

Speech Control Systems for Handling of Route Guidance, Radio and Telephone in Cars: Results of a Field Experiment

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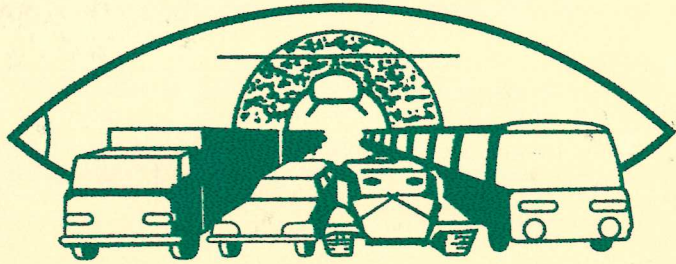
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1. INTRODUCTION

More and more driver information and support systems are just being, and will be, installed in modern cars. In the near future not only navigation systems and mobile telephones, but also information- and booking systems, toll systems or fleet management systems for trucks will be as usual as the car radio is nowadays.

The manual control of all these systems meets two problems: firstly, manual control cannot be performed totally blind, i.e. without visual distraction from the traffic and secondly, appropriate manual control panels are not available or cannot be installed in a car. An alphanumeric keyboard which would be the best manual control for a navigation system is difficult to implement in the dashboard of a passenger car. Furthermore, the use of such a device while driving is obviously risky. The solution with a single turn-push-button, used for the programming of navigation systems seems to be the best manual solution, but it is sub-optimal.

The development of speech recognition systems shows a steady but laborious progress and has reached a status where useful applications can be seen. Reliable technology is available for speaker adaptive single word processors with a limited vocabulary and a recognition rate above 95%.



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