US 20220393700A1

(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2022/0393700 A1

PARK et al. (43) Pub. Date: Dec. 8, 2022

(54) **ZERO PADDING APPARATUS FOR ENCODING FIXED-LENGTH SIGNALING INFORMATION AND ZERO PADDING METHOD USING SAME**

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(21) Appl. No.: **17/891,189**

(22) Filed: **Aug. 19, 2022**

**Related U.S. Application Data**

(63) Continuation of application No. 17/202,475, filed on Mar. 16, 2021, now Pat. No. 11,463,106, which is a continuation of application No. 16/390,316, filed on Apr. 22, 2019, now Pat. No. 10,992,316, which is a continuation of application No. 15/553,458, filed on Aug. 24, 2017, now Pat. No. 10,320,418, filed as application No. PCT/KR2016/001756 on Feb. 23, 2016.

(30) **Foreign Application Priority Data**

Feb. 27, 2015 (KR) ..... 10-2015-0028060
Mar. 6, 2015 (KR) ..... 10-2015-0031947
Feb. 22, 2016 (KR) ..... 10-2016-0020636

**Publication Classification**

(51) **Int. Cl.**

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|---|---|
| ***H03M 13/11*** | (2006.01) |
| ***H03M 13/25*** | (2006.01) |
| ***H03M 13/27*** | (2006.01) |
| ***H03M 13/29*** | (2006.01) |
| ***H03M 13/00*** | (2006.01) |

(52) **U.S. Cl.**

CPC .... ***H03M 13/1148*** (2013.01); ***H03M 13/1165*** (2013.01); ***H03M 13/255*** (2013.01); ***H03M 13/27*** (2013.01); ***H03M 13/2906*** (2013.01); ***H03M 13/618*** (2013.01); ***H03M 13/6362*** (2013.01); ***H03M 13/1105*** (2013.01); ***H03M 13/2778*** (2013.01); *H03M 13/1102* (2013.01); *H03M 13/1111* (2013.01); *H03M 13/152* (2013.01)

(57) **ABSTRACT**

A zero padding apparatus and method for fixed length signaling information are disclosed. A zero padding apparatus according to an embodiment of the present invention includes a processor configured to generate a LDPC information bit string by deciding a number of groups whose all bits are to be filled with 0 using a difference between a length of the LDPC information bit string and a length of a BCH-encoded bit string, selecting the groups using a shortening pattern order to fill all the bits of the groups with 0, and filling at least a part of remaining groups, which are not filled with 0, with the BCH-encoded bit string; and memory configured to provide the LDPC information bit string to an LDPC encoder.