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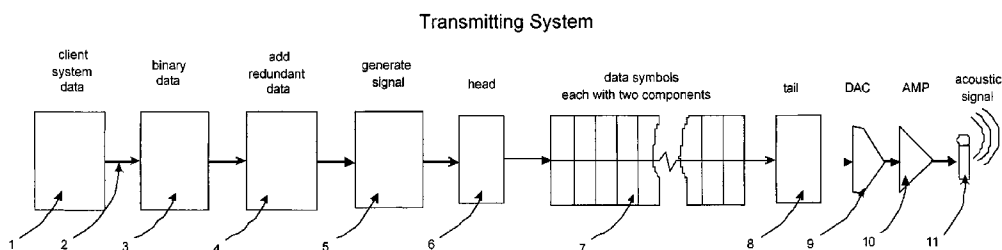
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(54) Title: **ROBUST UNDERWATER COMMUNICATION SYSTEM**



(57) **Abstract:** A robust underwater communication system, for communication between an acoustic signal transmitter and a remotely positioned acoustic signal receiver, wherein transmitted data is carried by a plurality of symbols each having two components one of which comprises a distinctive bit code and the other of which appertains to the character of the symbol as a whole wherein the character of successive symbols is stepped through a predetermined continuously repeating sequence of distinctive steps each of which occurs once in the sequence, the signal receiver being operated synchronously with the signal transmitter and comprising a correlator arrangement responsive both to the bit code and to the character of received signals for effecting demodulation and having a plurality of outputs one for each symbol, so that as each symbol is detected a signal on the output to which it corresponds predominates and amplitude detector means responsive to the outputs from the correlator arrangement for providing an output signal corresponding to the data transmitted.

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