

CURRICULUM VITAE

Personal information



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H Index = 17/14/13 (Google Scholar/SCOPUS/WOS)

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EXPERIENCE

August 2024 – current – 2nd Degree Scientific Researcher - National Institute for Research and Development in Microtechnologies – IMT Bucharest;

October 2023 – July 2024 – Research engineer - National Institute for Research and Development in Microtechnologies – IMT Bucharest;

May 2023 – September 2023 - Researcher (part time), National Institute for Research and Development in Microtechnologies – IMT Bucharest;

2016 – current – Associated professor, National University of Science and Technology Politehnica Bucharest, Faculty of Chemical Engineering and Biotechnologies, Department of Chemical and Biochemical Engineering, Romania (*Teaching certificate* nr. 0010673/10.03.2010).

EDUCATION BACKGROUND

2014 – 2015 - Postdoctoral Fellowship – Grant from University Politehnica Bucharest, ExcelDOC (Excellence in research through doctoral and postdoctoral fellowships) POSDRU ID 132397, „*Optical sensors based on polymer photonic crystals*”, Coordinator: Prof. dr. eng. Ioan CĂLINESCU.

2009 - 2012 PhD Thesis “Self-assembled colloidal polymer dispersions” (Excellent qualification – Chemical Engineering) from Faculty of Applied Chemistry and Materials Science, University Politehnica of Bucharest, Romania, Coordinator: Prof. dr. eng. Corneliu CINCUI, **EQF Level 8**.

2009 - 2011 Master Diploma - „*Modern synthesis of macromolecular compounds*” Faculty of Applied Chemistry and Materials Science, University Politehnica of Bucharest, Romania, **EQF Level 7.**

2004 - 2009 Chemical Engineer Diploma, Specialization “*Organic Chemicals and Macromolecular Compounds Technology*”, Faculty of Applied Chemistry and Materials Science, University Politehnica of Bucharest, Romania, **EQF Level 6.**

GRANTS/RESEACRH PROJECTS (most relevant)

2025 – 2027 - Project Responsible from IMT Bucharest- PN-IV-P7-7.1-PTE-2024-0305 - Program 5.7 - Partnership for Innovation, Project for transfer to the economic operator - *Antimicrobial patches with bacterial cellulose and plant extracts-emerging technologies for controlled release medical devices* - BIOCELLPLAST, Coordinator: SME S.C. CROMATEC PLUS S.R.L.

2024 – Project Director – Scientific training for thin film deposition techniques using Langmuir-Blodgett and Laser induced forward transfer technology at **LP3 - Lasers, Plasmas and Photonic Processes (UMR 7341), CNRS – Aix-Marseille University, Marseille, France** through Mobility Project PN-IV-P2-2.2-MC-2024-0377, no. MC6/08.11.2024 – period 20th November – 8th December 2024;

2021-2024 – Member of the research team – H2020 BluBio - Sustainable utilization of MARIne resources to foster GREEN plant production in Europe MARIGREEN (ID: 120212510);

2019-2023 - Member of the Management Committee from Romania of COST Project “*Reliable roadmap for certification of bonded primary structures*” (CERTBOND) CA18120 (<https://certbond.eu/>), Coordinating institution: *Faculty of Aerospace Engineering, Delft University of Technology (TU Delft), The Netherlands*;

2017-2018 – Project Director - UPB GEX GRANT WINNER 2017 - “Active carbon from biomass resources – BIOPHOTOCARB” from **University Politehnica Bucharest** - Contract no. 77/25.09.2017;

2016-2018 - PN-III-P2-2.1-PTE-0047, no. 32PTE/2016 - Recycling of all types polyurethane foams into rigid foams – RECYRIG;

2014-2016 - Project Responsible from University Politehnica Bucharest, Project - PN-II-PT-PCCA-2013, “*Explosion protection system for equipping vehicles*” - CREWPROTECT, Contract no. 278/2014, **Project Director/Coordinator: Technical Military Academy, Romania** (<http://www.mta.ro/ProiectSistemProtectie/index.html>);

2012-2016 – Member of the research team - PN-II-PT-PCCA-2011-3.2-0042, No. 57/2012 / Environmental and economic benefits provided from PET bottles recycling by unconventional methods-**RPETUM**;

2014-2015 - Postdoctoral Fellowship – Grant from University Politehnica Bucharest, ExcelDOC (Excellence in research through doctoral and postdoctoral fellowships) POSDRU ID 132397, „*Optical sensors based on polymer photonic crystals*”;

2009-2012 - Doctoral Fellowship – Grant from University Politehnica of Bucharest, Romania, through doctoral fellowships program POSDRU/88/1.5/S/61178.

INVITED RESEARCHER/SPEAKER

25.11.2025 - Invited researcher at University of Tokyo, Department of Electrical Engineering and Information Systems, topics related with research activities and infrastructure of both institutions during the NanoHub Workshop;

2025 - Invited speaker - The 17th International Conference on Physics of Advanced Materials (ICPAM-17), Hamamatsu, Japan, November 2024, topic “Bacterial cellulose: a classic biomaterial for modern medical applications”;

2025 – Invited speaker – The 5th International Online Conference on Nanomaterials (IOCN 2025), topic “Polymer Photonic Crystals: Developments in Synthesis, Characterization, and Emerging Application”;

2024 – Invited speaker – 6th International Conference on Photonics Research and Exhibition (INTERPHOTONICS 2024), Oludeniz, Turkey, April 2024, topic „Polymer photonic crystals: synthesis, characterization and applications”;

2024 – Invited speaker - International Congress on Innovative Science & Engineering Research for a New Era-2024, and 1st International Conference for Science and Engineering (JSEC1), 13 – 15 Noiembre, 2024, Irbid, Jordan, topic „Synthesis and Functionalization of Polymer Colloidal Nanoparticles for Chemosensing Applications”;

20.08.2023-30.08.2023 – Invited Researcher responsible for waste valorization at DTU Aqua, Hirtshals, Denmark (H2020 BluBio, project MARIGREEN Sustainable utilization of MARIne resources to foster GREEN plant production in Europe);

2023 – Invited speaker - The 4th International Workshop Advances on Photocatalysis including Environmental and Energy Applications – July 2023, Heraklion, Crete, Greece, topic „ZnO-polymer-based membranes for wastewater treatment and environment protection”;

2022 – Special Guest – in the program Sci-Café Colloquial Talks organized by International Relations Office of Hellenic Mediterranean University and Athena European University – Theme: „*Applied nanotechnologies for health and environment protection*”;

2021 - Invited Speaker – Topic: “*Synthesis of ZnO with enhanced photocatalytic activity using a sacrificial biomass support and Li₂O as doping agent*” - AdvPhotoCat-EE 2021 – Advances on Photocatalysis, International Workshop 2nd Edition, 28-29 June, ONLINE.

2017 - Invited Speaker – Advances on Photocatalysis, International Workshop 2nd Edition-AdvPhotoCat-E, 14-16 July 2017, Crete, Greece. topic „*New Type of Conductive Materials Based on Carbon Fibers*”

INTERNATIONAL ACTIVITY

28.06-04.07.2022 – ERASMUS+ Mobility for teachers at Hellenic Mediterranean University, Crete, Greece (training of Master and PhD students on *Intensification technologies for chemical and biochemical processes; Research activities*)

09.07-23.07.2021 – ERASMUS+ Mobility for teachers at Hellenic Mediterranean University, Crete, Greece (training of Master and PhD students on *Valorization of biomass wastes for the development of biodegradable/biocompatible materials; Research activities*)

07.03 – 14.03.2020 – Scientific training as Leader of Management Committee from Romania at Innovation center of Faculty of Technology & Metallurgy, Belgrade, Serbia – development of **research activities** under the framework of *European project COST 18120 - Reliable roadmap for certification of bonded primary structures*

September 2011 – December 2011 - PhD Student - doctoral stage – Department of Chemical Engineering, University of Patras, Greece – generic theme as part of the doctoral fellowship “*Synthesis of inorganic nanoparticles in the presence of polymer colloids*”, Coordinator: Prof. dr. Georgios STAIKOS.

AWARDS and PRIZES

2025 - Best Paper Award – 48th International Semiconductor Conference CAS 2025, Sinaia, Romania – Session: Bridging Electronics, AI, and Biomedical Applications for “**Development of smart wound dressings based on bacterial cellulose modified with hydroalcoholic propolis extracts**”;

2024 - Ilie D. Bursuc Award - Best invited presentation given by a young scientist given by “The 16th International Conference on Physics of Advanced Materials (ICPAM 16)” and Akdeniz University, Antalya, Turkey for “**Synthesis of polymer photonic crystals for sensing and electromagnetic shielding applications**”;

2019 - Winner of National L’Oreal UNESCO for Women in Science Award – Physical Sciences – “**Polymer photonic crystals for gas sensors – PHOTOLENS**”;

2016 - 2nd Prize at National Contest of Photography with International Participation "FOTOCHIMICA 2016", Topics: Photography Chemistry organized by EYCN-European Young Chemists' Network;

2013 - 1st Prize for best oral presentation “**New design of antimicrobial membranes based on polymers colloids/MWCNT hybrid materials and silver nanoparticles**” at International Symposium PRIOCHEM 9th Edition, Bucharest, October 2013;

2009 – present - Recognition of the scientific achievements by CNCSIS, UEFISCDI (Romania).

PATENTS

2025 – O.S.I.M. Patent (Application Form A/00110 from 26.02.2026) - „Obtaining new types of multifunctional gels based on bacterial cellulose, natural eutectic solvents, and sea buckthorn oil intended for the treatment of skin wounds”.

2017 – O.S.I.M. Patent (Application Form A/00850 from 17.11.2015 - RO-BOPI 131874 A2 - 5/2017/30.05.2017) - “Synthesis of unsaturated polyesters using PET wastes”.

2017 – O.S.I.M. Patent – RO-BOPI 3/2022 – 133210 – B1, ISSN 2668 – 9006 - “Molecularly imprinted polymer obtained by mass polymerization for nitrofurantoin for solid extractive columns and electrochemical sensors”.

ORGANISATIONAL/MANAGERIAL SKILLS

- Member of the International Organizing Committee – The 3rd International Workshop Advances on Photocatalysis including Environmental and Energy Applications **AdvPhotoCat-EE 2021**, 28-29 June 2021, Crete, Greece
- Member of the International Organizing Committee – **SICHEM** – International Symposium of Chemical Engineering and Materials, 6-7 September 2018, Bucharest, Romania
- Section Manager of the International Organizing Committee – **RICCCE 20** – Romanian International Conference on Chemistry and Chemical Engineering, 6-9 September 2017, Poiana Brasov, Romania
- Member of the International Organizing Committee – **AdvPhotoCat 2017** – Advances on Photocatalysis, International Workshop 2nd Edition, 14-16 July 2017, Crete, Greece
- Member of the International Organizing Committee – **AdvPhotoCat 2015** – Advances on Photocatalysis, International Workshop 1st Edition, 6-8 July 2015, Iași, Romania
- Leadership skills gained as project director in 3 national projects

PUBLICATIONS: Main author and co-author of 100 publications from which **3 reviews, 2 book chapters, 1 proceeding paper, 1 patent** and **2 patent application forms**; over 50 participations to national and international conferences. **H-index (Google Scholar) = 17; H-index (Scopus) = 14; H-index (Web of Science) = 13.**