

PROJECT / SCODE- Scanned COmpound Document Encoder SCODE

Main Objective:

The main objective of this work is to investigate and develop an usable version of a MMP based scanned documents encoder, that is able to improve on the encoding performance of current state-of-the-art compound image encoders, like DjVu. In order to achieve this, some important tasks must be achieved:

- investigate and develop efficient methods for layer-based or block-based image segmentation, for optimisation of the overall MMP-based encoder's performance;
- optimise the dictionary adaptation process in order to increase the coding performance of MMP for the images corresponding to the segmented layers or block types;
- efficiently implement a computational version of the method and investigate relevant functional optimizations, in order to reduce the computational complexity of the algorithm without compromising its coding efficiency;
- perform a set of experimental tests in order to compare the encoding performance of the new method with the one of other state-of-the-art methods.

Reference: PTDC/EEA-TEL/66462/2006, Funding: FCT/PTDC, Start Date: 01-10-2007

Team: [Sérgio Manuel Maciel de Faria](#), [Nuno Miguel Morais Rodrigues](#), [Vitor Manuel Mendes da Silva](#)

Groups: [Multimedia Signal Processing – Lr](#), [Multimedia Signal Processing – Co](#)

Local Coordinator: [Sérgio Manuel Maciel de Faria](#)