



**GRAPH COLOURING, AN APPROACH TO NURSES
SCHEDULING, CASE STUDY: EJURA DISTRICT
HOSPITAL, ASHANTI REGION, GHANA**

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Abstract

The ever-increasing rate of infant and maternal mortality in Ghana has made the optimal assignment of nurses to shift, a problem of primary importance. In this paper, we investigate the various soft and hard constraints of nurses at the maternity ward of Ejura District Hospital of Ashanti Region of Ghana. The investigation leads to the creation of conflict graphs for the nurses. We then apply the hard constraints to schedule the nurses using Graph Colouring.

Keywords and phrases: graph colouring, conflict graphs, nurse scheduling, Greedy algorithm.

