



AALBORG UNIVERSITY
DENMARK

Aalborg Universitet

Application of VQ Indices Similarity in Image Compression

Shambezadeh, Jamshid; Forouzbakhsh, Farshid

Published in:
Journal of Science (Kharzmi University)

Publication date:
2001

Document Version
Early version, also known as pre-print

[Link to publication from Aalborg University](#)

Citation for published version (APA):
Shambezadeh, J., & Forouzbakhsh, F. (2001). Application of VQ Indices Similarity in Image Compression. Journal of Science (Kharzmi University), 1(3-4), 53-69.

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- ? Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- ? You may not further distribute the material or use it for any profit-making activity or commercial gain
- ? You may freely distribute the URL identifying the publication in the public portal ?

Take down policy

If you believe that this document breaches copyright please contact us at vbn@aub.aau.dk providing details, and we will remove access to the work immediately and investigate your claim.

Paper Information

Journal: JOURNAL OF SCIENCE (KHARAZMI UNIVERSITY) Fall 2001-Winter 2002 , Volume 1 , Number 3-4; Page(s) 53 To 69.

Paper: APPLICATION OF VQ INDICES SIMILARITY IN IMAGE COMPRESSION

Author(s): SHANBEHZADEH J., FIROUZ BAKHSH F.

*

Abstract:

Inter-pixel correlation in natural images is very high, and it affects the indices of vector- quantized image in such a way that the probability of having neighboring blocks with an identical index, at low bit rate, is high. This paper exploited block index characteristic to achieve more compression. We can employ the proposed scheme in conjunction with any traditional vector quantization technique to obtain an improved performance. At least an improvement of 28 percent has been observed in the result of simulations reported in this paper. In addition, the performance of the new coder is significantly better than the JPEG coding standards at very low bit rates.

Keyword(s): IMAGE CODING, IMAGE PROCESSING, VECTOR QUANTIZATION, IMAGE RETTEIVAL, INTERNET IMAGING