**Huy Q. Pham:** was born in Cu Chi, Viet Nam.Heis currently a senior student of Biomedical Engineering Department of International University, National University, HCMC. His current interests include developing wearable medical devices by utilizing acoustic waves for diseases treament and commercializing the product on the market. He achieved an encouraged scholarship in semester 2 of 2013-2014; “Sinh vien 5 tot” title and the 2nd prize in “Toi Khoi Khiep 2015” competition as a front-end coder of Spime team. He also joined IU Guitar Club, BME Newsletter; attended many BME activities as an organizing member (Ao dai show, Study Trip 2014) and did several volunteer works (*Mua he xanh 2014*, *Orphan Impact of The Jailbreak 2014*). He likes listening to music, playing musical instruments (guitar, harmonica).

**Reseach work:**

We are developing a device that utilizes ultrasonic waves in order to treat Obstructive Sleep Apnea (OSA) or even blood clots. The device will be able to target and manipulate the nerve that controls the back of the tongue to reverse the pharyngeal constriction which is a reason for OSA. Specifically, we would build a flat ultrasonic transducers array and investigate its ability of noncontact levitating and manipulating a small sphere (traslation, rotation and spin) first then consider the nerve. The research approach is separated in 5 parts: building the transducers array, implementing algorithms by MatLab, controling the sphere, targeting the nerve position and manipulating the nerve. Besides the benefits of treating diseases, this device might also be a useful tool to support other researches such as drug delivery, cell manipulation…

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