Scheduling the Tour of a Marketing Executive

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Abstract

This paper addresses the problem of scheduling the tour of a marketing executive (ME) of a large electronics manufacturing company in India. Based on our observations of this problem in the company and the various personnel scheduling problems addressed in the literature, we realize that the scheduling (a personnel scheduling) problem taken up in this study seems to be quite different from the various personnel scheduling problems addressed in the literature. In this paper the tour scheduling problem of the ME is modeled using (0-1) goal programming (GP). The (0-1) GP model for the data provided from the company for one month has 802 constraints and 1167 binary variables. The model is solved using LINDO software package. The model takes less than a minute (on a 1.50 MHz Pentium machine with 128 MB RAM) to get a solution of the non-pre-emptive version and about 6 days for the pre-emptive version. The main contribution is in problem identification and development of the mathematical model for scheduling the tour of a marketing executive.