模糊逻辑生成试卷

P. Gadge, R. Vishwakarma, and D. Gandhi, “Advanced Question

Paper Generator Using Fuzzy Logic,” Int. Res. J. Eng. Technol.,

vol. 4, no. 3, pp. 455–458, 2017.

基于预期学习成果的自动考试生成框架

通过预期学习效果，将问题分类

A. Ewais, R. Hodrob, and A. Amria, “A Framework for

Automatic Exam Generation based on Intended Learning

Outcomes,” Sci. Technol. Publ. Lda., pp. 474–480, 2018.

布鲁姆和他的同事提出了学习的六个不同的认知阶段;从作为最低层次的对事实的简单回忆或识别，到越来越复杂和抽象的心理层次，再到最高层次的评价。

为了根据学习成果有效地评估学生的表现，考试问题应该涵盖布鲁姆分类的所有六个级别。Bloom分类法是一种基于学生能力水平的教育目标分类体系，它强调需要根据不同的能力技能集来区分学习者。考试问题的标准和质量取决于一系列不同的参数，包括不同水平的学习者和课程目标。

问题类别可以是基于知识的、基于记忆的、基于逻辑的或基于应用的

Advance Automatic

Question Paper Generator.

综合性系统，速度快，安全性高

A. Leekha, T. Barot, and P. Salunke, “Question Paper

Generator,” Int. J. Sci. Res. Eng. Technol., vol. 6, no. 7, pp. 331–

332, 2017.

随机化

[5] S. B. Rohan Bhirangi, “Automated Question Paper Generation

System,” Int. J. Emerg. Res. Manag. &Technology, vol. 5, no. 4,

pp. 1–7, 2016.

Automated Exam Question Generator using Genetic

Algorithm

Exam paper generation based on performance prediction of

student group：（

四类：

一主要关注问题选择的效率：

一种利用模糊逻辑算法在不同题库中无偏随机选择问题的系统，从而减少了人工操作。然而，这种方法首先需要将题库划分为一系列独立的子题库。

Suraj Kamya, Madhuri Sachdeva, Navdeep Dhaliwal, Sonit Singh, Fuzzy logic based intelligent question paper generator, in: In Proceedings of 4th IEEE

International Advance Computing Conference, 2014, pp. 1179–1183.

”

二侧重于平衡和提高试卷的整体特征。

在这些研究中，EPG被视为一个多目标优化问题，其中遗传算法通常用于多目标优化问题的求解[1]。基于遗传算法的EPG[2]或基于遗传算法变量的EPG[3]具有明显的优势。

1Gema Bello-Orgaz, Sancho Salcedo-Sanz, David Camacho, A multi-objective genetic algorithm for overlapping community detection based on edge encoding, Information Sciences 462 (1) (2018) 290–314.

2Mehmet Yildirim, A genetic algorithm for generating test from a question bank, Computer Applications in Engineering Education 18 (2) (2010) 298–

305

3Gema Bello-Orgaz, Sancho Salcedo-Sanz, David Camacho, A multi-objective genetic algorithm for overlapping community detection based on edge

encoding, Information Sciences 462 (1) (2018) 290–314.

三是根据试卷的难度寻找和匹配问题

提出的模型采用Apriori算法，根据管理员设置的难度对现有问题的难度进行匹配，然后从题库中选择相应难度的问题

Aishwarya Chavan, Mojitha Mohandas, Rasika Manjarekar, Divya Karekar, Supriya Mandhare, Automated question paper generator system using

apriori algorithm and fuzzy logic, International Journal for Innovative Research in Science & Technology 2 (11) (2016) 707–710.

四研究是提高抽取的随机性，以减少试卷中出现重复问题的数量

Sahar Abd El-Rahman and Ali Hussein Zolait, Automated test paper generation using utility based agent and shuffling algorithm, International Journal

of Web-Based Learning and Teaching Technologies 14 (1) (2019) 69–83.

] Kapil Naik, Shreyas Sule, Shruti Jadhav, Surya Pandey, Automatic question paper generation system using randomization algorithm, International

Journal of Engineering and Technical Research 2 (12) (2014) 192–194.

Abu Bakar Md Sultan, Shuffling algorithms for automatic generator question paper system, Computer and Information Science 3 (2) (2010) 244–248.