



PLATFORM FOR EVALUATION OF EMBEDDED COMPUTER VISION ALGORITHMS FOR AUTOMOTIVE APPLICATIONS (WedPmPO4)

★ Author(s) :

Wilfried Kubinger

(Seibersdorf research, Austria)

Stefan Borbely

(Seibersdorf research, Austria)

Hannes Hemetsberger

(Seibersdorf research, Austria)

Richard Isaacs

(Seibersdorf research, Austria)

★ Abstract :

Stereo vision algorithms are usually designed to run on standard PCs or PC-based systems. Up to now and due to the limited resources (e.g. internal and external RAM size, CPU power, power consumption, etc.) no general embedded hardware exists, where different algorithms can be implemented and run properly. The presented test platform aims to close this gap and implement a convenient platform for the evaluation of different high level vision algorithms used for embedded systems. Furthermore, it offers an excellent opportunity for testing and evaluating automatic code generation tools (e.g. MathWorks Real-Time Workshop Embedded Coder). In this paper the complete system concept, the automotive application, a stereo vision example algorithm and experimental results are presented.