

Condition monitoring of a Cartesian robot with a mechanically damaged gear to create a fuzzy logic control and diagnosis algorithm

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Control of pick-and-place robots with reduced power consumption

Vodovozov, Valery; Raud, Zoja; Petlenkov, Eduard 2023 IEEE 64th International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON), Riga, Latvia, October 9-10, 2023 : conference proceedings 2023 / 4 p
<https://doi.org/10.1109/RTUCON60080.2023.10413180>

Development of digital twin for robotic arm

Bratchikov, Sterpan; Abdullin, Artur; Demidova, Galina; Lukichev, Dmitry 2021 IEEE 19th International Power Electronics and Motion Control Conference, The Silesian University of Technology Gliwice, Poland, 25 - 29 April, 2021 (PEMC) : proceedings 2021 / p. 717-723 <https://doi.org/10.1109/PEMC48073.2021.9432535>

Generative design in weight optimization of reconfigurable continuous track robot

Valme, Daniil; Kudelina, Karolina; Belolipetskaja, Diana; Rassõlkin, Anton; Vaimann, Toomas; Kallaste, Ants 2021 28th International Workshop on Electric Drives : Improving Reliability of Electric Drives (IWED) 2021 / 6 p
<https://doi.org/10.1109/IWED52055.2021.9376329>

Gesture controlled human machine interface for future machines

Praks, Teet; Romot, Caspar; Sillat, Mari-Liis; Soomänd, Kristjan; Hiiemaa, Mairo; Tamre, Mart; Juurma, Märt Proceedings of the 9th International Conference of DAAAM Baltic Industrial Engineering, 24-26th April 2014, Tallinn, Estonia 2014 / p. 268-272 : ill

Implementation of the robot arm in the interactive learning environment

Jaanus, Martin; Udal, Andres; Kukk, Vello; Umbleja, Kadri 2014 International Conference on Signals and Electronic Systems (ICSES) : Poznań, Poland, 11-13 September 2014 2014 / [4] p. : ill

Intelligent control of robots with minimal power consumption in pick-and-place operations

Vodovozov, Valery; Raud, Zoja; Petlenkov, Eduard Energies 2023 / art. 7418 <https://doi.org/10.3390/en16217418> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Motion control of a hovering biomimetic four-fin underwater robot

Salumäe, Taavi; Chemori, Ahmed; **Kruusmaa, Maarja** IEEE Journal of Oceanic Engineering 2019 / p. 54 - 71
<https://doi.org/10.1109/JOE.2017.2774318> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Overview of the use of Bellman dynamic programming method to eliminate oscillations in mechanical and electrical assemblies of technical objects

Autsou, Siarhei; Saroka, Viktor; Karpovich, Dzmitry; Rassõlkin, Anton; Kallaste, Ants; Vaimann, Toomas 2019 Electric Power Quality and Supply Reliability Conference (PQ) & 2019 Symposium on Electrical Engineering and Mechatronics (SEEM), Kärđla, Estonia, June 12-15, 2019 : proceedings 2019 / 4 p <https://doi.org/10.1109/PQ.2019.8818246>

Preliminary sensors selection for reconfigurable continuous track robot obstacle detection

Valme, Daniil; Kudelina, Karolina; Rassõlkin, Anton 2021 IEEE Open Conference of Electrical, Electronic and Information Sciences (eStream): proceedings of the conference, April 22, 2021, Vilnius, Lithuania 2021 / 5 p. : ill
<https://doi.org/10.1109/eStream53087.2021.9431394>

Spectrum analysis additional vibrations of Cartesian robot by different control modes

Autsou, Siarhei; Vaimann, Toomas; Rassõlkin, Anton; Kudelina, Karolina 2022 18th Biennial Baltic Electronics Conference (BEC) 2022 / 5 l. <https://doi.org/10.1109/BEC56180.2022.9935595>

The usage of fuzzy logic for detecting mechanical faults in gearboxes of robotic system

Autsou, Siarhei; Kudelina, Karolina; Vaimann, Toomas; Rassõlkin, Anton 2024 International Conference on Electrical Machines (ICEM) 2024 / 7 p <https://doi.org/10.1109/ICEM60801.2024.10700425>

Utilizing the fuzzy logic algorithm for cartesian robot control system in conditions of mechanical damage transmission

Dunaeva, Olga; Autsou, Siarhei; Kudelina, Karolina; Roosileht, Mare IECON 2024 - 50th Annual Conference of the IEEE Industrial Electronics Society IECON Proceedings (Industrial Electronics Conference) 2024 / 5 p
<https://doi.org/10.1109/IECON55916.2024.10905445> [Conference proceedings at Scopus](#) [Article at Scopus](#)