

学术报告会

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地点：电院群楼2-410会议室

Assistive Co-Robots for Healthcare Applications

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Abstract:

Assistive robots will play an important role in our future healthcare because of the aging population. As these robots are portable/wearable and must collaborate with the human users in task accomplishment, resource-limited autonomy and effective human-robot interface are the two research challenges that must be overcome before the assistive co-robots can be developed and deployed in healthcare applications. In this talk, I will report the ongoing co-robot research in my lab and discuss human-centered design of the human-robot interfaces that allow the symbiosis of an assistive robot and its human user. I will use a co-robot navigation aid for the visually impaired as an example to describe how we address the autonomy and human-robot interface problems to allow natural human-robot interaction in navigating a blind traveler in indoor environments.

Biography:

Prof. Cang Ye received the B.Eng. and M.Eng. degree from the University of Science and Technology of China and the Ph.D. degree from the University of Hong Kong. He is currently a Professor with Systems Engineering Department at the University of Arkansas Little Rock. His research interests include vision-based navigation of autonomous robots, robotic assistive technology, reinforcement learning for robot navigation and control, and embedded systems. He has received over \$4 million research funding, as PI and co-PI, from the NSF, NIH and NASA. His current research is funded by three NIH grants and a NASA grant. His work won the best paper awards at a number of international conferences. Dr. Ye was an Office of Naval Research Summer Faculty Research Fellow in 2009 and was recently named the 2015 Arkansas Research Alliance Fellow. He is a senior member of IEEE and a member of the Technical Committee on Robotics and Intelligent Sensing of the IEEE Systems, Man, and Cybernetics Society.