



## Curriculum vitae

### Personal Information

<b>First name / Last name</b>	Mironela PÎRNĂU
<b>Academic title</b>	<b>Associate Professor, PhD, Eng.</b>
<b>Institutional affiliation:</b>	<b>Titu Maiorescu University of Bucharest – Faculty of Informatics</b>
Email	mironela.pirnaeu@prof.utm.ro

<b>Academic Prestige</b>	
<b>Education and Training</b>	<ul style="list-style-type: none"> <li>• <b>1997–2003:</b> PhD in Electronics, specialization in Electronics and Telecommunications, University of Pitești, Faculty of Electronics, Communications and Computers</li> <li>• <b>1986–1992:</b> Polytechnic Institute of Bucharest, Faculty of Automation and Computers</li> </ul>
<b>Work Experience</b>	<b>Main position</b>
	<ul style="list-style-type: none"> <li>• <b>2010 – present;</b> Associate Professor, PhD, Eng., Titu Maiorescu University, Faculty of Informatics</li> </ul>
	<ul style="list-style-type: none"> <li>• 2007 – 2010; Lecturer, PhD, Eng., Titu Maiorescu University, Faculty of Informatics</li> </ul>
	1997-2007; Lecturer, Dimitrie Cantemir Christian University, Bucharest <ul style="list-style-type: none"> <li>• 1996-1997; Assistant Lecturer, Dimitrie Cantemir Christian University, Bucharest</li> </ul>
	<ul style="list-style-type: none"> <li>• 1992-1996; <b>Systems Engineer; Assistant Lecturer, Romanian Academy of Management (Private University)</b></li> </ul>
	<b>Associate Lecturer</b>
	<ul style="list-style-type: none"> <li>• July 2020 – July 2021; Position: Training Specialist, Romanian Radio Broadcasting Company</li> </ul>
	<ul style="list-style-type: none"> <li>• 2010 – 2011; 2015-2025; Romanian - American University (Bucharest), Faculty of Managerial Informatics</li> </ul>
	<ul style="list-style-type: none"> <li>• 2012 – 2014; Lumina University of South-East Europe (Bucharest)</li> </ul>
<b>Teaching Activities</b>	<ul style="list-style-type: none"> <li>• Lectures and laboratory activities in the following subjects: Web Application Security; Natural Language Processing and Text Analysis; Big Data; Computer Graphics; Web Technologies; User Interface Design</li> </ul>
<b>Research Activities</b>	
<b>Research Areas</b>	<ul style="list-style-type: none"> <li>• NLP - AI</li> <li>• Big Data</li> <li>• Social Networks</li> <li>• Web Application Security</li> <li>• Java Technologies</li> <li>• Web Technologies</li> </ul>
<i>Member of research team / expert / trainer for the following contracts</i>	
<b>Selected list</b>	<ul style="list-style-type: none"> <li>• Project: Framework for Cyber Attack Detection, Internal Research Project Competition 2025–2027 (PCI-85 FDAC), Project Director.</li> </ul>

	<ul style="list-style-type: none"> <li>• Project: Analysis of Global Message Flows on the Topic “Energy Crisis” and Identification of Their Polarity, Internal Research Project Competition 2022–2024 (PCI-129 Snc-Energy), Project Director.</li> <li>• Project ID 133276: Internship Programs in the Cloud Cybersecurity Centre of Excellence – CyberX</li> <li>• Education and Employment Programme 2021–2027, SMIS Code 312737, Project “Internships in the Academic Cloud Artificial Intelligence Centre and with Partner Organizations-AI#connect”</li> <li>• Participation in the first edition of the CyberSecurity Ovidius Camp Summer School, Ovidius University of Constanța, Faculty of Mathematics and Computer Science, Ovidius University of Constanța (UOC), in partnership with the Faculty of Informatics, Titu Maiorescu University of Bucharest.</li> <li>• POSDRU/144/6.3/S/130725 – SMIS Code 51463, Project title: FEMINIS – “Let’s Progress Together”, Beneficiary: LUMINA Foundation – Educational Institutions, Bucharest, Position held: Trainer, Long-Term Field Expert. period: 15.06.2014 – 15.09.2015; Course Delivery Expert / Trainer.</li> <li>• POCU/227/3/8/118471, Project: Professional Training for Entrepreneurs and Employees, Beneficiary: LUMINA Foundation – Educational Institutions, Bucharest, Period: July 2018 – June 2019, Position held: Trainer.</li> <li>• POSDRU/92/3.1/S/57836, Project: Centre for Information, Counselling and Mentorship for the Promotion of Entrepreneurial Culture, Period: 2010–2012, Position held: Trainer.</li> <li>• POSDRU/109/2.1/G/81566, Project: Internships in the Bucharest–Ilfov Region, Position held: Expert.</li> <li>• Advanced Studies School: “Challenges of Cybersecurity – From Paradigm to Implementation”, PN-II-ID-SSA-2012-2-017, 2012; Paper presented: The Analysis of the .NET Architecture Security System.</li> <li>• POSDRU/90/2.1/S/60333, Project: Transition from Student to Employee Status through the Correlation of Practical Learning in Mechanical Engineering Technologies.</li> <li>• Cryptanalysis of DES Encryption Systems, Project within the Sectoral Research and Development Plan for Military Technology (2008) of the Ministry of Administration and Interior (MAI), declassified project, Position held: Research Team Member.</li> <li>• Expert in the project Vocational Training for the Development of Competences in Management, Marketing and Processing of Agricultural and Fishery Products (including Quality), EuropeAid/12297/D/SER/RO [2007].</li> <li>• Multifunctional CNC Machine for Machining Operations (turning, milling, drilling, boring, slotting, gear cutting, and external/internal cylindrical and helical grinding), PNCDI II – AMCSIT – Innovation, Contract No. 45/25.09.2007, Implementation period: 2007–2010, Position held: Research Team Member.</li> <li>• Clean Energy Cogeneration through Biomass Gasification, PNCDI II, Contract No. 21-053/09.2007, Implementation period: 2007–2010, Position held: Research Team Member.</li> </ul>
<p><b>Publications (selected) – Books</b></p>	<ul style="list-style-type: none"> <li>• Teodorescu, Horia-Nicolai and Pîrnău, Mironela, Information and Communication Technologies for Humanitarian Services, Chapter 6: “ICT for Early Assessment of Disaster Amplitude, for Relief Planning, and for Resilience Improvement”, 2020/08/14, pp. 117–141.</li> <li>• Pîrnău, M., Web Technologies, Titu Maiorescu Publishing House, Bucharest, ISBN 978-606-8002-23-1 / 004.55, 2009.</li> <li>• Pirnau, M., Spirescu, Al., 2015, Chapter One: “Java Technologies and Persistence Mechanisms in Expert Systems Knowledge Base Implementations”, in New Developments in Expert Systems Research, Editor:</li> </ul>

	<p>Anna Bennett, Series: Computer Science, Technology and Applications, Softcover, ISBN 978-1-63482-906-9.</p>
<p><b>Selected ISI/BDI Indexed Publications</b></p>	<ul style="list-style-type: none"> <li>• M. Pirnau, I. Priescu, M.-A. Botezatu, C.M. Priescu, D. Joita, From Vector Space to Symbolic Space: Informational and Semantic Analysis of Benign and DDoS IoT Traffic Using LLMs. <i>Electronics</i> 2026, 15, 1724. <a href="https://doi.org/10.3390/electronics15081724">https://doi.org/10.3390/electronics15081724</a></li> <li>• M. Pirnau, I. Priescu, A. M. Țițu, C. Pirnau and C. M. Priescu, “Applying NLP for Emotional Tone Detection in Medical Abstracts Using Bio_ClinicalBERT,” 2025 17th International Conference on Electronics, Computers and Artificial Intelligence (ECAI), Târgoviste, Romania, 2025, pp. 1–6.</li> <li>• M. Pirnau, Iustin Priescu, Geanina Silvana Banu, Tudor Cătălin Apostolescu, Agent Communication Protocol and Beeai Platform Integration with Watsonx.AI, International Conference Education and Creativity for a Knowledge Society, Titu Maiorescu University, 19th Edition, Bucharest, 2025.</li> <li>• M. Pirnau, Iustin Priescu, Daniela Joița, Geanina Silvana Banu, Claudia-Elena Dinucă, A Watsonx.Ai-Based Automated Model for Biomedical Abstract Analysis, International Conference Education and Creativity for a Knowledge Society, Titu Maiorescu University, 19th Edition, Bucharest, 2025.</li> <li>• M. Pirnau, Claudiu Pirnau, Iustin Priescu, Aurel-Mihail Țițu, Liviu-Daniel Ghiculescu, Marian–Florentin Ghena, the impact of nanotechnologies in the virtual world, <i>Journal Acta Technica Napocensis – Series: Applied Mathematics, Mechanics, and Engineering</i>, Volume 67, Issue 3, 2024.</li> <li>• Bolea SC, Pirnau M, Bejinariu S-I, Apopei V, Gifu D, Teodorescu H-N. Some Properties of Zipf’s Law and Applications. <i>Axioms</i>. 2024; 13(3):146. <a href="https://doi.org/10.3390/axioms13030146">https://doi.org/10.3390/axioms13030146</a></li> <li>• Pirnau M, Botezatu MA, Priescu I, Hosszu A, Tabusca A, Coculescu C, Oncioiu I. Content Analysis Using Specific Natural Language Processing Methods for Big Data. <i>Electronics</i>. 2024; 13(3):584. <a href="https://www.mdpi.com/2079-9292/13/3/584">https://www.mdpi.com/2079-9292/13/3/584</a></li> <li>• Pirnau, M., Priescu, I., Joita, D., Priescu, C.M. Analysis of Security Methods for Medical Data in Cloud Systems. In: Costin, HN., Magjarević, R., Petroiu, G.G. (eds) <i>Advances in Digital Health and Medical Bioengineering</i>. EHB 2023. IFMBE Proceedings, vol 109. Springer, Cham. <a href="https://doi.org/10.1007/978-3-031-62502-2_61">https://doi.org/10.1007/978-3-031-62502-2_61</a></li> <li>• Pirnau Mironela, Priescu. Iustin, Priescu. C. Mihaela, Pirnau. Claudiu and G. L. Daniel, “Analysis of YouTube Video Comments with NLP Methods,” 2024 16th International Conference on Electronics, Computers and Artificial Intelligence (ECAI), Iasi, Romania, 2024, pp. 1–6, doi: 10.1109/ECAI61503.2024.10607575.</li> <li>• Pirnau M., I. Priescu, D. Joita and C. M. Priescu, “Analysis of the Energy Crisis in the Content of Users’ Posts on Twitter,” 2023 17th International Conference on Engineering of Modern Electric Systems (EMES), Oradea, Romania, 2023, pp. 1–4, doi: 10.1109/EMES58375.2023.10171649.</li> <li>• Priescu, I., Joița, D., Pirnau, M. Forensics in the field of smart mobile devices for university educational programs – case study. <i>Rom. J. Forensic Sci.</i> 23, 300–308 (2022).</li> <li>• Teodorescu Horia-Nicolai L., Pirnau Mironela, Twitter's Mirroring of the 2022 Energy Crisis: What It Teaches Decision-Makers – A Preliminary Study, pp. 312–322. DOI: 10.59277/ROMJIST.2023.3-4.05</li> </ul>

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|  | <ul style="list-style-type: none"><li>• M. Pirnau, I. Priescu, D. Joita and C. Priescu, "The correlation between Internet user searches and Blockchain technology," 2022 14th International Conference on Electronics, Computers and Artificial Intelligence (ECAI), Ploiesti, Romania, 2022, pp. 1-6, doi: 10.1109/ECAI54874.2022.984744</li><li>• Pirnau, M. An Analysis of the Content in Social Networks During COVID-19 Pandemic. In: Ben Ahmed, M., Teodorescu, HN.L., Mazri, T., Subashini, P., Boudhir, A.A. (eds) Networking, Intelligent Systems and Security. Smart Innovation, Systems and Technologies, vol 237. Springer, Singapore. <a href="https://doi.org/10.1007/978-981-16-3637-0_62">https://doi.org/10.1007/978-981-16-3637-0_62</a></li><li>• M. Pirnau, "The Social Networks information noise in crisis situations", ROMJIST, vol. 23, no. S, pp. S41–S52; 2020.</li><li>• Pirnau M. Sentiment analysis for the tweets that contain the word earthquake. Proceedings of the 10th International Conference on Electronics, Computers and Artificial Intelligence (ECAI); Iasi, Romania, 2018.</li><li>• M. Pirnau, Analysis of data volumes circulating in SNs after the occurrence of an earthquake, Romanian Journal of Information Science and Technology, Volume 20, Issue 3, Special Issue, pp. 286–298, 2017.</li><li>• M. Pirnau, Considerations on preventing Social Engineering over the Internet, Memoirs of the Scientific Sections of the Romanian Academy, Tome XL, 2017,</li><li>• H.N. Teodorescu, M. Pirnau, Analysis of requirements for SN monitoring applications in disasters – A case study, ECAI 2016, 8th Edition.</li></ul> |
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