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(71) Applicant: **LIGHTHEARTED AI HEALTH LIMITED**
[GB/GB]; 1 Barson Close, London SE20 7HR (GB).

(72) Inventors: **CESTER, Lucrezia**; London (GB). **RA-JESWARI, Dilip**; London (GB).

(74) Agent: **LUNATI & MAZZONI S.R.L.**; Via Pisacane, 36, 20129 Milano (IT).

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(54) Title: SYSTEM AND METHOD FOR PREDICTING CARDIOVASCULAR CONDITIONS IN SUBJECTS BY RETRIEVING AND ANALYZING HEART SOUNDS

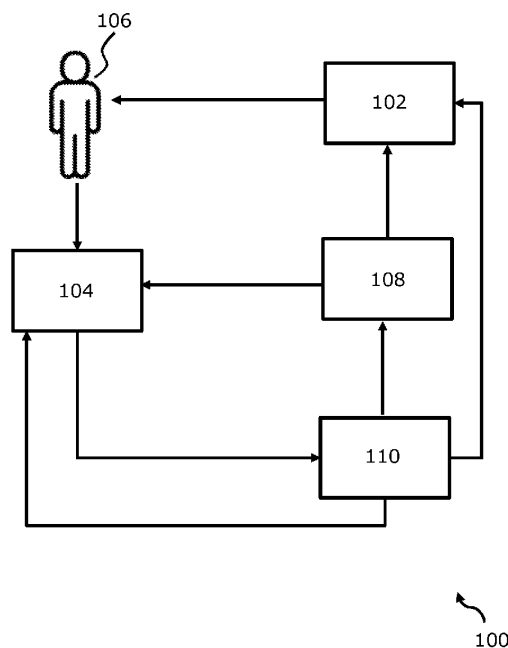


FIG. 1

(57) Abstract: A system (100) for detection, screening, diagnosis, and prediction of cardiovascular conditions in a subject (106) by retrieving and analyzing heart sounds is provided. A first laser signal is directed to the neck area and/or chest area of the subject by a laser device (102) to obtain a second laser signal by the reflection of the first laser signal. A camera unit (104) acquires the second reflected laser signal periodically and generates a plurality of image frame data comprising spots. The plurality of image frames are processed to extract time-series heart sound data. Normal/abnormal heart sounds are automatically determined by quantifying heart sounds and murmurs by analysing the time-series heart sound data using a statistical model and/or a machine learning model. The cardiovascular conditions of the subject (106) are predicted using the machine learning model on the heart sound data.

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