

## Method of Visual Prosthesis Design Based on Biologically Inspired Design

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**Abstract :** There are two issues existed in the traditional visual prosthesis: lacking systematic method and the low level of humanization. To tackle those obstacles, a visual prosthesis design method based on biologically inspired design is proposed. Firstly, a constrained FBS knowledge cell model is applied to construct the functional model of visual prosthesis in biological field. Then the clustering results of engineering domain are obtained with the use of the cross-domain knowledge cell clustering algorithm. Finally, a prototype system is designed to support the bio-logically inspired design where the conflict is digested by TRIZ and other tools, and the validity of the method is verified by the solution scheme

**Keywords :** knowledge-based engineering, visual prosthesis, biologically inspired design, biomedical engineering

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