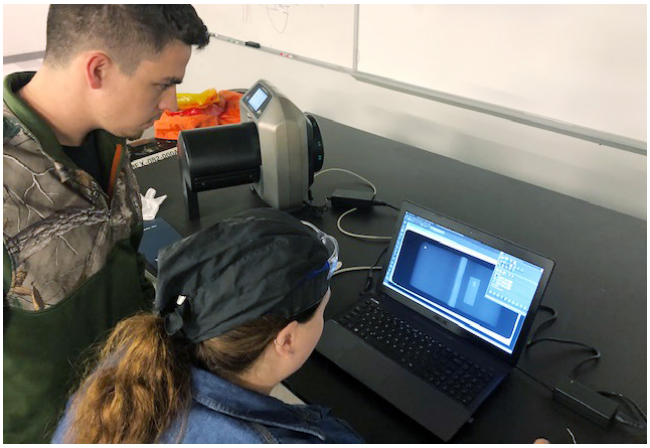
NDT STUDENTS HAPPY WITH NEW CR SCANNER AND X-RAY INSPECTION SOFTWARE

Chattanooga State Community College (ChSCC) has offered an Accreditation Board for Engineering and Technology (ABET) Associates in Applied Science (AAS) degree with a Non-Destructive Testing (NDT) Technology Concentration since the fall semester 2009. The college works closely with Volkswagen and Wacker in the Chattanooga area.



Students evaluate an X-ray image in D-Tect that was scanned with the HD-CR 35 NDT.

NDT students take math and related engineering education courses required for an Associates in Applied Science (AAS) degree with concentration including metallurgy and introduction to NDT and OA/OC, and they receive training in six key NDT methods: visual, liquid penetrant, magnetic particle, ultrasonic, radiographic, and eddy current testing. Course work includes study of the theory behind each NDT method as well as extensive hands-on training in fully equipped, state-of-the-art labs.

Courses are designed to provide students with sufficient formal training hours (according to the latest edition of ASNT's Recommended Practice SNT-TC-1A: Personnel Qualification and Certification in Nondestructive Testing) necessary to earn Level I and II certification in the six major NDT methods, subsequent to completion of on-the-job training through co-op or full-time employment. This allows the graduates to start working on their experience hours as a knowledgeable technician for their employers from their first day of work. Students have a high employment rate with companies like GE, Pratt and Whitney and Tennessee Valley Authority.

On November 1, 2017, several students and an instructor attended the ASNT Fall Conference and Show in Nashville, where they meet several personnel from DÜRR NDT at their booth and learned about DÜRR NDT's HD-CR 35 scanner. The HD-CR 35 was very impressive because of its size, capability and ease of operation, including the evaluation software which was loaded on a notebook. In January 2018, DÜRR NDT brought the HD-CR 35 to ChSCC to demonstrate to the radiographic testing class. Students radiographed welds, automotive parts and electronic boards then evaluated them on an instructor's notebook. The students were impressed with CR versus chemical processed film for many reasons including the small footprint and portability of the scanner, the ability to scan a full 14"x17" image plate and most importantly DÜRR NDT's D-Tect X-ray inspection software which made the images come alive for ease of evaluation and interpretation.

DÜRR NDT agreed to leave the HD-CR 35 at ChSCC for several weeks for the students to work with during their lab time, which was a real blessing as ChSCC were unable to get any other suppliers CR equipment for demonstration and use for the semester.

Over the next year the relationship with DÜRR NDT developed with Richard Woodward (DÜRR NDT Sales Manager, North America) speaking to several classes and the local ASNT section, and also demonstrating the Direct Radiography (DR) panels which can be added to the existing CR system.

In the fall of 2018, the school was able to obtain their own HD-CR 35 for the classroom, and has budgeted to add a DÜRR NDT DR panel to their system in the future. The D-Tect software is installed on several student workstations, which are used by the students to gain valuable hands-on experience with a state-of-the-art digital radiography system.

When asked to comment on the success of introducing the DÜRR NDT equipment into ChSCC's curriculum and the ongoing relationship with DÜRR NDT, Al Curtis, NDT instructor, said: "The equipment is portable and takes up little space compared to other equipment. The scanner is also easy to use, taking up to a 14" wide image plate. The software is very efficient and the students learn to use it quickly. The ability to view images quickly and apply standard filters always comes out impressive".

Chattanooga State Community College

www.chattanoogastate.edu