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(54) **METHOD AND DEVICE FOR DECODING DATA**

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**ABSTRACT**

A method for decoding data by an electronic device (100) is provided. The method includes receiving, by the electronic device (100), encoded data. The method includes determining, by the electronic device (100), a sparsity of a plurality of Machine Learning (ML) models (301, 302) of a turbo decoder (150) of the electronic device (100) for decoding the encoded data based on Quality-of-Service (QoS) parameters. The method includes decoding, by the electronic device (100), the encoded data using the turbo decoder (150) based on the determined sparsity.

