

AN APPLICATION OF CONSTRAINT LOGIC PROGRAMMING IN NURSE SCHEDULING

K.G.D. Dayarathna

Postgraduate Institute of Science, University of Peradeniya, Peradeniya, Sri Lanka

Nurse scheduling problem has been discussed in the field of operations research for many years. The nurse schedule should provide the day to day shift assignment for each nurse for a specified period of time while satisfying specified requirements imposed by the hospital management in the best possible way and taking into consideration the requests made by the nurses.

In this study, a constraint logic programming (CLP) technique is used to formulate a nurse scheduling problem. There are two stages in CLP technique: Logic program and Constraint solving. Findings for a case study are presented, and the advantage of using Advance Mathematical Programming Language (AMPL), compared to a manual method, is discussed.

