PERSONAL INFORMATION

Anita Ioana VIȘAN

Scientific Researcher 2nd degree
Laser-Surface-Plasma Interactions (LSPI) Laboratory
Laser Department;
National Institute for Lasers, Plasma and Radiation Physics (INFLPR)

+4021-457-44-67 +40-756108010

Atomistilor Str. 409, 077125 Magurele, Ilfov, Romania

anita.visan@inflpr.ro

http://lspi.inflpr.ro/People/Anita_Visan/index.html;

http://lspi.inflpr.ro/2021/IDEI11/RENERI.html

Date of birth 09/01/1984 | Nationality Romanian, Marital Status Married, 2 children

EXPERIENCE AND EXPERTISE

- *Nano powders synthesis and characterization*;
- *Thin coatings synthesis by: Pulsed Laser Deposition, Matrix Assisted Pulsed Laser Evaporation, Combinatorial-MAPLE* of calcium phosphates, biopolymers, flavonoids, antibiotics, antimicrobial peptides, essential oils.
- *Thin films characterization methods*: UV-Vis, FTIR, XRD, SEM, AFM, fluorescence microscopy, electrochemical, wettability, magnetic induction, biodegradation and antimicrobial tests.
- *Research on micro-nano scale heat transfer; development of novel techniques for measuring thermal conductivity and Seebeck coefficient in thin films and bulk materials.* From the energy materials, I studied: thermoelectric materials (organic/inorganic), metamaterials, and gas sensors.
- *Simulation and modelling of the laser cladding process*.
- *Artificial Intelligence in Materials Science & Engineering*: Pioneering the integration of AI and Machine Learning to revolutionize materials research. My work includes:
- *AI for Drug Discovery & Delivery*: Applying predictive models to design and optimize therapeutic agents and controlled-release systems.
- *Intelligent Process Optimization*: Using artificial neural networks and other ML algorithms to model and optimize complex fabrication processes like laser cladding and laser deposition.
- *Data-Driven Materials Design:* Leveraging AI for the predictive design of metamaterials and composite coatings with tailored properties.

WORK EXPERIENCE

April 1, 2024 – present — Scientific Researcher 2nd degree
LSPI Laboratory, INFLPR

Jun 1, 2020 – March 31, 2024 — Scientific Researcher 3rd degree
LSPI Laboratory, INFLPR

Dec 1, 2013 – Jun 1, 2020 — Scientific Researcher
LSPI Laboratory, INFLPR

Jan 1, 2017 – Sept 30, 2018 — Maternity leave

Jun 7, 2007 – Nov 30, 2013 — Research Assistant

LSPI Laboratory, INFLPR

Sep 1, 2010 – Aug 31, 2012 **Maternity leave**

Jan 1, 2007 – Jun 6, 2007 **Research Assistant Intern**

LSPI Laboratory, INFLPR

EDUCATION AND TRAINING

May 2015 **PhD in Physics**

University of Bucharest

- Thesis „*Nanostructured thin films synthesized by advanced laser techniques for rapid healing and tissue regeneration*" ***Summa Cum Laude***

Sep 2007 – June 2009 **MSc in Biomaterials**

University POLITEHNICA of Bucharest

- **grade of 10 (out of 10)**

Sep 2004 – June 2007 **BSc. in Medical Engineering**

University POLITEHNICA of Bucharest

- grade of 9.41 (out of 10), ***Valedictorian of Department of Medical Engineering***
- Diploma Project mean: 10 (out of 10);

TRAINING

Sep, 2024 **Course "Writing in the Sciences"**

Stanford University, Coursera Platform

Credential ID: X8HTWU74RSFJ

Jul, 2024 **Course "How to Create an Online Course"**

The University of Edinburgh, Coursera Platform

Credential ID: QAGN5Y6GLZJY

Mar, 2024 **Course "Critical Thinking Skills for the Professional"**

University of California, Davis - College of Engineering, Coursera Platform

Credential ID: QAGN5Y6GLZJY

May, 2023 **Google Project Management Professional Certificate**

Google, Coursera Platform.

This certificate includes the following courses:

- **Foundations of Project Management**
- **Project Initiation: Starting a Successful Project**
- **Project Planning: Putting It All Together**
- **Agile Project Management**
- **Project Execution: Running the Project**

Credential ID: ZADU697K37WB

May, 2023 **Course "Introduction to Data Analytics"**

IBM, Coursera Platform

Credential ID: DSKKGKUVBNFN

Apr, 2023 **Course "Applying Project Management in the Real World"**

Google, Coursera Platform

Credential ID: 39E2ZD3BPGE5

Jan. 9-11, 2023 **"Development of innovation capacity of the RDI eco-system; Steps in technological transfer"**

SC IPA SA CIFATT, Craiova, Romania.

Nov. 28-30, 2022 **"Elements and models of contracts for technology transfer"**

SC IPA SA CIFATT, Craiova, Romania.

Nov. 14-16, 2022 "Technological audit – the evaluation of how to capitalize on R&D results; Analysis of the economic operators' capability in the RDI field"
SC IPA SA CIFATT, Craiova, Romania.

Apr 11 – May 6, 2022 Course "Successful Presentation"
University of Colorado Boulder, COURSERA platform

Credential ID: WAQNKVYAN2Y8

Oct 1 – Nov 1, 2015 French-Government Scholarship
CIRIMAT Carnot Institute, Faculty of Pharmacy

Apr 8 – May 1, 2015 Work stage
Applied Science Faculty, Chisinau, Moldova

Nov 26 - Dec 2, 2012 Young researchers training in the field of nanotechnology and processing of functional materials
FP7-REGPOT, Grant agreement ID: 245916, NANOTECH FTM, Reinforcing of Nanotechnology and Functional Materials Centre, Technological and Metallurgical Faculty, University of Belgrade, Serbia

Mar 1 - Jul 1, 2009 University internship Erasmus
ENSIACET, France

Sep 17 – 20, 2008 Introduction to FTIR Technique
INFLPR, Magurele

Sep 5-10, 2008 Working stage
University of Marmara, Turkey

Apr 15 – 17, 2008 Water-Soluble Polymers for Advanced Applications
Institute of Macromolecular Chemistry "Petru Poni",Iasi

PERSONAL SKILLS

Mother tongue(s): Romanian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1
	Replace with name of language certificate. Enter level if known.				
French	B2	B2	B2	B2	B2
	Replace with name of language certificate. Enter level if known.				
Spanish	A2	A2	A2	A2	A2
	Replace with name of language certificate. Enter level if known.				

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user
Common European Framework of Reference for Languages

Communication skills

- High level of communication, acquired within the work teams of different research projects, following the national and international collaborations in which I was involved, participation at conferences (more than 95 International Conferences; 6 Invited Lectures), and internships.

Organisational / managerial / teaching skills

-*Member of the SmartHealth Editorial Board* (2025).

-*Member of the Organizing Committee* for the 6th Global Webinar on Materials Science and Engineering, organized by the Global Scientific Guild (2023).

-*Member of the local organizing committee* of the 10th International Conference on Photoexcited Processes and Applications (ICPEPA-10), August 29 – September 2, 2016, Brasov, Romania (2016).

-*Involvement on editorial activities* in:

-Coatings (**IF=3,236**): Topical Advisory Panel Member and Guest Editor Special Issue "Biomimetic Approaches in Coatings Synthesis";

-Polymers (**IF=4.967**): Guest Editor Special Issues: "Polymeric Systems for Drug Delivery: From Synthesis to Applications" and "Polymer Applications in the Medical Field"; Guest Editor Special Issue "Advanced Preparation and Characterization of Polymer-Based Thin Films",

-Frontiers in Bioengineering and Biotechnology (**IF 6.064**): Guest Associate Editor Special Issue "Advanced healthcare biomaterials for surface functionalization and controlled drug delivery"; Review Editor for Integrative and Regenerative Pharmacology, a section of the journal Frontiers in Pharmacology; Topic Editor, together with Rebecca Pogni, Liviu Duta, Silvia Fare- on Frontiers, Special Issue: "Biofabrication and Groundbreaking Applications of Polymers of Natural Origin", Frontiers ;

-*Responsible for specialization stages for foreign students*- **Erwan DANDEU**, Polytech Lille, May - July, 2014; **Arthur RIVAL**, Institut Universitaire de Technologie de Marseille, April 7th – June 20th, 2014.

-*Responsible for specialization stages for Romanian students*- **Diana Manea** (Aug-Sep 2024), **Andrei Matei** (Oct 2024-Apr 2025), **Izabela Moruju** (Jun-Aug 2023), **Dan Manoliu** (Jun-Sep 2025).

-*Served as a mentor* for students at the: "Magurele Summer School of Science and Technology",Topic No. 9: The Road to Water Decontamination UV Laser Radiation versus Photocatalysis, August 22 – September 5, 2024.

Computer skills

- Proficient user of the Microsoft products (Windows, Office suite)
- Origin (OriginLab)
- Mathematica, COMSOL
- Mathcad; AutoCad 2D and 3D
- LabView
- Google Sketchup, GraphPad Prism
- Image processing : Image J

Other skills

- Leadership (currently responsible for a team of 10 people). Organizational spirit in the daily activity in the laboratory, in the process of submitting national and international research projects and in the process of reporting the contracts won in the group;
- Preparation of financial and administrative documents for the research projects;
- Direct involvement to the scientific promotion of research on the "Open Doors" Program at the National Institute for the Physics of Plasma Lasers and Radiation or to the "Researchers 'Night" Event. A key part of my activities includes disseminating research to the public at major outreach events like "Researchers' Night," "Physics from A to Z," and "Young and Old... Through the Universe."
- Effectiveness and efficiency in critical situations

Driving licence

- **B**

ADDITIONAL INFORMATION

Publications

1.Matei, A.T.; **Visan, A.I.** Mechanism, Efficacy, and Safety of Natural Antibiotics. Antibiotics 2025, 14, 981. https://doi.org/10.3390/antibiotics14100981; IF2024=4.6; AIS= 0.918

2.Matei, A.T.; **Vișan, A.I.***; Popescu-Pelin, G.F. Design and Processing of Metamaterials. *Crystals* 2025, *15*, 374. https://doi.org/10.3390/cryst15040374; IF2024=2.4; AIS= 0.394

3.**Visan, A.I.**; Negut, I. "Environmental and Wastewater Treatment Applications of Stimulus-Responsive Hydrogels". Gels 2025, 11, 72. https://doi.org/10.3390/gels11010072,IF2024=5; AIS= 0.594

4.Matei, A.T.; **Visan, A.I.***; Negut, I. Laser-Fabricated Micro/Nanostructures: Mechanisms, Fabrication Techniques, and Applications. Micromachines 2025, 16, 573; IF2024=3; AIS= 0.502

5.**Visan, A.I.**; Negut, I. Polymeric Composite Thin Films Deposited by Laser Techniques for Antimicrobial Applications—A Short Overview. Polymers 2025, 17, 2020;IF2024=4.9; AIS= 0.7

6.Matei, C.E.; **Visan, A.I**.; Cristescu, R. Aloe Vera Polysaccharides as Therapeutic Agents: Benefits Versus Side Effects in Biomedical Applications. Polysaccharides 2025, 6, 36; IF2024=5.5; AIS= 0.756

7.Manoliu, D.S.; Zagar, C.; Negut, I.; **Visan, A.I**. Laser-Based Fabrication of Hydrogel Scaffolds for Medicine: From Principles to Clinical Applications. Gels 2025, 11, 811; IF2024=5; AIS= 0.594

8.C.L. Hapenciuc, M. Oane, **A. Visan**, C. Ristoscu, A. Stochioiu, I. Urzica, M. Dumitru, S. Anghel, T. Borca-Tasciuc, I.N. Mihailescu,"Hot probe technique for thin films Seebeck coefficient measurement",Results in Engineering,Volume 23,(2024), IF2023=6; AIS= 0.612

9.N. Stefan, **A.I. Visan***, V. Grumezescu, V. Kuncser, A. Kuncser, N. Iacob, G. Schinteie, M. Socol, C. Florica, I. Zgura, R.C. Popescu, A.M. Holban, G. Socol," MAPLE deposition of hybrid PLGA-Fe3O4- Cypress-PEDOT: PSS coatings", Giant, Vol. 18, p. 100250 ,(2024) IF2023=5.4; AIS= 1.118

10.**Visan AI**, Negut I, "Development and Applications of PLGA Hydrogels for Sustained Delivery of Therapeutic Agents", Gels 10 (8),(2024) IF2023=5; AIS= 0.595

11.**Visan AI**, Negut I, "Coatings Based on Essential Oils for Combating Antibiotic Resistance", ANTIBIOTICS-BASEL 13 (7),(2024) IF2023=4.3; AIS= 0.837

12.**Visan AI**, Negut I, "Integrating Artificial Intelligence for Drug Discovery in the Context of Revolutionizing Drug Delivery" Life 14 (2), 233 (2024) IF2023=3.2; AIS= 0.654

13.**Visan, AI** and Cristescu, R,"Polysaccharide-Based Coatings as Drug Delivery Systems", PHARMACEUTICS, 15 (9) (2023) IF2023=4.9; AIS= 0.797

14.Hapenciuc C. L., Negut I., **Visan A**., Borca-Tasciuc T., and Mihailescu I. N. , "The effect of the contact point asymmetry on the accuracy of thin films thermal conductivity measurement by scanning thermal microscopy using Wollaston probes", Journal of Applied Physics 131, 094902 (2022). IF2022=2.877; AIS=0.5780

15. Badiceanu, M.; Anghel, S.; Mihailescu, N.; **Visan, A.I.***; Mihailescu, C.N.; Mihailescu, I.N. Coatings Functionalization via Laser versus Other Deposition Techniques for Medical Applications: A Comparative Review. Coatings 12, 71 (2022). IF2022=3.236; AIS=0.4100

16. **Visan, A.I**.; Ristoscu, C.; Popescu-Pelin, G.; Sopronyi, M.; Matei, C.E.; Socol, G.; Chifiriuc, M.C.; Bleotu, C.; Grossin, D.; Brouillet, F.; Grill, S.L.; Bertrand, G.; Zgura, I.; Cristescu, R.; Mihailescu, I.N. Composite Drug Delivery System Based on Amorphous Calcium Phosphate–Chitosan: An Efficient Antimicrobial Platform for Extended Release of Tetracycline. Pharmaceutics 13, 1659 (2021). IF2021=6.525; AIS=0.8790;

17. **Visan, AI**; Popescu-Pelin, G; Socol, G "Degradation Behavior of Polymers Used as Coating Materials for Drug Delivery-A Basic Review" POLYMERS 13(8) 1272 (2021). IF2021=4.967; AIS=0.6110

18. Mahmood, M.A.; **Visan, A.I**.; Ristoscu, C.; Mihailescu, I.N. Artificial Neural Network Algorithms for 3D Printing. Materials 14, 163 (2021). IF2021=3.748; AIS=0.5410

19. Mahmood, M.A., Popescu, A.C., Hapenciuc, C.L., Ristoscu C, **Visan A**., Oane M, Mihailescu IN. Estimation of clad geometry and corresponding residual stress distribution in laser melting deposition: analytical modeling and experimental correlations. Int J Adv Manuf Technol 111, 77–91 (2020). IF2020=3.226; AIS=0.4710;

20. **Visan, AI**; Popescu-Pelin, G; Gherasim, O; Mihailescu, A; Socol, M; Zgura, I; Chiritoiu, M; Sima, LE; Antohe, F; Radulescu, L; Vranceanu, D; Cotrut, C; Cristescu, R; Socol, G; „Long-term evaluation of dip-coated PCL/PEG coatings in simulated conditions", Polymers 12(3), 717 (2020) IF2020=4.329; AIS=0.5970

21. Cristescu, R; Negut, I; **Visan, AI**; Nguyen, AK; Sachan, A; Goering, PL; Chrisey, DB; Narayan, RJ; "Matrix-Assisted Pulsed laser Evaporation-deposited Rapamycin Thin Films Maintain Antiproliferative Activity"; International Journal of Bioprinting 6(1) 188 (2020). IF 2021=6.638; AIS=1.0380

22. Negut, I; **Visan, AI**; Popescu, C; Cristescu, R; Ficai, A; Grumezescu, AM; Chifiriuc, MC; Boehm, RD; Yamaleyeva, D; Taylor, M; Narayan, RJ; Chrisey, DB; "Successful Release of Voriconazole and Flavonoids from MAPLE Deposited Bioactive Surfaces"; Applied Sciences-Basel 9 (4) 786 (2019). IF2019=2.474; AIS=0.3510

23. **Visan, AI;** Popescu-Pelin, G; Gherasim, O; Grumezescu, V; Socol, M; Zgura, I; Florica, C; Popescu, RC; Savu, D; Holban, AM; Cristescu, R; Matei, CE; Socol, G; "Laser Processed Antimicrobial Nanocomposite Based on Polyaniline Grafted Lignin Loaded with Gentamicin-Functionalized Magnetite"; POLYMERS 11 (2) 283 (2019). IF2019=3.426; AIS=0.5450

24. Sachan R, Jaipan P, Zhang JY, Degan S, Erdmann D, Tedesco J, Vanderwal L, Stafslien SJ, Negut I, **Visan A**, Dorcioman G, Socol G, Cristescu R, Chrisey DB, Narayan RJ. Printing amphotericin B on microneedles using matrix-assisted pulsed laser evaporation. Int J Bioprint. 3(2):004 (2017). IF 2021=6.638; AIS=1.0380

25. Boyadjiev, SI; Georgieva, V; Stefan, N; Stan, GE; Mihailescu, N; **Visan, A**; Mihailescu, IN; Besleaga, C; Szilagyi, IM; "Characterization of PLD grown WO3 thin films for gas sensing"; APPLIED SURFACE SCIENCE 417, 218-223 (2017). IF2017=4.439; AIS=0.6270

26. **Visan, A**; Cristescu, R; Stefan, N; Miroiu, M; Nita, C; Socol, M; Florica, C; Rasoga, O; Zgura, I; Sima, LE; Chiritoiu, M; Chifiriuc, MC; Holban, AM; Mihailescu, IN; Socol, G; "Antimicrobial polycaprolactone/polyethylene glycol embedded lysozyme coatings of Ti implants for osteoblast functional properties in tissue engineering"; Applied Surface Science 417, 234-243 (2017). IF2017=4.439; AIS=0.6270

27. **Visan, A**; Stan, GE; Ristoscu, C; Popescu-Pelin, G; Sopronyi, M; Besleaga, C; Luculescu, C; Chifiriuc, MC; Hussien, MD; Marsan, O; Kergourlay, E; Grossin, D; Brouillet, F; Mihailescu, IN; "Combinatorial MAPLE deposition of antimicrobial orthopedic maps fabricated from chitosan and biomimetic apatite powders"; International Journal of Pharmaceutics 511 (1) 505-515 (2016). IF2016=3.649, AIS=0.7660;

28. Cristescu, R; **Visan, A**; Socol, G; Surdu, AV; Oprea, AE; Grumezescu, AM; Chifiriuc, MC; Boehm, RD; Yamaleyeva, D; Taylor, M; Narayan, RJ; Chrisey, DB; "Antimicrobial activity of biopolymeric thin films containing flavonoid natural compounds and silver nanoparticles fabricated by MAPLE: A comparative study"; Applied Surface Science 374, 290-296 (2016). IF2016=3.387; AIS=0.5890;

29. Miroiu, FM; Stefan, N; **Visan, AI**; Nita, C; Luculescu, CR; Rasoga, O; Socol, M; Zgura, I; Cristescu, R; Craciun, D; Socol, G; "Composite biodegradable biopolymer coatings of silk fibroin - Poly(3-hydroxybutyric-acid-co-3-hydroxyvaleric-acid) for biomedical applications"; Applied Surface Science 355, 1123-1131 (2015). IF2015=3.150; AIS=0.5740;

30. Cristescu, R; Surdu, AV; Grumezescu, AM; Oprea, AE; Trusca, R; Vasile, O; Dorcioman, G; **Visan, A**; Socol, G; Mihailescu, IN; Mihaiescu, D; Enculescu, M; Chifiriuc, MC; Boehm, RD; Narayan, RJ; Chrisey, DB; "Microbial colonization of biopolymeric thin films containing natural compounds and antibiotics fabricated by MAPLE"; Applied Surface Science 336, 234-239 (2015). IF2015=3.150; AIS=0.5740;

31. Jankovic, A; Erakovic, S; Ristoscu, C; Mihailescu, N; Duta, L; **Visan, A**; Stan, GE; Popa, AC; Husanu, MA; Luculescu, CR; Srdic, VV; Janackovic, D; Miskovic-Stankovic, V; Bleotu, C; Chifiriuc, MC; Mihailescu, IN; "Structural and biological evaluation of lignin addition to simple and silver-doped hydroxyapatite thin films synthesized by matrix-assisted pulsed laser evaporation"; Journal of Materials Science-Materials in Medicine 26 (1) 17 (2015). IF2015=2.272; AIS=0.5570;

32. Erakovic, S; Jankovic, A; Ristoscu, C; Duta, L; Serban, N; **Visan, A**; Mihailescu, IN; Stan, GE; Socol, M; Iordache, O; Dumitrescu, I; Luculescu, CR; Janackovic, D; Miskovic-Stankovic, V; "Antifungal activity of Ag:hydroxyapatite thin films synthesized by pulsed laser deposition on Ti and Ti modified by TiO2 nanotubes substrates"; Applied Surface Science 293, 37-45 (2014). IF2014=2.711; AIS=0.5490;

33. **Visan, A**; Grossin, D; Stefan, N; Duta, L; Miroiu, FM; Stan, GE; Sopronyi, M; Luculescu, C; Freche, M; Marsan, O; Charvilat, C; Ciuca, S; Mihailescu, IN; "Biomimetic nanocrystalline apatite coatings synthesized by Matrix Assisted Pulsed Laser Evaporation for medical applications"; Materials Science and Engineering B-Advanced Functional Solid-State Materials 181, 56-63 (2014). IF2014=2.169; AIS=0.4750

34. Socol, G; Preda, N; Socol, M; Sima, L; Luculescu, CR; Sima, F; Miroiu, M; Axente, E; **Visan, A**; Stefan, N; Cristescu, R; Dorcioman, G; Stanculescu, A; Radulescu, L; Mihailescu, IN; "MAPLE Deposition of PLGA Micro- and Nanoparticles Embedded into Polymeric Coatings"; Digest Journal of Nanomaterials and Biostructures 8 (2) 621-630 (2013). IF2013=1.123; AIS=0.2090;

35. Cristescu, R; Popescu, C; Socol, G; **Visan, A**; Mihailescu, IN; Gittard, SD; Miller, PR; Martin, TN; Narayan, RJ; Andronie, A; Stamatin, I; Chrisey, DB; "Deposition of antibacterial of poly(1,3-bis-(p-carboxyphenoxy propane)-co-(sebacic anhydride)) 20:80/gentamicin sulfate composite coatings by MAPLE"; Applied Surface Science 257 (12) 5287-5292 (2011). IF 2011=2.103; AIS=0.5500;

36. Miroiu, FM; Socol, G; **Visan, A**; Stefan, N; Craciun, D; Craciun, V; Dorcioman, G; Mihailescu, IN; Sima, LE; Petrescu, SM; Andronie, A; Stamatin, I; Moga, S; Ducu, C; "Composite biocompatible hydroxyapatite-silk fibroin coatings for medical implants obtained by Matrix Assisted Pulsed Laser Evaporation"; Materials Science and Engineering B-Advanced Functional Solid-State Materials 169 (43525) 151-158 (2010). IF2010=1.568; AIS=0.7690

Book chapters

1. Chapter 13: Laser-based multimaterial additive manufacturing, **Anita Ioana Visan**, Claudiu Hapenciuc; pages 289-309; published in the book:" Multi-material Additive Manufacturing: Processing, Properties, Opportunities, and Challenges" Edited by: Ajit Behera, Tuan Anh Nguyen; Elsevier, ISBN: 978-0-443-29228-6

2. Chapter 8: Recent Advances in Thermoelectric Materials for Biomedical Applications: Energy Harvesting and Wearables ; **Anita Ioana Visan**, Irina Negut and Claudiu Hapenciuc; pages 161-182 published in the book:" Advanced Thermoelectric Materials – Theory, Development, and Applications"; Intech; Academic Editor: Uday M. Basheer Al-Naib; Published 30 July 2025; Doi10.5772/intechopen.1006434 ;ISBN978-1-83634-823-8; Print ISBN978-1-83634-824-5; eBook (PDF) ISBN978-1-83634-825-2; Copyright year 2025.

3. Chapter 20: "Regulatory compliance and ethical considerations in integration artificial intelligence"; Irina Negut and **Anita Ioana Visan**; pages 627-646; in the book: "Artificial Intelligence in Chemical Engineering", Edited by Farooq Sher, ISBN: 978-0-443-34076-5; Elsevier

4. Chapter 1: "AI Algorithms in Sustainable Healthcare" **Anita Ioana Visan**, Irina Gabriela Negut; (page 1-38); in the book: "AI-Assisted Computational Approaches for Immunological Disorders"; edited by Jen-Tsung Chen; DOI: 10.4018/979-8-3693-9725-1; ISBN13: 9798369397251|ISBN13 Softcover: 9798369397268|EISBN13: 9798369397275

5. Chapter 3: "AI-Enhanced Diagnosis for Immunological Disorders" Irina Negut, **Anita Ioana Visan**; (page 63-106); in the book: "AI-Assisted Computational Approaches for Immunological Disorders", edited by Jen-Tsung Chen; DOI: 10.4018/979-8-3693-9725-1; ISBN13: 9798369397251; ISBN13 Softcover: 9798369397268; EISBN13: 9798369397275.

6. Chapter : "Composite coatings based on renewable resources synthesized by advanced laser techniques"; in "Composites from Renewable and Sustainable Materials"; **Visan A.I.**, Ristoscu C., Mihailescu I. N.; InTech, ISBN 978-953-51-4956-9; 2016; Edited by: Matheus Poletto.

Invited Lectures

1.*"Surface Functionalization with Anticorrosive and Antimicrobial Biodegradable Polymeric Implants"*, 1st Corrosion and Materials Degradation Web Conference (CMDWC 2021); 17/May/2021

2. *"Surface Functionalization with Anticorrosive and Antimicrobial Biodegradable Polymeric Implants"*, European Materials Research Society EMRS Spring 2021, Biomaterials and soft materials; Young Investigator Forum: Grow The BioFUTURE, ref. O.YIF.P11, 1/Jun/2021

3. *"Maple Fabrication Of Green Polymer Systems For Antimicrobial Medical Surfaces"*, The Research Catalyst's Polymers-eCon2022 (Polymers Research e-Conference),23/11/2022.

4. *"Polymeric systems based on renewable biomaterials functionalized by MAPLE technique for bioapplications"*, Global Scientific Guild Conference 6th Global Webinar on Materials Science and Engineering 9/March/2023; (11:30-12.05).

5."*Bioactive composite nanocoatings of antimicrobial peptides fabricated by advanced laser processing with enhanced anti-superbug efficiency";*The 15 th International Conference on Physics of Advanced Materials, ICPAM-15, 20/November/2023; (15:50-16:15)

6.*"Matrix Assisted Pulsed Laser Evaporation of natural biomaterial-based thin films for biomedical applications*", 6th Autumn School Physics of Advanced Materials-PAMS-6,21/November/2023; (10:40-11:15)

Patent

1.**Anita Ioana Vișan**, George Stan, Carmen Georgeta Ristoscu, Gianina Florentina Popescu-Pelin, Luiza Izabela Toderascu, Consuela Elena Matei, Valentin Paul Aranghel, Gabriel Socol, Rodica Cristescu / Reţetă de obţinere a unor sisteme compozite pe bază de materiale regenerabile, ieftine, folosite pentru funcţionalizarea suprafeţelor dispozitivelor medicale./RO138688 (A2)

2.Hapenciuc Claudiu Liviu, Mihai Oane, **Vișan Anita Ioana**, Ristoscu Carmen Georgeta, Anghel Sianziana Andreea, Mihailescu Ion Nicolae/ Metoda cu sonda fietrbinte pentru masurarea locala coeficientului Seebeck a filmelor subtiri, depuse pe substrat, cu inalta rezolutie spatiala/A/00267

3.**Anita Ioana Vișan**, Carmen Georgeta Ristoscu, Gianina Florentina Popescu-Pelin, Sînziana Andreea Anghel, Valentin Paul Aranghel, Ion N. Mihăilescu / Procedeu de decontaminare a fluidelor in regim static sau dinamic folosind acțiunea sinergică a radiației UV-C și a metamaterialelor / CBI A/0756/28.11.2023

Projects

Accumulated experience in National/International programs

2025– 2026	"Biofunctional Nanofibers for Advanced Wound Care"-PN-IV-P7-7.1-PED-2024-0137
2025 – 2026	"Multifunctional coatings for reducing implant failure under diabetic conditions"-PN-IV-P2-2.1-TE-2023-0993
2020 – 2023	"Implant coatings based on low-cost sustainable natural resources for infection prevention" – PN-III-P4-ID-PCE-2020-2273 – ***Project Director*** (**242 575 euro**)
2021 – 2023	"Coherent pulsed UV-C laser activation of metamaterials and biomolecules for innovative bioprotection against viruses, bacteria and fungi" – PN-III-P4-ID-PCE-2020-2030
2021 – 2023	"Development of Ceramics 3D-Printing, Additive Manufacturing" – PN-III-P3-3.6-H2020-2020-0130
2017 – 2019	"Innovative multifunctional nanoparticle-mediated delivery of antimicrobial peptide for improved performance of medical implants" – PN-III-P4-ID-PCE-2016-0884
2016	"Biosensors functionalized by irradiation and transfer with laser pulses" – PN-III-P3-3.1-PM-RO-BE-2016-0003 (Mobility projects, Romania-Belgium)
2015 – 2017	"Surface acoustic wave sensors for H2S detection based on sensitive films with gradual porosity" – PN-II-RU-TE-2014-4-0342
2015 – 2017	"Controlled external activation of drug release from smart polymeric systems" – PN-II-RU-TE-2014-4-1590
2014 – 2015	"Biomimetic nanocomposites obtained by advanced laser biotechnologies for rapid healing and bonny tissues regeneration" – PN-II-CT-ROFR-2014-2-0029 (Programme Hubert Curien (PHC)–Brancusi; Romania-France Integrated Actions Program)
2012 – 2016	"Fabrication of osteoinductive orthopedic implants with gradual 3D hierarchical structure" – PN-II-PT-PCCA-2011-3.2-0898
2011 – 2016	"Functionalized flavonoid-biopolymer nanostructured composites processed for antibacterial activity" – PN-II-ID-PCE-2011-3-0888
2010 – 2013	"Nanostructures processed by laser techniques for photovoltaic applications" – PN-II-RU-TE-2010-0098

Scientometric indicators

36 ISI indexed articles (20 as main or corresponding author), 6 book chapter; 3 patents, total citations: 962 (896 without self-citations), Hirsh index: 18 - according to Web of Science, as well 7 Special Issues as Guest Editor; Project Director of a PN III - Exploratory Research Project (242 575 euro) and key person role in another 11 national research projects and 2 international research grants.

Honours and awards

- **L'Oréal National Scholarship - UNESCO For Women in Science 2020;** Category: "Life Sciences"
- **Best Oral Presentation**: A. Visan et al., 5th International Student Conference on Photonics (ISCP'14), September 23-26, 2014, Orastie, Romania.
- **Best Oral Presentation**: A. Visan et al., INERA Workshop, September 4-6, 2014, Varna, Bulgaria.
- **Best Poster Award**: A. Visan et al., EMRS 2014 Spring Meeting, Symposium J: Laser interaction with advanced materials: fundamentals and applications, May 26-30, 2014, Lille, France
- **Best Oral Presentation**: A. Visan et al., "Applications of Chemistry in Nanosciences and Biomaterials Engineering" NanoBioMat 2025 – Summer Edition; 25-27 June 2025
- **Diploma of Excellence and "Pro Invent" Medal** at the 21st International Salon of Scientific Research, Innovation, and Invention PRO INVENT, October 25-27, 2023, Cluj-Napoca, Romania.
- **Silver Medal** at INFOINVENT, November 22-24, 2023, Online, Chișinău, Republic of Moldova. Awarded in Department IV: Innovative Products and Services.
- **Bronze Medal** at the 18th International Specialized Exhibition INFOINVENT, Chișinău, Republic of Moldova (Nov 2023)
- **Gold Medal** at the XXII edition of the International Salon of Scientific Research Innovation and Inventics for „ DC Scanning Thermal Microscopy for Thermal Conductivity Measurement of Nanomaterials with Submicronic Spatial Resolution", authors: C. Hapenciuc, A. Visan, G. Popescu-Pelin, M. Oane and I. N. Mihailescu, 15-17 October 2025, HUB UTCN, Cluj-Napoca.

Memberships

- SPIE—The International Society for Optical Engineering; Romanian Student Chapter
- Romanian Society of Biomaterials;
- OSA Romanian Student Chapter - NILPRP–President (2015-2016)
- Laser, Plasma, Radiation-Science and Technology (LPR-ST) association

Researcher's Identifiers

Researcher ID: I-7288-2016;
ORCID 0000-0003-0539-4160;
BrainMapID: U-1700-039K-2913