



## Electrical and Computer Engineering

### Welcome New ECE User:

As a student of the ECE department, you are entitled to the computer resources that the department has to offer. This document covers a basic overview of these services and a few helpful hints on getting started.

#### **Student Accounts:**

One of the first questions asked by students is, where do I get my ECE account? New accounts are created the Friday before classes begin. If you have registered for an ECE class, or have just declared ECE as your major, then an account will be created for you at that time. Accounts for students adding ECE classes during the drop/add period will be created on the Friday following their registration. For all these cases, students can pick up their accounts slips in the main ECE office, room 216. You will need your University ID card in order to get your account. You will find a password reset station in room 216 that you can swipe your card to receive your account information.

If you are already an ECE major, or a non-ECE student who has taken an ECE class in the previous semester, and do not know your account information, you can still use the password reset station in room 216 of Simrall Hall to reset your ECE account password. If you still have problems accessing your account, you will need to contact the ECE system administrator to reset your account. For a list of contacts, please see the Support Services section at the end of this document.

#### **Student Building Access:**

Student access is given on a semester-by-semester basis. All ECE students (as listed by the Registrar's office) will be given 24-hour access to the PC lab, CADD lab, and the South and West Entrances at the beginning of every semester.

Any students having problems with card access after the first week of classes should see the Simrall Hall Building Manager in the ECE main office (S216).

For the complete building access policy, please visit:

[http://www.ece.msstate.edu/department/facilities-building\\_access.html](http://www.ece.msstate.edu/department/facilities-building_access.html)

### Systems Overview:

ECE's network servers run a Unix backend. Don't feel discouraged if you haven't ever used a Unix system before. This document will give you a few pointers on becoming familiar with the system.

#### **A Brief Overview of Unix:**

If you have ever used Unix before, you will know that it is a powerful tool. However, to those that haven't seen it, Unix can seem a little forbidding. Here are a few pointers to keep in mind when working in Unix:



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- Unix is case sensitive. What this means is that the Unix distinguishes between upper and lower case letters. So the words foo, Foo, fOo, foO, FOo, fOO, FoO, and FOO are all different words to Unix. You will need to be particularly careful when entering your password, as your password will not be displayed when you type it. If you do decide to use character cases in your password, make sure you remember them.
- When moving around your directories in your account, make sure you use a / (forward slash) to separate directories as opposed to a \ (back slash). So if you wanted to switch to the lab1 directory located within the ee4743 directory, you would type “cd ee4743/lab1”.
- On occasion, you may try to run a command that promptly returns a very cryptic message about not being able to find the requested file. If the file you are trying to run is in your current directory, you will have to tell Unix. The way you tell Unix is to place a ./ before your command. That says that the command you are trying to run is in your current directory. For example, suppose you are trying to run a program you have written called dumpit. To run it, type ./dumpit.
- There is a command called swsetup that will set environment variables for you on commonly run commands. Type **swsetup help** to get a list of supported software. You can even add these swsetup modules so that each time you log in, they will be executed automatically. In your home directory is a file called .swsetuprc. If you place the module name in this file, swsetup will run it each time you log in.

## Unix Computer Resources:

### Servers:

|       |  |
|-------|--|
| Yavin | This is the main ECE login server. When you wish to check your email from a terminal, want to SFTP files, or need to ssh, use Yavin. Please do not run jobs on Yavin as it is a login server and is not intended to be a compute server. Please note that Yavin doesn't allow telnet or ftp since both of these protocols are considered insecure.                                 |
| Hoth  | Hoth is our compute server in the Solaris environment. Please use this server to run any jobs that require a fair amount of computer resources.  |
| Talus | Talus is our compute server in the Linux environment. Please use this server to run any jobs that require a fair amount of computer resources. These servers run a clustering software from Sun called a Grid Server. For help submitting your jobs, type “swsetup grid” when you log in. Please do not run jobs on the head node of the cluster. They will be removed when found. |

## Student Accounts:

As stated earlier, all students who are either an ECE major, or taking an ECE class, have an ECE account. This account is separate from any other account you may have at Mississippi State University. To change your password, please reference the following site:

[http://www.ece.msstate.edu/wiki/index.php/Helpdesk#change\\_ece\\_password](http://www.ece.msstate.edu/wiki/index.php/Helpdesk#change_ece_password)



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Please take note of the passwords you use. Passwords should not be easy to guess. At a minimum, use passwords that contain numbers and are longer than six characters. To increase security, don't use words that can be found in a dictionary and mix the case of your letters.

Students are responsible for all actions on their accounts. Please do not share your password with anyone. No one from network support, either at ECE or the Computing Center, will ever ask for your password. We ask that you please review the **Policy on Student Use of Computing Resources** found at:

[http://www.msstate.edu/web/use\\_pol.htm](http://www.msstate.edu/web/use_pol.htm).

It will be used for governing student activity and use.

### Student Resources:

#### Disk Space:

Each student has a home directory where you can store homework and class assignments. You have been allocated 200MB of disk space in order to store your work. When you log in, you will be placed in your home directory. Here are a few basic commands for navigating around your home directory:

|                        |  |
|------------------------|--|
| <b>ls</b>              | Lists the files in the current directory.  |
| <b>pwd</b>             | Display the directory you are currently in.  |
| <b>cd</b> directory    | Change to the following directory. If the <b>cd</b> command is given without a directory to change to, it will return you to the root of your home directory.  |
| <b>mkdir</b> directory | Create a directory.  |
| <b>rm</b> filename     | Removes, which means deletes, a file from your account.<br>WARNING: Although you will have to make use of this command frequently, please be very careful in its use. There isn't an undelete command in Unix. Once a file has been deleted, it can only be recovered by restoring it from tape. |
| <b>quota -v</b>        | Lists your current disk usage and quota limits.  |
| <b>ps -u</b> username  | Lists the programs you have running.   |
| <b>pine</b>            | Email program  |

Please be aware that there is a 200MB quota on your account. If you accidentally exceed your quota, don't worry. You will still be able to log into your account and get yourself back under the quota. Please bear in mind that web pages are part of the 200MB quota.

#### Web Space:

As a student of the ECE department, you have the opportunity to set up a personal web page. All material on your page must conform to the university's policy on personal web pages. You are expected to have read the policy before posting your web page. The policy can be located at:

<http://www.msstate.edu/dept/audit/0113.html>



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You can access your home page by going to the following address (please substitute your user ID in the appropriate place):

<http://www.ece.msstate.edu/~YourUserID>

### **Print Quotas:**

ECE accounts have a print quota set for the number of pages that students can print to ECE printers in a given month. By default, undergraduate students can print 50 pages per month. Graduate students have a print quota of 100 pages per month. If you are an RA, TA, or student worker, then your print quota can be adjusted at the discretion of your major professor or supervisor. Unfortunately, except for these noted exceptions, no other allowances will be made for extending a student's print quota.

Any pages left over at the end of a month, within a given semester, will automatically be added to the next month's quota. For example, on the first month of a new semester, an undergraduate student will have 50 pages in their print quota. If the student only prints 10 pages for the month, 40 pages will be added to the next month's quota. Therefore, the student will have a 90 page quota for the following month.

At the end of the semester all print quotas are reset to the student's base quota. To continue the example above, if the student ended a semester with 60 pages left in their quota, the student's quota will be reset to 50 pages on the first month of the new semester.

### **Mail Quotas:**

ECE accounts have a 200MB mail quota. Once the quota is exceeded, all future email to the account will bounce back to the sender of the email with a notification that the email is undeliverable. Students can check their mail quota by logging into the webmail interface at:

<http://zimbra.ece.msstate.edu>

The current quota will be listed in the upper right-hand corner of the browser window.

## Student Account Access:

### **Accessing Your Unix Account:**

Accessing your account depends on the computer you are using. If you are using a Unix workstation, then once you log in, you can start working. Accessing your account from a PC requires that you first log in to a login server. The PCs in the PC lab have an ssh client loaded on them. Use it to log in to Yavin to access your account. Also, the ECE network filters incoming network connections. Therefore, there are certain resources that cannot be accessed from outside the department. In most circumstances, logging into Yavin will allow you access to the network resource you wish to access. For a list of resources that can be accessed outside of the department, please refer to:

[http://www.ece.msstate.edu/wiki/index.php/Helpdesk#ece\\_firewall](http://www.ece.msstate.edu/wiki/index.php/Helpdesk#ece_firewall)



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### File Transfer to Your ECE Account:

You can SCP or SFTP files into your account. You can google for a program called WinSCP. It can do both SCP and SFTP transfers. Both protocols are accepted on ece.msstate.edu.

If you are on campus, you can map a directory, through Windows, directly to your home directory. Please refer to the helpdesk FAQ for information. The FAQ is located at:

[http://www.ece.msstate.edu/wiki/index.php/Helpdesk#win\\_map\\_drive](http://www.ece.msstate.edu/wiki/index.php/Helpdesk#win_map_drive)

### Labs:

There are two main labs available for general ECE student use. The PC lab, room 131, allows access to Windows computing resources. The CAD lab, room 132, allows access to Unix computing resources. Please be sure not to let anyone else use your account for these labs. Also, make sure you log out of the computer your using when you are finished. Locking workstations, either with the screensaver or system lock option, in either lab will result in a warning for the first instance and account suspension for the second offense. If you need to step away from the PC or workstation you are working at, be sure to log off.

Please note that files and information should not be saved to the hard drives of lab PCs. This includes saving information to the PC desktop. Due to the rapid changes of the PC lab configurations, the PC's hard drives are erased whenever an update is needed. This often happens several times during the semester, and often when a student has saved a file that is necessary for them to graduate. Please use your H: drive to save any important information.

When you log into the PCs in the PC lab, room 131, a drive will be mapped for you to the H: drive. This is your home directory. Anything you store there will be accessible when you log into your Unix account. Most of the PCs have recordable CD-ROM and DVD drives installed in the PC lab. These can be used for archiving data from your home directory.

### Personal Computers:

It is possible to attach your personal computer to the ECE network. In order for your computer to communicate on the ECE network, you will need to configure your network card for DHCP. DHCP will automatically configure the TCP/IP settings of your PC for our network. After attaching to the ECE network, you can then browse the web or map drives to ECE services through SAMBA. For explanation and examples on how to map drives, please refer to the helpdesk web page:

[http://www.ece.msstate.edu/wiki/index.php/Helpdesk#win\\_map\\_drive](http://www.ece.msstate.edu/wiki/index.php/Helpdesk#win_map_drive)

The ECE department also has a wireless network installed. To use this network, you will need an 802.11b compatible wireless Ethernet card. The card will need to be configured for Infrastructure mode, and TCP/IP should be configured to use DHCP. At this time, you do not need any additional configuration information. Instructions for configuring your wireless network card are available by activating your network card and opening a web browser. A web page will appear and give you additional instructions.



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### Other Resources:

#### Mississippi State News Server: [nntp.msstate.edu](mailto:nntp.msstate.edu)

There are several news groups on the news server for MSU. Do a search for news groups beginning with msu for a list.

#### MSU Folding@Home:

If you have some spare computing cycles. Consider donating to the MSU folding team. Information can be found at:

<http://folding.stanford.edu/>

MSU's team number is 11675.

### Support Services:

You are not alone. If you have any problems, there is someone to turn to. For any problems you may experience, send an email to [admin@ece.msstate.edu](mailto:admin@ece.msstate.edu). You will be promptly notified that your request has been received, and you will be given a ticket number. For any further correspondence on this problem, please reference your ticket number. If you are unable to send email, then please call 5-2184 to speak with the system administrator, or you can submit a ticket through the following site:

<http://www.ece.msstate.edu/department/support.html>

A web page has been set up to answer common questions. The page is constantly being modified with the latest questions from students:

<http://www.ece.msstate.edu/wiki/index.php/Helpdesk>

### General No-No's:

Finally, here are a few tips for proper netiquette.

- Do not spam others. Although it may be tempting to notify everyone at ECE of the latest virus circulating through email, restrain yourself. This being one of the nobler reasons to email everyone at ECE; there really isn't a good reason. If there is something you feel everyone needs to know, please notify [admin@ece.msstate.edu](mailto:admin@ece.msstate.edu) and it will be handled for you.
- It is not polite to lock a computer screen in the labs when you will be leaving to go to a class or lunch. Please make sure to log off, so that other people can use the station.
- Please be conservative on what you print, and be sure what you print is what you want.
- ECE computers and resources are not to be used for personal gain. In general, don't use your email or web address for monetary or personal gain.
- Do not use ECE computers to download copyrighted material for the purpose of piracy, which includes but is not limited to MP3s, movies, and games.
- Do not use ECE computers and resources to download or store offensive material. Doing so will result in the immediate deactivation of your account. You will be referred to the ECE Department Head and Dean of Students, and they will decide if your account will be reactivated.