**Summary and Scope:**
The advances in computing techniques, graphics hardware, and networks have witnessed the wide applications of 3D information in various domains, such as 3D graphics, entertainment, medical industry and the architecture design. The proliferation of such applications have produced large scale 3D data content, while effective 3D processing tools to manipulate these data are still at their infancy. This special issue will target the most recent technical progresses on learning techniques for 3D object and scene understanding, such as the semantic analysis, retrieval and recognition. With the spread of (depth) cameras, view-based 3D information processing is also important nowadays. Applications of interest include Computer-Aided-Design, 3D TV/Movie, produce search, etc. This special issue also targets on novel 3D understanding techniques by learning on multiple views towards large scale 3D data processing. The primary objective of this special issue foster focused attention on the latest research progress in this interesting area.

The special issue seeks for original contribution of works which addresses the challenges from the learning techniques for 3D object and scene understanding. The list of possible topics includes, but not limited to:

- Learning semantic for 3D objects and scenes
  - Learning for 3D object and scene recognition
  - 3D object/scene reconstruction by learning techniques
  - Multi-view learning for 3D semantic analysis
  - Learning 3D quality assessment metrics and methodology
- Feature selection and indexing techniques for 3D data
  - Supervised/Semi-supervised learning methods for 3D data feature extraction
- 3D object semantic indexing
- Learning for 3D calibration
- Learning for 3D data representation

● 3D applications with learning techniques
  - Learning partial semantic of 3D objects for Computer-Aided Design
  - Learning Hashing methods for web-scale 3D data indexing
  - Learning for 3D TV and free-viewpoint video techniques
  - Manifold learning for 3D data alignment

⚠️ Submission Guideline

Authors should prepare their manuscript according to the Guide for Authors available from the online submission page of the Neurocomputing at http://ees.elsevier.com/neucom/. All the papers will be peer-reviewed following the Neurocomputing reviewing procedures.

Important Dates:
- Paper submission due: Nov. 15, 2013
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