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## People

### Peder C. Pedersen

Professor

Director, Denmark Project Center

#### [Faculty Listing](#)

Office: Atwater Kent Laboratories, 205

Phone: +1-508-831-5641

Fax: +1-508-831-5491

[pedersen@wpi.edu](mailto:pedersen@wpi.edu)

[pedersen@ece.wpi.edu](mailto:pedersen@ece.wpi.edu)



#### Related Information

- [Denmark Project Center](#)
- [Ultrasound Research Lab](#)

#### Educational Background

- B.S.E.E., Aalborg Engineering College - Denmark, 1971
- M.E., Bioengineering, University of Utah, 1974
- Ph.D., Bioengineering, University of Utah, 1976

#### Research & Teaching Interests

Ultrasound in telemedicine, reconfigurable ultrasound systems, 3D imaging, ultrasound in pulmonary medicine, analytic modeling techniques for pulse echo ultrasound, development of injury-mimicking ultrasound phantoms, 3D ultrasound hardware and software and associated image enhancement techniques, and non-invasive methods for atherosclerotic plaque classification (“vulnerable” plaque).

#### IQP Advising Interests

Impact of new technologies in health care; economics of health care; conservation of open space planning; appropriate technology

#### Recent Publications

- M. Rowan and P.C. Pedersen, “An Injury Mimicking Ultrasound Phantom as a Training Tool for Diagnosis of Internal Trauma,” 2006 IEEE Ultrasonics Symposium Proceedings, Vancouver, Canada, Oct., 2006, pp. 1613 - 1617
- R.J. Duckworth, P. Cordeiro and P.C. Pedersen, “Clinical evaluation of wearable ultrasound imaging system,” 2006 American Telemedicine Assoc., San Diego, CA, May, 2006.
- P.C. Pedersen, P. Cordeiro, R.J. Duckworth and T.L. Szabo, “Development and testing of wireless wearable ultrasound scanner,” 2006 AIUM Annual Convention, Washington DC, March 23 – 26, 2006.

- P.C. Pedersen, V. Mitra and J. Dey, "Boundary detection in 3D ultrasound reconstruction using nearest neighbor map," *Medical Imaging 2006: Ultrasonic Imaging and Signal Processing*. Edited by Emelianov, Stanislav; Walker, William F. Proceedings of the SPIE, Volume 6147, San Diego, CA, Febr. 11 - 16, 2006, pp. 57-67, 2006
- J. Dey, D.A. Tighe, G. Vijayaraghavan, V. Mitra and P.C. Pedersen, "Prior-shape based segmentation of various objects in ultrasound images after speckle-reduction using level-set-based curvature reduction," *Medical Imaging 2006: Image Processing*. Edited by Reinhardt, Joseph M.; Pluim, Josien P. W. Proceedings of the SPIE, Volume 6144, San Diego, CA, Febr. 11 - 16, 2006, pp. 1515-1523, 2006.

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## Honors & Awards

- 1998: Joseph S. Satin Distinguished Fellow in Electrical Engineering
- 2001 - 2003: WPI Teaching Technology Fellow
- 2004: WPI-IEEE Community Service Award

## Years of Service at WPI

- 1987 - 1990: Associate Professor of Electrical Engineering
- 1990 - present: Professor of Electrical and Computer Engineering

## Professional Societies/Memberships

- The Institute of Electrical and Electronics Engineers (IEEE), Senior Member
- Ultrasonics, Ferroelectrics, and Frequency Control Society of IEEE
- Acoustical Society of America
- American Telemedicine Association
- American Institute of Ultrasound in Medicine

Maintained by [webmaster@wpi.edu](mailto:webmaster@wpi.edu)

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**Department of Electrical and Computer Engineering - Worcester Polytechnic Institute**  
100 Institute Road, Worcester, MA 01609-2280 | Phone: +1-508-831-5231 | Fax: +1-508-831-5491 | [ecesecc@ece.wpi.edu](mailto:ecesecc@ece.wpi.edu)