Electronic Instructor wins wreath contest with electronic showcase

Electronics Instructor Daniel Halstead (right) won the West Georgia Technical College Coweta Campus Christmas Wreath decorating contest with his electronics program wreath. The recycled CD base was chosen to reflect the technology in the program and the lights in the displayed circuits. Each mini circuit is an adaption of lab projects that are part of the curriculum. The program begins with soldering, represented by two soldered printed circuit boards (PCB). The first project is the larger components with wire leads that soldered through holes in the PCB. The second kit uses surface mount technology (SMT), where the components are wired directly to the surface of the PCB without the use of wire leads. The next courses in the program utilize “bread boarding” of circuits. When bread boarding, the components are inserted into a prewired base that is not specific to the circuit being built. The components are laid out to complete the circuits, using interconnecting rails and jumper wires. The bread boarding technique allows for easy component swapping, to demonstrate how different values may affect the circuit, and experimentation. The circuit samples displayed include; a basic voltage divider lighting LEDs, some 555 timers, binary coded decimal counters (BCD), decimal output seven-segment LED displays, a light level indicator, and an eight bit shift register. All of the circuits were designed for low power consumption, with the entire display being able to operate from one USB power circuit. The wreath is trimmed with seasonal artificial floral pieces. Coweta Campus Associate Provost Peter Ludlow presented Halstead with a cash prize donated by the Newnan-Peachtree City Area Employer Committee.