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48th SYMPOSIUM ON SAFETY, QUALITY AND KNOWLEDGE MANAGEMENT IN SPACE ACTIVITIES (D5)
Knowledge management and collaboration in space activities (2)

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DOCUMENT MANAGEMENT DURING ESTABLISHING SPACE KNOWLEDGE BASE

Abstract

There are lots of documents related to technology and engineering in space activities. It is significant to manage these documents effectively, which is a fundamental and vital task to establish a space knowledge base. We conduct some research on the methods applicable to deal with the documents generated in the space activities, specialized to the space field, based on some existing advanced algorithms including cross information entropy, topic model and some supervised machine learning algorithms, adopted some efficient tools like ICTCLAS and genism. Main application research includes the following several respects, extracting keywords from the documents automatically, generating abstracts automatically, classifying the documents automatically and recommending related documents automatically. All these functions are computed automatically and efficiently, so that large amount of documents can be handled easily and conveniently. The results can be applied to optimize the documents management system, and be used to improve the information retrieval system. Further, these information can be applied to the establish knowledge management system.