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## Breathwalk aware system based on embedded design

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**B**reathwalk is a science of combining specific patterns of footsteps synchronized with the breathing. Breathing and walking comprise two of the most important activities in our daily life. By bringing them together in a systematic and meditative way, we can improve our physical, emotional, and spiritual fitness. The effects of breathwalk in five fundamental areas important to our health and well-being heart rhythm, visual focus, muscle balance, brain activity patterns and moods. In addition, it has powerful and rapid effects on the cardiovascular system. However, walking meditation is an exercise which uses the principle of breathwalk. The main principle of it is to synchronize the footstep with appropriate breathing rhythm. In this project, breathwalk aware system based on embedded design which detects user's walking and breathing conditions and provides appropriate guidance. Through the hand held device, the system enhances user's awareness of walking and breathing behaviors. As an application of the biomedical engineering, the system could help the beginners to learn "slow walking technique" which targets to walk as slow as possible in taking each footstep, to synchronize footstep with breathing signal, and to land every footstep with toes first and then heels.

### Biography

Narmadha Chandramohan is pursuing MTech from Karunya University in Coimbatore. She is currently working in a project entitled 'Breathwalk aware system based on embedded design'. This project "Breathwalk" has an important effect on body composition, lipid profile, and liver enzymes. She is also interested in giving motivational speeches and awareness programs to schools and colleges.

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