CURRICULUM VITAE
Ping He, Ph.D., P.E.

Professor
Department of Biomedical, Industrial and Human Factors Engineering
Wright State University, Dayton, Ohio 45435
(937)775-5069, e-mail: ping.he@wright.edu

Education

B.S. in Physics,	1968, Fudan University, Shanghai, China
M.S. in Biomedical Engineering,	1981, Drexel University, Philadelphia, PA
Ph.D. in Biomedical Engineering,	1984, Drexel University, Philadelphia, PA

Professional Experience

1985-present	Assistant Professor, Associate Professor, Professor of Biomedical Engineering, Wright State University, Dayton, OH
1984-1985	Research Fellow, Mayo Clinic, Rochester, MN
1983-1984	Research Engineer, Drexel University, Philadelphia, PA

Membership of Professional Society

Senior member, The Institute of Electrical and Electronics Engineering (IEEE)

Member, Tau Beta Pi Association

Registered Professional Engineer in Ohio, U.S.A.

Patent

"A method for determining the wall thickness and the speed of sound in a tube from reflected and transmitted ultrasound pulses."

U.S. Patent No. 6,634,233, 2003 and U.S. Patent No. 6,883,376 B2, 2005.

"Ultrasound scanner for tissue characterization". U.S. Patent No. 4,658,827, 1987.

Journal Publications (since 1995)

Fuyuan Liao, Jue Wang, Ping He, "Multi-resolution entropy analysis of gait symmetry in neurological degenerative diseases and amyotrophic lateral sclerosis." Medical Engineering & Physics, 30:299-310, 2008.

Lisheng Wang, Jing Bai, Ping He, Pheng-Ann Heng, Xin Yang, "A computational framework for approximating boundary surfaces in 3-D biomedical images." IEEE Transactions on Information Technology in Biomedicine, 11(6):668-682, 2007

P. He, G. Wilson, C. Russell and M. Gerschutz, "Removal of ocular artifacts from the EEG: A comparison between time-domain regression method and adaptive filtering method." Medical and Biological Engineering and Computing, 45(5):495:503, 2007

Y. Yang, J. Wang, G. Yu, F. Niu and P. He, "Design and preliminary evaluation of a portable device for measurement of bioimpedance spectroscopy." Physiological Measurement, 27:1293-1310, 2006.

Jianwen Luo, Kui Ying, Ping He, Jing Bai, "Properties of Savitzky-Golay digital differentiators." Digital Signal Processing, 15:122-136, 2005

P. He, J. Bai, and D. D. Xia, "Optimum control of the Hemopump as a left-ventricular assist device." Medical & Biological Engineering & Computing, 43:136-141, 2005.

J. Luo, J. Bai, P. He, and Y. Kui, "Axial strain calculation using low-pass digital differentiator in ultrasound elastography." IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 51(9):1119-1127, 2004.

P. He, G. Wilson, and C. Russell, "Removal of ocular artifacts from electroencephalogram by adaptive filtering." Medical & Biological Engineering & Computing, 42:407-412, 2004.

J. Zhou, J. Bai, and P. He, "A spatial location weighted optimization scheme for DC optical tomography." Optics Express, 11(2):141-150, 2003.

J. Bai, C. Ding, J. Luo and P. He, "Estimation and reduction of decorrelation effect due to tissue lateral displacement in elastography." IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 49(5):541-549, 2002.

X. Li, J. Bai, P. He, "Simulation study of the Hemopump as a cardiac assist device." Medical & Biological Engineering & Computing, 40:344-353, 2002.

J. Bai, Y. Jiang, X. Li, D. Pan, G. Hu, P. He, "Novel ultrasonic fusion imaging method based on cyclic variation of myocardial backscatter." Medical & Biological Engineering & Computing, 40:163-167, 2002.

P. He, "Simultaneous measurement of sound velocity and wall thickness of a tube." Ultrasonics, (39):407-411, 2001.

P. He and Jun Zheng, "Acoustic dispersion and attenuation measurement using both transmitted and reflected pulses." Ultrasonics, 39:27-32, 2001.

P. He, "Measurement of acoustic dispersion using both transmitted and reflected pulses." The Journal of the Acoustical Society of America, 107(2):801-807, 2000.

P. He, K. Xue, Y. Fan, and Y. Wang, "Test of a vertical scan mode in 3-D imaging of residual limbs using ultrasound." Journal of Rehabilitation Research & Development, 36(2):86:93, 1999.

P. He, "Experimental verification of models for determining dispersion from attenuation." IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 46:706-714, 1999.

P. He, "Direct measurement of ultrasonic dispersion using a broadband transmission technique." Ultrasonics, 37:67-70, 1999.

P. He, "Determination of ultrasonic parameters based on attenuation and dispersion measurements." Ultrasonic Imaging, 20:275-287, 1998.

P. He, "Simulation of ultrasound pulse propagation in lossy media obeying a frequency power law." IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 45(1):114-125, 1998.

P. He, "Spatial compounding in 3D imaging of limbs." Ultrasonic Imaging, 19(4):251-265, 1997.

P. He, K. Xue, and P. Murka, "3-D imaging of residual limbs using ultrasound." Journal of Rehabilitation Research & Development, 34(3):269-278, 1997.

P. He, K. Xue, Q. Chen, P. Murka, and S. Schall, "A PC-based ultrasonic data acquisition system for computer aided prosthetic socket design." IEEE Transactions on Rehabilitation Engineering, 4(2):114-119, 1996.

Research Award (since 1992)

P. He and S. Crossen, "Investigation of Day-to-Day and Individual Variability in Physiology-Based Operator Functional State Assessment," Funded by AFRL/DAGSI Ohio Student-Faculty Research Fellowship (2009)

M. Wysong, Y. Liu, and P. He, "Fate of chemical agents, Statistical analysis of data support," Funded by the General Dynamics Information Technology (2008)

P. He and Justin Estepp, "Improving real-time operator functional state assessment through the use of functional near infrared techniques," Funded by AFRL/DAGSI Ohio Student-Faculty Research Fellowship (2007)

P. He, "Removal of EMG artifacts from EEG recordings using Independent Component Analysis," Funded by the ASEE, Air Force Summer Faculty Fellowship Program (2005).

P. He, "Removal of ocular artifact from the EEG recording using adaptive filtering," funded by the National Academies, Air Force Summer Faculty Fellowship Program, (2004).

P. He, and K. Xue, "Further development of a lower-limb prosthetic socket CAD system based on ultrasound measurement," funded by the U.S. Department of Education (NIDRR), (1996-2000).

K. Xue, and P. He, "3D visualization of ultrasound data for landmark allocation and diagnosis," funded by the WSU Research Council: Early Start/Augmentation Grants, (1997-98).

P. He, and K. Xue, "Motion compensation in 3-D ultrasound imaging", funded by the WSU Research Council: Early Start/Augmentation Grants, (1994-95).

P. He, K. Xue, and P. Murka, "Application of ultrasound and computer techniques to lower limb prosthetic socket design," funded by the U.S. Department of Education (NIDRR), (1992-95).

Other Professional Activities

- Consultant for LaserMike Company, Dayton, OH (2000)
- Consultant for Sytronics, Inc., Dayton, OH (2003 – 04)
- Consultant for General Dynamics, (2005 – 06, 2008)

- Grant review for U. S. Army Medical Research and Material Command Osteoporosis Program. (1996)
- Grant review for National Institutes of Health (NIH): Cardiovascular Sciences SBIR/STTR Special Emphasis Panel. (2004)
- Grant review for National Science Foundation (NSF): Biomedical Engineering and Research to Aid Persons with Disabilities Unsolicited Proposals. (2004-2005)
- Grant review for NSF/FDA: Scholar-in-residence at the FDA (NFS 03-525). (2007)
- Book review for *John Wiley & Sons*
- Technical review for *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*
- Technical review for *IEEE Transactions on Information Technology in Biomedicine*
- Technical review for *IEEE Transactions on Medical Imaging*
- Technical review for *IEEE Transactions on Biomedical Engineering*
- Technical review for *Medical & Biological Engineering & Computing*
- Technical review for *Journal of Rehabilitation Research & Development*
- Technical review for *Ultrasonic Imaging*
- Technical review for *Journal of Medical Physics*
- Technical review for *The Open Biomedical Engineering Journal*
- Technical review for *Automedica*
- Technical review for *Actapress*