



Prof. Autar Kaw

Mechanical Engineering's Open Content Initiative Profiled in Campus Technology Online

Tampa, Fla. (July 14, 2010) – Before MIT's open courseware initiative in 2001, the sharing of course content for free, Mechanical Engineering Professor Autar Kaw was pioneering the "open courseware" approach to teaching and learning. The YouTube audiovisual lessons at <http://youtube.com/numericalmethodsguy> for his numerical methods course (required learning in most engineering programs) garner 30,000 visitors a month while other resources at <http://numericalmethods.eng.usf.edu> get as many as 75,000 views per month. The website, which features more than 250 instructional videos, consistently receives favorable reviews posted by students and teachers.

In addition to being featured this month in Campus Technology's online edition <http://campustechnology.com/articles/2010/07/08/pioneering-open-content-in-higher-ed.aspx>, the National Science Foundation has provided four consecutive grants since 2001 to support the open content initiative. USF provided additional funding, and the site received the 2004 American Society for Mechanical Engineers (ASME) Curriculum Innovation award.

"For open courseware to succeed, paying close attention to accessibility to resources and teaching pedagogy goes a long way. You *never* need to register or log-in to access any of the online resources. Putting the videos on YouTube as opposed to a university web server addresses the digital inequity facing users who have slow Internet connections. We emphasize providing resources that are modular and pedagogically *neutral*, so that they can be modified and linked to suit anyone's needs," says Kaw.

While Kaw and his fellow professors at USF provide approximately 85% of the content, he is supported in his efforts by engineering and education professors throughout the United States, including Arizona State University (ASU), Old Dominion University (ODU), Milwaukee School of Engineering (MSOE), and the historically black colleges and universities of Florida A&M University (FAMU) and Mississippi Valley State University (MVSU).

The University of South Florida is one of the nation's top 63 public research universities and one of only 25 public research universities nationwide with very high research activity that is designated as community engaged by the Carnegie Foundation for the Advancement of Teaching. USF was awarded \$380.4 million in research contracts and grants in FY 2008/2009. The university offers 232 degree programs at the undergraduate, graduate, specialist and doctoral levels, including the doctor of medicine. The USF System has a \$1.8 billion annual budget, an annual economic impact of \$3.2 billion, and serves more than

47,000 students on institutions/campuses in Tampa, St. Petersburg, Sarasota-Manatee and Lakeland. USF is a member of the Big East Athletic Conference.

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