HIGHER TECHNICAL INSTITUTE

COMPUTER STUDIES DEPARTMENT

**DIPLOMA PROJECT**

# A COMMUNICATION SYSTEM FOR PEOPLE WITH SPECIAL NEEDS

**CS/261**

ANDREAS PIERIS

JUNE 2001

## SUMMARY

As it has been already noted in the Introduction the major scope of the "Communication System for People with Special Needs", is to support people with mobility problems who cannot communicate with their environment in the natural way. More specific, we deal with people that have Motor Neurone Disease (MND). The major organisation, involved, is the Cyprus Institute of Neurology and Genetics (CING). This institute is a non-profit medical and research organisation, which is dedicated to lessening the suffering of patients and their families through continuous patient care and research programs on neurological and degenerative disorders. With co-operation with CING, the project team will develop the system described in Introduction.

The System Development Life Cycle (SDLC) methodology will be followed in the analysis of this project, the programming language Visual Basic 6.0 will be used for the development of the project and finally the database package Microsoft Access 2000 will be used to design the necessary tables for the project.

We had various programming languages available to select among them in order to develop this project:

- Turbo Pascal 7.0
- Microsoft Visual C++
- Microsoft Visual Basic

After investigating the features and the benefits of these programming languages and also take in mind how much familiar the development team is with each one of these development tools, we decide that Microsoft Visual Basic is the most suitable language to be used for the development of this project. (see Appendix D)

The project will provide the following features:

- User friendly environment with on-line help
- Special input devices to help immobile people to use the system

- Speech communication procedure
- Word processing using an on-screen keyboard
- Administration procedures for the database
- Security procedures
- Multilanguage support
- Telephone conversation procedure
- E-mail procedure