

## **Multi-objective Annualized Hours Manpower Planning Models Incorporating Human Factors**

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### **Abstract**

In this paper Multi-objective manpower planning models with annualized hour's flexibility considering workers efficiency and willingness are proposed. Minimization of workers availability and overtime cost are the objectives of our models. Annualized Hours policy gives flexibility to the workers and helps to fulfil the demand throughout the year. It reduces the mismatch between workers availability and their demand. Also Incorporating human factors i.e. workers efficiency and willingness makes the model more real, which can't be ignored in manpower planning. A goal programming solution approach is applied to solve the Multi-objective models. Finally, a computational experiment is presented to demonstrate efficiency of our models.