ABSTRACT

In this study, we have made an analysis of traffic demand forecast, centered in regional transportation of people. For that, we have studied aspects that influence in this demand, after we have covered different forecast models and finally we have applied one of this models.

To know aspects that influence in traffic demand we have studied first some characteristics of existing offer of regional transportation of people, either infrastructures and used modes that are train, car and bus, trying to emphasize most important aspects.

Successively we have made an study of demand details of this type of transports. We define its characteristics and so aspects that influence to it. We have made first a general vision of this demand according to mobility and scale we refer, to type of displacement, to motives of travel and to transportation modes.

Next, we have centered in details of demand of regional transportation of people, defining characteristics of collective transportation market and car market.

Too, we have made a detailed study of traffic forecast models existing, classifying it according to sundry criterions and objectives. We have described its characteristics: its empirical bases, its methodology, data and hypothesis it use, results it give,…

To decline for one of this models we have collected in points shape characteristics, data and basical hypothesis that one model must contemplate to forecast traffic demand. On the basis of this criterion we have analysed this models, pointing up to its virtues and defects, describing its methodological diagram, either data it use.

Finally we have selected the best model adapting to our needs, in base of a comparative of models characteristics and selecting the one most perfect according the criterium we have commented before.

Selected model is apply to forecast Cataluña traffic, where they will build a high quality infrastructure and it will be used for regional traffic through shuttle trains between most important cities of region and it will change regional movements plan of this country.

First we define which are basical data and hypothesis, and which is methodology used for application and then we apply the model.

We apply the model in some stages (basical stage, reference stage and project stage) and we have one forecast of traffic in the year they will build this infrastructure, showing which is the part of total traffic it correspond to each of transportation modes.

Data gives the model in different stages of application, we analyze and compare with others studies made for same situation, to see if the model works correctly and gives logical and useful data.

We end this study with conclusion of work made.