

**Using a machine learning algorithm to develop an intelligent automated
teller machine (ATM)**

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ABSTRACT

With major advancements having been made in information technology, computers can perform many operations exponentially much faster than a human being. Though the preceding statement is true there are many tasks where the computer falls much short of its human counterpart. An example of this is given two pictures a nursery school kid could easily tell the difference between a cow and a donkey. This simple task could confound today's computer.

This study established that the introduction of a learning component to the already existing framework would be acceptable and to demonstrate this, a sample prototype (learning component) was developed.

Majority of learning algorithms work well only with discrete values, i.e. (0 or 1, true or false). For a successful learning approach to be implemented a new method of learning had to be devised that supported continuous variables (multi-valued attributes). Question answer authentication was the method established to achieve this. The learning component was implemented on the premise of the AQ learning algorithm.