1. **Databases**
   1. **Optical Flow Bench Marks**
   2. **Gait Databases**
   3. **Synthetic images database for acceleration**
   4. **The difficulties of acceleration databases**
2. **Theoretic and Implementations on Synthetic Images**
   1. **Motivation**
   2. **Estimation of Acceleration Flow**
      1. **Recovering Acceleration Flow from Optical Flow**
      2. **Higher Order**
      3. **Tangential and Radial Acceleration**
   3. **Analysing Synthetic Image Sequences**
      1. **The Synthetic Images**

* Where are they from
* How they been made
* Ground truth
  + 1. **Error analysis of SAD**
  1. **Estimating Acceleration via Other Flow Estimation**

1. **Detecting Acceleration for Gait and Crime Scene Analysis**
   1. **Gait and Heel Strike**
   2. **Heel Strike detection via Radial Acceleration**
      1. **Key Frame Detection**
      2. **Positioning and Verification**
   3. **Experiments**
      1. **Key Frames**
      2. **Positioning**
      3. **Performance on Different Databases**
      4. **Error Analysis**
2. **Higher Order**
3. **Conclusion and Future Work**
   1. **Conclusions**
   2. **Future Work**
      1. **Behaviour Recognition**
      2. **Scene Segmentation**

**Reference**

miniThesis

ICDP

CVPR

ACIVS

SITIS  
IET CV

Summary on database

Conclusion on other chaps

Four **main** contributions:

* Acceleration
* Evaluation
* Gait and evaluation
* Generalization