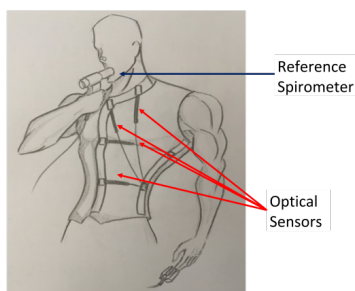
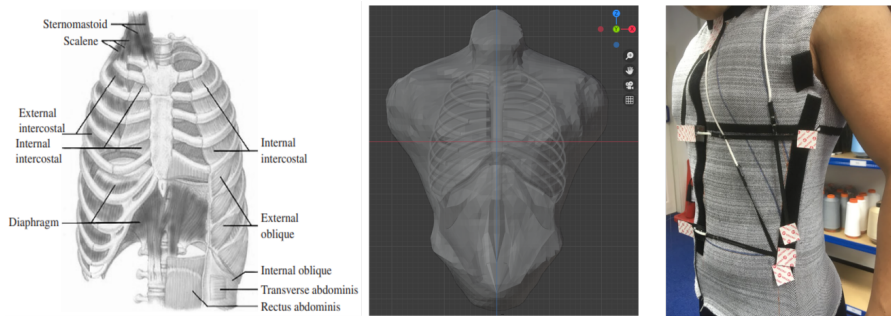




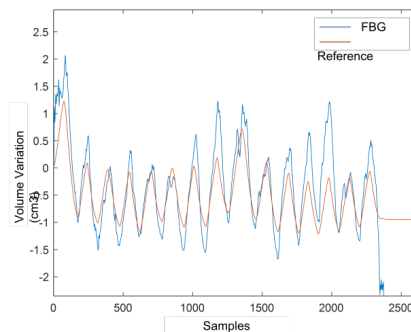
Optics and Photonics Group Lunchtime Seminar

“Fibre optic 3D model system for strain-based breathing volume monitoring”

Nat Limweshasin



Comparison: FBG Shirt vs Reference GOLD Standard Spirometer



13:30 Wednesday 06 July 2022
C24 Coates building
All Welcome

Add to Calendar



“Fibre optic 3D model system for strain-based breathing volume monitoring”

Nat Limweshasin
13:30 Wednesday 06 July 2022
C24 Coates building
All Welcome
MS Teams link

Respiration monitoring had been an integral component for health and safety evaluation of patients as well as athletes' performances for many years. However, currently available means often include bulky equipment, face masks, and mouth pieces which limits the freedom of individuals as well as induce discomfort. This research aims to contribute to the solution of these issues. Since human respiration owes to thoracic torso motion to occur, we propose integration of strain-sensitive Fibre Bragg Gratings (FBGs) into wearable clothing. I am currently developing a 3D model system which replicates individual torso and the corresponding respiratory motion detected via aforementioned wearable sensor to calculate instantaneous breathing volume.