**DESCRIPTION OF SOURCE CODE FILES**

The source code files provided in this CD have been modified or created by the author for the purpose of the M.Sc. project. Brief descriptions of the files are given below:

**UT2004:**

Files belonging to the Unreal Tournament 2004 (UT2004) directory that have been modified by the author are:

1. *USARBot.ini*, the configuration file in the System folder, has been modified to incorporate sonar and infra-red sensors in the wheelchair
2. *IRSensor.uc* (unreal script file) in the Classes folder under the USARBot folder has been modified by changing the maximum and minimum ranges of the IRSensor

**Wheelchair Application:**

Files belonging to the Wheelchair Visual Studio project that have been modified by the author are:

1. *resource.h* (header file) and *Wheelchair.rc* (resource file) have been modified to include a new check box labelled ‘Shared Control’
2. *WheelchairDlg.cpp* (C++ file) and *WheelchairDlg.h* (corresponding header file) have been changed to allow the shared control check box to be activated
3. *Wheelchair.cpp* (C++ file) and *Wheelchair.h* (corresponding header file) have been modified to create a shared control object and pass sensor data to it
4. *StateControl.cpp* (C++ file) and *StateControl.h* (corresponding header file) have been changed to allow collision avoidance in the function, ‘TransFun’, prior to changing the state of the wheelchair. A new function has been added, ‘SharedTransFun’, to customise the state control for shared control behaviour. The function ‘ModifyControl’ has been added to limit the speed of the wheelchair in shared control mode.

The following files have been created by the author:

1. *SharedControl.cpp* (C++ file) and *SharedControl.h* (corresponding header file) contain the implementation of the class ‘SharedControl’, which handles the shared control strategies for obstacle avoidance, collision avoidance and wall following