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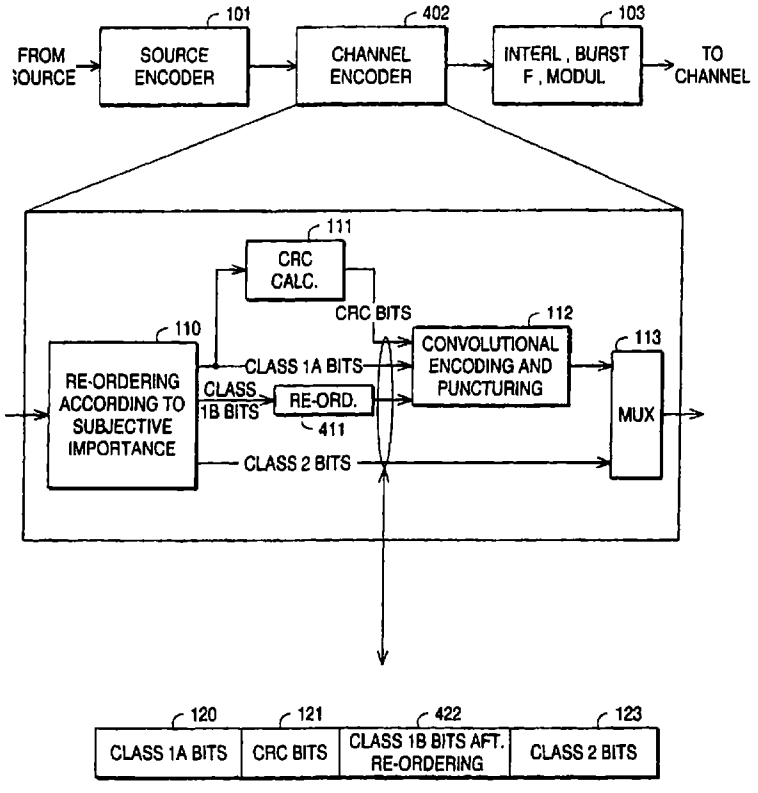
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(54) Title: METHOD AND ARRANGEMENT FOR PROVIDING OPTIMAL BIT PROTECTION AGAINST TRANSMISSION ERRORS



(57) Abstract: A method and arrangements are provided for transmitting frames of digital information over a wireless communication connection between a transmitter and a receiver. In the transmitter, a certain sequence of bits within each frame of digital information is convolutionally encoded and punctured (112) before transmitting the frame over a wireless communication connection. The receiver decodes and depunctures (211) the sequence of bits within each frame of digital information, that was convolutionally encoded and punctured, after receiving the frame over a wireless communication connection. The transmitter rearranges (411) the sequence of bits within each frame of digital information that is to be convolutionally encoded and punctured, before convolutionally encoding and puncturing (112) it. The rearranged order is one that has been found to produce, during the course of convolutionally encoding with a certain convolutional code and puncturing with a certain puncturing pattern, a convolutionally encoded and punctured sequence where the statistical probability of transmission errors exhibits a predefined behaviour (701). In the receiver, the sequence of bits within each frame of digital information that was so rearranged in the transmitter is inversely rearranged (611) so that the effect of said rearranging in the transmitter on the mutual order of the bits of the sequence is cancelled, after decoding and depuncturing the sequence of bits.

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