

Abstract of Paper

"Speech-Controlled Wearable Computers for Automotive Shop Workers"

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Abstract

Vehicle inspection in repair shops is often still based on paper forms. Information Technology (IT) does not yet support the entire inspection process. In this paper, we introduce a small wearable IT device that is controlled by speech and enables service technicians to wirelessly access relevant data and to perform on-site communication. Users can carry this device in a pocket and use a small headset to enter speech and receive audio feedback. This system provides a completely speech-enabled functionality and thus offers a hands-free operation. After showing the applicability of wearable computers in this environment, we developed a proprietary hardware system consisting of a thin-client connected via a Digital Enhanced Cordless Telecommunications (DECT) link to a standard Personal Computer (PC) that runs a speech engine and hosts a database. Several field tests in garages helped us during the evolution of our prototypes where service technicians critiqued the prototypes.