Welcome to the exciting world of VALUE Virtual Labs WHERE THE ONLY LIMITS ARE YOUR IMAGINATION!

Amrita University seeks to transform the landscape of Science and Engineering education. Through the use of virtual labs, amritanovatory technology-enabled educational tool, technology-driven teaching is being extended beyond the walls of the classrooms. Virtual Labs are innovative, MEDIA-RICH online learning environments wherein users can perform physical laboratory experiments in a computer simulated environment. Amrita, anywhere. Without traditional physical laboratories, expensive, time-consuming resources, virtual labs are COST EFFECTIVE whilst providing real hands-on EXPERIENCES of experimentation. Virtual Labs provide an educational experience that helps Hawarden learners. Amrita's VALUE Virtual Labs apply new learning technologies that are exciting and FUN for the NEW GENERATION of students.

Amrita Vishwa Vidyapeetham or Amrita University is one of the youngest and most rapidly growing universities in India. Amrita is ranked among the foremost for technological innovation in Higher Education. Amrita has been accredited with the highest grade ‘A’ by the National Assessment and Accreditation Council.

Sri Mata Amritanandamayi Devi, also known as Amma, a world renowned humanitarian is the chancellor of Amrita University. Amma’s words for the youth, her thoughts and values for education and research, have helped shape the University’s mission and vision.

Virtual Experiments environments using state of the art technology.

Amrita Amrita Research revolutionizes education through technological innovations.

Laboratories Laboratory experimentation through sophisticated and immersive simulations.

Universalizing Laboratories that are remotely triggered and accessible to Everybody, Everywhere, at Anytime!

Education New learning perspectives through exploration, experimentation, technology and collaboration.

NATIONAL PROJECT & PARTNERS
As part of the NME-ICT, National Mission on Education through ICT, an initiative of MHRD, Government of India, the Virtual Labs project is a collaborative undertaking of Amrita University, IIT’s, Delhi, Kanpur, Kharapur, Bombay, Madras, Roorkee, Guwahati, IIIT Hyderbad, NITK Surathkal, COE Pune and Dayalbagh Educational Institute.

INFORMATION & CONTACT
virtual_labs@amrita.edu
www.amrita.vlab.co.in

VALUE Virtual Labs Amrita Vishwa Vidyapeetham Virtual Labs Office, 3rd Floor, Amma Bhavan, Amritapuri, Kollam, Kerala - 690 525, India

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Through Virtual Labs you can discover the hidden properties of lasers, explore the mysteries of sub-atomic particles, purify water through distillation, measure the velocity of a speeding bullet, invent the next great electronic gadget, find out what chemicals are lurking in organic compounds, wield a scalpel with the precision and grace of a skilled surgeon, investigate the inner workings of brain cells and neurons, stage your own bug invasion, determine your blood type, and extract samples of DNA from living fish and much much more!

For detailed information about all Labs and Experiments please visit our website.

Get started! www.amrita.vlab.co.in

VALUE RESEARCH
VALUE virtual labs focus on interdisciplinary research in higher education involving Educational Psychology, Learning Science and Instructional Design. Research on both virtual and traditional classroom learning environments, pedagogy, learning and cognitive/expanses ways to innovate and optimize student learning in Science and Engineering Education.

Our research in cognitive science student learning has shown spectacular results in improved visualization of conceptual frameworks, enhanced practical skills in experimentation, broader and deeper understanding of complex ideas, greater curiosity to explore further.

FEEDBACK ON VALUE VIRTUAL LABS
“I found the content very helpful and it is a very useful.”
Rajagopal, Vision Media for Human Resource Development

“Excellent as a teaching aid on how to do experiments on your own; very simple and easy as well as good and as many ways as possible and as many times as possible for me to do and learn to move on to innovative ideas.”
Dr. Smith, Information Technology, Amrita

“Through Virtual Labs you can DISCOVER the hidden properties of lasers, EXPLORE the mysteries of sub-atomic particles, purify water through distillation, measure the velocity of a speeding bullet, INVENT the next great electronic gadget, find out what chemicals are lurking in organic compounds, wield a scalpel with the precision and grace of a skilled surgeon, INVESTIGATE the inner workings of brain cells and neurons, stage your own bug invasion, determine your blood type, and extract samples of DNA from living fish and much much more!”

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VALUE VIRTUAL LAB FEATURES
• Vast collection of experiments across broad range of disciplines
• Scientific simulations
• Remotely Triggerable Experiments
• Interactive animations
• Guided videos of experimental procedures
• Illustrated theory notes
• Self evaluation quizzes
• Web based access
• Authoring platform for educators
• Resource-rich learning environment

TYPES OF LABS
• Experiments in all labs accessible via web include:
  • Computer simulated laboratory environments
  • Remote Physics Experimentation by connecting directly to physical equipments and selecting real-time data from anywhere in the world
  • Interactive animations

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CHEMICAL SCIENCES
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• Organic Chemistry
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MECHANICAL ENGINEERING
Solar Energy
• Examples of Experiments
  • Thermal Heater
  • Computer generated Solar panel and Wind Turbine
Wind Energy
• Examples of Experiments
  • Wind Turbine Power Study
  • Aerodynamic Force Coefficient for a Turbine Blade
  • Wind Turbine Optimization

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VALUE NODAL CENTRE PROGRAM
A new venture which allows institutions to follow the VALUE project and benefit from a whole host of services and resources.

For more information: http://amrita.vlab.co.in/nodal