

NEEDS—The National Engineering Education Delivery System

www.needs.org

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Berkeley
Stanford
**Northern
Arizona**
**Virginia
Tech**

Action Agenda Goals (1998-2001)

- ✓ Provide a service to the engineering education community
- ✓ Grow and evolve NEEDS as the foundation for an on-line engineering education community
- ✓ Expand courseware review and evaluation efforts
- ✓ Serve as a bridge to the development of a National SMETE Digital Library

How does NEEDS help teachers/learners “re-use” learning materials?



- **Help user find materials**
 - Digital library of multimedia engineering learning resources
 - With standardized descriptions (metadata) to describe resources
- **Help users evaluate the “quality of materials”**
 - Premier Award
 - User Comments and Reviews
 - Threaded Discussions
- **Developed upon an extendable platform to:**
 - Support multiple uses
 - Integrate new services and features
 - Integrate research

The Premier Award for Excellence in Engineering Education Courseware



- A national competition to identify and reward the authors of high-quality, non-commercial courseware designed to enhance engineering education.
 - The *Premier Award* is about the entire experience of using the courseware by learners, not just the courseware itself



Over 7,000 CD-ROMs Distributed Internationally
For more info or to receive copies go to <http://www.needs.org/engineering/premier/>

Major Accomplishments



- **Under Action Agenda...**

- System use more than doubled
- Engineering courseware increased 213%
- Total holdings increased 441%
(plus NSF-DLI2 funding)

<u>Total Collection</u>	
Engineering	54%
Chemistry	19%
Physics	18%
Math	7%
Other	2%

- **Continuing Premier Award, over 7,000 CD's distributed**
- **Implementing discussion systems, prototype in-place**
- **Expanding user comments and other review mechanisms**
- **Re-engineering NEEDS to allow for further expansion**
- **Setting stage for NSF's National SMETE Digital Library program, expanding into Chemistry, Physics, and Mathematics**