World Academy of Science, Engineering and Technology
International Journal of Mathematical and Computational Sciences
Vol:14, No:12, 2020

Nurse Schedule Problem in Mubarak Al Kabeer Hospital

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Abstract : In this project we will create the new schedule of nurse according to the preference of them. We did our project in Mubarak Al Kabeer Hospital (in Kuwait). The project aims to optimize the schedule of nurses in Mubarak Al Kabeer Hospital. The schedule of the nurses was studied and understood well to do any modification for their schedule to make the nurses feel as much comfort as they are. First constraints were found to know what things we can change and what things we can't, the hard constraints are the hospital and ministry policies where we can't change anything about, and the soft constraints are things that make nurses more comfortable. Data were collected and nurses were interviewed to know what is more better for them. All these constraints and date have been formulated to mathematical equations. This report will first contain an introduction to the topic which includes details of the problem definition. It will also contain information regarding the optimization of a nurse schedule and its contents and importance; furthermore, the report will contain information about the data needed to solve the problem and how it was collected. The problem requires formulation and that is also to be shown. The methodology will be explained which will state what has already been done. We used the lingo software to find the best schedule for the nurse. The schedule has been made according to what the nurses prefer, and also took consideration of the hospital policy when we make the schedule.

Keywords : nurse schedule problem, Kuwait, hospital policy, optimization of schedules
Conference Title : ICSRD 2020 : International Conference on Scientific Research and Development
Conference Location : Chicago, United States
Conference Dates : December 12-13, 2020

Open Science Index, Mathematical and Computational Sciences Vol:14, No:12, 2020 publications.waset.org/abstracts/9565/pdf