

CS Facilities — General Overview

The department is dedicated to providing high-quality computing facilities for use by computer science faculty, students, and administrative personnel. The facilities are operated by a technical staff who are not only responsible for the installation and maintenance of the systems, but who also assist faculty and students in the development of software systems for research projects. The staff includes a director, facilities manager, administrative assistant, network engineer, hardware engineer, six system administrators, and several student assistants.

General Facilities

General computing facilities are available for both administrative activities (such as the preparation of research reports and technical publications) and research needs that are not supported by other dedicated equipment. The main server systems are multiprocessors with large main memories and a total of over 60 TB of disk storage. Personal workstations and laptops from a variety of vendors are used by faculty, staff, and students throughout the department.

Educational Facilities

The Computer Science department operates nine instructional laboratories in two buildings. These labs are used for both undergraduate and graduate computer science courses and include over 200 Intel- and Sun SPARC-based workstations. Supported operating systems include Windows XP, Linux, Solaris x86, and Solaris SPARC. Two labs are collaboration team project labs dedicated to group learning with the assistance of interactive SMARTboard technology. A later section lists equipment owned and maintained by ITaP but used by computer science students.

I/O Equipment

The department operates both special-purpose output devices as well as general output equipment, including more than 75 laser printers, color printers, color scanners, copiers, video projectors, digital video editing capabilities, phone and video conferencing equipment.

Networking Services

The department is strongly committed to state-of-the-art networking technology to provide access to and communication among its systems, as well as to those elsewhere on campus and throughout the world. Our departmental infrastructure supports gigabit per second data rates to the desktop throughout our two buildings using over 65 Ethernet VLAN-capable switches from Force10 and Cisco Systems. Wiring in the new Lawson Computer Science Building is based on Panduit augmented CAT6 data cable and patch

panels, capable of 10 gigabit per second speeds. This network infrastructure is bi-connected to the campus backbone by two 1 gigabit per second redundant fiber links. The campus is connected to multiple high speed Internet backbones, including Abilene/Internet2 and I-Light. DSL, cable, and cellular data services are widely used for remote access.

Information Technology at Purdue (ITaP)

In addition to the facilities described above, students and faculty have access to computing systems owned and operated by ITaP. General instructional facilities operated by ITaP include large Sun SPARC servers and several Sun and Intel workstation laboratories. In addition, ITaP provides systems for use in courses taught by the CS Department. These systems include UNIX-based Sun SPARC stations for undergraduate computer science courses and Microsoft Windows-based Intel personal computers for use in an introductory course for non-majors (CS 110). Departmental research projects make use of other facilities provided by ITaP. These include a large IBM SP cluster and the Envision Center for Data Perceptualization.