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Enhance Engineering Pedagogy in Programming Course via Knowledge Graph-Based Recommender System

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Abstract : Purpose: There is a lack of suitable recommendation systems to assist engineering teaching. The existing traditional engineering pedagogies lack learning interests for postgraduate students. The knowledge graph-based recommender system aims to enhance postgraduate students' programming skills, with a focus on programming courses. Design/methodology/approach: The case study will be used as a major research method, and the two case studies will be taken in both two teaching styles of the universities (Zhejiang University and the University of Nottingham Ningbo China), followed by the interviews. Quantitative and qualitative research methods will be combined in this study. Research limitations/implications: The case studies were only focused on two teaching styles universities, which is not comprehensive enough. The subject was limited to postgraduate students. Originality/value: The study collected and analyzed the data from two teaching styles of universities' perspectives. It explored the challenges of Engineering education and tried to seek potential enhancement.

Keywords : knowledge graph and recommender system, engineering pedagogy, programming skills, postgraduate students
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