

**Публикационна дейност -  
публикации в Scopus и Web of Science в последните 5 години**

**Q1:**

1. Tanev, T. K., Lekova, A. Implementation of Actors' Emotional Talent into Social Robots Through Capture of Human Head's Motion and Basic Expression. *International Journal of Social Robotics*, 14, 7, Springer Nature, 2022, ISSN:Electronic ISSN 1875-4805 ; Print ISSN 1875-4791, DOI:<https://doi.org/10.1007/s12369-022-00910-0>, 1749-1766. SJR (Scopus):1.11, JCR-IF (Web of Science):4.312 **Q1, не оглавява ранглистата (Scopus)**
2. G. Boiadjiev, E. Krustev, I. Chavdarov, L. Miteva. A Novel, Oriented to Graphs Model of Robot Arm Dynamics. *Robotics*, 10(4), 4, MDPI, 2021, ISSN:22186581, DOI:<https://doi.org/10.3390/robotics10040128>, 1-21. SJR (Scopus):0.39 **Q1, не оглавява ранглистата (Scopus)**
3. Lekova Anna, Chavdarov Ivan. A Fuzzy Shell for Developing an Interpretable BCI Based on the Spatiotemporal Dynamics of the Evoked Oscillations. *Computational Intelligence and Neuroscience*, 2021, Hindawi, 2021, ISSN:1687-5265, DOI:<https://doi.org/10.1155/2021/6685672>, SJR (Scopus):0.605, JCR-IF (Web of Science):3.633 **Q1, не оглавява ранглистата (Scopus)**

**Q2:**

4. Ivan Chavdarov, Kaloyan Yovchev, Lyubomira Miteva, Aleksandar Stefanov, Dimitar Nedanovski. A strategy for controlling motions related to sensory information in a walking robot Big Foot. *Sensors*, 23, 3, MDPI, 2023, ISSN:1424-8220, DOI:10.3390/s23031506, 1506. SJR (Scopus):0.8, JCR-IF (Web of Science):3.847 **Q2 (Web of Science)**
5. Nikolov, V., Dimitrova, M., Chavdarov, I., Krastev, A., Wagatsuma, H.. Design of Educational Scenarios with BigFoot Walking Robot: A Cyber-physical System Perspective to Pedagogical Rehabilitation.. *Lecture Notes in Computer Science*, Ferrández Vicente, J.M., Álvarez-Sánchez, J.R., de la Paz López, F., Adeli, H. (eds) *Artificial Intelligence in Neuroscience: Affective Analysis and Health Applications. IWINAC 2022.*, vol. 13258, Springer, Cham, 2022, ISBN:978-3-031-06241-4, DOI:10.1007/978-3-031-06242-1\_26, 259-269. SJR (Scopus):0.407, JCR-IF (Web of Science):1.363 **Q2 (Scopus)**
6. Chavdarov, I, Naydenov, B. Algorithm for Determining the Types of Inverse Kinematics Solutions for Sequential Planar Robots and Their Representation in the Configuration Space. *Algorithms*, 15, 12, MDPI, 2022, ISSN:ISSN:1999-4893, DOI:[doi.org/10.3390/a15120469](https://doi.org/10.3390/a15120469), 469-493. SJR (Scopus):0.515 **Q2 (Scopus)**
7. Ivanova, V., Vasilev, P., Stoyanov, I., Andreev, R., Boneva, A.. Design of a Multifunctional Operating Station based on Augmented Reality (MOSAR),. *CYBERNETICS AND INFORMATION TECHNOLOGIES*, 21, 1, Bulgarian Academy of Sciences, 2021, ISSN:ISSN: 1311-9702 Online ISSN: 1314-4081, DOI:10.2478/cait-2021-0009, 119-136. SJR (Scopus):0.27 **Q2 (Scopus)**
8. Eftimov, P.B., Yokoi, N., Peev, N., Paunski, Y, Georgiev, G.A.. Relationships between the material properties of silicone hydrogels: Desiccation, wettability and lubricity. *Journal of Biomaterials Applications*, SAGE Publications, 2020, ISSN:08853282, DOI:10.1177/08853282200967526, SJR (Scopus):0.54 **Q2 (Scopus)**

9. Boiadjiev T., Boiadjiev G., Delchev K., **Chavdarov I.**, Kastelov R.. Feed rate control in robotic bone drilling process. *Journal of Engineering in Medicine, Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine*, 2020, DOI:<https://doi.org/10.1177/0954411920975890>, 1-6. SJR (Scopus):0.439, JCR-IF (Web of Science):1.282 **Q2 (Scopus)**
10. **Chavdarov I.**, Krastev A., Naydenov B., Pavlova G.. Analysis and experiments with a 3D printed walking robot to improve climbing obstacle. *SAGE*, 2020, ISSN:1729-8806, DOI:10.1177/1729881420925282, 1-13. SJR (Scopus):0.432, JCR-IF (Web of Science):1.482 **Q2 (Scopus)**
11. **Chavdarov, I.**, **Naydenov, B.** Design and kinematics of a 3-D printed walking robot “Big Foot”, overcoming obstacles. *International Journal of Advanced Robotic Systems*, 1, 12, SAGE, 2019, ISSN:1729-8806, DOI:10.1177/1729881419891329, 1-12. SJR (Scopus):0.432, JCR-IF (Web of Science):1.482 **Q2 (Scopus)**

### Q3:

12. **P. Raykov**, Angelova, Silvija, **Petrov, Emil**, Raikova, Rositsa. Experimental Testing of a Prototype of an Active Elbow Orthosis Based on in Vivo Investigation of Elbow Flexion/Extension of Healthy. *International Journal Bioautomation*, 26, 2, Institute of Biophysics and Biomedical Engineering Bulgarian Academy of Sciences, 2022, ISSN:1314-1902, 161-174. SJR (Scopus):0.198 **Q3 (Scopus)**
13. **Andreeva A**, **Lekova, A.**, Simonska M, **Tanev T.** Parents’ Evaluation of Interaction Between Robots and Children with Neurodevelopmental Disorders. *Smart Innovation, Systems and Technologies*, 305, Springer Nature, 2022, ISBN:978-981193111-6, ISSN:21903018, DOI:10.1007/978-981-19-3112-3\_45, 488-497. SJR (Scopus):0.224 **Q3 (Scopus)**
14. **Ivanova, V.**, Bachvarov, D., Boneva, A.. A Smart Laparoscopic Instrument with Different Applications.. *International Journal of Bioautomation.*, 24, 4, BAS, 2020, ISSN:ISSN: 1314-2321 (on-line) 1314-1902 (print),, DOI:doi: 10.7546/ijba.2020.24.4.000723, 403-417. SJR (Scopus):0.242 **Q3 (Scopus)**
15. **Dimitrova, M.**, Vrochidou, E., **Zahariev, R.**, **Krastev, A.**, Yaneva, T., Bazinas, C., Blagoeva - Hazarbassanova, E.. Robotic Technology for Inclusive Education: A Cyber-Physical System Approach to Pedagogical Rehabilitation. *CompSysTech '20: 21st International Conference on Computer Systems and Technologies '20*, ACM, 2020, ISBN:978-1-4503-7768-3, DOI:<https://doi.org/10.1145/3407982.3408019>, 293-299. SJR (Scopus):0.232 **Q3 (Scopus)**
16. Boiadjiev, T., Boiadjiev, G., Delchev, K., **Chavdarov, I.**, Kastelov, R. Automatic Bone Drilling in Hip Fractures Osteosynthesis. *Journal of Theoretical and Applied Mechanics*, 49, 1, 2019, ISSN:0861-6663, DOI:10.1515/jtam-2017-0017, 94-104. SJR (Scopus):0.22, JCR-IF (Web of Science):0.2 **Q3 (Scopus)**
17. **Chavdarov, I.**, Nikolov, K., **Naydenov, B.** Instant Centre of Rotation of the Robot Big Foot During Motion and Overcoming an Obstacle. *Comptes rendus de l’Acad emie bulgare des Sciences*, 72, 6, *Comptes rendus de l’Acad emie bulgare des Sciences*, 2019, ISSN:1310-1331, DOI:10.7546/CRABS.2019.06.13, 803-811. SJR (Scopus):0.205, JCR-IF (Web of Science):0.321 **Q3 (Scopus)**

Q4:

18. Miteva, L, Yovchev, K, Chavdarov, I. Planning Orientation Change of the End-effector of State Space Constrained Redundant Robotic Manipulators. Computer Systems and Technologies, CompSysTech 2022 Proceedings, ACM International Conference Proceeding Series, Association for Computing Machinery (ACM,) New York, NY 10019-7434, USA, 2022, ISBN:978-1-4503-9644-8, DOI:<https://doi.org/10.1145/3546118.3546136>, 51-56. SJR (Scopus):0.232 **Q4 (Scopus)**
19. Lekova A, Andreeva A, Simonska M, Tanev T, Kostova S. A system for speech and language therapy with a potential to work in the IoT. ACM International Conference Proceeding Series, CompSysTech 2022 Proceedings, 2022, Association for Computing Machinery (ACM,) New York, NY 10019-7434, USA, 2022, ISBN:978-145039644-8, DOI:<http://dx.doi.org/10.1145/3546118.3546147>, 119-124. SJR (Scopus):0.232 **Q4 (Scopus)**
20. Angelova S., P. Raykov, E. Petrov, R. Raikova. A prototype of an active elbow orthosis - problems of mechanical design and orthosis control. Series on Biomechanics, 35, 3, Bulgarian Academy of Sciences, 2021, ISSN:1313-2458, 3-11. SJR (Scopus):0.197 **Q4**
21. Atanasova-Georgieva, V.. Design of Laparoscopic Executive Instruments for Robots, . International Journal of Bioautomation, 25, 4, 2021, DOI:10.7546/ijba.2021.25.4.000820, 299-314. SJR (Scopus):0.18 **Q4 (Scopus)**
22. Dimitrova, M., Kostova, S., Lekova, A., Vrochidou, E., Chavdarov, I., Krastev, A., Botsova, R., Andreeva, A., Stancheva-Popkostadinova, V., Ozaeta, L.. Cyber-Physical Systems for Pedagogical Rehabilitation from an Inclusive Education Perspective. BRAIN. Broad Research in Artificial Intelligence and Neuroscience, 11, 2Sup1, LUMEN Publishing, 2020, ISSN:2068-0473, DOI:<https://doi.org/10.18662/brain/11.2Sup1/104>, 186-207. JCR-IF (Web of Science):0.16 **Q4 (Web of Science)**

**Други в Scopus/ WoS:**

23. Stefanov A., Chavdarov I., Nedanovski D.. Detailed dynamical model of a simple 3D printed walking robot. 1, 2321, AIP Publishing, 2021, DOI:<https://doi.org/10.1063/5.0040125>, SJR (Scopus):0.19 **SJR, непопадащ в Q категория (Scopus)**
24. L. Miteva, K. Yovchev, I. Chavdarov. Preliminary Study on Motion Planning with Obstacle Avoidance for Hard Constrained Redundant Robotic Manipulators. CompSysTech '21: International Conference on Computer Systems and Technologies, ACM International Conference Proceeding Series, 2021, ISBN:978-145038982-2, DOI:10.1145/3472410.3472438, 71-75. SJR (Scopus):0.27 **SJR, непопадащ в Q категория (Web of Science)**
25. I. Chavdarov, I. Georgiev, L. Miteva, R. Trifonov, G. Pavlova. Analysis of the kinematic characteristics of a 3D printed finger of robotic humanoid hand. CompSysTech '21: International Conference on Computer Systems and Technologies '21, CompSysTech, 2021, DOI:10.1145/3472410.3472434, 145-150. JCR-IF (Web of Science):0.1 **SJR, непопадащ в Q категория (Web of Science)**
26. Budakova, D., Pavlova, G., Trifonov, R., Chavdarov, I. Obstacle avoidance algorithms for mobile robots. 20-th International Conference on Computer Systems and Technologies

CompSysTech'19, 21-22 June 2019, University of Ruse, Bulgaria, 2019, SJR (Scopus):0.192 **SJR, непопадащ в Q категория (Scopus)**

27. Boiadjiev, G., Boiadjiev, T., Delchev, K., Kastelov, R., Zagurki, K., Chavdarov, I. Handheld Robotized Systems for Orthopedic Surgery. Springer Nature Switzerland AG 2019, In book: Advances in Service and Industrial Robotics, Springer Nature Switzerland AG 2019, 2019, ISBN:978-3-030-00231--2, ISSN:2211-0984, DOI:10.1007/978-3-030-00232-9\_12, 112-120. SJR (Scopus):0.11 **SJR, непопадащ в Q категория (Scopus)**
28. Ivanova, V., Bachvarov, D., Ilcheva, Z, Boneva, A, Ilchev, S, Alexandrov, A, Andreev, R. Experimental Studies of the Structure of Biological Tissues Through Mechanical Effects with a Smart Laparoscopic Instrument. MATEC Web of Conferences, 287, : EDP Sciences, 2019, ISSN:2261-236X, DOI:DOI: <https://doi.org/10.1051/matecconf/201928707005>, 1-7. SJR (Scopus):0.167 **SJR, непопадащ в Q категория (Scopus)**
29. Chavdarov I, Trifonov R, Pavlova G, Budakova D. Manipulability and kinematic dependences of a legs of the six-legged robot. 19-th International Conference on Computer Systems and Technologies. CompSysTech'18, University of Ruse, Bulgaria, 2018, ISBN:978-1-4503-5234-5, SJR:0.192 **SJR, непопадащ в Q категория (Scopus)**
30. Raykov Pl., Valchkova N., Zahariev R.. Analytical Coordinate Transformation for Manipulation when Using Robots to Serve People with Disabilities. International Conference on Electrical, Computer and Energy Technologies (ICECET), Prague, Czech Republic, IEEE, 2022, ISBN:978-166547087-2, DOI:10.1109/ICECET55527.2022.9872603, 1-6 **Без JCR или SJR - индексирани в WoS или Scopus (Scopus)**
31. Paunski, Yassen, Angelov, Georgi. Embedded Power Management System for Mobile Service Robots. 31st International Scientific Conference Electronics, ET 2022 - Proceedings, Institute of Electrical and Electronics Engineers Inc., 2022, ISBN:978-166549878-4, DOI:10.1109/ET55967.2022.9920299 **Без JCR или SJR - индексирани в WoS или Scopus (Scopus)**
32. Chavdarov, I, Naydenov, B, Yovchev, K, Miteva, L. Topology optimization of an assembled 3D printed robot. 30th International Conference on Software, Telecommunications and Computer Networks (SoftCOM 2022), 2022, ISSN:ISSN: 1847-358X, DOI:DOI: 10.23919/SoftCOM55329.2022.9911410 **Без JCR или SJR - индексирани в WoS или Scopus (IEEE Xplore)**
33. L. Miteva, K. Yovchev, I. Chavdarov. Point-to-point Motion Planning with Obstacle Avoidance for Hard Constrained Redundant Robotic Manipulators. 2021 XXX International Scientific Conference Electronics (ET), IEEE Xplore, 2021, ISBN:978-1-6654-4518-4, DOI:10.1109/ET52713.2021.9579820 **Без JCR или SJR - индексирани в WoS или Scopus**
34. L. Miteva, I. Chavdarov, K. Yovchev, B. Naydenov. Design of a Sensor System for a Minimalistic Walking Robot with Two Degrees of Freedom. 29th International Conference on Software, Telecommunications and Computer Networks (SoftCOM), Publisher: IEEE explore, 2021, ISSN:ISSN: 1847-358X **Без JCR или SJR - индексирани в WoS или Scopus (Scopus)**
35. Lekova, A., Tsvetkova P., Tanev, T.. Robot-assisted psychosocial techniques for language learning by hearing-impaired children. International Journal on Information Technologies and Security (IJITS), SP3, 13, 2021 **Без JCR или SJR - индексирани в WoS или Scopus (Web of Science)**
36. Miteva L., Chavdarov I., Yovchev K. Trajectory Planning for Redundant Robotic Manipulators with Constrained Joint Space. Publisher: IEEE, 2020, ISSN:1847-358X,

- DOI:10.23919/SoftCOM50211.2020.9238296, 1-6 **Без JCR или SJR - индексирани в WoS или Scopus (Scopus)**
37. Boiadjiev G., Boiadjiev T., Delchev K., Kastelov R., Chavdarov I.. Basic Characteristics of Handheld Robotized Systems in Orthopedic Surgery,. Publisher: IEEE, 2020, ISSN:1847-358X, DOI:10.23919/SoftCOM50211.2020.9238339, 1-5 **Без JCR или SJR - индексирани в WoS или Scopus (Scopus)**
38. Boiadjiev G., Chavdarov I., Miteva L.. Dynamics of a Planar Redundant Robot Based on Energy Conservation Law and Graph Theory. Publisher: IEEE, 2020, ISSN:1847-358X, DOI:10.23919/SoftCOM50211.2020.9238220, 1-6 **Без JCR или SJR - индексирани в WoS или Scopus (Scopus)**
39. N. Valchkova, Zahariev R.. Optimization of Model Operator for Service Robot, Intended to Service Persons with Disability. TECIS-19" IFAC Conference on International Stability, Technology and Culture, 26-28 September, Sozopol, Bulgaria, 52, 25, ELSEVIER, IFAC-PapersOnLine, 2020, ISSN:2405-8963, 174-179 **Без JCR или SJR - индексирани в WoS или Scopus (Web of Science)**
40. Ivanova, V., Boneva, A., Doshev, Y., Ivanov, S., Vassilev, P.. Multifunctional Operating Station Based on Tcl/Tk and its Applications. The 6th IEEE International Conference "Big Data, Knowledge and Control Systems Engineering" (BdKCSE'2019),, 2020, ISBN:ISBN Information:Electronic ISBN: 978-1-7281-6481-6, a, Print on Demand(PoD) ISBN: 978-1-7281-6482-3), DOI:DOI: 10.1109/BdKCSE48644.2019.9010662, 1-7 **Без JCR или SJR - индексирани в WoS или Scopus (Scopus)**
41. Chavdarov I., Naydenov B.. Software Application for Topology Optimization of a Link From a 3D Printed Educational Robot. Publisher: IEEE, 2020, ISSN:1847-358X, DOI:10.23919/SoftCOM50211.2020.9238340, 1-6 **Без JCR или SJR - индексирани в WoS или Scopus (Scopus)**
42. Stefanov, A, Chavdarov, I, Nedanovski D, Boiadjiev, G. Dynamics and control of a 3D printed walking robot. 2019 27th International Conference on Software, Telecommunications and Computer Networks (SoftCOM), IEEE, 2019, ISSN:1847-358X, DOI:10.23919/SOFTCOM.2019.8903684 **Без JCR или SJR - индексирани в WoS или Scopus (Scopus)**
43. Lekova, A., Chavdarov, I., Naydenov, B., Krastev, A., Kostova, S. Brain-inspired IoT Controlled Walking Robot - Big-Foot. ASTES Advances in Science, Technology and Engineering Systems Journal, 4, 3, ASTES Advances in Science, Technology and Engineering Systems Journal, 2019, ISSN:2415-6698, 220-226 **Без JCR или SJR - индексирани в WoS или Scopus (Scopus)**
44. Chavdarov I., Nikolov V., Naydenov B., Boiadjiev G. Design and Control of an Educational Redundant 3D Printed Robot. 2019 27th International Conference on Software, Telecommunications and Computer Networks (SoftCOM), IEEE, 2019, ISSN:1847-358X, DOI:10.23919/SOFTCOM.2019.8903825 **Без JCR или SJR - индексирани в WoS или Scopus (Scopus)**
45. Tanev Tanio K.. Geometric Algebra Based Kinematics Model and Singularity of a Hybrid Surgical Robot. Advances in Robot Kinematics 2016, Series: Springer Proceedings in Advanced Robotics, Lenarcic Jadran, Merlet Jean-Pierre (Eds.), 4, Springer International Publishing, 2018, ISBN:978-3-319-56802-7, DOI:10.1007/978-3-319-56802-7, 431-440 **Без JCR или SJR - индексирани в WoS или Scopus (Scopus)**

46. Dachkinov P., Tanev T. K., Lekova A., Batbaatar D., Wagatsuma H.. Design and Motion Capabilities of an Emotion-Expressive Robot EmoSan. Joint 10th International Conference on Soft Computing and Intelligent Systems and 19th International Symposium on Advanced Intelligent Systems SCIS&ISIS2018, Toyama, Japan, 5-8 December, 2018, 2018, DOI:IEEE DOI 10.1109/SCIS-ISIS.2018.00263, 1332-1338 **Без JCR или SJR - индексиран в WoS или Scopus (Scopus)**
47. Chavdarov, I., Naydenov, B., Kostova, S., Krastev, A., Lekova, A.. Development and Applications of a 3D Printed Walking Robot - Big-Foot. 2018 26th International Conference on Software, Telecommunications and Computer Networks (SoftCOM), IEEE, 2018, ISSN:1847-358X, DOI:10.23919/SOFTCOM.2018.8555843, 1-5 **Без JCR или SJR - индексиран в WoS или Scopus (Web of Science)**