MIC Server Guide @ Robotics Lab

System Configurations:

- Operating System: Red Hat Linux version 4.4.4-13
- Compiler: Intel Parallel Studio XE 2015 Student Edition including:
    - Intel C++ Compiler, Intel MKL (Math Kernel Library), Intel IPP (Integrated Performance Primitives), Intel TBB (Threading Building Blocks), Intel Advisor XE, Intel Inspector XE, Intel VTune Amplifier XE

Account Creation:

To get an account for accessing MIC server, please send your following information at
ahkhan@kfupm.edu.sa, mayez@kfupm.edu.sa

Required Login Name:
**Full Name:**
Mobile Number:
Email:

Note: You will be provided access to MIC server for only the current Term. If you need access for long duration then send the expected work duration with the approval from your advisor.
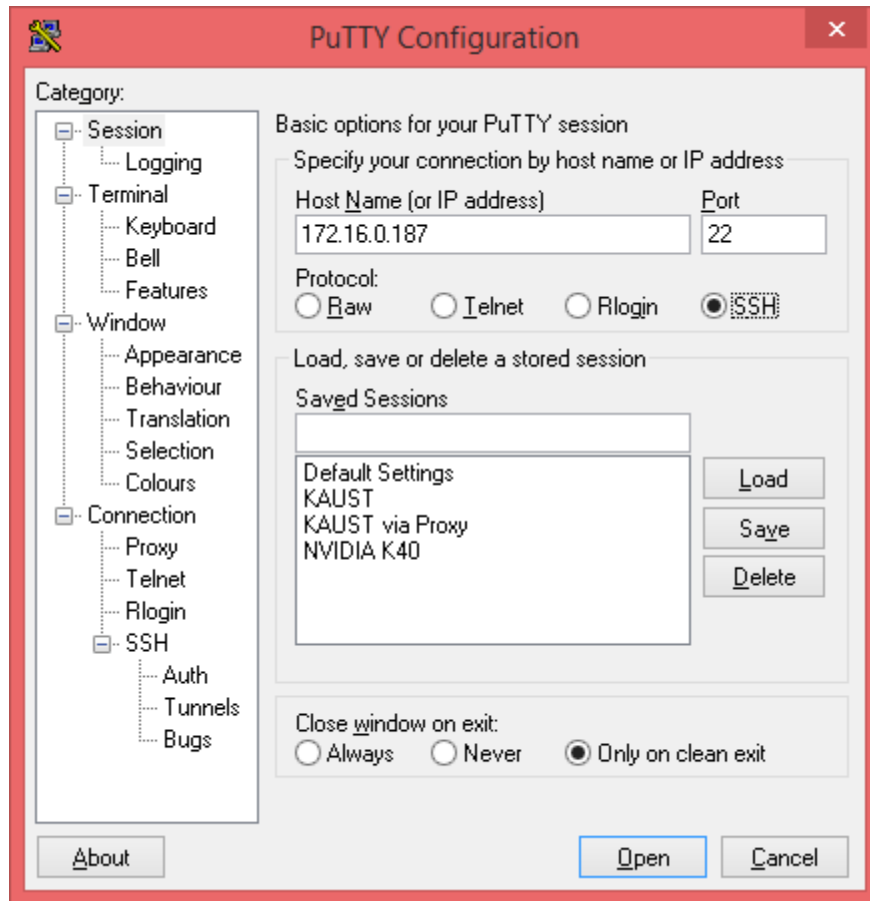
Login to Server:

For login to server, you need a ssh client such as "Putty". It is freely available on internet, you can download putty from http://www.putty.org/
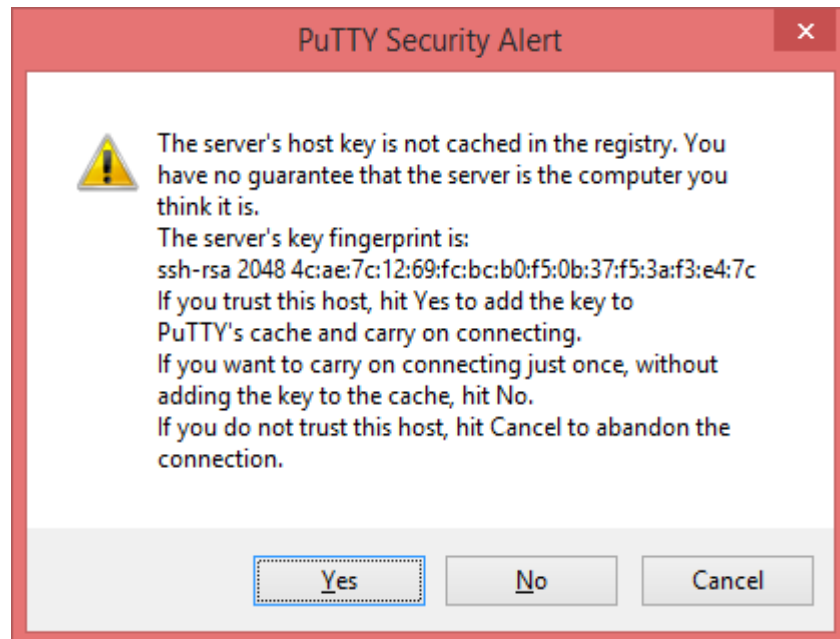
Steps:

1. Open Putty
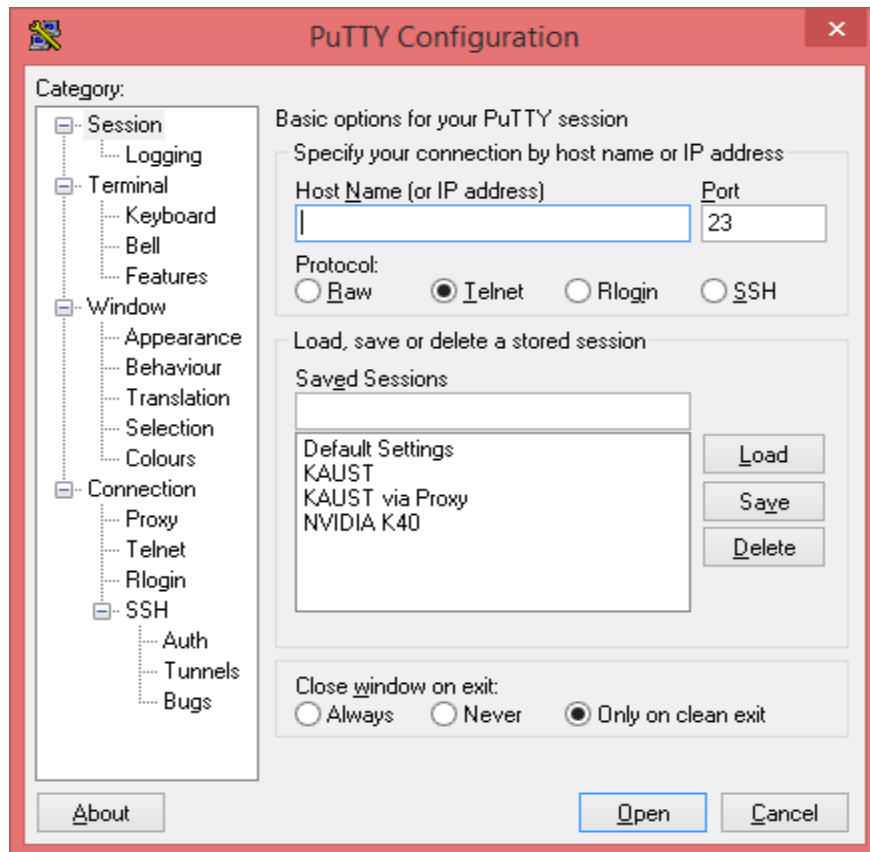
2. Enter IP address of MIC Server: 172.16.0.187 and Select "SSH" in Protocol. Click Open

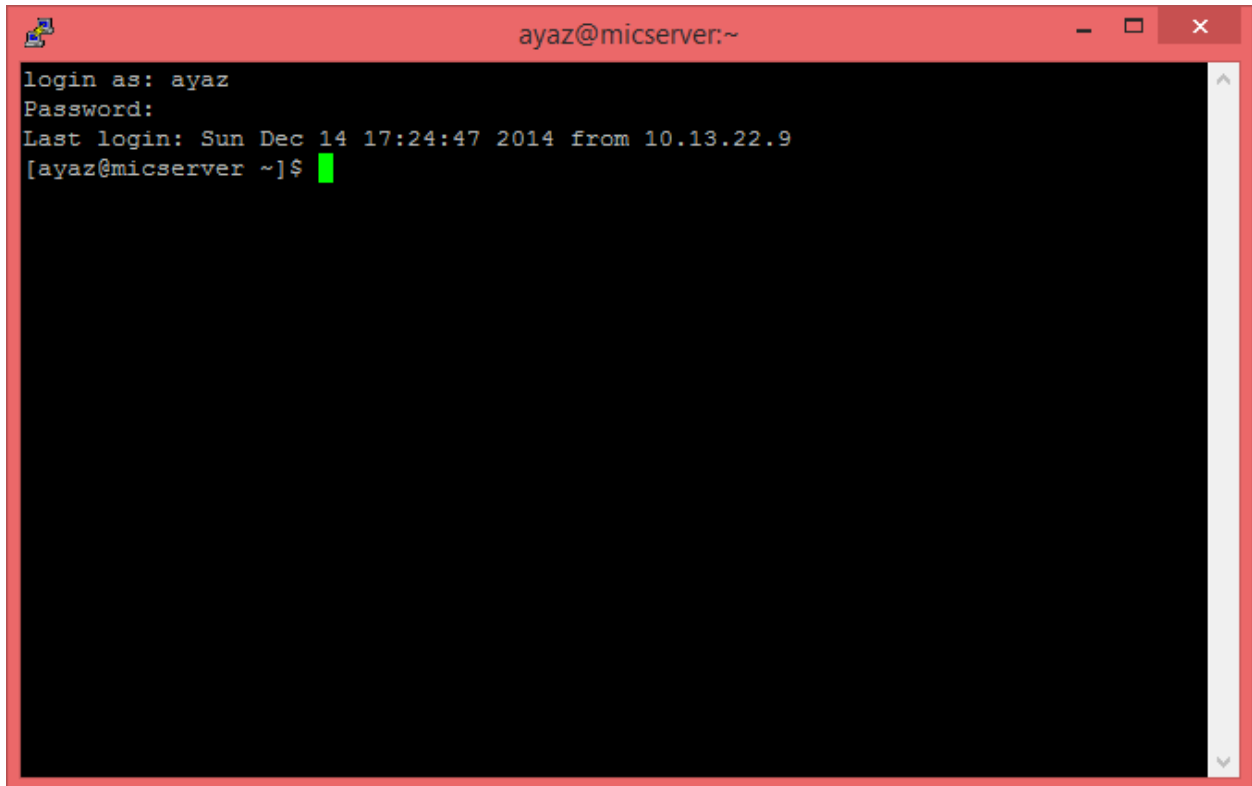3. Click Yes on Putty Security Alert. This is only for the first login.

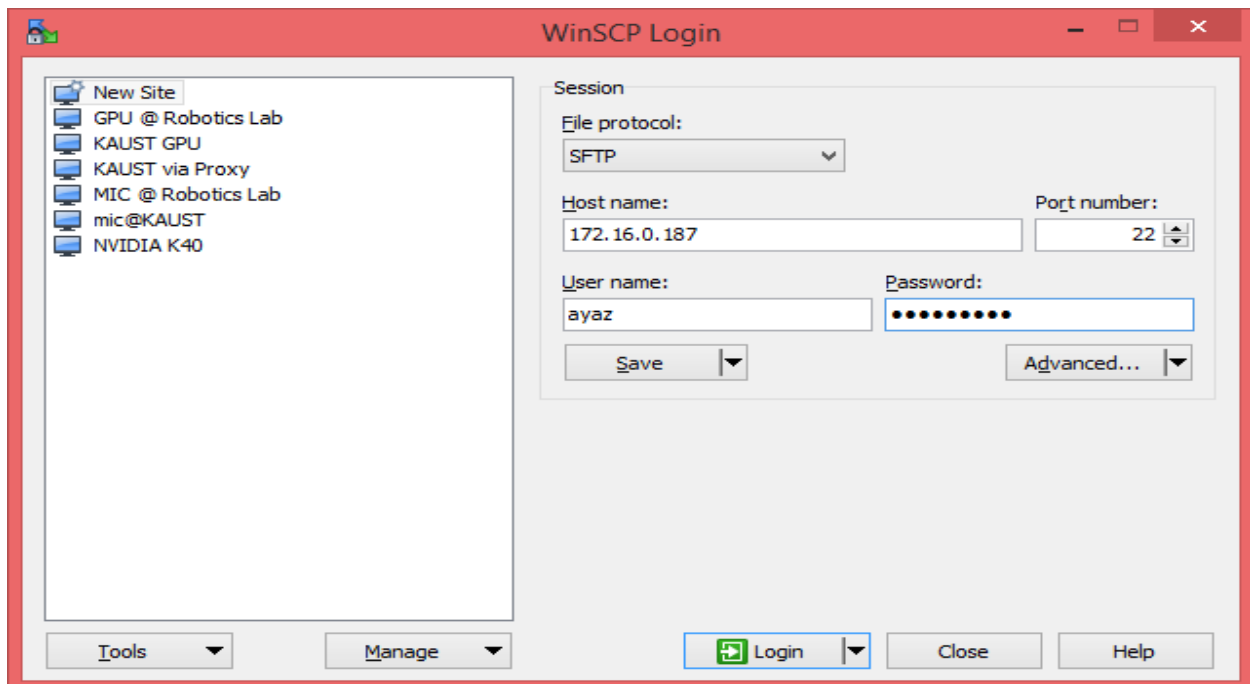4. Enter User name and Password.

5. You are now logged in to the system.

Transfer Files:

For login to server, you need a scp client such as "WinSCP". It is freely available on internet, you can download WinSCP from http://winscp.net/
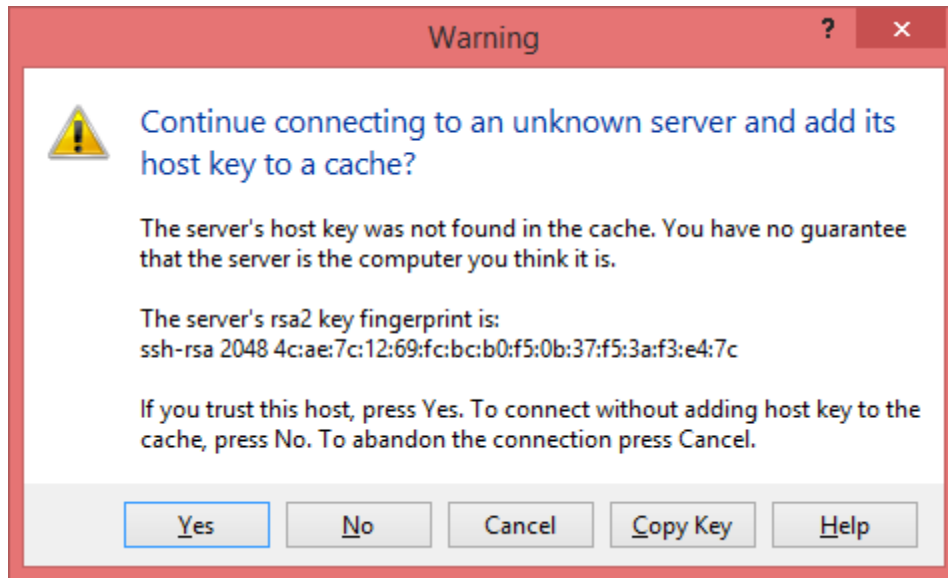
1. Open WinSCP
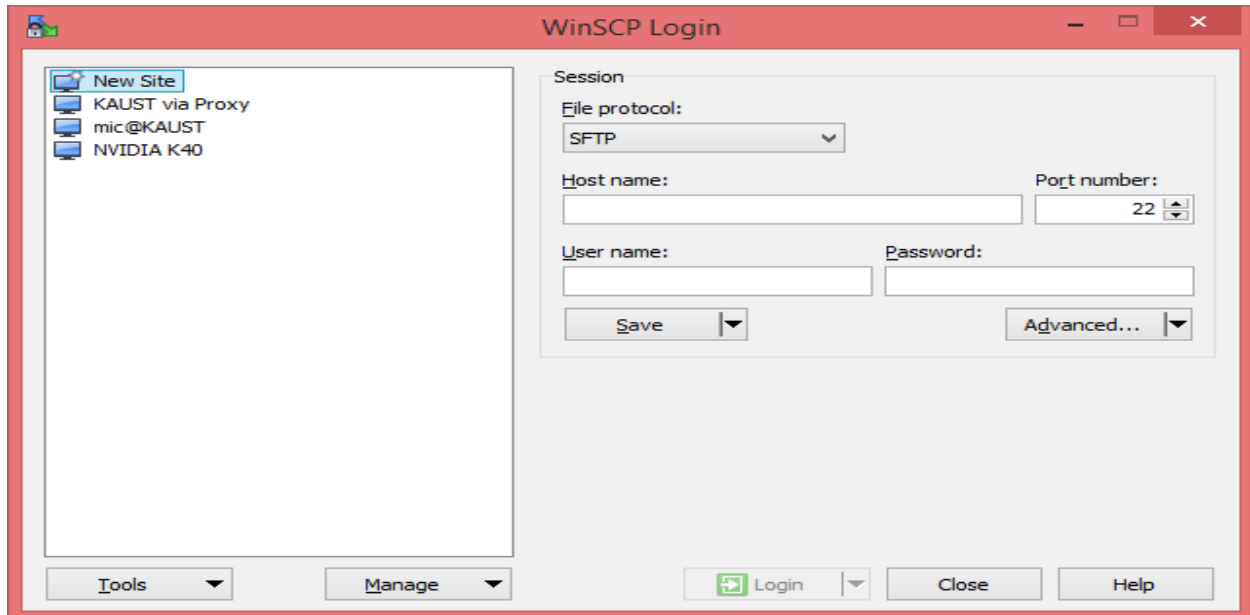
2. Enter IP Address of MIC Server: 172.16.0.187 as Host name, Enter your user name and password. Click Login

3. Click Yes on Warning for host key. This is only for the first login.

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4. You can now transfer files from server to local machine or local machine to server by drag and drop the files/folders from left to right or right to left respectively.
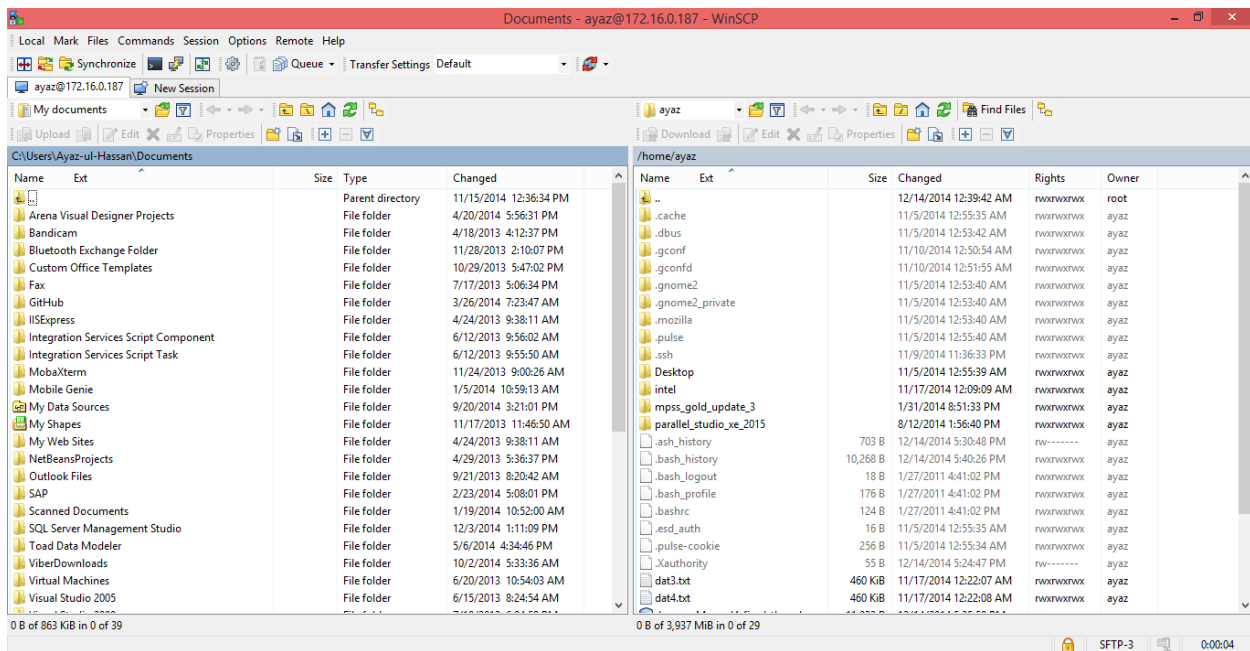
Compiling and Running the Program on MIC Card:

Steps:

1. Setting the intel compiler path using following command:

source /opt/intel/composerxe/bin/compilervars.sh intel64

2. compile your program (program.c) for mic using following command:

icc -mmic -openmp program.c -o program_mic

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3. Login to MIC using ssh:

ssh mic0

4. Setting Shared Library Path on mic using following command:

export LD_LIBRARY_PATH=/opt/intel/composerxe/lib/mic:$LD_LIBRARY_PATH

5. Execute your program on mic:

./program_mic