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| Nota di contenuto       | Reduction of the Write Amplification Effect by using Data Compression<br>Scheme Error Correcting Code and Offset Calibration for NAND Flash<br>Memory Soft Input Decoding for Generalized Concatenated Codes<br>(GCC).  |
| Sommario/riassunto      | Mohammed Rajab proposes different technologies like the error<br>correction coding (ECC), sources coding and offset calibration that aim<br>to improve the reliability of the NAND flash memory with low<br>implementation costs for industrial application. The author examines<br>different ECC schemes based on concatenated codes like generalized<br>concatenated codes (GCC) which are applicable for NAND flash<br>memories by using the hard and soft input decoding. Furthermore,<br>different data compression schemes are examined in order to reduce<br>the write amplification effect and also to improve the error correct<br>capability of the ECC by combining both schemes. Contents Reduction<br>of the Write Amplification Effect by using Data Compression Scheme |

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Soft Input Decoding for Generalized Concatenated Codes (GCC) Target Groups Lecturers, students and practitioners in the field of Channel Coding, Source Coding and NAND Flash Memory The Author Mohammed Rajab has a B.S. in Information Technology and a M.Sc. in Computer Science in 2011 and 2014, respectively. Since 2014 he is scientific assistant at the Institute of System Dynamics (ISD) at the University of Applied Sciences in Konstanz, Germany. He received his PhD in computer science and engineering in July 2019 from Ulm University. His main areas of research interest are signal processing for communication systems, data compression and channel coding in nonvolatile memories.