Abstract

Video based applications disclosed need for efficiently extracting and modeling the video contents. The video features can be classified into normal data, relative features and logic content. Semantic level understanding is required for core content of video. So to get video content automatic semantic content framework is proposed. In proposed system a semantic content extraction system that allows the user to query and regain objects, events, and concepts that are extracted automatically. VISCOM is a video semantic content model which contains classes and relations between classes. Objects and events are represented by some VISCOM classes and other classes are used in the automatic semantic content extraction framework. VISCOM classes collect the semantic content types and relations.

Ontology based fuzzy video data semantic model which uses spatial and temporal relations in event and concept definition is proposed. Extracted objects from consecutive representative frames are processed to extract temporal relations. Additional rules to lower spatial relation computation cost and to define some difficult situations more successfully are used. To extract
objects from video we apply k-means clustering algorithm. By which we get the more relevant objects related to user query.

References


**Index Terms**

Computer Science  
Artificial Intelligence

**Keywords**

Fuzziness, Ontology, Semantic Content Extraction, Spatial Relations, Video Content Modeling.