

Computer Science Seminar Series

National Capital Region

Healthcare Systems Design from Engineering Perspective

Speaker: Prof. Yo-Ping Huang
National Taipei University of Technology
Friday, August 28, 2015
1:00PM - 2:00PM, NVC 325

Abstract

Low birth rate and prolonged longevity thanks to good medical care further contribute to the ageing society in Taiwan. Fall and deteriorated vision are two bothersome problems to elderly. Therefore, there is an imminent need to devise autonomous systems to monitor and measure health conditions of elderly in daily and long-term senior centers. Many countries nowadays are also facing a serious social problem of ageing population structure. The medical care problems that accompany the aged population will aggravate the burden of national health insurance. Recently, self healthcare at home becomes one of the blooming research topics. Most health care budget is allocated to medical cure to heal the sick in current health insurance system. Due to the continuing increase in medical care expense, it is time to also consider the importance of daily health maintenance, accident prevention as well as mental care so that senior citizens can have a chance to better enjoy the beauty of a longer life span. Conventional health care systems assumed that elderly people have no physical and social activities. Even worse, they are designed for sick elderly. It is worthy to emphasize the issues such as how to assist the elderly to live in a healthy state while being comfortable and happy. This talk will address from system engineering perspective for modules devised to resolve the critical issues involving IoT, big medical data mining, cognition examination, AMD and joint rehabilitation, Parkinson's tremor measurement, and early dementia diagnosis for self healthcare.

Biography



Dr. Huang is a Professor in the Department of Electrical Engineering at National Taipei University of Technology (NTUT), Taiwan. He also serves as CEO of the Joint Commission of Technological and Vocational College Admission Committee in Taiwan, Chairman of IEEE SMC Taipei Chapter, and President of Taiwan Association of System Science and Engineering. He was Secretary General at NTUT and Chairman of IEEE CIS Taipei Chapter. His research interests include medical knowledge mining, intelligent control

systems, big data analysis, and handheld device application systems design. Prof. Huang is a senior member of the IEEE and a fellow of the IET.