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[U.S. Patent No. 11,188,292](#) entitled “System and Method for Customized Heterodyning of Collected Sounds from Electromechanical Equipment” issued November 30, 2021 to Discovery Sound Technology, LLC of Nashville, Tennessee. Invented by John Jenkins of Nashville, Tennessee. Abstract: Systems and methods are disclosed herein for customized presentation of sound data associated with the operation of electromechanical equipment, wherein users of varying hearing capabilities can ascertain conditions of the equipment in real time. A sound detection device includes transducers which collect sound signals from the equipment and convert the sound signals into digital sound data. A processor generates a first audio data set corresponding to the digital sound data received from the sound detection device and, for a given human user, identifies an audio profile comprising perceivable audio frequency ranges. A target frequency range is identified within the perceivable audio frequency ranges for the given human user, and the first audio data set is shifted or mapped to the target frequency range to generate a second audio data set. Audio output signals corresponding to the second audio data set are user-selectively delivered to the user via an audio receiver.