List of Abbreviations

Abbreviation Full form

AC Aortic Valve Closure

ADC Analog to Digital Converter

AF Atrial Fibrillation

AHA American Heart Association

AI Artificial Intelligence
ALE Adaptive Line Enhancer
ANC Adaptive Noise Cancellation

AO Aortic Opening

AR Aortic Regurgitation

AS Aortic Stenosis

ASIC Application-Specific Integrated Circuit

AWGN Added White Gaussian Noise

BCG Ballistocardiography
BAN Body Area Network

CAD Coronary Artery Diseases

CC Capacitive Coupled CO Cardiac Output

COPD Chronic Obstructive Pulmonary Disease

CPR Cardio-Pulmonary Resuscitation

CS Compressed Sensing

CSCW Cardiac Sound Characteristic Waveform

C-TQWT Constrained-Tunable Quality Wavelet Transform

CVD Cardio-Vascular Disease

CWT Continuous Wavelet Transform
DCT Discrete Cosine Transform
DSP Digital Signal Processor
DVP Digital Volume Pulse

DWT Discrete Wavelet Transform

ECG Electrocardiography
ECHO Echocardiography)
E-M Electro-Mechanical

FHS Fundamental Heart Sound

F-IMF First order-Intrinsic Mode Function FPGA Field-Programmable Gate Array

GA Genetic Algorithm

HMM Hidden Markov Model

HRV Heart Rate Variability

HT Hilbert Transform

ICG Impedance Cardiography

ICU Intensive Care Unit
IM Isovolumic Movement
LED Light Emitting Diodes
LMS Least Mean Square

LVET Left Ventricular Ejection Time

MC Mitral Valve Closure MD Mean Deviation

MEMS Micro-Electro Mechanical System
MFCC Mel-Frequency Cepstral Coefficient

MI Myocardial Infarction
MO Mitral Valve Opening
MR Mitral Regurgitation
MS Mitral Stenosis

MSP Mixed-Signal Processor

MSPCA Multi-scale Principal Component Analysis
NASE Normalized Average Shannon Energy

NFC Near Field Communication

PC Personal Computer

PCA Principal Component Analysis

PCB Printed Circuit Board
PCG Phonocardiography
PEP Pre-Ejection Period

PIC Programmable Interface Controllers

PPG Photoplethysmography
PS Pulmonary Stenosis
PTT Pulse Transit Time
RE Rapid Systole Ejection

RFID Radio-Frequency Identification

RI Reflection Index

rPPG Remote-Photoplethysmography

SBP Systolic Blood Pressure SCG Seismocardiography

SI Stiffness Index

SNR Signal-to-Noise Ratio

STFT Short Time Frequency Transform
SURE Stein's Unbiased Risk Estimation

SV Stroke Volume
TDP Tosade de Pointes

TEO Teager Energy Operator

TQWT Tunable Quality Wavelet Transform
UDFT Unitary Discrete Fourier Transform

WT Wavelet Transform