VE482 — Introduction to Operating Systems

Lab 1
Manuel — UM-JI (Fall 2018)

Goals of the lab

- Disassemble a computer

- Recognize the common computer hardware

- Understand how a computer works

Hardware overview

Some components might be missing, in such a case figure out their expected location.

In the computer locate:

- The motherboard
- A Hard Disk Drive
- An Optical disk drive

- The PC power supply
- A PCI card

On the motherboard locate:

- The RAM
- A SATA socket
- A PCI/PCI-e slot
- The CPU

- The North and South bridges
- The battery
- The BIOS

Answer the following questions:

- Where is the CPU hidden, and why?

- What are the North and South bridges?

- How are the North and South bridges connected together?

- What is the BIOS?

- Take out the CPU, rotate it and try to plug it back in a different position, is that working?

- Explain what overclocking is?

- What are pins on a PCI/PCI-e card and what are they used for?

- Before PCI-e became a common standard many graphics cards were using Accelerated Graphics Port (AGP), explain why.