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(51) International classification	:A61B 8/00, A61B 8/08, A61B 8/14, G01S 15/89, G01S 7/52	(71)Name of Applicant : <b>1)Chitkara University</b> Address of Applicant :Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Rajpura Punjab India
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(57) Abstract :

A retrofit spatial probe system for acoustic navigation, comprising a retrofit casing 101 to detachably mount over an existing two-dimensional ultrasound probe 103, a plurality of adjustable clamps 102 to fit multiple probe 103 geometries, an embedded IMU (inertial measurement unit) to sense motion and orientation of the ultrasound probe 103 during scanning of an embedded inertial measurement unit (IMU) to sense motion, displacement, and orientation of the ultrasound probe 103 during scanning of an anatomical region, a motion-threshold protocol to suppress redundant image frame acquisition by permitting frame capture only when probe 103 displacement, angular rotation, or acceleration exceeds a predefined threshold value, a video interfacing module continuously receive a live ultrasound video stream and to extract image frames in real time, and a wireless communication module 105 for transmitting IMU data in real time.

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