

3.34 Motion Detection, Segmentation, and Estimation. Motion Satbilization

Keywords

Computer Vision, Video Stabilization, Motion analysis in videos.

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Corporate Sponsorship Program

See Section 4 of the present document

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Functional description

Idiap has expertise and software on video motion analysis, which is important in both the surveillance and video content analysis domains. Robust motion estimation is often a way to stabilize shaky videos, and can be exploited as such or prior to further video content analysis tasks.

Innovative aspects

- Robust automatic estimation of dominant motion (works even in presence of secondary motion sources)
- Accurate image motion estimation
- Proven efficiency in both consumer video application (video stabilization) and industrial background (Alcatel, Ifremer,...)
- Real-time

Commercial application examples

- Video Stabilization (e.g. from mobile or table video acquisition)
- Surveillance

More information

J-M. Odobez and P. Bouthemy. Robust multiresolution estimation of parametric motion model. *Journal of Visual Communication and Image Representation*, Vol. 6, Number 4 pp 348-365, December 1995.

Software status

- Commercial motion estimation and stabilization software available.
- Non-exclusive license granted to Cinetis SA.