

大四工工專題摘要

23	Computer-Aided Problem Solving Assistant : Substance Field Analysis 以質場分析為基礎：電腦輔助求解助手	
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摘 要		
題目的由來 There has been much software to aid the process of Su-Field Analysis. Some software available for producing the diagrams of Su-Field models. No software is available to help ID relevant standards for any given Su-Field problem and provide solution trigger for problem solving. Given a problem, people sometimes pick incorrect standards.		
題目的描述 Providing a way to model the core of engineering problems, so that the process of identifying relevant inventive standards for problem solving can be automated by using computer. Contributions: 1. Avoid human error in picking wrong standards. 2. Provide related examples for idea generation relevant to the problem 3. Combined the 4 major analysis method (commonly use, Savransky’s , Victor Fey’s , Darrel Mann’s) in one program.		
解決的方法 1. Gather the information about Su-Field Analysis. (the principle of Su-Field, the inventive standards, the examples provided by scholars, the analysis flow chart of scholars) 2. Get the program SFAv1.0 from 李子平. 3. Modify the program		

4. Check the accuracy of the program by comparing the examples from the patent database

研究的成果

1. Finished SFAv1.1
2. Finished debug, modified and added some functions, modified interface, art designing.
3. Finished CD-KEY verification, protection of source code, software packaging.
4. Finished the Chinese version of the program.
5. Finished the user manual of the program
6. Comparing the 4 methods by case study.