



CREW Seminar Series: Fall 2010

Hydrostatic Transmission of Wind Power

Abstract

Gear box failure is a major cost and reliability issue in wind turbines. This talk will consider the possible replacement of mechanical transmissions with hydrostatic transmissions. With proper design and maintenance, hydrostatic power transmissions could be much more reliable than gear boxes. Hydrostatic transmissions have infinite variability and provide the option of separating the hydraulic pump and motor so that most of the major components are easily accessible at ground level. The talk will include a brief overview of CCEFP, the Center for Compact and Efficient Fluid Power, and Eolos, the DOE-funded wind power research center at the University of Minnesota.

By **Kim A. Stelson** from **NSF Engineering Research Center for Compact and Efficient Fluid Power, Department of Mechanical Engineering University of Minnesota**

**On Friday, October 1, 2010, at 4:00pm
In Room ECCS 1B28**

(CAETE studio, Engineering Center, University of Colorado at Boulder)
Refreshments will be available at 3:50pm



Kim A. Stelson is Director of the NSF-funded Engineering Research Center for Compact and Efficient Fluid Power. He is a Professor in the Department of Mechanical Engineering at the University of Minnesota where he has been since 1981. He received his B.S. degree in mechanical engineering from Stanford University in 1974 and his S.M. and Sc.D. degrees in mechanical engineering from M.I.T. in 1977 and 1982. Before becoming involved in fluid power research, Stelson was active in research in the modeling and control of manufacturing processes, especially metal forming, polymer processing and composite materials manufacturing. He has been a visiting faculty member at Hong Kong University of Science and Technology, the University of Auckland and the University of Bath. He has previously been Director of the Design and Manufacturing Division and Director of Graduate Studies for the M.S. in Manufacturing Systems

Program at the University of Minnesota. Stelson is Associate Technical Editor of the Journal of Dynamic Systems, Measurement and Control, a journal that has twice awarded him the best paper award. He is a Fellow of the American Association for the Advancement of Science.

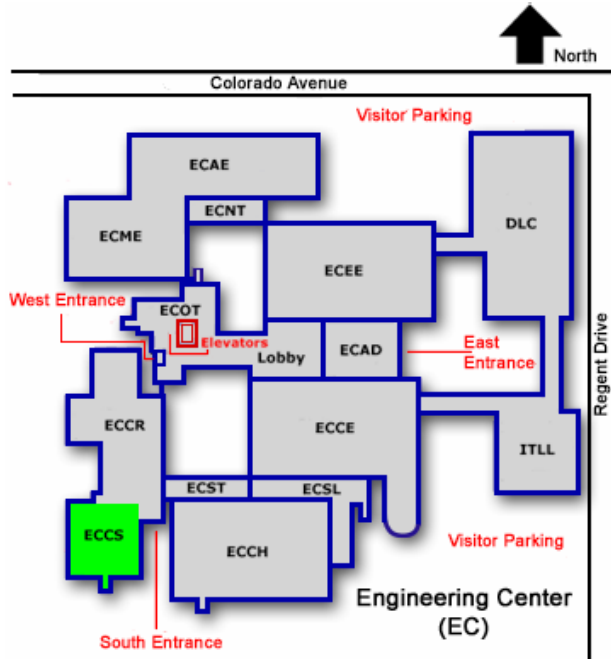


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How to get to the CU-Boulder Engineering Center

From 28th Street (Hwy 36), go west on Colorado Ave., which leads into the University. You will see the Engineering Center on the left, one block further along Colorado Ave.

Parking is available at visitor parking lots and nearby meters.



Room **ECCS 1B28** is located in the 1st basement (courtyard level) of the Computer Science Wing (ECCS).

Broadcasting option

While we highly encourage students, faculty and researchers to come attend the seminar in person, the seminar will also be broadcast at the following URL:

URL: <http://dimdim.cs.colorado.edu>

Meeting code: CREW10012010

Unplanned technical problems are always a possibility, so we apologize in advance. Nonetheless, if technical problems are encountered, please feel free to call Mark Dehus at 303-735-6275.

