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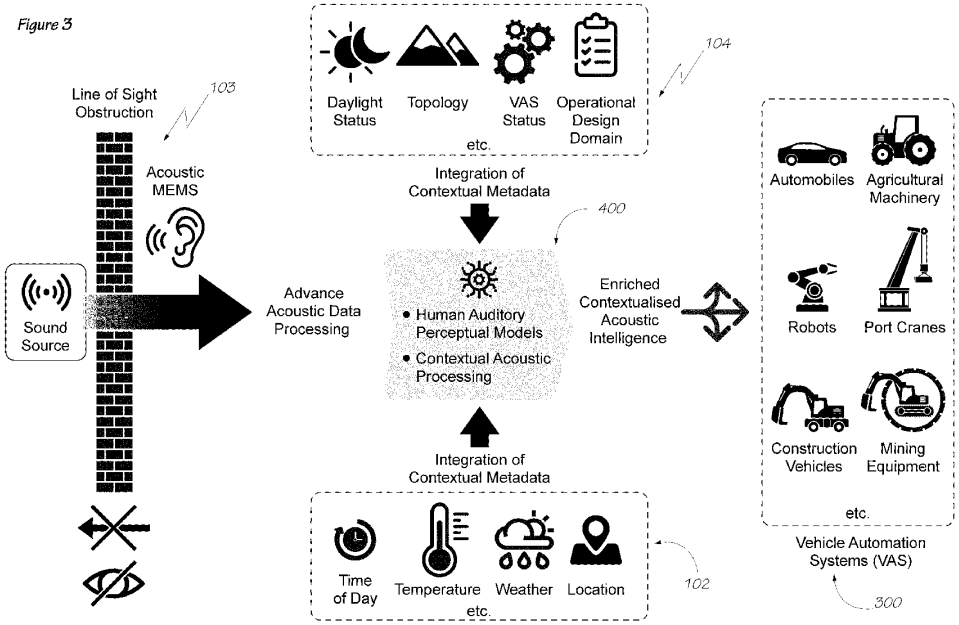
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(54) **Title:** SYSTEMS AND METHODS FOR CONTEXTUAL SCENE ANALYSIS

Figure 3



(57) **Abstract:** The present disclosure is directed towards systems and methods of processing audio information for a vehicular automation system. The method comprises obtaining a context of a VAS; obtaining one or more audio data streams from one or more audio sensors; extracting an audio feature from the one or more audio data streams; processing the audio feature with a neural network and a vector space model to determine the relevance of the audio feature, wherein: the vector space model comprises a Human Audio Perception Model, HAPM; the HAPM is configured to mimic how an audio signal is perceived and processed by a human; and the method comprises using the HAPM to adjust the relevance of the feature based on the context of the VAS.

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