Handout C: ECE IT Support

ECE Teaching Labs for various courses are located in the basement and first-floor of the Engineering Education and Research Center (EERC) Building. The computing facilities in the ECE teaching labs are available when officially scheduled lab sections are not meeting in them. The ECE teaching labs are open Mondays–Thursdays from 9:00am to 10:00pm, Fridays 9:00am to 7:00pm, and Saturdays 10:00am to 6:00pm. More information about the ECE teaching labs is available at http://www.ece.utexas.edu/it/labs.

1 Available Hardware

The ECE Department has about 200 workstations, including Unix workstations and Windows machines, for student use. In addition to the workstations in the ECE teaching labs, several Linux and Windows workstations are available for remote connection. For more information, see http://www.ece.utexas.edu/it/remote-linux.

2 Available Software on the Unix Workstations

The following programs are installed on all of the ECE workstations unless otherwise noted.

• **Matlab** is a number crunching tool for matrix-vector calculations which is well-suited for algorithm development and testing. It comes with a signal processing toolbox (FFTs, filter design, etc.). It is run by typing **matlab**. Matlab is licensed to run on the Windows PCs in the ECE LRC, as well as Unix machines luigi, mario and princess in the ECE LRC. On the Unix machines, be sure to type `module load matlab` before running Matlab. For more information about using Matlab, please see Appendix D in this reader.

• **Mathematica** is a environment for solving algebraic equations, solving differential and difference equations in closed-form, performing indefinite integration, and computing Laplace, Fourier, and other transforms. The command-line interface is run by typing **math**. The graphical user interface is run by typing **mathematica**. On ECE LRC machines, Mathematica is only licensed to run on sunfire1.

• The GNU C compiler **gcc** and GNU C++ compiler **g++** are available.

• LabVIEW software environment, which is a graphical programming environment that is useful for signal processing and communication systems developed at National Instruments, is also installed. LabVIEW's Mathscript facility can execute many Matlab scripts and functions. We have a site license for LabVIEW that allows faculty, staff and students to install LabVIEW on their personally-owned computers. For more information, see

http://users.ece.utexas.edu/~bevans/courses/realtime/homework/index.html#labview

Placeholder - please ignore.