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(54) Title: SENSORY GLOVE SYSTEM AND METHOD FOR SIGN GESTURE SENTENCE RECOGNITION

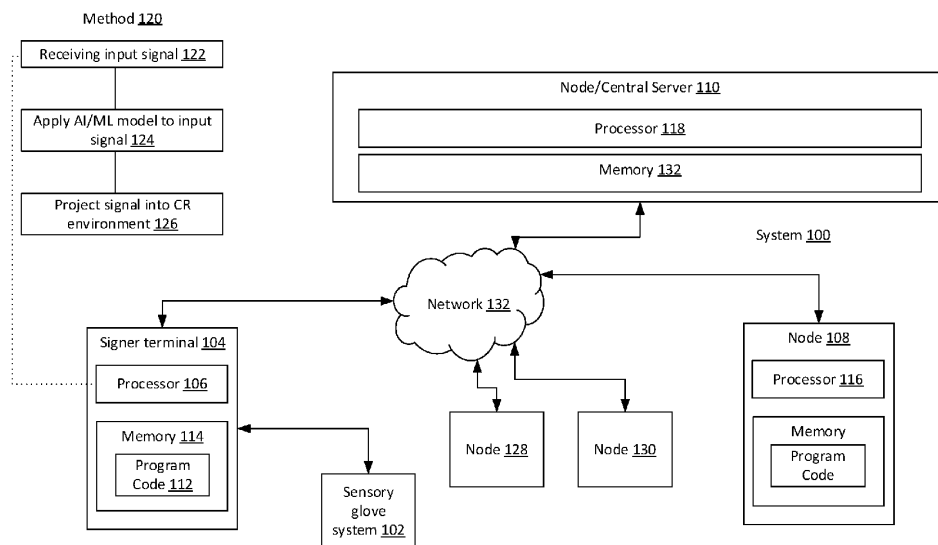


Figure 1

(57) Abstract: A system for recognition of sign gestures and barrier communication between signers and non-signers. The system includes a first glove and second glove, each including a motion sensor for wrist motion perception, a finger bending sensor for each finger, a palm sensor on the first glove and two fingertip sensors, one on each of a middle and index finger of the second glove. For segmentation assisted sentence recognition, the data sliding window splits sentence signals in dataset into word elements. The deep learning (DL) classifier first recognizes all word units as well as some kinds of relations among word signals. Then DL model can recognize new/never-seen sentences which are composed of new-order recombination of word elements. Besides, mutual communication at server and client terminals of VR interface is enabled by Transmission Control Protocol/Internet Protocol (TCP/IP).

[Continued on next page]

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