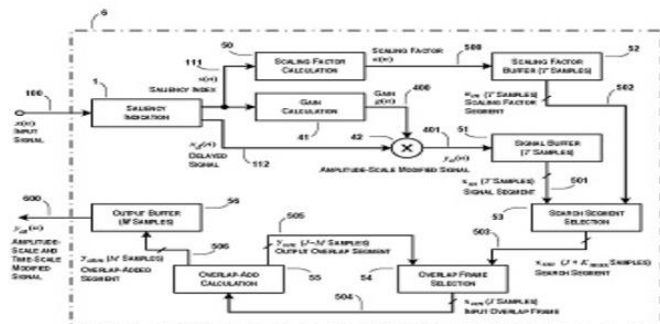


(54) Title of the invention : SYSTEMS AND METHODS FOR REAL-TIME VARIABLE AMPLITUDE-SCALE AND TIME-SCALE MODIFICATIONS FOR IMPROVING SPEECH INTELLIGIBILITY

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ABSTRACT SYSTEMS AND METHODS FOR REAL-TIME VARIABLE AMPLITUDE-SCALE AND TIME-SCALE MODIFICATIONS FOR IMPROVING SPEECH INTELLIGIBILITY A system (6) and a method are disclosed for real-time variable amplitude-scale and time-scale modifications to increase the energy of salient segments in the speech signal for improving intelligibility under adverse listening conditions. The input signal (100) is processed to obtain a saliency index (111), which is mapped to a gain (400) to increase the level of the salient segments and to a scaling factor (500) to increase their duration. The amplitude-scale modification increases the salient segments' level. The time-scale modification expands the salient segments and compresses the steady-state and silence segments to maintain the overall signal duration. The processing has an audio latency acceptable for two-way audio communication. A system (7) and a method are also disclosed for amplitude-scale and time-scale modification of input audiovisual signal (700), in which the input video frames (701) are delayed to compensate for the audio latency. Reference Figure: Figure 9



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