

# Industry-Ready Remote Access Lab Solution

Real-world lab experience – Simply at your fingertips

## The Megatrend of Remote Learning

Online learning has been a part of many educational institutions since the spread of the Internet. Now, new norms such as physical distancing and limits on face-to-face interaction is dramatically accelerating the shift from traditional in-building learning to virtual classes offered remotely on digital platforms. The availability of online courses opens opportunities to international and distance learning students, and remote learning offers students the flexibility of learning anytime, anywhere. With these benefits, online learning is expanding exponentially, and educational institutes must rapidly transform to keep pace with this megatrend.



## Keysight Solution

Keysight's industry-ready remote access lab solution offers you a convenient way to make the switch to online learning. This end-to-end solution is designed for complete remote setup of your basic instrument lab and covers your needs from web-based lab management and scheduling administration to instrument control and remote access for measurement and analysis. And since your students continue working with industry-grade test and measurement instruments and software, they will gain the similar practical skills and application knowledge as industry engineers conducting their work in the lab today.



# End-to-End Remote Instrument Lab Solution Overview

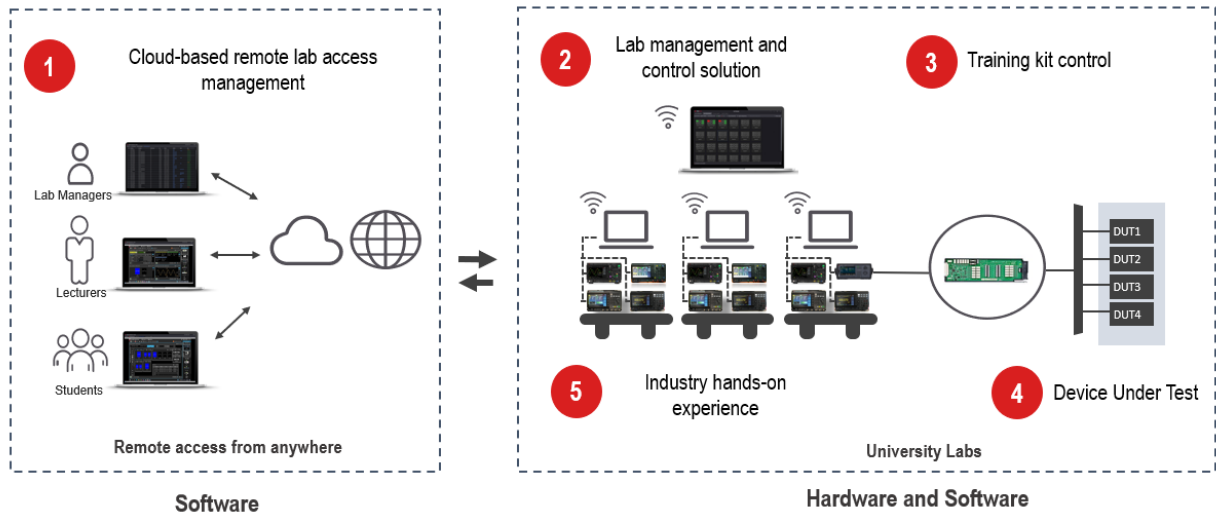


Figure 1. Keysight Industry-ready Remote Access Lab Solution

1. Secured Cloud-based remote lab scheduling and session booking
2. Centralized lab configuration, and multi-bench lab setup and control
3. Remotely switch between different training kits or measurement points during a lab session
4. Any DUT (University’s own DUT or Keysight Remote Advanced IoT Training Kit)
5. Access industry-graded instruments

## PW9112EDU cloud-based remote access lab software

IMS Global certified LTI learning tool that natively support universities with Learning Management System (LMS) integration.

Purpose-built, remote access lab software for real instrument access and control, anytime and anywhere with additional Single Sign-On (SSO) and Multi Factor Authentication (MFA) security options.

What It Offers:	
For Educators	<ul style="list-style-type: none"> <li>• To plug-and-play external tool into existing universities LMS</li> <li>• To manage student lab access, maintain lab benches systematically and monitor multiple remote lab sessions</li> </ul>
For Students	<ul style="list-style-type: none"> <li>• To navigate seamlessly to university resources with single access</li> <li>• To remotely access lab setup and perform collaborative lab work through a web browser</li> </ul>



## PW9111EDU lab management software

Software that provides simplified centralized lab configuration and asset management and enables mass firmware updates for instruments.

What It Offers:	
For Educators	To manage and configure lab instruments for multi-bench setup
For Students	To access multiple instruments application and controls remotely



## U3900DAQ switching system

Powered by industry-proven, software-controlled switching system, the U3900DAQ covers a broad spectrum of switching and routing requirements for your teaching lab.

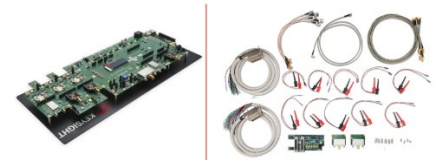
What It Offers:	
For Educators	To provide students with full access to existing lab instruments
For Students	To access industry-standard instruments for actual test and measurement experience



## U3810REM remote add-on option for advanced IoT training kit



Industry-first remote-enabled advanced IoT teaching kit that offers similar onsite learning experience.

What It Offers:	
For Educators	To easily convert existing Advanced IoT teaching kit to remote-enabled environment
For Students	To acquire Advanced IoT learning experience in a remote environment



## Keysight test and measurement instruments

Keysight offers a wide variety of basic bench instruments that cater to the needs of each teaching lab.

Electronics & Computer Engineering Instruments	
Electronics Lab	<p>Function generator, Digital Multimeter, Power Supply and Oscilloscope</p> 
RF Lab	<p>Network analyzer, Signal analyzer and Signal generator</p> 

## Remote Access Lab Solution Benefits

- **Easily and seamlessly migrate engineering labs online faster**

The end-to-end solution offers all the elements needed to transform traditional classroom teaching and hands-on labs to a remote environment

- **Hassle free and centralized user access and teaching content management system**

LMS integration enables the educators and learners to navigate seamlessly to university resources, creating a smooth, consistent, and better teaching-learning experience.

- **Equip students for success in the industry**

Connect to industry-grade test and measurement instruments and utilize the same software and technology they'll use in their careers

- **Interaction with students and facilitate group collaboration in real-time to accomplish smart teaching and learning**

Multi-user access allows students, educators and lab administrators to access the lab through any internet connected device anytime, anywhere

- **Streamline and simplify lab management, saving lab administrators and educators time and freeing them to focus on teaching**

Centralized control for educators to seamlessly connect to, manage, monitor and troubleshoot all the instruments within a lab

## Conclusion

The Keysight industry-ready remote access lab solution takes remote learning to the next level of digital transformation, moving you beyond simulation and theory to real-world experience - simply at your fingertips.



Figure 2. Shift the lab learning experience online with end-to-end remote lab solution

Learn more at: [www.keysight.com](http://www.keysight.com)

For more information on Keysight Technologies' products, applications or services, please contact your local Keysight office. The complete list is available at: [www.keysight.com/find/contactus](http://www.keysight.com/find/contactus)

