



Séminaire conjoint avec / Joint Seminar with
HL Exchange

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MOBILE CLINICS DEPLOYMENT FOR HUMANITARIAN RELIEF: A MULTIPERIOD LOCATION ROUTING APPLICATION

Abstract: Mobile clinics allow healthcare practitioners to provide services to populations with limited access to healthcare. In mobile clinic operations, depots, locations, and schedules must be selected. The demand, quantity of goods or services needed, at each location can be estimated a priori. In order to service a location, it must be visited a minimum number of times and cannot exceed a maximum number of visits. Visiting a location more than the required minimum will result in a better continuity of healthcare. However, each mobile clinic has a known capacity and, hence, there is a limit on the number of locations and times a location can be served. The problem is modeled as a Multiperiod Location Routing Problem. The goal of the Multiperiod Location Routing Problem is to determine the sets of routes and number of times locations are serviced to maximize the total benefit of visiting locations while minimizing the total routing costs. A set partitioning formulation is used and tested on real world instances derived from data of the mobile clinic operations of Première Urgence Internationale at post-war zones in Iraq.

Bio: Rosemarie Santa González is a PhD candidate at École de Science de la Gestion of the University of Quebec in Montréal (ESG-UQAM), under the supervision of professors; Marie-Ève Rancourt, Teodor Gabriel Crainic, and Marilène Cherkesly. Her research focuses on the use of Operations Research and Management Science (OR/MS) to solve humanitarian logistics problems, and her PhD thesis is on the Tactical Planning of Mobile Clinic Operations.

VENDREDI / FRIDAY
4 octobre 2019 /
October 4th, 2019
12h00

Salle / Room 5441
Pavillon André-Aisenstadt
Université de Montréal

Ouvert à tous / Open to all

Responsable / Organizer
Marie-Ève Rancourt