

# MEMS-based Intrafraction Motion Tracking for PET/CT and Radiotherapy (MINMOTION)

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**RADESS** In MINMOTION, we will develop a new method for motion compensation and gating in PET/CT imaging and radiotherapy. Our approach is based on measuring motions from multiple locations in the upper body using several highly sensitive inertial measurement units (IMUs), and on fusing this information with that obtained from the PET/CT scanners. The considered motion estimation approach is inexpensive and does not require large or fixed hardware. We believe that by processing information from multiple motion sensors allows estimating organ movements and quiescent phases more accurately than is possible with the currently used methods.