

Two Companies Assist University with Engineering Education

University Engagement Program Benefits Students, Schools, and Industry

For engineering students, experience with real-world tools can be very beneficial. And employers certainly like to hire graduates who've had that experience. So it makes sense for industry and education to collaborate on getting state-of-the-art tools into the hands of young engineers.

That's why the University of South-Eastern Norway (USN) is working with Norwegian company Autic System AS and American company Inductive Automation to bring professional industrial automation software to the university's students in automation and robotics. It's happening through Inductive Automation's University Engagement Program (UEP). The UEP creates partnerships between industrial professionals and colleges, universities, and trade schools. It also provides the Ignition industrial application platform for students — at no cost to the students or the schools. Ignition by Inductive Automation® is an industrial application platform with tools for building solutions in human-machine interface (HMI), supervisory control and data acquisition (SCADA), manufacturing execution systems (MES), and the Industrial Internet of Things (IIoT).

Several schools in the United States and Europe are engaged in the UEP. USN is the first school in Norway to participate. Autic was happy to introduce the UEP to the university. Autic is the Authorized Ignition Distributor for Norway, providing sales, support, and training for the software throughout the country. Autic is based in Tønsberg, Norway, and has knowledge of local markets and experience in industrial automation, sales, and marketing. Autic works with system integrators across Norway to deliver solutions for a variety of industries.



The University of South-Eastern Norway provides students with state-of-the-art SCADA software.
(photo: Tine Poppe)

Great Opportunity

USN is Norway's fourth-largest university and has eight campuses. Ignition is used at the engineering department at Campus Horten, where Norway's first engineering school started in 1855. Ignition is a good fit for the educational program. "The Ignition platform is very intuitive to the students," said Christian Hovden, assistant professor in automation. "The students are able to work independently in a short amount of time. Especially considering the tag browser being online in the designer makes verifying the operation of complex templates almost too easy."

With the software's ease of installation and use, students have more time to improve their development skills. "Our students are normally very engaged in the HMI part of the project and sink a lot of time into making specialized symbols and templates," said Hovden. "Since this has become so much easier, more time is spent on making HMIs look more professional."

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– Thomas Thorsen
Product Manager, Autic System AS

Autic agrees that the students get a lot out of the collaboration. “Through the University Engagement Program, universities get access to a top, modern, powerful SCADA system,” said Henrik Sørensen, sales engineer for Autic. “When all this is given for free, the reaction has been that this is a no-brainer.”

Sørensen said one of the reasons the arrangement works so well is the effectiveness of Ignition, and its standing in today’s marketplace. For example, Ignition is being used at 56 of the Fortune 100 companies. It’s been deployed in more than 100 countries, in virtually every industry. “It has a modern architecture that supports not only a vast amount of equipment through its built-in platform protocols, but also uses open standards such as SQL, Python, OPC UA, and MQTT,” said Sørensen. “And the unlimited licensing makes it great for building a SCADA system that can evolve with a client’s needs.”

No Limits

Ignition’s unlimited licensing means that once the initial purchase is made, there are no additional costs for adding clients, screens, tags, devices, or connections. This enables organizations to expand their systems whenever needed, without having to buy additional licenses.

The software is based on open standards and is much easier to use than rigid, proprietary SCADA systems. “By learning Ignition, students will come to market with knowledge sought by employers

in the industry,” said Sørensen. “The software has proven to be easy and quick to install. And with an intuitive and well-made online user manual, the students are managing the installation process without help from teachers. Not all students use Windows, so it’s really helpful that this flexible platform can also run on Linux and macOS.”

“Ignition will give students valuable training in open industry standards which are in high demand by employers,” said Thomas Thorsen, product manager for Autic. “Working with this software platform will not only make sure students are ready for the systems of today, but will also enable them to shape systems which interact seamlessly with the OT and IoT systems of the future.”

Inductive University

A big help to schools involved in the UEP is Inductive University (IU), a free online learning platform designed to help anyone learn Ignition. At the IU website, people can watch short training videos, test their knowledge, train entire organizations, and participate in the credential program. It’s all free, and people can learn at their own pace. “Ignition has a great reputation for being possibly the best learning platform any SCADA software has to offer,” said Sørensen. “Inductive University makes it possible for students to be self-sufficient in a short time.”

The Inductive University videos have been an effective addition to USN’s courses. “It has been helpful, definitely,” said Hovden. “We made a list of recommended videos to complement our own quick-guides to the system.”

Autic’s Thorsen has used Inductive University himself, and he’s been impressed. “It gave me valuable insight, both into the software and industry standards such as SQL, SFC, Python, and standard web APIs,” he said.

With all the benefits for students and the schools, Autic is optimistic that other universities will follow USN’s lead and will want to get involved in the University Engagement Program. “Simple installation and very good interactive learning via Inductive University make the Ignition platform perfect for educational purposes,” said Thorsen.