

## ABSTRACT

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*Smart mobility systems have the potential to increase accessibility and independence for deaf and speech-impaired people. However, effective system design requires a deep understanding of user needs and experiences. This research discusses the development of user personas to design a smart mobility system that is friendly and inclusive for the deaf and speech impaired using qualitative research methods involving interviews and in-depth observations. This research shows that a sample of 16 people with physical disabilities felt that the facilities for disabilities were less friendly, especially the staff's knowledge of sign language. They need a system that provides complete information about public transportation and can communicate using a Sign Language Interpreter. The research results show that user personas can help designers understand the diversity of needs and experiences of deaf and speech-impaired users. This understanding can be used to design intelligent mobility systems that are more effective and meet user needs.*

*Keywords : User Interface, Public Transportation, People with Disabilities, User Experience, Universal Design*