Deep Blue is the name of the chess machine (a combination of hardware and software) that defeated Garry Kasparov while he was still the World Chess Champion in 1997. The tournament consisted of 6 games and Deep Blue defeated Garry Kasparov by a score of 3.5-2.5.

The paper describes in detail the design of this system and helps the readers understand the different aspects of the design decisions that were instrumental in defeating the opponent.

Some of the techniques described in detail are:

1. Chip to generate the chess move - this achieves speeds in the neighborhood of 500,000 - 700,00 positions per second
2. Multi/parallel processing and parallel search implementation
3. Search techniques (Hybrid software / hardware)
4. Evaluation Functions
5. Opening move book / Grandmaster game database
6. Hardware implementation
7. Time Control

The paper stresses that the success of Deep Blue in defeating its opponent was not a result of just 1 specific factor, but a combination of all the above factors. The paper also stresses about the scopes of improvements in the parallel search efficiency using external Field Programmable Gate Arrays. Also, the addition of pruning mechanisms and better evaluation functions could have significantly improved the search efficiency.