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PyqSpot: A Smart System for Engineering Preparation

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Abstract: *Engineering students at Savitribai Phule Pune University (SPPU) face significant challenges when preparing for exams because of the large syllabi and limited time. Research shows that 60-70% of the questions come from Previous Year Questions (PYQs), but students do not have access to a centralized collection of solved papers. Additionally, static PDF solutions do not support active learning or self-assessment. This paper introduces PYQSPOT, a new web system that provides a reliable archive of over 100 solved PYQs for various engineering branches at SPPU. The main technical contribution is the design and development of a Dynamic Mock Test Generator.*
This module analyses the static PDF solution archive, extracts individual question-answer pairs and creates a structured database. Using a Next.js and Express.js stack, the system automatically generates randomized multiple-choice mock tests based on subjects chosen by users, offering instant scoring and explanations. PYQSPOT effectively turns a static content archive into an interactive learning platform that offers a practical way to enhance student learning outcomes..

Keywords*:* PYQSPOT, E-Learning, Dynamic Mock Test, Previous Year Questions (PYQs), Automatic Question Generation, SPPU