Overview about Verification and model checking

1. Verification and validation

hardware and software need gurantering to be reliable. There are several methods to do this, including simulation, testing, deductive verification and model checking.

1. Methods of V&V
   1. Simulation : performing experiments based on abstract or model of system
   2. Testing : performed on actual product
   3. Deductive verification : use axioms and proof rules to prove a product reliable. However, the proof has to be created manually, so it is time consuming and in need of experts in logic reasoning.
   4. Model checking : totally automated.