital images based on image features built on formal concepts analysis. We adopt the use of formal concept analysis due to the fact that a change in a pixel value can result in a change in the lattice generated from the image. We presented our results and they showed to be very effective.

References

- Na Li; Xiaoshi Zheng; Yanling Zhao; Huimin Wu; Shifeng Li, &quot;Robust Algorithm of Digital Image Watermarking Based on Discrete Wavelet Transform,&quot; Electronic Commerce and Security, 2008 International Symposium on, vol. , no. , pp. 942,945, 3-5 Aug. 2008 doi: 10. 1109/ISECS. 2008. 140
Index Terms

Computer Science
Image Processing

Keywords
Formal Concept Analysis
Digital image
encryption
authentication
watermarking