Research Review

Three research paper were reviewed for this analysis and they are outlined below

Richard E. Fikes, Nils J. Nilsson. "STRIPS: A New Approach to theApplication of Theorem Proving to Problem Solving", (Winter 1971)

A. Blum and M. Furst, "Fast Planning Through Planning Graph Analysis", Artificial Intelligence, 90:281--300 (1997)

H. A. Kautz and B. Selman, "Planning as satisfiability". In Proceedings of the Tenth European Conference on Artificial Intelligence (ECAI'92), pages 359-363, (1992)

Analysis from these three research paper showed that the STRIPS (Stanford Research Institute Problem Solver) technique was introduced first based on which the entire AI planning and search was formed. It was an attempt to find a sequence of operators in a space of world models to transform a given initial world model into a model in which a given goal formula can be proven to be true.

To further advance the AI problem solver STRIPS technique, a fast method was introduced which was Planning Graph. It was a new approach to planning in STRIPS-like domains based on constructing and analyzing the compact structure. It returns the shortest possible partial order plan or states that no valid plan exsits. All the problems solved in this project has been using the STRIPS technique with Graph Plan technique

Most of the STRIPS and Graph Plan work on deduction model of planning. A new method was developed in 1992 that introduced formal model of planning based on satisfiability. Deductive planning axioms must be strengthened in order to rule out anomalous models. The entire satisfiability approach not only provides a more flexible framework for stating different kind of constraints on plans but also more accurately reflects the theory behind constraint-based planning systems.