Lista lucrărilor publicate

1) Titlu: IoT–Cloud-Based Control of a Mechatronic Production Line Assisted by a Dual Cyber–Physical Robotic System Within Digital Twin, AI and Industry/Education 4.0/5.0 Frameworks

Autori: Adriana Filipescu, Georgian Simion, Adrian Filipescu, ***Dan Ionescu***

Detalii: SENSORS Journal 2026 Q2, IF 3.4, Volumul 26, Issue 10, Article Number 3194.

DOI:10.3390/s26103194 WOS:001775469400001

2) Titlu: IoT–Cloud-Based Control of a Mechatronic Production Line Assisted by a Dual Cyber–Physical Robotic System Within Digital Twin, AI and Industry/Education 4.0/5.0 Frameworks

Autori: Adriana Filipescu, Georgian Simion, Adrian Filipescu, ***Dan Ionescu***

Preprint DOI:10.20944/preprints202604.1734.v1

3) Titlu: Internet of Things-Cloud Control of a Robotic Cell Based on Inverse Kinematics, Hardware-in-the-Loop, Digital Twin, and Industry 4.0/5.0

Autori: ***Dan Ionescu***, Adrian Filipescu, Georgian Simion, Adriana Filipescu

Detalii: SENSORS Journal 2025 Q2, IF 3.4, Volumul 25, Issue 6, Article Number 1821.

DOI:10.3390/s25061821 WOS:001405432100001

4) Titlu: IoT-Cloud and Digital Twin Approach for HIL Structure Based on Inverse Kinematics Model and PLC for Controlling a Robotic Cell in the Framework of Industry 4.0

Autori: ***Dan Ionescu***, Adrian Filipescu, Georgian Simion, Adriana Filipescu

Preprint DOI:10.20944/preprints202502.0693.v1

WOS PPRN:122447476

5) Titlu: Cloud/VPN-Based Remote Control of a Modular Production System Assisted by a Mobile Cyber-Physical Robotic System-Digital Twin Approach

Autori: Georgian Simion, Adrian Filipescu, ***Dan Ionescu***, Adriana Filipescu

Detalii: SENSORS Journal 2025 Q2, IF 3.4, Volumul 25, Issue 2, Article Number 591.

DOI: 10.3390/s25020591,WOS:001405432100001

6) Titlu: Cloud/VPN Based Remote Control of a Modular Production System Assisted by a Mobile Cyber Physical Robotic System—Digital Twin Approach

Autori: Georgian Simion, Adrian Filipescu, ***Dan Ionescu***, Adriana Filipescu

Preprint DOI:10.20944/preprints202412.0302.v1

WOS PPRN:120342448

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7) Titlu: PLC Inverse Kinematics Model-Driven Digital Twin Focused on HIL for a Flexible Robotic Cell

Autori: ***Dan Ionescu***, Adrian Filipescu, Georgian Simion, Răzvan Șolea, Adriana Filipescu, Adrian Șerbencu

Detalii: 2024 18th International Conference on Control, Automation, Robotics and Vision (ICARCV), pp.1195-1200.

DOI:10.1109/ICARCV63323.2024.10821631

8) Titlu: IoT-Cloud, VPN, and Digital Twin-Based Remote Monitoring and Control of a Multifunctional Robotic Cell in the Context of AI, Industry, and Education 4.0 and 5.0

Autori: Adrian Filipescu, Georgian Simion, ***Dan Ionescu***, Adriana Filipescu

Detalii: SENSORS Journal 2024 Q2, IF 3.4, Volumul 24, Issue 23, Article Number 7451.

DOI:10.3390/s24237451, WOS:001377771600001

9) Titlu: IoT-Cloud, VPN and Digital Twin Based Remote Monitoring and Control of a Multifunctional Robotic Cell in the Context of AI, Industry and Education 4.0 and 5.0

Autori: Adrian Filipescu, Georgian Simion, ***Dan Ionescu***, Adriana Filipescu

Preprint DOI:10.20944/preprints202410.1345.v1

WOS PPRN:119048376

10) Titlu: IoT-Cloud based Control of a Flexible Assembly/Disassembly Mechatronic System in the Framework of Industries 4.0 and 5.0

Autori: Adrian Filipescu, Iulia Stamatescu, Georgian Simion, ***Dan Ionescu***, Adriana Filipescu

Detalii: The 18th IEEE International Conference on Control & Automation 2024, ICCA 2024, pp.534-539.

ISBN: 979-8-3503-5440-9

DOI:10.1109/ICCA62789.2024.10591866, WOS:001294388500088

11) Titlu: Remote Control of a Flexible Robotic Cell as a Cyber Physical System for Assembly and Disassembly Based on SCADA and Industry 4.0

Autori: Adrian Filipescu, Georgian Simion, ***Dan Ionescu***, Adriana Filipescu

Detalii: 32nd Mediterranean Conference on Control and Automation 2024, MED 2024, pp.634-639.

ISBN: 979-8-3503-9544-0

DOI:10.1109/MED61351.2024.10566234,

Data: **17.07.2026**

12) Titlu: Modeling and Control an A/DT Served by an ACPS based on SCADA, Industry 4.0 and 5.0

Autori: Adrian Filipescu, Daniela Cernega, Răzvan Șolea, Adriana Filipescu, Eugenia Mincă, ***Dan Ionescu***, Georgian Simion;

Detalii: 28th International Conference on Emerging Technologies and Factory Automation 2023, ETFA 2023, pp.1-8.

ISBN: 979-8-3503-3991-8

DOI: 10.1109/ETFA54631.2023.10275349

13) Titlu: Digital Twin Based a Processing Technology Assisted by a MCPRS, Ready for Industry 5.0

Autori: Adrian Filipescu, Eugenia Mincă, Daniela Cernega, Răzvan Șolea, Adriana Filipescu, Georgian Simion, ***Dan Ionescu***;

Detalii: 2023 27th International Conference on System Theory, Control and Computing (ICSTCC), 2023, pp.297-302.

ISBN: 979-8-3503-3798-3

DOI: 10.1109/ICSTCC59206.2023.10308478

14) Titlu: Digital Twin for a Mecatronics Line with Integrated Mobile Robotic Systems

Autori: Adrian Filipescu, Daniela Cernega, Eugenia Mincă, Răzvan Șolea, ***Dan Ionescu***, Georgian Simion, Adriana Filipescu;

Detalii: 2022 26th International Conference on System Theory, Control and Computing (ICSTCC), 2022, pp. 163-169.

ISBN 978-1-6654-6746-9

DOI: 10.1109/ICSTCC55426.2022.9931782, WOS:000889980600029

15) Titlu: Complex Autonomous System Assisting a Manufacturing Technology on a Mechatronics Line. A Digital Twin Approach

Autori: Adrian Filipescu, Răzvan Şolea, Daniela Cernega, ***Dan Ionescu***, Georgian Simion, Adriana Filipescu;

Detalii: 2022 26th International Conference on System Theory, Control and Computing (ICSTCC), 2022, pp. 157-162.

ISBN 978-1-6654-6746-9

DOI: 10.1109/ICSTCC55426.2022.9931812, WOS:000889980600028

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16) Titlu: Digital Twin for a Multifunctional Technology of Flexible Assembly on a Mechatronics Line with Integrated Robotic Systems and Mobile Visual Sensor. Challenges towards Industry 5.0

Autori: Eugenia Mincă, Adrian Filipescu, Daniela Cernega, Răzvan Șolea, Adriana Filipescu; ***Dan Ionescu*** Georgian Simion;

Detalii: SENSORS Journal Q2, IF 3.9, Volume 22, Issue 21, Article Number 8153.

DOI: 10.3390/s22218153, WOS:000881435200001

17) Titlu: Mobile Visual Servoing Based Control of a Complex Autonomous System Assisting a Manufacturing Technology on a Mechatronics Line

Autori: Georgian Simion, Adrian Filipescu, ***Dan Ionescu***, Răzvan Șolea, Daniela Cernega, Eugenia Mincă, Adriana Filipescu;

Detalii: INVENTIONS Journal Q1, IF 3.4, Volume 7, Issue 3, Article Number 47.

DOI: 10.3390/inventions7030047, WOS:000858232500001

18) Titlu: Communication and Control of an Assembly, Disassembly and Repair Flexible Manufacturing Technology on a Mechatronics Line Assisted by an Autonomous Robotic System

Autori: ***Dan Ionescu***, Adrian Filipescu, Georgian Simion, Eugenia Mincă, Daniela Cernega, Răzvan Șolea, Adriana Filipescu;

Detalii: INVENTIONS Journal Q1, IF 3.4, Volume 7, Issue 2, Article Number 43.

DOI: 10.3390/inventions7020043, WOS:000818151300001

19) Titlu: CAS and IRM Integrated into a Multifunctional Flexible Manufacturing Technology on an A/D/RML

Autori: ***Dan Ionescu***, Daniela Cernega, Răzvan Șolea, Adrian Filipescu, Georgian Simion;

Detalii: 2021 25th International Conference on System Theory, Control and Computing, ICSTCC 2021, pp. 541-546.

ISBN 978-166541496-8

DOI: 10.1109/ICSTCC52150.2021.9607127, WOS:000859487900089

20) Titlu: Multifunctional Technology of Flexible Manufacturing on a Mechatronics Line with IRM and CAS, Ready for Industry 4.0

Autori: Adrian Filipescu, ***Dan Ionescu***, Adriana Filipescu, Eugenia Mincă, Georgian Simion;

Detalii: PROCESSES Journal Q2, IF 3.352, Volume 9, Issue 5, Article Number 864.

DOI: 10.3390/pr9050864, WOS: 000654500500001

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