Abstract

Public Transit (P. T) is very important means to reduce traffic congestions, to improve urban environmental conditions and consequently affects people social lives. Planning, designing and management of P. T are the key issues for offering a competitive mode that can compete with the private transportation. These transportation planning, designing and management issues are addressed in the Transit Network Design Problem (TNDP). It deals with a complete hierarchy of decision making process. It includes strategic, tactical and operational decisions. The main body of TNDP is two stages, namely; route design stage and frequency setting. The TNDP is extensively studied in the last five decades; however the research gate is still widely open due to its many practical and modeling challenges. In this paper, a comprehensive back-ground is given to illustrate the issues and challenges related to the TNDP to help in directing the incoming researches towards the untouched areas of the problem

References

Issues Related to Transit Network Design Problem

- Shih, M. -C. and H. Mahmassani, A design methodology for bus transit networks with coordinated operation, in SWUTC/94/60016-1, Center for Transportation, Bureau of Engineering Research. 1994, the University of Texas at Austin, Austin, Texas.
- Fan, W. , Optimal Transit Route Network Design Problem: Algorithms, Implementations, and Numerical Results. 2004, Graduate School of the University of Texas at Austin.
- Baaj, M. H., The Transit Network Design Problem: An AI-Based Approach, in Department of Civil Engineering, University of Texas, Austin, Texas. 1990.
- Owais, M. and G. Moussa, A Novel Solution Methodology for Transit Route Network
- Owais, M. M. A. , Investigating Optimal Bus Routes Planning and Operation in Urban Areas. 2014, Assiut University, Faculty of Engineering, Civil Department.
- Ceder, A. , Public Transit Planning and Operation. 2007: Elsevier Ltd.
Issues Related to Transit Network Design Problem


Index Terms

Computer Science
Networks

Keywords