

# Adaptive Filter Application for the Safety of Detecting Lung Sound on Ambulance

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## Biography

**Bing-Yuh Benjamin Lu** received his BS degree in electrical engineering from National Central University and his MS and PhD degrees in electrical engineering from National Taiwan University in 1988, 1993, and 2000, respectively. He was an instructor at the Department of Electronic Engineering, Tunghan University in 1992, and became an associate professor at the same department in 2000. He joined the Department of Information Management, St. Mary's Medicine, Nursing, and Management College, Yi-Lan, Taiwan, Republic of China in 2011, and served as an associate professor and the department head in the duration of 2011 to 2013. He is currently an associate professor in Department of Electronic Engineering, Tunghan University, New Taipei City, Taiwan, Republic of China. He is interested in computer simulation, medical engineering, acoustics, lung sound and educational researches. He is a member of IEEE. His academic interests focus on acoustics, medical engineering, computer simulation, educational applications of engineering, and pulmonary signal processing.

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**Meng-Lun Hsueh** received her PhD degree at the department of Electronic Engineering, National Taiwan University, Taipei, Taiwan, ROC. She is an Assistant Professor at Department of Electronic Engineering, Hwa-Hsa University of Science Technology, New Taipei City, Taiwan, ROC. Her academic interests focus on sound, signal processing, and instrumentation design.

**Jin-Shin Lai** was born in Taipei, Taiwan, Republic of China (R.O.C.) in 1949. He received the M.D. degree from the Medical School of National Taiwan University, Taipei, Taiwan in 1974. He completed residency training in the Department of Physical Medicine and Rehabilitation, National Taiwan University Hospital, Taiwan in 1978.

He was a Lecturer, Associate Professor, and Professor of Medical School, College of Medicine, National Taiwan University in 1980, 1984 and 1996, respectively. Now, he is the Director of Health Science and Wellness Center, National Taiwan University and Director of Sports Medicine Center, National Taiwan University Hospital. His professional interests include medical informatics, sports medicine, rehabilitation medicine, biomechanics, and rehabilitation engineering. He and his research group had published a series of studies about Physiological Effects of Tai Chi Chuan Training.

Prof. Lai has been the Chairman of School of Rehabilitation Medicine (1988-1992), Chairman of School of Occupational Therapy (1992-1998), Chairman of Department of Physical Medicine & Rehabilitation (1993-1999), Chief of Division of Medical Informatics (2001-2007), College of Medicine, National Taiwan University, respectively. He also served as the Chairman of Department of Information Technology & Service, National Taiwan University Hospital (1998-2004), and elected as the President of Rehabilitation Medicine Association of Taiwan (R.O.C.) 1993-1999, the President of Sports Medicine Association of Taiwan (R.O.C.) 1997-2001, the Chairman of Scientific Commission of Asian Federation of Sports Medicine (AFSM) 1990-2000, the Treasurer of Asian Federation of Sports Medicine (AFSM) 2001-2004 and the Chair of HL-7 Taiwan (2005-2009).