

VIRGIL-FLORIN DUMA

Curriculum Vitae

<http://www.researcherid.com/rid/B-3031-2010>
https://www.researchgate.net/profile/Virgil-Florin_Duma



EDUCATION

- **Habilitation** in Mechanical Engineering, Mechatronics, and Robotics (Ministry Order 166/07.04.2014). Thesis: Optomechatronic Modulators: Choppers, Attenuators and Scanners. Analysis and Design - defended Oct. 2013 (following the original LEN 1/2011 standards) at the *Polytechnic Univ. of Bucharest* (UPB), Romania. Commission: President, Prof. V.I. Vlad (President of the Romanian Academy); Members, Prof. N. Puscas (UPB), Prof. J.P. Huignard (Institute Lavoisier, France), Dr. G. Perrone (Univ. of Turin, Italy);
- **Postdoctoral Fulbright Senior Stage** in Applied Physics (Optics), at *The Institute of Optics, Univ. of Rochester, NY, USA*; Supervisor, Prof. Jannick P. Rolland (USA); 2009-2010;
- **PhD** in Engineering Sciences, *cum laude* (28.12.2001), *Polytechnic Univ. of Timisoara* (Romania). Thesis: Contributions to the Analysis and Design of Scanning Systems; Supervisor, Prof. Dan Perju; 1994-2001;
- **Diploma Engineer** (equivalent to **M.Sc.**) in Mechanical Engineering (Fine Mechanics & Optics), *valedictorian* (admitted & graduated top of the class - approx. 140 students), major in Measuring and Control Apparatuses (30.07.1991), *Polytechnic Univ. of Timisoara* (Romania), GPA **9.84/10**, with 10/10 for the Diploma thesis: Three-chromatic Colorimeter with Mix Synthesis; Supervisor, Prof. Ioan Mihalca; 1986-1991;
- Military Service: Sept. 1985 – June 1986;
- *Moise Nicoara National College for Mathematics and Physics, Arad* (Romania), graduated with the first GPA at the maturity exam per college: **9.66/10**, 1981-1985.

SOCIAL STATUS

Born: July 4, 1967 in Arad, Arad County, Romania;
Nationality and citizenship: Romanian. Religion: Christian Orthodox;
Married: since 1999; two children.

LANGUAGES

- **English:** fluent; 1994 TOEFL Exam Score **627/640**;
- **Romanian:** native; **French:** very good; **Italian:** beginner.

TEACHING & RESEARCH (28.5 years of experience): Measuring Systems; Optomechatronics & Optical Systems; Biomedical Imaging; Mechanisms & Theory of Machines; Quality Engineering.

POSITIONS

- **Adjunct Professor (for Optics Master Course - in English)**, 2016 - Present, at the Faculty of Dental Medicine, *Victor Babes Univ. of Medicine and Pharmacy Timisoara* (Romania); [Emdola-european-master](#)
- **Adjunct Professor (PhD Advisor)**, Oct. 2014 - Present, at the *Polytechnic Univ. of Timisoara* (Romania); http://www.upt.ro/img/files/2014-2015/admitere/doctorat/oferte/Oferta_doctorala_2015-DUMA.pdf
- **Adjunct Professor (for Master Courses - in English)**, 2014 - 2015, at the Faculty of Physics, *West Univ. of Timisoara* (Romania);
- **Visiting Scientist**, March 1, 2013 - Present, at [The Institute of Optics](#) (#1 in Optics and #4 in Applied Physics in the USA), [Univ. of Rochester, NY \(ODALab\)](#), Host: [Prof. Jannick P. Rolland](#) (USA);
- **Ministry Counselor for scientific research**, 2012;
- **Visiting Senior Research Fellow** & member of the Elliot College, July 1, 2009-Present, School of Physical Sciences ([Applied Optics Group](#)), [Univ. of Kent](#), Canterbury, Host: [Prof. Adrian Gh. Podoleanu](#) (UK);

- **Fulbright Senior Research Fellow**, Sept. 25, 2009 - June 20, 2010 (sabbatical year), at [The Institute of Optics](#) (#1 in Optics and #4 in Applied Physics in USA), [Univ. of Rochester, NY](#) (USA); Host: [Prof. Jannick P. Rolland \(ODAlab\)](#);
- **Head and founder of the 3OM Research Group** (in *Opto-Mechatronics, Optical Metrology, Optics & Mechanics*), <http://3om-group-optomechatronics.ro/> and of the Laboratories of Optomechatronics and Biomedical Photonics at the *Aurel Vlaicu Univ. Arad*; <https://erris.gov.ro/3OMGroup> - since 2008;
- **Professor**, 2006 - Present, Dept. of Product Design, Faculty of Engineering, *Aurel Vlaicu Univ. of Arad* (Romania);
- **Associate Professor**, 2002 - 2006, **Lecturer**, 1999 - 2002, Dept. of Product Design, Faculty of Engineering, *Aurel Vlaicu Univ. of Arad* (Romania);
- **Lecturer**, 1997 - 2001, **Teaching & Research Assistant**, 1991 - 1997, Dept. of Mechatronics (Chair of Fine Mechanics & Optics), Faculty of Mechanical Engineering, *Polytechnic Univ. of Timisoara* (Romania);

OTHER POSITIONS

- **2020-2021, Guest Editor** of a Special Issue of *Materials* (ISSN 1996-1944) – a journal of MDPI, **ISI IF 2.972/2018**, [Materials Investigations in Mechanical Systems](#);
- **2019-2020, Guest Editor** of a Special Issue of *Materials* (ISSN 1996-1944) – a journal of MDPI, **ISI IF 2.972/2018**, [Biocompatible Materials Investigated with Optical Methods](#);
- Since **2019, OSA Visiting Lecturer** (Optical Society of America, USA), <https://www.osa.org/en-us/home/>;
- **2016-Present, Member of CNCS** (*National Research Council*) - <http://www.cncs-nrc.ro/comisia-stiinte-ingineresti/> (http://www.cncs-nrc.ro/wp-content/uploads/2017/01/CV-CNCS_Duma_En.pdf);
- **2016-2018, Member of CNATDCU** (*Romanian National Council for the Validation of University Titles, Diplomas, and Certificates*) - [Commission of Mechanical Engineering, Mechatronics, and Robotics](#);
- Since **2014, SPIE Visiting Lecturer** (Intl. Soc. for Optics and Photonics, USA), <http://spie.org/x109325.xml>;
- Since **2013, Director**, *Research Center in Mechanical Engineering, Aurel Vlaicu Univ. Arad*;
- **2013-2015, President, Arad County Branch** of the Romanian Robotics Society; member since 2008;
- Since **2011**, Coordinator: Domain of Mechatronics and Mechanical Engineering, *Aurel Vlaicu Univ. Arad*;
- **2008-2011, Vice Dean for Research**, Faculty of Engineering, *Aurel Vlaicu Univ. Arad*;
- Since **2006, Vice-president of EUROP-RO** (for the South-West Axis), branch of the European Robotics Platform EUROP; representative of the *Aurel Vlaicu Univ. Arad* in EUROP-RO;
- Since **2005: Editor-in-Chief and founder**, *Scientific and Technical Bulletin of the Aurel Vlaicu Univ. of Arad, Series: Mechanical Engineering*, www.uavsb.xhost.ro, nationally recognized by the Romanian National University Research Council since 2006;
- **2004-2006: Scientific Secretary**, Dept. of Product Design, *Aurel Vlaicu Univ. of Arad*;
- Since **1999**, Head of the Mechanisms Laboratory at the *Aurel Vlaicu Univ. of Arad*;
- **1991-2001**, Responsible for the Measuring Apparatuses and Systems of the *Polytechnic Univ. of Timisoara*;

SCIENTIFIC PAPERS (*h-index=18, ISI WoS*) https://www.researchgate.net/profile/Virgil-Florin_Duma

267 published papers (66 as sole author, 55 as first, and 146 as co-author) – 148 in ISI WoS:

40 in ISI peer-reviewed journals with impact factor (IF); 53 in other peer-reviewed journals;
111 proceedings papers indexed in ISI Web of Science; 63 in other conference proceedings.

1 Romanian patent awarded and 2 applications pending;

<http://www.researcherid.com/rid/B-3031-2010>

[Scopus Author ID 9839230700](http://scopus.com/authorid/9839230700) (*h-index=19, Scopus*)

<http://orcid.org/0000-0001-5558-4777>

<http://scholar.google.ro/citations> (*h-index=21, Google Scholar*)

<https://www.brainmap.ro/virgil-florin-duma>

40 Invited Lectures at conferences or universities;

100 oral presentations or posters at conferences (without published proceedings).

CITATIONS (Jan. 2020): 305 in ISI Web of Science; >330 in Google Scholar (both excluding self-citations).

BOOKS & BOOKS CHAPTERS

2 chapters in internationally edited books (Springer); 2 university courses (co-author);
2 scientific books / monographs (sole author); 3 laboratory books (sole or co-author);
7 books as editor (2 laboratory books, 3 ISI Proc., 2 Proc.);

INVITED LECTURES & PRESENTATIONS

- **Duma V.-F.**, Biomedical Imaging using Optical Coherence Tomography (OCT). An Insight into Technology, Devices, and Applications, *The 6th Euro-China Conference on Intelligent Data Analysis and Applications*, <https://www.ecc2019.ro/invited-speaker/>, Arad (Romania), Oct. 15-18, **2019** (Keynote Lecture);
- **Duma V.-F.**, Advances in laser scanning technology for optical coherence tomography, *X Iberoamerican Optics Meeting/XIII Latinamerican Meeting on Optics, Lasers and Applications/Mexican Optics and Photonics Meeting (RIAO-OPTILAS)*, [link](#), Cancun (México), Sept. 23-27, **2019** (Invited Paper);
- **Duma V.-F.**, Optical Choppers: Classical, Eclipse, and with Rotational Shafts, *6th Advanced Electromagnetics Symposium (AES)*, <https://AES19/invited>, Lisbon (Portugal), July 24-26, **2019** (Invited Paper);
- **Duma V.-F.**, Optomechatronics and Biomedical Imaging. Projects at UAV Arad, *21th Int. Students Sc. Comm. Session of the Fac. of Eng. of the Aurel Vlaicu Univ. of Arad*, June 14-15, **2019** (Keynote Presentation);
- **V.-F. Duma**, Devices and Systems for Biomedical and Industrial Applications of OCT, [Universidad de Guadalajara](http://www.cucei.udg.mx/) (<http://www.cucei.udg.mx/>), Jalisco (México), Nov. 28, **2018** (Magistral Conference);
- **V.-F. Duma**, 2 SPIE Invited Lectures: Dental Medicine Applications of Optical Coherence Tomography (OCT); OCT versus SEM in the study of metallic fractures for forensic investigations, [Universidad de Guadalajara](http://www.cucei.udg.mx/) (<http://www.cucei.udg.mx/>), Jalisco (México), Nov. 29-30, **2018**;
- **V.-F. Duma**, 2 Tutorials and Workshops (3h each): 1D and 2D Galvanometer Scanning and Handheld Probes in OCT; Risley Prisms, Polygon Scanners, and Other Devices for OCT - and More..., [Universidad de Guadalajara](http://www.cucei.udg.mx/) (<http://www.cucei.udg.mx/>), Jalisco (México), Nov. 28-29, **2018**;
- **V.-F. Duma***, C. Sinescu, Gh. Hutiu, A. Bradu, A. Podoleanu, Applications of Optical Coherence Tomography in non-destructive testing, *Biommedd 2018*, Cluj-Napoca (Romania), Sept. 27-29, **2018** (Invited Presentation);
- **V.-F. Duma**, 2D scanning systems, patterns, and handheld probes for biomedical imaging, *2nd Intl. Congress on Lasers in Dentistry* (<http://lasercongress-srls.com/>), Mamaia (Romania), Sept. 5-7, **2018** (Plenary);
- **V.-F. Duma**, Scanning patterns in imaging, at the School of Physical Sciences (Applied Optics Group), *Univ. of Kent, Canterbury* (UK), Aug. 10, **2018** (Invited Presentation);
- **V.-F. Duma**, Scanning systems: from industrial to high-end biomedical applications using optical coherence tomography, *IX Intl. Conference for Professionals & Young Scientists "Low Temperature Physics" ICPYS-LTP-2018*, Kharkiv (Ukraine), June 4-8, **2018** (SPIE Invited Lecture);
- **V.-F. Duma**, Laser scanners for high-end biomedical imaging, *City Univ. of New York, NY* (USA), Oct. 13, **2017** (Invited Seminar – Dept. of Mechanical Engineering);
- **V.-F. Duma**, C. Sinescu, D. Demian, Gh. Hutiu, G. Dobre, A. Bradu, A. Podoleanu, Biomedical imaging with Optical Coherence Tomography. Systems and applications, *2nd Intl. Seminar on Biomaterials and Regenerative Medicine (BioRemed)*, Timisoara (Romania), Oct. 5, **2017** (Invited Lecture);
- **V.-F. Duma**, Theoretical and experimental approaches on galvanometer scanners for high-end biomedical imaging applications, *5th Advanced Electromagnetics Symposium*, Incheon (South Korea), July 27, **2017** (Invited Presentation);
- **V.-F. Duma**, et al, Laser scanning optimization for high-end applications in biomedical imaging, *SPIE-SRLS 7th Int. Conf. on Lasers in Medicine* [ISI], Timisoara (Romania), July 14, **2017** (Invited Paper);
- **V.-F. Duma**, Laser scanners with oscillatory mirrors for high-end applications, *TIM Physics Conf.* [ISI], Timisoara (Romania), May 25-27, **2017** (Keynote Lecture);
- **V.-F. Duma***, et al, Optical Coherence Tomography in Metallic Materials Characterization, *RoMAT2016*, Bucharest (Romania), Nov. 10, **2016** (Invited Presentation);
- **V.-F. Duma***, et al, Optical Coherence Tomography: Handheld scanning probes with galvanometer scanners, *TIM 15-16 Physics Conf.* [ISI], Timisoara (Romania), May 28, **2016** (Invited Presentation);
- **V.-F. Duma**, Optimization of biomedical systems for OCT with applications in Dental Medicine, *21th Congress of Dental Medicine*, Timisoara (Romania), May 21, **2016** (Invited Presentation);
- **V.-F. Duma***, et al, Biomedical imaging using Optical Coherence Tomography. Devices, systems, and applications, *BioRemed Int. Conf.*, Oradea (Romania), Sept. 19, **2015** (Invited Presentation);
- **V.-F. Duma**, Scanning systems: from industrial to high-end biomedical applications (SPIE Invited Lecture – at *Optics & Photonics Applications (OPA) Conf.*), *Univ. of Guanajuato*, Salamanca (Mexico), Sept. 2, **2015**;
- **V.-F. Duma**, et al., Handheld scanning probes for OCT: Developments, applications and perspectives, *World Federation of Lasers in Dentistry – European Division 5th Congress & SRLS 6th Intl Conf. Lasers in Medicine* [ISI], Bucharest (Romania), May 8, **2015**, in *Proc. SPIE*, [doi](#) (Invited Presentation);
- **V.-F. Duma**, Handheld Probes and Galvoscaning in OCT. On-going Industrial and Biomedical Applications, Applied Optics Group, *Univ. of Kent, Canterbury* (UK), Feb. 20, **2015** (Invited Seminar);
- **V.-F. Duma**, Biomedical Imaging and Optical Coherence Tomography: Scanning Systems and Applications, *Academic Days of the Victor Babes Univ. of Medicine and Pharmacy of Timisoara* (Romania), Dec. 12, **2014** (Invited Lecture);

- **V.-F. Duma**, Scanning in Optical Coherence Tomography, *National Univ. of Ireland (NUI), Galway*, Nov. 25, **2014** http://tomi.nuigalway.ie/SPIE_NUIG_UL/spie_events.html (SPIE Invited Lecture);
- **V.-F. Duma**, Renewable Energies – Two Projects and a Global Perspective, HURO/1101/175/2.1.1, *Romania-Hungary 2007-2013 Program of Trans-frontiers Cooperation (www.huro-cbc.eu)*, Arad (Romania), Apr. 11, **2014** (Invited Presentation);
- **V.-F. Duma**, 1-D and 2-D Scanning Systems in Biomedical Imaging, at the School of Physical Sciences (Applied Optics Group), *Univ. of Kent, Canterbury (UK)*, Nov. 7, **2013** (Invited Presentation);
- **V.-F. Duma**, Scanning in biomedical imaging: from classical devices to handheld heads and micro-systems, *SRLS-SPIE 5th Int. Conf. Lasers in Medicine [ISI]*, Timisoara (Romania), Sept. 21, **2013**, <http://dx.doi.org/10.1117/12.2042733> (Invited Paper);
- **V.-F. Duma**, Laser scanning: from industrial to biomedical applications, *RIAO-OPTILAS (VIII Iberomamerican Opticas Meeting & XI Latinamerican Meeting on Optics, Lasers and Applications)*, Porto (Portugal), July 23, **2013** - *Proc. SPIE*, <http://dx.doi.org/10.1117/12.2025220> (Invited Paper);
- **V.-F. Duma**, Galvanometer-based Scanners in Optical Coherence Tomography (OCT), *City Univ. of New York (USA)*, Febr. 14, **2013** (Invited Presentation);
- **V.-F. Duma**, Optical Engineering: Scanners, Choppers, Lenses, and Much More. A Mathematical Approach, *Ana G. Mendez Univ. System (AGMUS): Univ. Metropolitana, Univ. del Este, Univ. Turabo*, San Juan (Puerto Rico, USA), March 19-22, **2010** (3 Invited Lectures, Fulbright OLP);
- **V.-F. Duma**, Optical Scanners in Medical Imaging. An Optomechanical Perspective, *City Univ. of New York (USA)*, Apr. 15, **2010** (Invited Lecture, Fulbright Occasional Lecturer Program - OLP);
- **V.-F. Duma**, Optical scanners, *The Inst. of Optics, Univ. of Rochester (NY, USA)*, Mar. 03, **2010** (Invited Lecture for PhD Students);
- **V.-F. Duma**, Tutorials, *Hopkins Center for Opt. Metrology, Univ. of Rochester (NY, USA)*: 1) Applications & types of scanners (Nov. 03, **2009**); 2) Scanners-fundamentals (Nov. 17, **2009**); 3) Constructive characteristics of scanners (Dec 01, **2009**); 4) Perspectives of opt. scanning in OCT (Jan 20, **2010**);
- **V.-F. Duma**, Mathematical functions of a 2-D scanner with oscillating elements, *9th Conf. on Dynamic Systems Theory and Applications*, Łódź (Poland), Dec. 18, **2007**; [10.1007/978-1-4020-8778-3_22](https://doi.org/10.1007/978-1-4020-8778-3_22) (Invited Paper);
- **V.-F. Duma***, I. Kaposta, F. Tusz, Achievement of the South-West Axis in Industrial Robots of the EUROPO-RO Technological Platform, *2nd EUROPO-RO Symp.*, Bucharest (Romania), Apr. 26, **2007** (Keynote Lecture);
- **V.-F. Duma**, Contributions on the Design of the Optical Systems (Laser Scanning Devices), Dept. of Physics, *Jacobs Univ. of Bremen*, Bremen (Germany), Oct. **2004** (Invited Presentation).

SCHOLARSHIPS & FELLOWSHIPS

- **Visiting Senior Research Fellowship**, at the [Univ. of Kent](http://www.kent.ac.uk), Canterbury (UK); Host: [Prof. Adrian Gh. Podoleanu](http://www.kent.ac.uk/people/prof-adrian-gh-podoleanu) (Head of the *Applied Optics Group - AOG*), July **2009**-Present;
- **Fulbright Senior Research Fellowship**, awarded by the US Dept. of State, at [The Institute of Optics](http://www.optics.rochester.edu) (#1 in Optics and #4 in Applied Physics in the US), [Univ. of Rochester, NY](http://www.rochester.edu) (USA); Host: [Prof. Jannick P. Rolland](http://www.rochester.edu/people/prof-jannick-p-rolland) (Brian J. Thomson Chair in Optical Engineering), [ODALab](http://www.oda.rochester.edu), Sept. **2009**-June **2010**;
- **BEST** (Board of European Students of Technology) **Scholarship**, Summer School, *Eindhoven Univ. of Technology*, The Netherlands: Energy in Its Various Aspects; concluded with the team project: Nuclear Plant – Design and Ecological Aspects, July **1991**;
- **Republican Merit Scholarship** for outstanding results, highest student award in Romania, from the Romanian state (**1990-1991**).

RESEARCH STAGES

1 month research stages:

[Univ. of Kent](http://www.kent.ac.uk), Canterbury (UK): Aug. **2018**; Aug. **2016**; July-Aug. **2015**; Aug. **2013**; July-Aug. **2011**;
[Univ. of Rochester, NY](http://www.rochester.edu) (USA): Oct. **2016**; Oct. **2015**; June **2010**;

1-2 weeks (Visiting Professor):

Universidad de Guadalajara - <http://www.cucei.udg.mx/> (Mexico), Nov. 26-Dec. 1, **2018**;

[Univ. of Kent](http://www.kent.ac.uk), Canterbury (UK): Feb. 13-22, **2015**; Feb. 07-21, Aug. 2-20 **2014**; Oct. 27-Nov. 09, **2013**;

[Univ. of Rochester, NY](http://www.rochester.edu) (USA): Oct. 16-23, **2017**; July 17-30, **2014**; Feb. 15-28, **2013**;

Univ. of Guanajuato, Salamanca (Mexico), Aug. 31-Sept. 05, **2015**;

National Univ. of Ireland (NUI) at Galway (Ireland), Nov. 24-27, **2014**;

City Univ. of New York – Nanofabrication Facility, NY (USA): Oct. 11-15, **2017**; Feb. 08-15, **2013**; Apr. 14-20, **2010**;

Ana G. Mendez Univ. System, San Juan (Puerto Rico, USA): Mar. 18-22, **2010**;

RWTH Aachen (Germany): June 25-30, **2007**;

Jacobs Univ. of Bremen (Germany): Oct. 25-30, 2004;

ERASMUS Teaching

[Univ. of Kent, Canterbury](#) (UK): Feb. 24-29, 2020;

AWARDS

- ANCS Award PN-III-P1-1.1-PRECISI-201939511 for *APM* **67**(3), 456-476 (2019); [doi](#); [link](#) (1,250€);
- ANCS Award PN-III-P1-1.1-PRECISI-2019-334883 for *Materials* **12**(6), 947 (2019); [link](#) (200€);
- ANCS Award PN-III-P1-1.1-PRECISI-2018-24971 for *Proc. Rom. Acad. A* **19**, 53-60 (2018); [link](#) (500€);
- ANCS Award PN-III-P1-1.1-PRECISI-2018-24968 for *Metals* **8**(2), 117 (2018); [doi](#) (500€);
- **Top 1% reviewers** in the Field of Physics, 2018 ([link](#)) – <https://publons.com/awards/>;
- ANCS Award [PN-III-P1-1.1-PRECISI-2018-22154](#) for *IJSSD* **17**(5), 1740006 (2017); [doi](#) (500€);
- **IOP (Inst. of Physics, UK) Award**: Outstanding reviewer for *Measurement Science and Technology*, 2017;
- ANCS Award [PN-III-P1-1.1-PRECISI-2017-15869](#) for *Proc. Rom. Acad. Series A* **18**, 25 (2017) [link](#) (500€);
- ANCS Award [PN-III-P1-1.1-PRECISI-2017-19701](#) for *Opt. Express* **25**(19), 23388 (2017); [doi](#) (500€);
- **Top 1% reviewers** in the Field of Physics and Astronomy, 2016 – <https://publons.com/awards/>;
- **2nd Prize for Poster Presentation**: Mitroi F. E., Sinescu C., Negrutiu M. L., Stoica E. T., Duma V.-F., Bradu A., Podoleanu A., Confocal laser scanning microscopy versus digital microscopy in the analysis of the marginal adaptation of Tizian overlays, *7th Int. Conf. Lasers in Medicine (ICLM)*, Timisoara, July 15, 2017;
- **Excellent Paper Award - Oral Presentation**: Beiu R.*, Mnerie C.A., Duma V.-F., Analysis of Curved Shape Micro-mirrors For On-Chip Communication, *SPIE ATOM-N*, Constanta (Romania), [doi](#), 2016;
- ANCS Award [PN-III-P1-1.1-PRECISI-2016-12189](#) for *Opt. Express* **24**(12), 13365-13374 (2016) (1,300€);
- ANCS Award PN-III-P1-1.1-PRECISI-2016-11474 for *R. R. Physics* **67**(4), 1346-1358 (2015), [link](#) (500€);
- ANCS Award PN-II-RU-PRECISI-2015-9-8637 for *Applied Optics* **54**(17), 5495-5507 (2015), [link](#) (500€);
- ANCS (Romanian Authority for Scientific Research) **Habilitation Award 3863/2014** (1,200€);
- **1st Award - Implant Poster Competition**, for M.L. Negrutiu, C. Sinescu, V.-F. Duma, A. Manescu, MicroCT Investigation of Bone Graft Biomaterials, *New York Great Dental Meeting*, USA, 2014;
- ANCS Award 6510/2014, for *Applied Optics* **53**(26), 5912-5916 (2014) [link](#) (500€);
- **SPIE Senior Membership** (Int. Society for Optics and Photonics, Bellingham, WA, USA) since 2011 ([link](#));
- **Merit Gradation**, granted for 3, respectively for 5 years, on a competitive basis, highest professional recognition and salary bonus (+25%) in a Romanian University, 2008-2010, 2012-2016, and 2017-2021;
- ANCS Award 1257/2011 for *Applied Optics* **50**(29), 5735-5749, 2011, [link](#) (500€);
- ANCS Award 1390/2010, for *Applied Optics* **48**(32), 6355-6364, 2009, [link](#) (500€);
- ANCS Award 1391/2010, for *Applied Optics* **48**(14), 2678-2685, 2009, [link](#) (500€);
- ANCS Award 87/2008, for *J. of Optics A: Pure and Applied Optics* **10**(6), 064008, 2008, [link](#) (1 k€);
- **Merit Salary**, granted annually, on a competitive basis (15% salary bonus), by the Univ., 2004-2006;
- **University**, 'Traian Lalescu' National Students' Olympiads:
 - **1989** (3rd year) **National: special award in Mechanics of Fluids**; *local*: 1st award in Mechanics of fluids, 1st award in Electrotechnics;
 - **1988** (2nd year) **National: 1st award in Physics (Electromagnetism, Optics & Quantum Mech.), special award in Mathematics**; *local*: 1st award for Mathematics, 1st award in Physics;
 - **1987** (1st year) **National: 3rd award in Physics (Mechanics & Thermodynamics)**; *local (Timisoara County Universities Center)*: 1st award in Physics, special award in English; special award for scientific communications in Mathematics;
 - **High School**: 2nd award in Physics, Arad County, 1982.

RESEARCH GRANTS & CONTRACTS (UEFISCDI ID (UEF-iD): U-1700-029M-1912)

1. **Principal Investigator (PI), Project for Experimental Demonstration (PED) Grant** PN-III-P2-2.1-PED-2016-1937 (Contract 44PED/2017), [Romanian National Authority for Scientific Research \(ANCS-UEFISCDI\)](#): *Micro-Electro-Mechanical Systems (MEMS)-based handheld scanning probes for distortion-free biomedical imaging with Optical Coherence Tomography (OCT) (MEMS-HH-OCT)*, in partnership with [SC Inteliform SRL Timisoara](#) (133k€); Jan. 2017-July 2018; *Publications*: 1 book, 6 Invited Presentations, 9 ISI Proc., 15 other conf. presentations; **8 journal papers in ISI Web of Science (WoS), Σ IF 19.032**; <http://3om-group-optomechatronics.ro/pedp1937/>
2. **PI, Bridge Grant** PN-III-P2-2.1-BG-2016-0297 (Contract 48BG/2016), [ANCS-UEFISCDI](#): *Optomechatronic choppers with rotational discs and shafts for metrological, biomedical, and laser manufacturing applications (OP-CHOP)* (102k€), Oct. 2016-Oct. 2018; 8 researchers. *Publications*: 1 book,

- 5 Invited Presentations, 12 ISI Proc., 13 other conf. presentations; 4 journal papers in ISI WoS, Σ IF 9.225; <http://3om-group-optomechatronics.ro/bg297/>
3. **Responsible for Partner, Transfer to Industry (PTE) Grant** PN-III-P2-2.1-PTE-2016-0181 (Contract 24PTE/2016), [ANCS-UEFISCDI](#): *Handheld scanning probes with 1D and 2D galvoscaners for biomedical and industrial investigations using Optical Coherence Tomography (OCT) (1D2D-GS-OCT)*, PI: M. Vlasici – [SC Inteliform SRL Timisoara](#) (435k€), Oct. 2016-Oct. 2018; 2 institutions, 12 researchers. *Publications*: 1 book, 18 Invited Presentations, 6 ISI Proc., 19 other conf. presentations; 11 journal papers in ISI WoS, Σ IF 23.885; <http://3om-group-optomechatronics.ro/ptep181/>
 4. **Responsible for the Physics Work Package (1/4), Grant** POC-A1-A1.1.3-E-2015, funded by the European Union (through European Regional Development Funds Structural Operational Program “Competitiveness” Priority axis 1, Operation 1.1.4. Contract Number 30/2016): *New nano-ARCHITECTURES OF BIOLOGICAL INSPIRATION OF CELULAR TYPE (NanoArt Bio Cell)*, PI: Prof. V. Beiu (2M€), Aug. 2016 - Aug. 2020; 3 journal papers in ISI WoS-from WP1, Σ IF 8.005;
 5. **PI, PARTNERSHIP Grant** PN-II-PT-PCCA-2011-3.2-1682 (Contract 22/2012) [ANCS-UEFISCDI](#) *Optical Coherence Tomography (OCT) systems with handheld and endoscope probes for real-time investigations in material studies and for in vivo medical imaging* (5 institutions, 36 researchers), July 2012-Dec. 2016 (950k€). *Publications*: 2 books, 1 Patent, 1 Thesis, 13 Invited Presentations, 47 ISI Proc., 28 other conf. presentations; 17 journal papers in ISI WoS, Σ IF=31.633. <http://3om-group-optomechatronics.ro/pp1682/>
 6. **PI, Fulbright Senior Research Grant** 474/July 1, 2009, in Optical Engineering (from the US Department of State): *Scanning in Swept Source Optical Coherence Tomography (OCT)*, at [The Institute of Optics](#) (#1 in Optics in the USA), [Univ. of Rochester, NY](#) (USA); Host: [Prof. J. P. Rolland](#), [ODAlab](#), Sept. 2009-June 2010 (\$26,450). *Publications*: 2 ISI Proc., 1 journal paper in ISI WoS, IF=1.748;
 7. **Researcher, NYSTAR** (New York Science and Technology Association for Research) Award 054048-002, PI [Prof. J. P. Rolland](#), [The Institute of Optics](#), [Univ. of Rochester, NY](#) (USA), 2010 (support of \$6k);
 8. **PI, IDEAS Grant** 1896/2008, [ANCS-UEFISCDI](#): *Analysis and design of some polygonal and galvanometer-based, 1D and 2D scanners*, 2009-2011 (101k€); 7 researchers. *Publications*: 5 book chapters, 1 patent, 10 ISI Proc., 12 other journal and conf. papers; 5 journal papers in ISI WoS, Σ IF=9.931; [ideas-project-1896/](#)
 9. **Researcher, PN II PARTNERSHIPS Grant** 41-084/2007, Romanian Education and Research Ministry - ANCS: *Use of genetic markers for establishing optimal therapies for laryngeal and oropharyngeal human cancer*, Univ. of Bucharest, 2007–2010 (600k€);
 10. **Researcher, Balkan Environmental Association (BENA)–COSMOTE Grant** 1428/2007, *Remote, computer assisted command and optimize of the use of a solar installation for greenhouses and small consumers*, PI Dr. D. Silaghi, 2007 (750€);
 11. **Researcher, CEEEX Grant**, ANCS code 126/2006, Romanian Education and Research Ministry-ANCS: *EUROP_RO Technology Platform (European Robotics Platform, Romanian branch)*, PI Prof. Adrian Nicolescu, Polytechnic Univ. of Bucharest, 2006–2008 (60k€);
 12. **PI, 3 Research Contracts** (Romanian companies), through Aurel Vlaicu Univ., 2004–2005 (2k€);
 13. **PI, Young Researchers (AT) Grant**, ANCS code 385: *Development of Some New Scanning Equipments*, 2003–2004 (3.5k€); 2 books (monographs) [B5, B6];
 14. **Researcher, Leonardo da Vinci Program** of the European Union, **Timkars Project**, for conceiving the courses in Precision Mechanics & Optics (simultaneously published in Germany and in Romania); **co-author of the book**: *Measuring and Control Apparatuses. Metrology* [B4], 1999–2001 (225k€);
 15. **Researcher, Program Ro-4096** with Word Bank, **Doctoral Grant**, ANCS code 57: *Methods and means for improvement performances of the equipments for precision mechanics and quality control*, PI Prof. Dan Perju, Polytechnic Univ. Timisoara, 1998–2002 [RO4096](#) (\$30k); **PhD Thesis defended Sept. 2001.**

STRATEGIC & COOPERATION GRANTS

16. **Co-PI, Erasmus+**, Univ. of Kent, School of Physical Sciences (UK)-Aurel Vlaicu Univ. of Arad, 2018-2021;
17. **Member, COST Action CA17126** ‘Towards understanding and modelling intense electronic excitation’ (TUMIEE), http://www.cost.eu/COST_Actions/ca/CA17126, 2018-2021;
18. **Member, COST Action CM1405**, ‘Molecules in Motion’, <https://www.molim2018.ethz.ch/2018/>, 2015-2019;
19. **Consultant** (Expert-Coordinator of the Mechatronics and Mechanical Engineering Domain of the Univ.), **POSDRU/5/1.5/S/2** (EU funding)-UEFISCDI Project: *Doctorate in Schools of Excellence – Evaluation of the Quality in Universities and the Increase of Visibility by Scientific Publishing*, 2009-2011;
20. **Consultant** (Expert in Education), **POSDRU 2/1.2/S/3** (EU Funding)-UEFISCDI Project code 2684: *Quality and Leadership for Romanian High Education System (QLHE)* (www.edu2025.ro), 2009-2011;
21. **Consultant** (Expert in Mechatronics & Robotics), **POSDRU 2/1.2/S/2** UEFISCDI: *Development of an operational system of professional qualifications in Romania (DOCIS)*, 2009-2011;

22. **Consultant** (Expert in Robotics), **CARE** (Coordinated Action for Robotics in Europe), **FP 6** Program of the European Commission, EU (participation at CARE Consensus Meetings: Stuttgart, May 2008; Pisa, Oct. **2008**, for elaboration of SRA 2008-2020 – Strategic Research Agenda for Robotics in Europe);
23. **Co-PI, Erasmus**, RWTH Aachen (IGM) - Aurel Vlaicu Univ. of Arad, **2007-2013**;

TRAVEL GRANTS

24. **PI, SPIE Lecturer Program Grant** from [SPIE](#) for lecturing at the *11th Int. Physics Conf.* <http://www.ilt.kharkov.ua/cmltp2020/>, Kharkov (Ukraine), June 11-14, **2020** (~1k€);
25. **PI**, Support from EU ERASMUS+, to lecture at the Univ. of Kent (UK)-1 week, Feb. **2020** (>1100€);
26. **PI**, Support from the Hungarian Acad. of Sciences, to participate at the <https://worldscienceforum.org/>, as representative of Romania in the Fulbright delegation, Budapest (Hungary), Nov. **2019** (>300€);
27. **PI, SPIE Lecturer Program Grant** from [SPIE](#) (The Intl. Society for Optics & Photonics, USA) and the Univ. for lecturing at the *Universidad de Guadalajara* (Mexico), Nov. 26-30, **2018** (~\$2k);
28. **PI, Grant** PN-III-P1-1.1-MCD-2018-0230, [ANCS-UEFISCDI](#) to support the visit of Dr. G. Dobre ([Univ. of Kent](#), Canterbury, UK) to UAV Arad (~1k€), [link](#), Nov. **2018**;
29. **PI, SPIE Lecturer Program Grant** from [SPIE](#) for lecturing at the *9th Int. Physics Conf. ICPYS-LTP*, Kharkov (Ukraine), June 4-8, **2018** (~1k€);
30. **PI, SPIE Grant** to support with a booth the participation at the *SPIE Photonics Europe 'Innovation Village'*, Strasbourg (France), Apr. 22-23, **2018**;
31. **PI**, Support from the Royal Society of Jordan, to participate at the *World Science Forum*, as representative of Romania in the Fulbright delegation, Jordan, Nov. 7-11, **2017** (>1k€);
32. **PI, Grant** PN-III-P1-1.1-MCD-2016-0077, [ANCS-UEFISCDI](#) to support the visit of Dr. G. Dobre ([Univ. of Kent](#), Canterbury, UK) to UAV Arad (~1.3k€), [link](#), Nov. **2016**;
33. **PI**, Full support from ANCS to participate at the Int. Conference *Diaspora in Scientific Research and Higher Education in Romania*, Timisoara **2016**;
34. **PI**, Support from the Hungarian Acad. of Sc., to participate at the *Word Science Forum*, as representative of Romania in the Fulbright delegation, Budapest (Hungary), Nov. **2015** (>300€);
35. **PI, SPIE Lecturer Program Grant**, from [SPIE](#) and support from the Univ. of Guanajuato for lecturing at this university (Mexico), Sept. **2015** (~\$1.8k);
36. **PI, SPIE Lecturer Program Grant**, from [SPIE](#) for lecturing at the National Univ. of Ireland (NUI) at Galway, Nov. **2014** (600€);
37. **PI**, Support from the Brazilian Acad. of Sc. and from the Fulbright Assoc., to participate at the *Word Science Forum*, as representative of Romania in the Fulbright delegation, Rio de Janeiro (Brazil), Nov. **2013** (~4k€);
38. **PI**, Support from the Fulbright Acad. of Sc. and Tech. and from the Hungarian Acad. of Sc., to participate at the *Word Science Forum*, as representative of Romania in the Fulbright delegation, Budapest (Hungary), Nov. **2011** (~1.5k€);
39. **PI, Fulbright Occasional Lecturer Program Grant**–from the US Department of State, for lecturing in New York City (USA), April **2010** (\$250);
40. **PI, Research Foundation** of City Univ. of New York, for Invited Seminar, April **2010** (\$350);
41. **PI, Fulbright Conference** Support – from the US Department of State, for participating at the *Fulbright Conference: Linking Campus to Community*, in Washington DC (USA), April **2010** (~\$1k);
42. **PI, Fulbright Occasional Lecturer Program Grant** – from the US Department of State, for lecturing in San Juan (Puerto Rico, USA), March **2010** (\$750);
43. **PI**, Ratiu Family Charitable Foundation (UK) Grant, for participating at the *SPIE 1st Canterbury Workshop on Adaptive Optics and OCT*, Sept. **2008**, Kent (UK) [ISI] (335£);
44. **PI, MC ANCS Grant 237/2007**, for participating at *DSTA Conference*, Lodz (Poland), [link](#) (800€);
45. **PI, MC ANCS Grant 140/2007**, for *DAAAM Symposium*, Zadar (Croatia) [ISI] [link](#) (800€);
46. **PI, IEEE & FEDROM** (FEDeration of ROManians in Spain) Support for participation at *IEEE/LEOS ODIMAP V* (2 papers), Oct. **2006**, Madrid (Spain) (total: ~900€).

AFFILIATIONS

- **SPIE – Senior Member** since 2011 ([The Int. Society for Optics and Photonics](#)), member since 2005;
- **Fulbright Association** (<http://fulbright.org/>) – **Life Member** since 2011;
- **OSA (Optical Society of America)**, member since 2007 – **Life Member** since 2014;
- **European Technology Platform Photonics21** (<http://www.photonics21.org/>) - since 2006;
- **EPIC (European Photonics Industry Consortium)** - since 2014;
- **EUROP-RO**, branch of the **European Robotics Platform EUROP** - representative of the Aurel Vlaicu University, vice-president of EUROP-RO (responsible for the South-West Axis) - since 2006;

- **IEEE** (Institute of Electrical and Electronics Engineers), 2006-2007;
- **IFTToMM** (International Federation for the Theory of Mechanisms and Machines), 1998-2002;
- **SRR** (Romanian Robotics Society), since 2010; President of the Arad County branch, 2010-2015;
- **SRLS** ([Romanian Society for Lasers in Dentistry](#)) - since 2016;

COMMITTEES, PEER-REVIEWER, EVALUATOR - publons.com/a/1280971/

EDITORIAL BOARDS

- **2019-2020, Guest Editor** of a Special Issue of *Materials* (ISSN 1996-1944) – a journal of MDPI, **ISI IF 2.972**, [Biocompatible Materials Investigated with Optical Methods](#);
- Member of the Editorial Board, [J. of Adhesion Science and Technology](#) (Taylor & Francis) **IF>1**, since 2016;
- Editor-in-Chief (and founder), *Scientific and Technical Bulletin of the Aurel Vlaicu Univ. of Arad, Series: Mechanical Engineering*, www.uavsb.xhost.ro, since 2005;

REVIEWER OF PEER-REVIEWED JOURNALS (of different Publishing Houses);

- **Optical Society of America:** [Optics Express](#) (IF>3.5), [Biomedical Optics Express](#) (IF>3.5), [Optics Letters](#) (IF>3.5), [J. Opt. Soc. Am. A](#) (IF>1.5), [Applied Optics](#) (IF>1.5), [OSA Continuum](#): 5-8 reviews/year, since 2007;
- **Springer:** [Acta Mechanica Sinica](#) (IF≈0.7), since 2010; [Differential Eqs. and Dynamic Systems](#), since 2012; [J. of Zhejiang University SCIENCE A](#) (IF≈0.5), since 2012;
- **Elsevier:** [Optics Communications](#) (IF≈1.5), since 2015; [Mechatronics](#) (IF≈1.8), since 2015; [Control Eng. Practice](#) (IF≈1.8), since 2015; [Applied Mathematical Modelling](#) (IF>2), since 2016; [Diabetes Research and Clinical Practice](#) (IF>3.5), since 2018; [Optik](#) (IF≈2); [Optical Fiber Technology](#) (IF≈2), since 2019;
- **Wiley:** [Lasers in Surgery & Medicine](#) (IF>2.5), since 2015;
- **IEEE:** [IEEE Access](#) (IF>3), since 2017; [IEEE Transactions on Industrial Electronics](#) (IF>7), since 2015; [IEEE/ASME Transactions on Mechatronics](#) (IF≈3.5), since 2015;
- **ASME:** [J. of Medical Devices](#) (IF>0.5), since 2015;
- **IOP (UK):** [J. of Optics](#) (IF>2), since 2015; [Measurement Science and Technology](#) (IF>1.4), since 2015; [J. of Physics D: Applied Physics](#) (IF>2.8), since 2018;
- **SPIE:** [Optical Engineering](#) (IF>1), since 2019;
- **AIP:** [Theoretical & Applied Mechanics Letters](#), since 2012;
- **SAGE:** [J. of Engineering in Medicine](#) (IF>1), since 2014;
- **Taylor & Francis:** [J. of Adhesion Science and Technology](#) (IF≈1), since 2015; [Phase Transitions](#) (IF≈1), since 2015;
- **MDPI:** [Applied Sciences](#) (IF>1.7), since 2016; [Sensors](#) (IF>2), [Materials](#) (IF>2.5), since 2017; [Remote Sensing](#) (IF>4), [Mathematics](#) (ISI), [Photonics](#) (ISI), since 2018; [Int. J. of Molecular Sciences](#) (IF>4), since 2019; [Int. J. of Environmental Research and Public Health](#) (IF>2), since 2019;
- **AME:** [Quantitative Imaging in Medicine and Surgery](#) (IF>3), since 2019;
- **Romanian Academy:** [Romanian Reports in Physics](#) (IF≈1.5), since 2018;
- [Latin American Journal of Solids and Structures](#) (IF>1), since 2012;
- **Hindawi:** [Advances in Optical Technologies](#), since 2011; [J. of Ophthalmology](#) (IF>1.7), since 2018;
- [J. of Visualized Experiments](#) (JOVE), (IF>1.5), since 2016;
- [Optica Applicata](#) (IF>0.5), since 2016;
- **L&P,** [Discontinuity, Nonlinearity, and Complexity](#), since 2016;

REVIEWER OF GRANTS

- Since **2019:** **Reviewer** of Grants – National R&D Agency of Moldova (<https://ancd.gov.md>);
- Since **2016:** **Reviewer** of Grants - Czech Science Foundation; 1 Proposal evaluated;
- Since **2013:** **Reviewer** of Grants - Foundation for Polish Science; 5 Proposal evaluated;
- Since **2010:** **Reviewer** of Fulbright Grants of the US Department of State; 10 Proposals evaluated;
- Since **2008:** **Reviewer** of Grants with European Union Funding (POS); Proposals evaluated: 16 (2009), 6 (2010), 9 (2011), 8 (2012), 5 (2013), 5 (2015), 3 (2016);
- Since **2007:** **Reviewer** of Grants of the Romanian R&D Plan; Proposals evaluated: 30 (2007), 13 (2008), 4 (2010), 8 (2011), 4 (2014), 15 (2015), 2 (2016) - **UEFISCDI ID (UEF-iD): U-1700-029M-1912**

COMMITTEES, CHAIRMAN

- **Chair, Member-Scientific & Organizing Committee**, reviewer, and **Chairman** of Session - SRLS 9th Int. Conf. Lasers in Medicine (<https://lasercongress-srls.com/>), Cluj-Napoca (Romania) **2020**;
- **Chairman**, 3OM Workshops in Optomechatronics and Biomedical Imaging, Arad (Romania) **2019**;
- **Chairman** of Session, SRLS 8th Int. Conf. Lasers in Medicine, Constanta (Romania) **2018**;
- **Chair, Editor-SPIE Proc.** [ISI], **Member-Scientific & Organizing Committee**, reviewer, and **Chairman** of Session - SRLS 7th Int. Conf. Lasers in Medicine ([ICLM](#)), Timisoara (Romania) **2017**;

- **Member of the Scientific Committee** and reviewer, 2nd Int. Seminar on Biomaterials and Regenerative Medicine ([BioReMed](#)), Timisoara (Romania) **2017**;
- **Chair, Editor-SPIE Proc.** [ISI], **Member-Scientific Committee**, Organizing Committee, reviewer, and **Chairman** of Session - SRLS 6th Congress of the World Federation of Lasers in Dentistry-EU Division (WFLD-ED) & 6th Int. Conf. Lasers in Medicine (ICLM) ([wflid](#)), Bucharest (Romania) **2015**;
- **Chair, Editor-SPIE Proc.** [ISI], **Member-Scientific & Organizing Committee**, **Chairman** of Session-SRLS 5th Int. Conf. Lasers in Medicine (ICLM), Timisoara (Romania) **2013**;
- **Chairman** of Session “Applications in high-tech products,” 11th IFToMM Int. Symposium on the Theory of Machines and Mechanisms – SYROM (<http://arotmm.ro/syrom2013/>), Brasov (Romania) **2013** [ISI];
- **Chairman** of Session XXIX (BIO): RIAO-OPTILAS (VIII Iberoamerican Conf. Opt. & XI Latinamerican Meeting on Opt., Lasers and Applications) – SPIE [ISI], <http://riao.samura.pt/>, Porto (Portugal) **2013**;
- **Member of the Scientific Committee**, **Chairman** of Session, and reviewer, Int. Conf. on Dynamic Systems Theory and Applications ([DSTA](#)), Lodz (Poland), **2007**; **2011**; **2013**; **2015**; **2017**; **2019**;
- **Chairman** of Session: Optics in Precision Mechanics and Mechatronics, 8th Int. Conf. on Mechatronics and Fine Mechanics (COMEFIM), Cluj-Napoca (Romania), June 8-10, **2006**;
- **Member, Organizing Committees** & reviewer of the Proc. of ISREIE (Aurel Vlaicu Univ.), Arad (Romania), **2000**, **2002**, **2004**, **2006**, **2008**, **2010**, **2019**; **Editor** of the Engineering Proceedings, **2008**, **2010**;

TEACHING ACTIVITY (current topics are bolded)

- **Lectures:** Measuring and Control Apparatuses (1997-2001) – at the *Polytechnic Univ. of Timisoara*; **Mechanisms** (1999-Present); Mechanical Systems (1999-2006); Mechanisms and Machine Parts (2001-2003); Elements of Mechanical Engineering (2001-2003); Equipments for Precision Mechanics (2002-2004); Tolerances and dimensional control (2004-2006); **Quality Engineering** (2008-Present); **Peripheral Equipments of Computers** (2010-Present); Instrumentation [Optoelectronics] (2010-2013); Management in Industrial Engineering (2010-Present); **Biomedical Engineering** (2013-Present); **3D Scanning** (2019-Present); **Optimizations** (2019-Present); Master Courses – Quality Systems (2015-2016); **Lasers Engineering and Applications** (2018-Present) – at the *Aurel Vlaicu Univ. of Arad*; Master Course - Technical and biomedical applications of lasers (in English) – (2013-2015) at *School of Physics, West Univ. of Timisoara*; Master Course EMDOLA – **Optics** (in English) – (2016-Present) at *School of Dental Medicine, Victor Babes Univ. of Medicine and Pharmacy of Timisoara*;
- **Seminars:** Technical Optics (1991-1993); **Mechanisms** (1999-Present); **Quality Engineering** (2008-Present);
- **Laboratories:** Measuring and Control Apparatuses (1991-2001); Technical Optics (1991-1993); Spectral Apparatuses (1991-1994); Calculus and Construction of Optical Apparatuses (1991-1997); **Mechanisms** (1999-Present); Mechanical Systems (1999-2006); Mechanisms and Machine Parts (2001-2003); Equipments for Precision Mechanics (2002-2004); Tolerances and dimensional control (2004-2006); **Peripheral Equipments of Computers** (2010-Present); Instrumentation [Opto-electronics] (2010-2013); Technical and biomedical applications of lasers (in English) (2013-Present); Quality Systems (2015-2016); **Lasers Engineering and Applications** (2018-Present); **Optimizations** (2019-Present).

PHD THESIS SUPERVIZED

- ✓ **Alin-Gabriel R. Gabor, MD:** 'Contributions to methods of bone augmentation' (in Romanian) at the 'Victor Babes' University of Medicine and Pharmacy of Timisoara, Romania. Main supervisor: Prof. Cosmin Sinescu, MD; Cotutelle supervisor: Prof. Virgil-Florin Duma.

MENTORING OF STUDENTS WITH SIGNIFICANT PUBLICATIONS (Refs in List of Publications)

- **Polytechnic Univ. of Timisoara: PhD Students** – E. S. Csukas [ISI.C100, 103, 106, 108]; V. Pribac [ISI.C66]; R. Erdelyi [ISI.C104, 107]; A. Dimb [ISI.C88]; A.-G. Gabor [29, ISI.C70];
- **Univ. Aurel Vlaicu Arad: PG** – C. Mnerie [B15, B14, ISI.C38, ISI.C35, ISI.C32, ISI.C28-C25]; A. Luputi [ISI.C102]; **UG** - I. Schitea [B15, ISI.C35, ISI.C32, ISI.C26]; M. Tufel [B15, ISI.C35, ISI.C32, ISI.C26]; M. Kiss [ISI.C38]; V. Patruseal [J27, ISI.C39, C34]; R. Pelle [C35]; V. Molnar [C34]; T. Berar [J25, C34]; F. Andras [J49];
- **Univ. of Kent, UK: PG** - Philippa Law (co-supervision of Master Thesis, 2014 – 1st award in the year);
- **West Univ. of Timisoara** - co-supervision of Master Thesis: T. Nicola (2015); C. Untea-Mare (2016);
- **Member of MentorNet** – Since 2011 (<http://www.mentornet.net>).

MISCELLANEOUS

2015-2018, Awards for results in research – from the Polytechnic Univ. of Timisoara (total: 1.8 k€);
 2018, *Albert Nelson Marquis Lifetime Achievement Award*;
 2014, Article <http://dx.doi.org/10.1177/0954411914543963> highlighted in OCT News-Feature of the Week 10/5/14: <http://www.octnews.org/articles/5612435/feature-of-the-week-10-5-14-design-and-testing-of/>
 2013, Responsible for the *Thank You Fulbright Program* (launched by the Fulbright Association) in Romania;
 2010, June, Summer Courses (49th Annual Series), [The Institute of Optics](#), Univ. of Rochester, NY (USA);
 2009-2010, Participation at weekly Optics Colloquia, The Institute of Optics, Univ. of Rochester, NY (USA);
 2010, Optical Instrumentation (PhD Course attended, 1 sem.), Univ. of Rochester (USA), Prof. J.P. Rolland;
 2010, March, COMSOL Multiphysics Modeling Training, Rochester (USA);
 2010, April, Visit and Seminars - for Fulbright Fellows, attended at the UN Headquarters, NY;
 2009, Nominated for the best university professor in Romania;
 President of Maturity Exam Commissions (in Romanian High Schools): Drobeta Turnu-Severin 2003, Craiova 2008, Satu Mare 2009, Cugir 2011 (3 weeks, in June-July);

SYMPOSIA PARTICIPATION

International:

- SPIE Security & Defence and Remote Sensing [ISI], Berlin (Germany) **2018**, Strasbourg (France) **2019**;
- SPIE Nuclear Photonics [ISI], Brasov (Romania) **2018**;
- Annual Conf. of European Prosthodontic Association ([EPA](#)), Bucharest (Romania), **2017**;
- Annual Meeting of the European Society for Biomaterials (ESB), Athens (Greece) **2017**;
- Central & East. European Conf. for Thermal Analysis & Calorimetry (CEEC), Chisinau (Moldova) **2017**;
- SPIE Applied Optics and Photonics (AOP) [ISI], Faro (Portugal) **2017**;
- OSA Frontiers in Optics, Rochester, NY (USA) **2016**;
- Biommedd, Constanta **2016**, Cluj-Napoca (Romania) **2018**;
- SPIE ATOM-N [ISI], Constanta (Romania) **2016**;
- Advanced Electromagnetics Symposium (AES), Malaga (Spain) **2016**, Incheon-Seoul (Korea) **2017**, Lisbon (Portugal) **2019**;
- SPIE Optifab [ISI], Rochester, NY (USA) **2015**, **2017**;
- Optics & Photonics Applications (OPA) Conf., Univ. of Guanajuato, Salamanca (Mexico), **2015**;
- Intl. Seminar on Biomaterials and Regenerative Medicine ([BioRemed](#)), Oradea **2015**, Timisoara (Romania) **2017**;
- Balkan Stomatological Society (BASS) Congress, Bucharest (Romania) **2015**;
- SPIE Medical Imaging [ISI], Orlando (USA) **2015**;
- SPIE Optics + Optoelectronics [ISI], Prague (Czech Republic) **2015**, **2017**, **2019**;
- SRLS & SPIE Int. Conf. Lasers in Medicine [ISI], Timisoara **2013**, Bucharest **2015**, Timisoara **2017**, Constanta (Romania) **2018**;
- New York Great Dental Meeting, NY (USA) **2014**;
- SPIE RIAO-OPTILAS (VIII Iberoamerican Conf. on Optics & XI Latinamerican Meeting on Optics, Lasers and Applications) [ISI], Porto (Portugal) **2013**;
- SPIE ISPDI 5th Int. Symposium on Photoelectronic Detection and Imaging [ISI], Beijing (China) **2013**;
- SPIE ETOP (Education and Training in Optics and Photonics) [ISI], Porto (Portugal) **2013**;
- ISEMMS (Intl. Symposium on Education in Mechanism & Machine Science) [ISI] Madrid (Spain) **2013**;
- MeTrApp: 1st Workshop on Mechanisms, Transmissions and Applications, Timisoara (Romania) **2011**;
- WSF - Word Science Forum (Member of the Fulbright Alumni delegation), Budapest (Hungary) **2011**, Rio de Janeiro (Brasil) **2013**, Budapest **2015**, Dead Sea Resort (Jordan) **2017**, Budapest **2019**;
- EUCOMES - European Conf. on Mechanism Science, Cluj-Napoca (Romania) **2010**, Nantes (France) **2016**;
- Fulbright Conf. (CIES): Linking Campus to Community (Georgetown Univ.), Washington DC (USA) **2010**;
- SPIE Photonics West (BIOS, OPTO) [ISI], San Francisco (USA) **2010**, **2013-2015**, **2017**, **2018**;
- Industrial Assoc. Meeting, The Institute of Optics, Univ. of Rochester, NY (USA) **2009**, **2010**;
- IBWAP: Int. Balkan Workshop in Applied Physics, Constanta (Romania) **2009**, **2014**, **2018**;
- ROCAM: Romanian Conf. on Advanced Materials, Brasov (Romania) **2009**;
- SPIE Canterbury OCT and AO Workshop [ISI], Kent (UK) **2008**, **2017**;
- SPIE Optical Systems Design [ISI], Glasgow (UK) **2008**, Jena **2015**, Frankfurt (Germany) **2018**;
- CARE (Coordinated Actions for Robotics in Europe) Consensus Meetings, Stuttgart (Germany) **2008**;
- SPIE Photonics Europe [ISI], Strasbourg (France) **2008**; Brussels (Belgium) **2012**, **2014**; Strasbourg **2018**, **2020**;
- DSTA Conf. (Dynamic Systems Theory & Applications) [ISI], Lodz (Poland) - every other year, since **2007**;
- Intl. DAAAM Symposia [ISI], Zadar (Croatia) **2007**, Vienna (Austria) **2009**;

- 2nd European Optical Society (EOS) Topical Meeting, Optical Micro-Systems (OμS), Capri (Italy) **2007**;
- 12th IFToMM Word Congress (Int. Federation for the Promotion of the Theory of Mechanisms and Machines), Besancon (France) **2007**;
- IEEE ODIMAP V (5th Topical Meeting on Optoelectronic Distance/Displacement Measurements and Applications), Madrid (Spain) **2006**;
- SPIE ROMOPTO: Micro-to Nano-Photonics [ISI], Sibiu **2006, 2009**, Bucharest (Romania) **2015**;
- 1st IIV South-East European Welding Congress, Timisoara (Romania) **2006**;
- Int. Conference VSU, Sofia (Bulgaria) **2006, 2007**;
- LASER – Word of Photonics Congress (at different OSA & SPIE Conferences) [ISI], Munchen (Germany) **2005, 2009, 2011, 2013, 2017**;
- PAMM (Pannonian Appl. Math. Meetings), PC 149-150, Timisoara (Romania) **2004**, PC 154, Ballaton (Hungary) **2007**;
- 5th Int. Conf. of Metrology, Bucharest (Romania) **2001**;
- 1st Int. Symposium of Complementary Medicine of 3rd Millenium, Oradea (Romania) **2000**;
- ETC – Int. Electronics and Communications Symposium, Timisoara (Romania) **1998**;
- Mess Comp. '95 (9 Kongreßmesse für Industrielle Meßtechnik), Wiesbaden (Germany) **1995**;
- Conf. on Fine Mechanics, Optics & Mechatronics (COMEFIM), Bucharest **1994, 1998**, Cluj-Napoca (Romania) **2006**;
- SIOEL – Optoelectronics Int. Conf., Bucharest (Romania) **1993, 2004**;
- IFToMM Int. Symposium on the Theory of Machines and Mechanisms – SYROM, Bucharest **1993, 2001, 2005**, Brasov (Romania) **2009 [ISI], 2013**;
- I Congreso Iberoamericano de Ingenieria Mecanica, Madrid (Spain) **1993**.

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- EUROP-RO Symposia, Bucharest April **2007**, Sept. **2007**;
- Universitaria Simpro, Petrosani **2006**;
- Modeling and Optimization in the Machine Building Field - MOCM 11, Bacau (Romania) **2005**;
- ISREIE (Aurel Vlaicu Univ. of Arad Symposia) - every two years, since **1996**;
- National Industrial Robots Symposia, Timisoara **1992, 1996**, Oradea **2000**;
- Mechanisms and Mechanical Transmissions Symposia (MTM), Timisoara **1992, 1996, 2000**;
- 17th Symposium of the Military Technical Academy, Bucharest **1997**;
- *Nature and Man* Life Science Museum Symposia, Ploiesti **1994, 1995, 1997**;
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