Abstract

Petri nets are a graphic and mathematic modeling tool which is applicable to several systems and to all those systems presenting particular characteristics such as concurrency, distribution, parallelism, non-determinism and/or stochastically. In this paper, a wheel Petri net whose reachability tree contains all the binary \( n \)-tuples or sequences as marking vectors has been defined. The result is proved by the using of the Principle of Mathematical Induction (PMI) on \( |P| = n \).

References

A Wheel 1-Safe Petri Net Generating all the \(\{0; 1\}^n\) Sequences

- Harary, F., Graph theory, Addison-Wesley, Massachusetts, Reading, 1969.

Index Terms

Computer Science        Applied Mathematics

Keywords

1-safe Petri net  reachability tree  binary n-vector  marking vector  wheel graph