SVD Based Tensor Completion Technique for Background Initialization
ABSTRACT

• The proposed method is referred to as spatiotemporal slice-based SVD. To determine the SVD components that best model the background, a depth analysis of the computation of the left/right singular vectors and singular values is performed, and the relationship with tensor tube fibers is determined.

• The analysis proves that a rank-1 matrix extracted from the first left and right singular vectors and singular value represents an efficient model of the scene background.
EXISTING SYSTEM

• Extracting the background from a video in the presence of various moving patterns is the focus of several background-initialization approaches.

• To model the scene background using rank one matrices, this paper proposes a background-initialization technique that relies on the singular value decomposition of spatiotemporally extracted slices from the video tensor.
PROPOSED SYSTEM

• The performance of the proposed SS-SVD method is evaluated using 93 complex video sequences of different challenges, and the method is compared with state-of-the-art tensor/matrix completion-based methods, statistical-based methods, search-based methods, and labeling-based methods.
HARDWARE REQUIREMENTS

- Processor: Intel
- Speed: 1.1 Ghz
- RAM: 256 MB (min)
- Hard Disk: 20 GB
- Monitor: SVGA
SOFTWARE REQUIREMENTS

- Tool - MATLAB R2012
- Operating system - Windows Xp, 7
REFERENCE


