**An AI-based system for enhanced self-learning**

SE-C-10

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This project introduces a learning system that incorporates the application of LLMs and RAG for effective self-learning in deep subjects in discrete mathematics and formal logic. The model addresses three different issues: unreliable AI-generated information and “hallucinations,” and solving NLP tasks with the complex morphological structures of Hebrew. The model ensures the correctness, understandability, and accessibility of the sources to the end user. The system not only significantly increases the number of correct answers to questions, by providing learners with many types of stimulation; it also helps the student to improve their ability to ask the right questions.

Keywords: discrete mathematics, formal logic, hallucinations, hebrew nlp, logic learning model, retrieval-augmented generation, self-learning