

Active redundancy in fault tolerance : A modular switch level solution with synchronous switching

Shirodkar, Aditya; Banavath, Satish Naik; **Chub, Andrii**; Mandrioli, Riccardo; Ricco, Mattia 2025 IEEE Seventh International Conference on DC Microgrids (ICDCM) 2025 / 6 p <https://doi.org/10.1109/ICDCM63994.2025.11144667>

Active redundancy in isolated DC-DC converters: A modular solution for fault tolerance

Shirodkar, Aditya; Banavath, Satish Naik; **Yadav, Neelesh**; **Chub, Andrii**; Mandrioli, Riccardo 2025 IEEE 19th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2025 / 5 p <https://doi.org/10.1109/CPE-POWERENG63314.2025.11027280>

AdAM: Adaptive Approximate Multiplier for Fault Tolerance in DNN Accelerators

Taheri, Mahdi; **Cherezova, Natalia**; Nazari, Samira; **Azarpeyvand, Ali**; **Ghasempouri, Tara**; **Daneshtalab, Masoud**; **Raik, Jaan**; **Jenihhin, Maksim** IEEE transactions on device and materials reliability 2024 / p. 66-75 : ill <https://doi.org/10.1109/TDMR.2024.3523386>

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](#)

Adjustable self-healing methodology for accelerated functions in heterogeneous systems

Riazati, Mohammad; **Ghasempouri, Tara**; **Daneshtalab, Masoud**; **Raik, Jaan**; Sjodin, Mikael; Lisper, Bjorn 2020 23rd Euromicro Conference on Digital System Design (DSD), 26-28 August 2020, Kranj, Slovenia 2020 / p. 638-645 <https://doi.org/10.1109/DSD51259.2020.00104>

Analysis of fault-tolerant operation capabilities of an isolated bidirectional current-source DC–DC converter

Blinov, Andrei; **Kosenko, Roman**; **Chub, Andrii**; Ivakhno, Volodymyr Energies 2019 / art. 3203, p. 14 : ill <https://doi.org/10.3390/en12163203> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Applications of game theory to design and operation of modern power systems: a comprehensive review

Navon, Aviad; Yosef, Gefen Ben; Machlev, Ram; Shapira, Shmuel; Chowdhury, Nilanjan Roy; **Belikov, Juri**; Orda, Ariel; Levron, Yoash Energies 2020 / art. 3982, 34 p <https://doi.org/10.3390/en13153982> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Blockchain-based medical decision support system

Hovorushchenko, Tetiana; Hnatchuk, Yelyzaveta; Osyadlyi, Vitaliy; Kapustian, Mariia; **Boyarchuk, Artem** Journal of cyber security and mobility 2023 / p. 253-274 : ill <https://doi.org/10.13052/jcsm2245-1439.123.1> [Journal metrics at Scopus](#) [Article at Scopus](#)

Challenges of reliability assessment and enhancement in autonomous systems

Jenihhin, Maksim; Sonza Reorda, Matteo; **Balakrishnan, Aneesh**; Alexandrescu, Dan 2019 IEEE International Symposium on Defect and Fault Tolerance in VLSI and Nanotechnology Systems (DFT 2019) 2019 / 6 p <https://doi.org/10.1109/DFT.2019.8875379>

Comparative analysis of reliability for string and central inverter PV systems in accordance with the FMECA

Dumnic, Boris; **Liivik, Elizaveta**; Popadic, Bane; Blaabjerg, Frede; Milicevic, Dragan; Katic, Vladimir 2020 IEEE 11th International Symposium on Power Electronics for Distributed Generation Systems (PEDG), 28 Sept.-1 Oct. 2020, Dubrovnik, Croatia 2020 / p. 591-596 <https://doi.org/10.1109/PEDG48541.2020.9244404>

Comparison of (N+1) redundancy and fault tolerance approaches in single-stage series-connected isolated MVAC to LVDC converters

Bakeer, Abualkasim Ahmed Ali; **Chub, Andrii**; **Blinov, Andrei**; Bayhan, Sertac; **Vinnikov, Dmitri** 2023 International Conference on Clean Electrical Power (ICCEP) 2023 / p. 469-474 : ill <https://doi.org/10.1109/ICCEP57914.2023.10247478>

Converter state-space model estimation using dynamic mode decomposition

Suskis, Pavels; Zakis, Janis; Suzdalenko, Alexander; Khang, Huynh Van; **Rassõlkin, Anton**; **Vaimann, Toomas**; Pomarnacki, Raimondas 2022 IEEE 7th International Energy Conference (ENERGYCON) 2022 / 5 p <https://doi.org/10.1109/ENERGYCON53164.2022.9830201>

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 2023 24th International Symposium on Quality Electronic Design (ISQED) 2023 / 8 p. : ill <https://doi.org/10.1109/ISQED57927.2023.10129353>

DeepVigor: Vulnerability Value RanGes and FactORs for DNNs' Reliability Assessment

Ahmadilivani, Mohammad Hasan; **Taheri, Mahdi**; **Raik, Jaan**; **Daneshtalab, Masoud**; **Jenihhin, Maksim** IEEE European Test Symposium (ETS) : Venice, Italy, 22-26 May 2023 : proceedings 2023 / 6 p. : ill <https://doi.org/10.1109/ETS56758.2023.10174133>

Design and control for high reliability power electronics: state of the art and future trends

Alcaide, A. M.; Buticchi, Giampaolo; **Chub, Andrii; Dalessandro, L.** IEEE journal of emerging and selected topics in industrial electronics 2024 / p. 50-61 <https://doi.org/10.1109/JESTIE.2023.3287513>

Design for accelerated testing of DC-link capacitors in photovoltaic inverters based on mission profiles

Sangwongwanich, Ariya; Shen, Yanfeng; **Chub, Andrii; Liivik, Elizaveta; Vinnikov, Dmitri;** Wang, Huai; Blaabjerg, Frede IEEE transactions on industry applications 2021 / p. 741–753 <https://doi.org/10.1109/TIA.2020.3030568> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Development of SCOR database for digitalisation of supply chain customer feedback analysis

Maas, Rene; **Karaulova, Tatjana;** Shevtshenko, Eduard; Popell, Janek; Raji, Ibrahim Oluwale Engineering economics 2023 / p. 439-455 : ill <https://doi.org/10.5755/j01.ee.34.4.31618> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Digitalisation of Supply Chain management system for customer quality service improvement

Ševtšenko, Eduard; Maas, Rene; **Murumaa, Lea; Karaulova, Tatjana;** Raji, Oluwale Ibrahim; **Popell, Janek** Journal of machine engineering 2022 / p. 78-90 : ill <https://doi.org/10.36897/jme/147803> [Journal metrics at Scopus](#) [Article at Scopus](#)

Efficiency of diagnosing the condition of rolling bearings in real time

Baraškova, Tatjana; Shirokova, Veronika Ukrainian metrological journal 2022 / p. 34-38 : ill <https://doi.org/10.24027/2306-7039.4.2022.276322>

Enabling cross-layer reliability and functional safety assessment through ML-based compact models

Alexandrescu, Dan; **Balakrishnan, Aneesh;** Lange, Thomas; Glorieux, Maximilien Proceedings : 2020 26th IEEE International Symposium on On-Line Testing and Robust System Design : IOLTS 2020, Napoli, Italy, July 13-16, 2020 : virtual edition 2020 / 6 p. : ill <https://doi.org/10.1109/IOLTS50870.2020.9159750>

Energy storage for 1500 V photovoltaic systems : A comparative reliability analysis of DC-and AC-Coupling

He, Jinkui; Yang, Yongheng; **Vinnikov, Dmitri** Emerging converter topologies and control for grid connected photovoltaic systems 2021 / p. 323-338 : ill <https://doi.org/10.3390/books978-3-03943-910-2>

Energy storage for 1500 V photovoltaic systems : A comparative reliability analysis of DC-and AC-Coupling

He, Jinkui; Yang, Yongheng; **Vinnikov, Dmitri** Energies 2020 / art. 3355, 16 p. : ill <https://doi.org/10.3390/en13133355> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Fault analysis and field experiences of central inverter based 2 MW PV plant

Dumnic, Boris; **Liivik, Elizaveta;** Milicevic, Dragan 2018 20th European Conference on Power Electronics and Applications (EPE'18 ECCE Europe) : Riga, Latvia, 17-21 September 2018 2018 / p. 2281-2290 : ill <https://ieeexplore.ieee.org/document/8515423>

Fault detecting accuracy of mechanical damages in rolling bearings

Kudelina, Karolina; Baraškova, Tatjana; Shirokova, Veronika; Vaimann, Toomas; Rassõlkin, Anton Machines 2022 / art. 86 <https://doi.org/10.3390/machines10020086> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Fault management techniques to enhance the reliability of power electronic converters : an overview

Rahimpour, Saeed; Husev, Oleksandr; Vinnikov, Dmitri; Vosoughi Kurdkandi, Naser; Tarzamni, Hadi IEEE Access 2023 / p. 13432-13446 <https://doi.org/10.1109/ACCESS.2023.3242918> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Fault-tolerant approach for photovoltaic module-level power electronic applications

Vinnikov, Dmitri; Chub, Andrii; Korkh, Oleksandr; Malinowski, Mariusz 2020 IEEE 14th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) : proceedings 2020 / p. 438-444 : ill <https://doi.org/10.1109/CPE-POWERENG48600.2020.9161599>

Fault-tolerant bidirectional series resonant DC-DC converter with minimum number of components

Vinnikov, Dmitri; Chub, Andrii; Korkh, Oleksandr; Malinowski, Mariusz 2019 IEEE Energy Conversion Congress and Exposition, ECCE, 2019-09-29 - 2019-10-03, Baltimore, MD, USA 2019 / p. 1359–1363 <https://doi.org/10.1109/ECCE.2019.8912292>

FORTUNE: A Negative Memory Overhead Hardware-Agnostic Fault TOLerance TechniqUe in DNNs

Nazari, Samira; **Taheri, Mahdi;** Azarpeyvand, Ali; Afsharchi, Mohsen; **Ghasempouri, Tara;** Herglotz, Christian; **Daneshtalab, Masoud; Jenihhin, Maksim** 2024 IEEE 33rd Asian Test Symposium (ATS) 2024 / p. 1-6 : ill <https://doi.org/10.1109/ATS64447.2024.10915463> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Gate-level modelling of NBTI-induced delays under process variations

Copetti, Thiago; Cardoso Medeiros, Guilherme; Bolzani Poehls, Leticia; Vargas, Fabian; **Kostin, Sergei; Jenihhin, Maksim; Raik, Jaan; Ubar, Raimund-Johannes** LATS 2016 : 17th IEEE Latin-American Test Symposium, Foz do Iguacu, Brazil, 6th-9th April 2016 2016 / p. 75-80 : ill <http://dx.doi.org/10.1109/LATW.2016.7483343>

Hybrid DC–DC converters with topology morphing control and post-fault operation capability

Vinnikov, Dmitri; Chub, Andrii; Korkh, Oleksandr; Blinov, Andrei; Liivik, Elizaveta Electrimacs 2019 : Selected Papers, Vol. 1 2020 / p. 433-445 https://doi.org/10.1007/978-3-030-37161-6_33 [Conference proceeding at Scopus](#) [Article at Scopus](#)

In-field detection of degradation on PCB assembly high-speed buses

Odintsov, Sergei IEEE AUTOTESTCON 2018 : National Harbor, September 17-20, 2018 : proceedings 2018 / 6 p.: ill <https://doi.org/10.1109/AUTEST.2018.8532547>

Intelligent contingency overload-avoiding control of BESS for renewable-rich local area

Gonzalez-Longatt, Francisco; Abdellah, Kouzou; **Astapov, Victor**; Olivo, Franklin; Rueda, Jose Luis; Palensky, Peter; Chamorro, Harold R. 19th International Multi-Conference on Systems, Signals & Devices (SSD) 2022 / p. 1638-1643 <https://doi.org/10.1109/SSD54932.2022.9955825>

Investigation of steam turbine blades damage and reliability in a power plant

Molodtsov, Artjom; Dedov, Andrei; Klevtsov, Ivan; Kommel, Lembit; Lausmaa, Toomas; Mikli, Valdek Modern Materials and Manufacturing 2019 : 12th International DAAAM Baltic Conference and 27th International Baltic Conference BALTMATTRIB 2019. Selected, peer reviewed papers from the conference Modern Materials and Manufacturing 2019 (MMM 2019), April 24-26, 2019, Tallinn, Estonia 2019 / p. 89-94 : ill <https://www.scientific.net/KEM.799.89> https://www.ester.ee/record=b5235278*est <https://doi.org/10.4028/www.scientific.net/KEM.799.89> [Conference proceeding at Scopus](#) [Article at Scopus](#)

Logic-based implementation of fault-tolerant routing in 3D Network-on-Chips

Niazmand, Behrad; Azad, Siavoosh Payandeh; Flich, Jose; Raik, Jaan; Jervan, Gert; Hollstein, Thomas 2016 Tenth IEEE/ACM International Symposium on Networks-on-Chip (NOCS) : Nara, Japan, 31 August - 2 September 2016 2016 / [8] p. : ill <https://doi.org/10.1109/NOCS.2016.7579317>

Methods of condition monitoring and fault detection for electrical machines

Kudelina, Karolina; Asad, Bilal; Vaimann, Toomas; Rassõlkin, Anton; Kallaste, Ants; Khang, Huynh Van Energies 2021 / art. 7459, 20 p. : ill <https://doi.org/10.3390/en14227459> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Mission profile-based accelerated testing of DC-link capacitors in photovoltaic inverters

Sangwongwanich, Ariya; Shen, Yanfeng; **Chub, Andrii; Liivik, Elizaveta; Vinnikov, Dmitri**; Wang, Huai; Blaabjerg, Frede Thirty-Fourth Annual IEEE Applied Power Electronics Conference and Exposition, March 17 – 21, 2019, Anaheim, California 2019 / p. 2833-2840 : ill <https://doi.org/10.1109/APEC.2019.8721794> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Operation of Single-Chip MOSFET and IGBT Devices after failure due to repetitive avalanche [Electronic resource]

Blinov, Andrei; Norrga, Staffan; Tibola, Gabriel EPE'15 ECCE Europe : 8-10 September 2015, Geneva, Switzerland : 17th European Conference on Power Electronics and Applications 2015 / p. 1-9 : ill. [USB] <http://dx.doi.org/10.1109/EPE.2015.7309190>

An overview of lifetime management of power electronic converters

Rahimpour, Saeed; Tarzamni, Hadi; Vosoughi Kurdkandi, Naser; Husev, Oleksandr; Vinnikov, Dmitri; Tahami, Farzad IEEE Access 2022 / p. 109688-109711 <https://doi.org/10.1109/ACCESS.2022.3214320> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Photovoltaic module characteristic influence on reliability of micro-inverters

Sangwongwanich, Ariya; **Liivik, Elizaveta; Blaabjerg, Frede** 2018 IEEE 12th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG 2018) : Doha, Qatar, 10-12 April 2018 2018 / p. 478-483 : ill <https://doi.org/10.1109/CPE.2018.8372565>

Precision of thread manufacturing and its influence on durability of screws with different thread profiles

Strižak, Viktor; Penkov, Igor Machines, technologies, materials 2015 / p. 47-51 : ill <http://stumejournals.com/mtm/Archive/2015/7-2015.pdf>

Reliability analysis and energy yield of string-inverter considering monofacial and bifacial photovoltaic panels

Bouguerra, Sara; Yaiche, Mohamed Redha; Sangwongwanich, Ariya; Blaabjerg, Frede; **Liivik, Elizaveta** 2020 IEEE 11th International Symposium on Power Electronics for Distributed Generation Systems (PEDG), 28 Sept.-1 Oct. 2020, Dubrovnik, Croatia 2020 / p. 199-204 <https://doi.org/10.1109/PEDG48541.2020.9244425>

Reliability analysis of micro-inverters considering PV module variations and degradation rates

Liivik, Elizaveta; Sangwongwanich, Ariya; Blaabjerg, Frede 2018 20th European Conference on Power Electronics and Applications (EPE'18 ECCE Europe) : Riga, Latvia, 17-21 September 2018 2018 / p. 1475-1482 : ill <https://ieeexplore.ieee.org/document/8515325>

Reliability assessment of photovoltaic Buck-Boost microconverter for Estonian climate conditions

Bakeer, Abualkasim Ahmed Ali; Chub, Andrii; Vinnikov, Dmitri 2023 IEEE 17th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2023 / 6 p <https://doi.org/10.1109/CPE-POWERENG58103.2023.10227505>

Reliability based design method for buckling of steel columns in fire

Kervalishvili, Andrei; Talvik, Ivar Journal of Structural Fire Engineering 2020 / p. 167 - 187 <https://doi.org/10.1108/JSFE-12-2018-0041> [Journal metrics at Journal](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Reliability evaluation of an impedance-source PV microconverter

Shen, Yanfeng; Liivik, Elizaveta; Blaabjerg, Frede; Vinnikov, Dmitri; Wang, Huai; Chub, Andrii 2018 IEEE Applied Power Electronics Conference and Exposition (APEC 2018), San Antonio, Texas, USA, 4-8 March 2018 / p. 1104–1108 : ill <https://doi.org/10.1109/APEC.2018.8341154> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Reliability evaluation of isolated buck-boost DC-DC series resonant converter

Bakeer, Abualkasim Ahmed Ali; Chub, Andrii; Shen, Yanfeng IEEE open journal of power electronics 2022 / p. 131-141 <https://doi.org/10.1109/OJPEL.2022.3157200> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Reliability evaluation of the universal power electronic interface converter for PV applications

Khan, Salman; Chub, Andrii; Vinnikov, Dmitri; Kasper, Matthias; Deboy, Gerald 2024 IEEE 21st International Power Electronics and Motion Control Conference (PEMC) 2024 / 8 p <https://doi.org/10.1109/PEMC61721.2024.10726360>

Reliability of DC-link capacitors in two-stage micro-inverters under different PV module sizes

Sangwongwanich, Ariya; Shen, Yanfeng; Chub, Andrii; Liivik, Elizaveta; Vinnikov, Dmitri; Wang, Huai; Blaabjerg, Frede ICPE 2019 - ECCE Asia : 10th International Conference on Power Electronics - ECCE Asia : "Green World with Power Electronics" : May 27-30, 2019 BEXCO, Busan, Korea 2019 / p. 1867-1872 : ill <https://ieeexplore.ieee.org/xpl/conhome/8786807/proceeding>

The reliability of stud-bolt joints

Strizak, Viktor; Penkov, Igor OST-97 Symposium on Machine Design, Tallinn, Estonia, May 22-23, 1997 : proceedings 1997 / p. 196-204 : ill https://www.ester.ee/record=b1083704*est

Reliability study of input side capacitors in impedance-source PV microconverters

Liivik, Elizaveta; Vinnikov, Dmitri; Chub, Andrii; Shen, Yanfeng IECON 2019 - 45th Annual Conference of the IEEE Industrial Electronics Society : proceedings 2019 / p. 5026–5032 : ill <https://doi.org/10.1109/IECON.2019.8927173> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

RESCUE EDA Toolset for interdependent aspects of reliability, security and quality in nanoelectronic systems design

Gürsoy, Cemil Cem; Cardoso Medeiros, Guilherme; Chen, Juanho; Balakrishnan, Aneesh; Lai, Xinhui; Bagbaba, Ahmet Cagri; Raik, Jaan; Jenihhin, Maksim DATE 2019 2019 / 1 p. : ill <https://doi.org/10.5281/zenodo.3362529> <https://past.date-conference.com/>

RESCUE: interdependent challenges of reliability, security and quality in nanoelectronic systems

Jenihhin, Maksim; Raik, Jaan 2020 Design, Automation & Test in Europe Conference & Exhibition (DATE) : proceedings 2020 / art. 19690741 , 6 p <https://doi.org/10.23919/DATE48585.2020.9116558>

SAFFIRA: a Framework for Assessing the Reliability of Systolic-Array-Based DNN Accelerators

Taheri, Mahdi; Daneshtalab, Masoud; Raik, Jaan; Jenihhin, Maksim; Pappalardo, Salvatore; Jimenez, Paul; Deveautour, Bastien; Bosio, Alberto 2024 27th International Symposium on Design & Diagnostics of Electronic Circuits & Systems (DDECS) : 03-05 April 2024, Kielce, Poland 2024 / p. 19–24 : ill <https://doi.org/10.1109/DDECS60919.2024.10508925>

Scenario-based Validation for Autonomous Vehicles with Different Fidelity Levels

Malayjerdi, Mohsen; Kaljavesi, Gemb; Diermeyer, Frank; Sell, Raivo 2023 IEEE Conference on Intelligent Transportation Systems (ITSC 2023) 2023 / 6 p <https://doi.org/10.1109/ITSC57777.2023.10422403>

Self-healing photovoltaic microconverter with zero redundancy and accurate low-cost fault detection

Bakeer, Abualkasim Ahmed Ali; Chub, Andrii; Vinnikov, Dmitri IEEE transactions on industrial electronics 2024 / p. 646-656 <https://doi.org/10.1109/TIE.2023.3250836> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Sensorless pressure calculation for parallel redundancy in pumping systems

Vodovozov, Valery; Bakman, Ilja 2014 16th European Conference on Power Electronics and Applications (EPE'14-ECCE Europe) : Lappeenranta, Finland, 26-28 August 2014. Vol. 1 2014 / p. 210-218 : ill

Short-circuit fault detection and remedial in full-bridge rectifier of series resonant DC-DC converter based on inductor voltage signature

Bakeer, Abualkasim Ahmed Ali; Chub, Andrii; Vinnikov, Dmitri 2020 IEEE 61st International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON), Riga, Latvia, Nov. 5-7, 2020 : conference proceedings 2020 / 6 p. : ill <https://doi.org/10.1109/RTUCON51174.2020.9316482>

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 2023 IEEE 41st VLSI Test Symposium (VTS) : proceedings 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](#)

Study of MOSFET post-fault operation in fault-tolerant DC-DC converters

Bakeer, Abualkasim Ahmed Ali; Chub, Andrii; Vinnikov, Dmitri 2022 IEEE 7th International Energy Conference (ENERGYCON) 2022 / Code 181231, 5 p <https://doi.org/10.1109/ENERGYCON53164.2022.9830216>

Supply chain quality improvement based on customer compliance

Maas, Rene; Shevtshenko, Eduard; **Karaulova, Tatjana** Technological Innovation for Connected Cyber Physical Spaces : 14th IFIP WG 5.5/SOCOLNET Doctoral Conference on Computing, Electrical and Industrial Systems, DoCEIS 2023, Caparica, Portugal, July 5–7, 2023 : proceedings 2023 / p. 230 - 242 https://doi.org/10.1007/978-3-031-36007-7_17 [Conference Proceedings at Scopus](#) [Article at Scopus](#)

Using STLs for effective in-field test of GPUs

Rodriguez Condia, Josie E.; Da Silva, Felipe Augusto; **Bagbaba, Ahmet Cagri;** Guerrero-Balaguera, Juan-David; Hamdioui, Said; Sauer, Christian; Reorda, Matteo Sonza IEEE Design and Test 2023 / p. 109-117 <https://doi.org/10.1109/MDAT.2022.3188573> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Wear-out failure analysis of an impedance-source PV microinverter based on system-level electrothermal modeling

Shen, Yanfeng; **Chub, Andrii;** Wang, Huai; **Vinnikov, Dmitri; Liivik, Elizaveta;** Blaabjerg, Frede IEEE transactions on industrial electronics 2019 / p. 3914-3927 <https://doi.org/10.1109/TIE.2018.2831643> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Wear-out failure analysis of solar optiverter operating with 60- and 72-cell Si crystalline PV modules

Liivik, Liisa; Chub, Andrii; Sangwongwanich, Ariya; Shen, Yanfeng; **Vinnikov, Dmitri;** Blaabjerg, Frede IECON 2018 - 44th Annual Conference of the IEEE Industrial Electronics Society : proceedings 2018 / p. 6134-6140 : ill <https://doi.org/10.1109/IECON.2018.8592925>