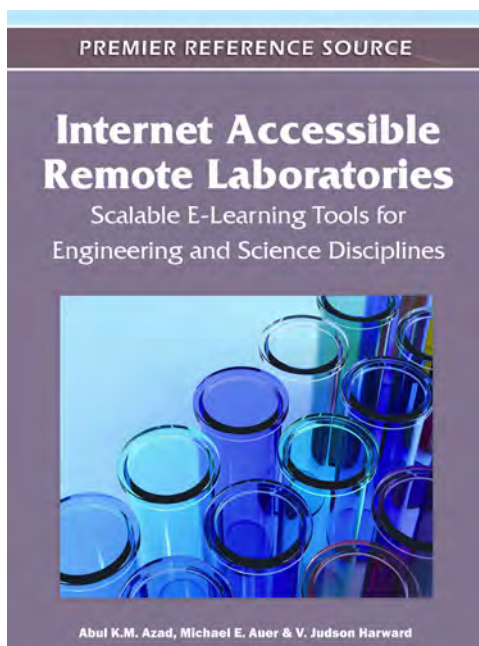


Internet Accessible Remote Laboratories: Scalable E-Learning Tools for Engineering and Science Disciplines



Edited By: Abul K.M. Azad (Northern Illinois University, USA),
Michael E. Auer (Carinthia University of Applied Sciences, Austria),
and V. Judson Harward (Massachusetts Institute of Technology, USA).

Limited resources and other factors pose major challenges for engineering, technology, and science educators' ability to provide adequate laboratory experience for students. An Internet accessible remote laboratory, which is an arrangement that allows laboratory equipment to be controlled remotely, addresses these difficulties and allows more efficient laboratory management.

Internet Accessible Remote Laboratories: Scalable E-Learning Tools for Engineering and Science Disciplines collects current developments in the multidisciplinary creation of Internet accessible remote laboratories. This book offers perspectives on teaching with online laboratories, pedagogical design, system architectures for remote laboratories, future trends, and policy issues in the use of remote laboratories. It is a useful resource for graduate and undergraduate students in electrical and computer engineering and computer science programs, as well as researchers who are interested in learning more about the current status of the field and various approaches to remote laboratory design.

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Topics Covered:

- Collaborative Research on Remote Laboratories
- Educational Tools for Remote Laboratories
- Industrial Applications of Remote Laboratories
- Inter-Institutional Use of Remote Laboratories
- Pedagogical Design of Remote Laboratories
- Remote Laboratories and Ethical Concerns
- Sustainability of Remote Laboratories
- System Architectures for Remote Laboratories
- System Design, Hardware, and Interfacing
- Teaching with Remote Laboratories

Market:

This premier publication is essential for all academic and research library reference collections. It is a crucial tool for academicians, researchers, and practitioners and is ideal for classroom use.

"By pulling together ideas and lessons learned from the worldwide remote engineering community, we hope this volume will play a role in shaping the future of online laboratories."

Abul K.M. Azad (Northern Illinois University, USA), et al.

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Section A: Teaching with Remote Laboratories: Case Studies

- Chapter 1
A LabVIEW-based Remote Laboratory: Architecture and Implementation
Yuqiu You
- Chapter 2
Teaching Hardware Design with Online Laboratories
Reza Hashemian and Timothy R. Pearson
- Chapter 3
New Tools in Hardware and Software Design Applied for Remote Photovoltaic Laboratory
Petru A. Cotfas, Daniel T. Cotfas, Doru Ursutiu, Cornel Samoila, and Dragos Iordache
- Chapter 4
Remote Experiments in Freshman Engineering Education by Integrated e-Learning
Miroslava Ožvoldová and Franz Schauer
- Chapter 5
Implementation of Remote Laboratories for Industrial Education
Andreja Rojko, Thomas Zürcher, Darko Hercog, and Renato Stebler
- Chapter 6
Collaborative Development and Utilization of iLabs in East Africa
Cosmas Mwikirize, Arthur Asiimwe Tumusiime, Paul Isaac Musasizi, Sandy Stevens Tickodri-Togboa, Adnaan Jiwaji, Josiah Nombo, Baraka Maiseli, Teyana Sapula, and Alfred Mwambela

Section B: Teaching with Remote Laboratories: Best Practices and Pedagogy

- Chapter 7
Online Laboratory Education: Principles and Practices of the Integrated Laboratory Network
Simon P. Albon and Devon A. Cancilla
- Chapter 8
The Role of Internet-Accessible Laboratory Plants in the Teaching of Automatic Control
Maja Atanasijević-Kunc, Rihard Karba, and Vito Logar
- Chapter 9
Evaluation of Remote Interface Component Alternatives for Teaching Tele-Robotic Operation
Goldstain Ofir, Ben-Gal Irad, and Bukchin Yossi
- Chapter 10
Teaching Technology Computer Aided Design (TCAD) Online
Chinmay K. Maiti and Ananda Maiti
- Chapter 11
AutomatL@bs Consortium: A Spanish Network of Web-based Labs for Control Engineering Education
Sebastián Dormido, Héctor Vargas, and José Sánchez Moreno

Section C: System Architecture, Design, and Interfaces

- Chapter 12
On Infrastructures for Educational Online Laboratories
Sven K. Esche and Constantin Chassapis
- Chapter 13
Architectures and Design Methodologies for Scalable and Sustainable Remote Laboratory Infrastructures
J. Lane Thames, Randal Abler, Andrew Hyder, Robert Wellman, and Dirk Schaefer
- Chapter 14
A Lab Server Model for the iLab Shared Architecture
Paolo Buschiazzo, Michael Niederstätter, and Anna Marina Scapolla
- Chapter 15
The VISIR Open Lab Platform
Ingvar Gustavsson, Lena Claesson, Kristian Nilsson, Johan Zackrisson, Javier Garcia Zubia, Unai Hernandez Jayo, Lars Håkansson, Josef Ström Bartunek, Thomas Lagö, and Ingvar Claesson

- Chapter 16
Online Workbenches for the Deployment of Electronics Experiments
James L. Hardison and Danilo Garbi Zutin

- Chapter 17
Web-Enabled Remote Control Laboratory Using an Embedded Ethernet Microcontroller
Chandresh Dubey, Hong Wong, Vikram Kapila, and Parth Kumar

- Chapter 18
Matlab RTW-based Internet Accessible Remote Laboratory for Teaching Robot Control
Zdenko Kovačić, Davor Jerbić, Vedran Vojvoda, and Siniša Dujmović

- Chapter 19
Remotely Accessible Systems for Computing Sciences Disciplines
Mark Stockman

- Chapter 20
Remote Instrumentation for Science Education – Ensuring Security for Cyberinfrastructure-enabled Learning
Fred E. Lytle, Gabriela C. Weaver, Phillip Wyss, Debora Steffen, and John Campbell

Section D: Policy Issues

- Chapter 21
What do Students Gain from Laboratory Experiences?
James Trevelyan and Zol Bahri Razali

- Chapter 22
Developing Remote Labs for Challenged Educational Environments
Lawrence Olakunle Kehinde, Xuemin Chen, Kayode P. Ayodele, and Olawale B. Akinwale

- Chapter 23
LabsShare: Towards Cross-Institutional Laboratory Sharing
David Lowe, Stephen Conlon, Steve Murray, Lothar Weber, Michel de la Villefromoy, Euan Lindsay, Andrew Nafalski, Warren Nageswaran, and Tee Tang

- Chapter 24
Collaborative Sustainability Strategies for Online Laboratories
Roger Watson, Aaron Coble, Amit Bhave, Andreas Braumann, Andrew Smallbone, and Markus Kraft

Section E: Future Trends

- Chapter 25
Possible Futures for Online Laboratories
Mark F. Schulz and Phillip Long

- Chapter 26
Mobile Laboratory Model for Next-Generation Heterogeneous Wireless Systems
Ibrahima Ngom, Hamadou Salliah-Hassane, and Claude Lishou

- Chapter 27
Stakes and Issues for Collaborative Remote Laboratories in Virtual Environments
Jacques Fayolle, Michael Callaghan, Christopher Gravier, Jim Harkin, and Benjamin Jailly

- Chapter 28
Towards an Immersive Virtual Environment for Physics Experiments Supporting Collaborative Settings in Higher Education
Christian Gütl, Tina Scheucher, Philip H. Bailey, John Belcher, Fabio Ricardo dos Santos, and Stefan Berger

- Chapter 29
A Semantic Portal for Publication and Exchange of Educational Online Laboratories
Michael Niederstätter and Christian Maier