Specific action: contribution to CCV Ontology

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Objectives

- Extend CCV Ontology with aspects related to:
  - Imprecise knowledge representation
  - Tools and methods for dealing with imprecise spatial information
  - Non-probabilistic methods for fusion

Contents

- Reasoning (section 3 of CCV Ontology)
  - Issues:
    - General definitions of information fusion for decision making
    - Fusion in image processing and cognitive vision
  - Methods:
    - Bases of fuzzy sets and possibility theory
      - definitions, fuzzy measures, possibility theory, operators, linguistic variables, fuzzy relations, fuzzy and possibilistic logics…
    - Fuzzy sets and possibility theory in image processing and vision: tools for spatial reasoning under imprecision
      - spatial information, fuzzy geometry, fuzzy mathematical morphology, fuzzy topology, distances, directional relative position, fuzzy classification, filtering and edge detection…
- Status: Available at http://www.ecvision.info/education/SA_21-1_Imprecise_Spatial_Information.htm

Possible extensions

- More on knowledge representation
- Fuzzy and possibilistic fusion
  - Classification of combination operators
  - Choice of an operator
  - Decision making
- Belief function theory (Dempster-Shafer / Smets)
  - modeling
  - combination
  - decision
- Introducing spatial information in fusion schemes

New specific action(s)?