

# **Design and implementation of an automatic Python programming assignment grading system integrated with source code plagiarism detection**

**Luong Thi Thuy Kieu**

**Abstract:** This topic addresses the necessity of using automation technology in education, particularly in programming assignment grading systems. The main objective is to build a system that automatically grades and detects source code plagiarism based on the Python language. The research methodology includes a combination of machine learning classification theory with practical applications to solve this problem. The expected outcomes of the topic not only provide a useful tool for instructors but also contribute to the field of automation system development in education, supporting the improvement of teaching and learning quality.

**Keywords:** programming assignment grading system, Python, plagiarism detection, machine learning classification, educational application