



## Smart Insole to Check Pressure Distribution

Thamil Vaani Arvaree @ Alvar  
Cheong Chen Yao

Faculty of Science and Engineering, University Nottingham Malaysia

thamilvaani@yahoo.com

JM096 – Innovation – Local – Category B: Professional (Other Institutions) -

***Abstract***—Pressure measurement is used in a variety of situations such as providing information about human’s gait mechanics and has a wide range of applications in clinical situations or in sports activities. The importance of this project is to let the user having a real-time monitoring on their own plantar pressure in wearable biosensors or insole to prevent and detect injury as well as early diagnostics of potential risk for having a bad manner of walking. The smart insole can also be used in any sport’s shop that sell product related to shoes. This is because the insole will be able to predict accurately the type of foot and their pronation so the seller could recommend a more suitable shoes that suits their foot’s characteristics to the buyer. By doing this, it will prevent future injury of the user when they are exercising or even carrying out intensive activities such as marathon since the shoes are more suitable and comfortable that fit their foot well throughout the usage.

***Keywords***—*Smart insole, Pressure measurement, Pressure distribution*