

**AdAM: adaptive fault-tolerant approximate multiplier for edge DNN accelerators**

**Taheri, Mahdi; Cherezova, Natalia; Nazari, Samira; Rafiq, Ahsan; Azarpeyvand, Ali; Ghasempouri, Tara; Daneshtalab, Masoud; Raik, Jaan; Jenihhin, Maksim** 2024 IEEE European Test Symposium (ETS): ETS 2024 : May 20-24, 2024, The Hague, Netherlands : proceedings 2024 <https://doi.org/10.1109/ETS61313.2024.10567161> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

**APPRAISER : DNN fault resilience analysis employing approximation errors**

**Taheri, Mahdi; Ahmadilivani, Mohammad Hasan; Jenihhin, Maksim; Raik, Jaan; Daneshtalab, Masoud** 2023 26th International Symposium on Design and Diagnostics of Electronic Circuits and Systems (DDECS) 2023 / p. 124-127 <https://ddec2023.taltech.ee/> <https://doi.org/10.1109/DDECS57882.2023.10139468>

**DeepAxe : a framework for exploration of approximation and reliability trade-offs in DNN accelerators**

**Taheri, Mahdi; Riazati, Mohamad; Ahmadilivani, Mohammad Hasan; Jenihhin, Maksim; Daneshtalab, Masoud; Raik, Jaan; Sjödin, Mikael; Lisper, Björn** arXiv.org 2023 / 8 p. : ill <https://doi.org/10.48550/arXiv.2303.08226>

**A fault-resistant architecture for AES S-box architecture**

**Taheri, Mahdi; Sheikhpour, Saeideh; Ansari, Mohammad Saeed; Mahani, Ali** Journal of Applied Research in Electrical Engineering 2021 / p. 86-92 <https://doi.org/10.22055/jaree.2021.36230.1020>

**A high-performance MEMRISTOR-based Smith-Waterman DNA sequence alignment using FPNI structure**

**Taheri, Mahdi; Zandevakili, Hamed; Mahani, Ali** Journal of Applied Research in Electrical Engineering 2021 / p. 59-68 <https://doi.org/10.22055/jaree.2021.36117.1016>

**Keynote: cost-efficient reliability for Edge-AI chips**

**Jenihhin, Maksim; Taheri, Mahdi; Cherezova, Natalia; Ahmadilivani, Mohammad Hasan; Selg, Hardi; Jutman, Artur; Shibin, Konstantin; Tsertov, Anton; Devadze, Sergei; Kodamanchili, Rama Mounika; Rafiq, Ahsan; Raik, Jaan; Daneshtalab, Masoud** 2024 IEEE 25th Latin American Test Symposium (LATS) 2024 <https://doi.org/10.1109/LATS62223.2024.10534610> [Article at Scopus](#)

**A novel fault-tolerant logic style with self-checking capability**

**Taheri, Mahdi; Sheikhpour, Saeideh; Mahani, Ali; Jenihhin, Maksim** Proceedings - 2022 IEEE 28th International Symposium on On-Line Testing and Robust System Design, IOLTS 2022 2022 / art. 183305 : ill <https://doi.org/10.1109/IOLTS56730.2022.9897818>

**Special session : approximation and fault resiliency of DNN accelerators**

**Ahmadilivani, Mohammad Hasan; Barbareschi, Mario; Barone, Salvatore; Bosio, Alberto; Daneshtalab, Masoud; Torca, Salvatore Della; Gavarini, Gabriele; Jenihhin, Maksim; Raik, Jaan; Taheri, Mahdi** Proceedings 2023 IEEE 41st VLSI Test Symposium (VTS) 2023 / 10 p. : ill <https://doi.org/10.1109/VTS56346.2023.10140043> [Conference proceeding at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

**Special session: reliability assessment recipes for DNN accelerators**

**Ahmadilivani, Mohammad Hasan; Bosio, Alberto; Deveautour, Bastien; Dos Santos, Fernando Fernandes; Guerrero-Balaguera, Juan-David; Jenihhin, Maksim; Kritikakou, Angeliki; Sierra, Robert Limas; Raik, Jaan; Taheri, Mahdi** 42nd IEEE VLSI Test Symposium, VTS 2024 2024 / 11 p. : ill <https://doi.org/10.1109/VTS60656.2024.10538707> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

**A systematic literature review on hardware reliability assessment methods for deep neural networks**

**Ahmadilivani, Mohammad Hasan; Taheri, Mahdi; Raik, Jaan; Daneshtalab, Masoud; Jenihhin, Maksim** ACM Computing Surveys 2024 / art. 141 <https://doi.org/10.1145/3638242> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)