عنوان مقاله:

Adaptive Polynomial Coding of Multi-base Hybrid Compression

نویسندگان:

G. K. AL-Khafaji - *Department of Computer Science, College of Science, University of Baghdad, Iraq*

M. H. Rasheed - *Computer Engineering Department, Technical College/Kirkuk, Northern Technical University, Iraq*

M. M. Siddeq - *Computer Engineering Department, Technical College/Kirkuk, Northern Technical University, Iraq*

M. A. Rodrigues - *GMPR-Geometric Modelling and Pattern Recognition Research Group, Sheffield Hallam University, Sheffield, UK*

خلاصه مقاله:

With increasing demand for the intensive use of images, especially linked to online applications as well as the massive, continuous revolution of mobile phone technology, the need has emerged for efficient, standard image compression techniques that ensure simplicity and speed. These must be compatible with user needs, but also meet the challenges of improving compression techniques. Polynomial coding is one such techniques still under development, based on a modelling concept of deterministic and probabilistic coding bases. This paper introduces a new mathematical iterative polynomial model to represent both coding bases. The model proposes an efficient hybrid way where coefficients are represented as lossless while residuals are presented as a lossy but with minimum loss, which ensures effective performance in terms of compression ratios and quality. Results show that while the technique has some limitations, the proposed system achieves equivalent compression ratios as the standard JPEG technique, but with superior quality for the same compression ratio.

کلمات کلیدی:

Image Compression, lossless/lossy, polynomial coding, Iterative Based Technique

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