


INFORMAȚII PERSONALE

Gruescu, Corina Mihaela


 corina.gruescu@upt.ro

PROFILUL PERSONAL

profesor

EXPERIENȚA PROFESIONALĂ

1988-prezent

Asistent, sef de lucrari, conferentiar, profesor

Universitatea Politehnica Timisoara

<http://www.upt.ro>

- Activitate didactică (curs, seminar, laborator, proiect la mai multe discipline din programa studenților UPT (Optica tehnica, Fiabilitatea sistemelor mecatronice, Senzori optici si analiza imaginii, Aparate spectrale, geometrie descriptivă ș.a)
- Activitate științifică și de cercetare (colaborare în contracte de cercetare, prezentare și publicare de peste 150 de lucrări și cărți științifice)

1983-1988

Tipul sau sectorul de activitate Educație și cercetare

Inginer

Intreprinderea Optica Timisoara

- Activitate de proiectare in domeniul opto-mecanic

Tipul sau sectorul de activitate Producție

EDUCAȚIE ȘI FORMARE

2019

Abilitare

Universitatea Politehnica Timisoara

1991-1998

- aplicatii ale ingineriei optice in mecatronica

Doctor inginer

Universitatea Politehnica Timișoara

- inginerie mecanică, tribologie, matematică, prelucrarea automată a datelor, proiectarea experimentelor, utilizare software

1978 – 1983

Inginer

Universitatea Politehnica Timișoara

- discipline teoretice din aria științelor fundamentale și discipline aplicative din domeniul ingineriei mecanice, electrice și al informaticii

COMPETENTE PERSONALE

Limba maternă

Limba română

Alte limbi străine cunoscute

INTELEGERE		VORBIRE		SCRIERE
Ascultare	Citire	Participare la conversație	Discurs oral	

Limba engleză	C1	C11	C1	C1	C1
Limba franceză	B1	B1	B1	B1	B1

Niveluri: A1/A2: Utilizator elementar - B1/B2: Utilizator independent - C1/C2: Utilizator experimentat
Cadrul european comun de referință pentru limbi străine

- Competențe de comunicare
- munca de echipă (participare la proiecte naționale și internaționale)
 - comunicare interculturală (participare la numeroase evenimente științifice în mai multe țări europene)
- Competențe organizaționale/manageriale
- capacitate bună de planificare, organizare, dezvoltare și finalizare a activităților pe termen lung (context profesional)

Competențe digitale

AUTOEVALUARE				
Procesarea informației	Comunicare	Creare de conținut	Securitate	Rezolvarea de probleme
Utilizator independent	Utilizator independent	Utilizator independent	Utilizator independentul	Utilizator independent

Niveluri: Utilizator elementar - Utilizator independent - Utilizator experimentat
Competențele digitale - Grilă de auto-evaluare

Altre competențele informatice:

- Pachetul MS Office, VB, OSLO, Corel Draw, Auto CAD
- Aplicații de editare foto (Irfan View, Scantailor, Abby Fine Reader)

INFORMATII SUPLIMENTARE

- Publicații 20 cărți tehnice publicate, 22 articole indexate ISI, 22 articole indexate Scopus și peste 100 lucrări în alte baze de date.
- Afilieri ARoTMM

ANEXA
 LISTA LUCRARILOR PUBLICATE – EXTRAS
 Lucrari indexate WOS

Nr. crt.	Autor(i)	Titlu	Date volum revista/conferinta	WOS/DOI
1	Vutan AM, Lovasz EC, Gruescu, CM, Sticlaru C, Sîrbu E., Jurjiu NA, Borozan I, Vutan C	Evaluation of Symmetrical Exercises in Scoliosis by Using Thermal Scanning	Advanced Technologies for Assessment and Therapy in Rehabilitation Medicine, Appl. Sci. 2022, 12(2), 721	10.3390/app12020721
1	Lovasz E.-C., Ceccarelli M., Gruescu C.M., Carbone G.	A Comparative Analysis of Teaching MMS at Politehnica University of Timisoara and University of Cassino and South Latium	New Trends in Educational Activity in the Field of Mechanism and Machine Theory 2014-2017, History of MMS, 2019, vol 64, 91-102	10.1007/978-3-030-00108-7_11
2	Lovasz, E.-C., Gruescu, C.M., Vutan, A.M., Margineanu, D.T.	Dynamic study of an adaptive intelligent cervical brace model under actuation	Mechanisms and Machine Science, 66, 2019, 327-334	0.1007/978-3-030-00365-4_39
3	Vutan A., Davidescu A., Lovasz E.-C., Gruescu C.-M.	A new method of assessing the evolution of scoliosis	4th International Conference of the Universitaria Consortium (ICU) - The Impact of Sport and Physical Education Science on Today's Society, 2018, 395-400	000474444100064

4	Lovasz E.-C., Mesaros-Anghel V., Gruescu C.M., Moldovan C.E., Ceccarelli M.	General algorithm for computing the theoretical centering precision of the gripping devices	Joint International Conference of the 12th International Conference on Mechanisms and Mechanical Transmissions, MTM 2016 and the 23rd International Conference on Robotics, Robotics 2016, Mechanisms and Machine Science, 44, 2017, 15-21	10.1007/978-3-319-44087-3_2
5	Mesaros-Anghel V., Lovasz E.-C., Gruescu C.M., Moldovan C.E.	Optimal design of a grasping device through simplified pose synthesis of a four-bar linkage	Joint International Conference of the 12th International Conference on Mechanisms and Mechanical Transmissions, MTM 2016 and the 23rd International Conference on Robotics, Robotics 2016, Mechanisms and Machine Science, 46, 2017, 3-13	10.1007/978-3-319-45450-4_1
6	Stoian A.-M., Maniu I., Lovasz E.-C., Gruescu C.M.	Design solutions to simplify the calibration of a robotic flexible manufacturing system	Joint International Conference of the 12th International Conference on Mechanisms and Mechanical Transmissions, MTM 2016 and the 23rd International Conference on Robotics, Robotics 2016, Mechanisms and Machine Science, 46, 2017, 229-238	10.1007/978-3-319-45450-4_23
7	E. C. Lovasz , D. T. Mărgineanu, V. Ciupe, I. Maniu, C.M. Gruescu, E. S. Zăbavă, S. D. Stan	Design and control solutions for haptic elbow exoskeleton module used in space telerobotics	Mechanism and Machine Theory Volume 107, 2017, 384–398	000390971900027
8	Popa S., Padure M., Gruescu C. M., Boran S.	New Salicylic Acid-Based Azo Dyes Synthesis, Characterization and Colour Properties	REVISTA DE CHIMIE, 12/2015, vol. 66(12), 2015, 2021-2027	000368437100022
9	E.-C. Lovasz, K.-H. Modler, R. Neumann, C. M. Gruescu, D. Perju, V. Ciupe, I. Maniu	Novel Design Solutions for Fishing Reel Mechanisms	CHINESE JOURNAL OF MECHANICAL ENGINEERING, vol. 28(4), 2015, 726-736	000357845700008
10	Lovasz E.-C., Grigorescu S.M., Margineanu D.T., Gruescu C.M., Pop C., Ciupe V., Maniu I.	Geared linkages with linear actuation used as kinematic chains of a planar parallel manipulator	3rd International Conference on Mechanisms, Transmissions and Applications, MeTrApp 2015, Mechanisms and Machine Science, 31, 2015, 21-31	10.1007/978-3-319-17067-1_3
11	Margineanu, D.; Lovasz, E. -C.; Modler, K. -H.; Gruescu C. M.	Steering and Non-steering Crawling Tetrahedral Micro-mechanisms	3rd Conference on Microactuators and Micromechanisms (MAMM), Mechanisms and Machine Science, 30 2014, 9-22	000368494300002
12	Gruescu, C. M.; Garaiman, A.; Lovasz, E. C.	Modeling of human spinal column and simulation of spinal deformities	MECHANIKA Journal, 3, 2015, 214-219	000360140500008
13	E.-C. Lovasz , D. Perju, K.-H. Modler, C. M. Gruescu, D. Mărgineanu, C. E. Moldovan, C. Pop	Path Generating Belt Mechanisms as Kinematic Chains for Mechatronic Applications	5th European Conference on Mechanism Science (EUCOMES) Guimaraes, PORTUGAL, New Trends In Mechanism And Machine Science: From Fundamentals To Industrial Applications, Mechanisms and Machine Science, 24 , 2015, 111-119	000357867900012
14	C. M. Gruescu, E.-C. Lovasz, V. Ciupe	Optics Optimization in Laser Spot Radius Minimization	2014 International Conference on Production Research – Regional Conference Africa, Europe and the Middle East, 3rd International Conference on Quality and Innovation in Engineering and Management, 2014	000346410700045
15	E.-C. Lovasz, C. M. Gruescu, A. Garaiman, I. Carabas, R. Bodea	Scanning System Integrated Within Biometric Measurements	New Trends in Medical and Service Robots. Theory and Integrated Applications. MeSRob 2013, Book Series: Mechanisms and Machine Science, vol. 16, 2014, 131-144	000344057400011
16	Lovasz E.-C., Radulescu C., Ciupe V., Gruescu C.M., Maniu I.	Francisc Viliam Kovacs (1929-2009)	Distinguished Figures in Mechanism and Machine Science: Their Contributions and Legacies. History of MMS, 2014	0.1007/978-94-017-8947-9_9
17	E.-C. Lovasz, D. Perju, K.-H. Modler, A.-E. Lovasz, I. Maniu, Gruescu C.	Demonstrative Digital Mechanisms Library	Mechanisms, Mechanical Transmissions and Robotics, Applied Mechanics and Materials, vol. 162, 2012	000309782300005

18	V. Ciupe, E-C. Lovasz, Gruescu C.	High Quality Document Digitization Equipment	Mechanisms, Mechanical Transmissions and Robotics, Applied Mechanics and Materials, vol. 162, 2012, 589-596	10.4028/www.scientific.net/AMM.162.589
19	Gruescu C., Ionescu C., Nicoara I., Lovasz A.	Experimental Optimization of Process Parameters in Laser Cutting of Polycarbonate Gears	Mechanika Journal, 2, 2012, 233-238	000303788600018
20	Popa M. Lupea A.X. Popa S. Gruescu C.	Colour of Bilberry (Vaccinium Myrtillus Fruits) Extracts	International Journal of Food Properties, 13(4), 2010, 7771-7777	000280635700011
21	Gruescu C., Dumache C., Nicoara I., Tonea E.	Experimental Study Aiming to Establish Specific Characteristics of Stationary Optical Processes	The 4th edition of the International Conference "Advanced Topics in Optoelectronics, Microelectronics and Nanotechnologies", 7697-48, 2008, Constanta, Romania Advanced Topics in Optoelectronics, Microelectronics, and Nanotechnologies IV, Proc. of SPIE, Vol. 7297, 2009	000291642900048
22	Gruescu C., Nicoara I., Popov D., Bodea R., Hora H.	Optical Glass Compatibility For the Design of Achromatic Systems	Science of Sintering, 40, 2008, 131-140	000259244100004

Lucrari indexate SCOPUS

Nr.crt	Autori	Titlu	Date conferinta/volum	DOI
1	Gruescu CM; Davidescu A; Sticlaru, C.; Lovasz, EC	Interference Fits. Bearing Capacity Under Complex Loading – FEM Analysis	Mechanisms and Machine Science, 88, 2021, 403-414	10.1007/978-3-030-60076-1_37
2	Gruescu, CM.; Bodea R	Design of an IR Objective (5 μm - 10 μm)	Mechanisms and Machine Science, 88, 2021, 275-283	10.1007/978-3-030-60076-1_24
1	Sticlaru C., Tuca P., Lovasz E.-C., Gruescu C.M., Maniu I., Moldovan C.E.	Novel Solution for the Mechanism Used in the Actuation of Intelligent Roof Windows	MeTrApp 2019: Recent Advances in Mechanisms, Transmissions and Applications, 79, 2020, 182-191	10.1007/978-981-15-0142-5_19
2	Vutan, A.-M., Gruescu, C.M., Ciupe, V., Margineanu, D., Lovasz, E.-C.	Effectiveness of physical exercises in the treatment of scoliosis - Mathematical approach	SYROM 2018, Mechanisms and Machine Science, 65, 2019, 25-34	10.1007/978-3-030-00329-6_4
3	Vutan A., Gruescu C.M., Lovasz E.-C., Ciupe V.	Method to model the spinal column shape	IOP Conference Series: Materials and Engineering, vol 514(1), 2019, art. 012046	10.1088/1757-899X/514/1/012046
4	Lovasz E.-C., Gruescu C.M., Sticlaru C., Moldovan C.E., Stoian M.	Novel solution for actuation of an elbow prosthesis	IOP Conference Series: Materials and Engineering, vol.514(1), 2019, art. 012047	10.1088/1757-899X/514/1/012047
5	Lovasz E.-C., Sticlaru C., Suci C., Gruescu C.M., Ceccarelli M., Maniu I., Moldovan C.E.	Novel actuation design of an active elbow orthosis	Mechanisms and Machine Science, vol. 73, 2019, 1527-1524	10.1007/978-3-030-20131-9_151
6	Margineanu, D., Lovasz, E.-C., Gruescu, C.M., Ciupe, V., Tatar, S.	5 DoF haptic exoskeleton for space telerobotics – Shoulder module	MeTrApp 2017, Mechanisms and Machine Science, 52, 2018, 111-120	10.1007/978-3-319-60702-3_12
7	Vutan A.M., Ciupe V., Gruescu C.M., Lovasz E.-C.	Experimental method for dynamic evaluation of spinal column deformation	SYROM 2017, Mechanisms and Machine Science, 57, 2018, 137-146	10.1007/978-3-319-79111-1_13
8	Mateas M., Moldovan C., Gruescu CM., Kis A., Lovasz E.-C.	Novel rehabilitation system for the lower limb	ACME 2018, The 8th International Conference on Advanced Concepts in Mechanical Engineering, IOP Conference Series: Materials Science and Engineering, 444(5), 2018, art. 052021	10.1088/1757-899X/444/5/052021
9	Vutan AM., Gruescu CM., Lovasz E.-C., Ciupe V.	Discussion on Cobb Angle variation during progressive lateral flexion of the trunk	ACME 2018, The 8th International Conference on Advanced Concepts in Mechanical Engineering, IOP Conference Series: Materials Science and Engineering, 444(5), 2018, art. 052020	10.1088/1757-899X/444/5/052020
10	Ciupe, V., Lovasz, E.-C., Gruescu, C.-M., Margineanu, D., Maniu, I.	Testing the haptic exoskeleton actuators in a virtual environment	2015 IFToMM World Congress Proceedings, IFToMM 2015	10.6567/IFToMM.14TH.WC.PS13.015

11	Mărgineanu, D.T., Gruescu, C., Lovasz, E.Ch., Modler, K.H., Ciupe, V.	Tetrahedral mechanism crawling on a slope	2015 IFToMM World Congress Proceedings, IFToMM 2015	10.6567/IFToMM.14TH.WC.OS11.01
12	Lovasz, E.-C., Pop, C., Grigorescu, S.M., Gruescu, C.M., Dan Mărgineanu, T., Maniu, I.	Kinematics of the planar parallel manipulator using geared linkages with linear actuation as kinematic chains 3-R(RPRGR)RR	2015 IFToMM World Congress Proceedings, IFToMM 2015	10.6567/IFToMM.14TH.WC.OS8.026
13	Lovasz E.-C., Mateas M., Gruescu C.-M., Margineanu E. Z., Carabas I., Stan S.-D.	Development of a Quality Indicator System for Haptic Exoskeleton Modules	Applied Mechanics and Materials , 2014, 648-653	10.4028/www.scientific.net/AMM.648-653
14	Ciupe V., Lovasz E.C., Reessing M., Henkel V., Gruescu C.M., Zabava E.S.	Interactive animation production by means of advanced image processing	2nd Conference on Mechanisms, Transmissions and Applications, MeTrApp 2013, Mechanisms and Machine Science, 17, 2014, 329-337	10.1007/978-3-319-01845-4_33
15	Lovasz E.C., Perju D., Modler K.H., Modler N., Gruescu C.M., Maniu I., Comsa A.	On the structural analysis of the mechanisms with elastic connections	2nd Conference on Mechanisms, Transmissions and Applications, MeTrApp 2013, Mechanisms and Machine Science, 17, 2014, 59-67	10.1007/978-3-319-01845-4_6
16	Lovasz E.-C., Ciupe V., Modler K.-H., Gruescu C.M., Hanke U., Maniu I., Margineanu D.	Experimental design and control approach of an active knee prosthesis with geared linkage	2nd Conference on Mechanisms, Transmissions and Applications, MeTrApp 2013, Mechanisms and Machine Science, 17, 2014, 149-156	10.1007/978-94-007-7485-8_19
17	Lovasz E.C., Perju D., Modler K.H., Gruescu C.M., Maniu I., Zabava E.S.	Numerical iterative method for computing the base circle radius of cam mechanisms with translating flat-face follower	4th European Conference on Mechanism Science, EUCOMES 2012, Mechanisms and Machine Science, 7, 2013, 237-244	10.1007/978-94-007-4902-3_25
18	Gruescu C.M.	Motion laws of a varifocal objective working with a 1/2" CCD camera	MeTrApp 2011, Mechanisms and Machine Science 3, 2012, 133-140	10.1007/978-94-007-2727-4_12
19	Gruescu C.M., Nicoara I., Busa E.	Loading devices for closed-loop gear test stands	MeTrApp 2011, Mechanisms and Machine Science 3, 2012, 281-289	10.1007/978-94-007-2727-4_26
20	Lovasz, E.-C., Perju, D., Gruescu, C.M., Modler, K.-H., Cărăbas, I., Zăbavă, E.S.	Numerical method for determination of base circle radius of cam mechanisms with oscillating flat-face follower	TMM Liberec 2012, Mechanisms and Machine Science, 8, 2012, 143-149	10.1007/978-94-007-5125-5_19
21	Lovasz E.-C., Gruescu C.M., Ciupe V., Maniu I., Dehelean N.	Advanced digitization techniques in retrieval of mechanism and machine science resources	TMM Liberec 2012, Mechanisms and Machine Science, 8, 2012, 35-41	10.1007/978-94-007-5125-5_5
22	Lovasz E.-C., Perju D., Corves B., Gruescu C.M., Lovasz A., Ciupe V.	Multilingual illustrated micro-thesaurus in mechanisms science	MeTrApp 2011, Mechanisms and Machine Science 3, 2012, 47-58	10.1007/978-94-007-2727-4_4