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💬 Skype: Hariton Costin

Sex M | Date of birth 20/09/1955 | Nationality Romanian

## POSITION DESIRED

## WORK EXPERIENCE

From March 2005 to 2021

### University full professor

Grigore T. Popa University of Medicine and Pharmacy, Iasi, Romania ([www.umfiasi.ro](http://www.umfiasi.ro)), Faculty of Medical Bioengineering

- *Courses:* Medical Electronics, Telemedicine and e-Health, Project management, Medical imaging and image processing, Medical instrumentation
- Head of department (till 2012) and member of the faculty council
- Member of the university Senate (2015-2016)
- Director (6) or partner lead (4) for 10 funded research projects
- Supervised many undergraduate and graduate students for their graduation theses

From Oct. 1999 to Febr. 2005

### Associate professor

Grigore T. Popa University of Medicine and Pharmacy, Iasi, Faculty of Medical Bioengineering.

- *Courses:* Medical Electronics, Project management, Medical biosignal and image processing, and other 2 courses
- Head of department and member of the faculty council

From March 1998 to Oct. 1999

### Lecturer

Grigore T. Popa University of Medicine and Pharmacy, Iasi, Faculty of Medical Bioengineering.

- *Courses:* Medical Electronics, Medical image processing and other 4 courses

From 1987 to present

### Senior Researcher in Image Processing and Computer Vision

Institute for Computer Science, Iasi Branch (researcher, till 1990), then Romanian Academy-Iasi Branch, Institute for Computer Science (from 2014 – senior researcher II-nd degree).

- Project and team leader

From 1980 to 1985

Diplomat engineer, Tehnoton enterprise, Iasi; design of CCTV and radio-navigation equipment

## EDUCATION AND TRAINING

From 1992 to 1998

Ph.D. in Applied Informatics, Gh. Asachi Technical University of Iasi, Romania, Thesis entitled "Unified Methods in Pattern Recognition", supervisor - prof. Dan Gălea.

- Design of theoretical and practical methods for some image processing procedures, for handwriting recognition, and for numeric and symbolic data hybridization.

From 1999 to 2001

MBA (Master of Business Administration), Technical University of Iasi, Romania.

From 1975 to 1980

B.Sc., Polytechnic Institute of Iasi, Faculty of Electrical Engineering, Electronics and Telecommunications Section

## PERSONAL SKILLS

Mother tongue

Romanian

Other languages	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B2	B2	B2	B2	B2
French	B2	B2	B2	B2	B2

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

**Communication skills** • good communication skills gained through my experience in academia, as professor, researcher, and management staff.

**Organizational / managerial skills** • leadership, gained within research & development activities, as projects director and team leader, as well as head of department and member of university Senate.

**Job-related skills. Areas of competence.**

- - good command of medical electronics, telemedicine, project management, image and biosignal processing and analysis, during activity as researcher, then as projects leader; other domains: medical instrumentation, sensors, embedded systems, e-health, assistive technologies, pattern recognition, decision-support systems, soft computing (fuzzy systems, neural networks, genetic and bioinspired algorithms), machine learning, data mining and fusion.
- expert-evaluator of the Ministry of Education and Research / UEFISCDI - research projects assessment within national research programs (in last 15 years);
- expert of the Czech Research Agency (GACR) for research project evaluation.

**Computer skills** • good command of Microsoft Office™, Microsoft Project™ tools, MATLAB™, WEKA software environment, statistical analysis (SPSS), internet tools.

**Driving license** • B category

#### ADDITIONAL INFORMATION

**Publications (relevant to project, last F4 years)**

- 1) H. Costin, V. Cehan, et. al., "Telemon – A Complex System for Real Time Telemonitoring of Chronic Patients and Elderly People", *IFMBE Proceedings*, Vol.22, Proc. of the Eur. Congress on Biomed. Eng., MBEC, Antwerpen, Springer Verlag, 2009, pp. 1002-1005 (*ISI rated*).
- 2) C. Rotariu, H. Costin, et al., "A Low Power Wireless Personal Area Network for Telemedicine", *IFMBE Proceedings*, Vol. 22, Proc. of the Eur. Congress on Biomed. Eng., MBEC, Antwerpen, 2009, pp. 982-985, Springer Verlag (*ISI rated*).
- 3) B. Dionisie, H. Costin, C. Rotariu, Gladiola Andruseac, "The Acquisition of Cognitive Evoked Potentials using a Psycho-Verbal Stimulation Interface", in *Advancements of Medical Bioengineering and Informatics*, (Ed.) H. Costin, Gr.T. Popa Univ. Publishing House, 2009, pp. 141-144.
- 4) H. Costin, C. Rotariu, Ioana Alexa, et al., "TELEMON – A Complex System for Real Time Medical Telemonitoring", *Proc. of The World Congress on Medical Physics and Biomed. Eng.*, Munich, Germany, WC2009, September 07-12, 2009, VOL 25, PT 5, pp. 92-95 (*ISI rated*).
- 5) C. Rotariu, H. Costin, et al., "E-Health System for Medical Telesurveillance of Chronic Patients", *IJCCC (Int. Journal of Computers, Comm. & Control)*, vol. V, No. 5, 2010, pp. 892-901 (*ISI rated*).
- 6) H. Costin, C. Rotariu, F. Adochiei, R. Ciobotariu, Gladiola Andruseac, Flavia Corciovă, "Telemonitoring of Vital Signs – an Effective Tool for Ambient Assisted Living", *IFMBE Proceedings*, Vol. 36, pp. 60-65, *Proc. of „Meditech 2011”*, Cluj-Napoca (*ISI rated*).
- 7) B. Dionisie, H. Costin, C. Rotariu, "The Study upon Differences in Reaction Times in Lexical and Judgment Tasks using a Patented Psycho-verbal Stimulation Interface", in H. Costin, A. Morega, L. Verestiuc (Eds.), *Proc. of the 3<sup>rd</sup> IEEE Int. Conf. E-Health and Bioeng.– "EHB 2011"*, Gr. T. Popa Publ. House, Iasi, Nov. 2011, pp. 251-254.
- 8) H. Costin, C. Rotariu, A. Păsărică, "Mental Stress Detection using Heart Rate Variability and Morphologic Variability of ECG Signals", *Proc. of EPE 2012 (IEEE Int. Conf. on Electrical and Power Eng.)*, Iasi, Oct. 2012, pp. 591-596 (*indexed - IEEE Xplore and ISI*).
- 9) C. Rotariu, H. Costin, "Remote Respiration Monitoring System for Sleep Apnea Detection", *Medical-Surgical Journal (Rev. Med. Chir. Soc. Med. Nat.)*, Iasi, vol. 117, No. 1, 2013, pp. 268-274.
- 10) H. Costin, C. Rotariu, A. Pasarica, "Atrial Fibrillation Onset Prediction using Variability of ECG Signals", *Proc. of the 8<sup>th</sup> Int. Symp. on Advanced Topics in Electrical Engineering (ATEE)*, Univ. POLITEHNICA of Bucharest, May 23-25, 2013, (*indexed IEEE Xplore and ISI*).
- 11) S. Schulz, F.-C. Adochiei, I.-R. Edu, R. Schroeder, H. Costin, K.-J. Baer, A. Voss, "Cardiovascular and Cardiorespiratory Coupling Analyses—a Review", *Phil. Trans. of the Royal Society, A*, 371 (1997), 20120191, Aug. 28, 2013, (publ. 15 July 2013) (*ISI rated, IF=3.1*).
- 12) Oana Geman, H. Costin, "Parkinson's disease Prediction Based on Multistate Markov Models", *Int. J. of Comp., Comm. & Control (IJCCC)*, 8, 4, Aug. 2013, pp. 499-511 (*ISI rated*).
- 13) H. Costin: *Biomedical Informatics. From Theory to Practice*, Gr. T. Popa Publ. House, Iasi, 2009,

- 14) H. Costin, "A Fuzzy Rules-Based Segmentation Method for Medical Images Analysis", *Int. Journal of Computers, Communications & Control*, vol. 8, no. 2, 2013, pp. 196-206, (ISI rated)
- 15) H. Costin, C. Rotariu, A. Păsărică, "Identification of Psychological Stress by Analyzing Electrocardiographic Signal", *Environmental Engineering and Management Journal (EEMJ)*, Vol. 12, No. 6, 2013, pp. 1255-1263, print ISSN: 1582-9596, eISSN: 1843-3707, (ISI rated)
- 16) C. Rotariu, H. Costin, "Wireless Monitoring System for Patients Having Cardiac Pacemakers with Atrial Fibrillation Detectors", *Environmental Engineering and Management Journal (EEMJ)*, Vol. 12, No. 6, 2013, pp. 1215-1221, print ISSN: 1582-9596, eISSN: 1843-3707 (ISI rated)
- 17) H. Costin, S. Schulz, K.-J. Bär, Ioana Alexa, F. Adochiei, A. Voss, "Increased QT Variability Index as a Marker for a Cardiac Autonomic Dysregulation in Schizophrenia", *Proc. of the IEEE 4th Int. Conference E-Health and Bioengineering – "EHB 2013"*, Iasi, Romania, 21-23 Nov. 2013, ISBN 978-1-4799-2373-1 (indexed IEEE Xplore and ISI Proceedings)
- 18) Oana Geman, H. Costin, "Automatic Assessing of Tremor Severity Using Nonlinear Dynamics, Artificial Neural Networks and Neuro-Fuzzy Classifier", *Advances in Electrical and Computing Engineering*, Vol. 14, No. 1, 2014, pp. 133-138, ISSN: 1582-7445, (ISI rated).
- 19) C. Rotariu, H. Costin, A. Păsărică, D. Nemescu, "Classification of Parameters Extracted from Cardiotocographic Signals for Early Detection of Metabolic Acidemia in Newborns", *Advances in Electrical and Computing Engineering*, Vol. 15, No. 3, 2015, pp. 161-166, (ISI rated).
- 20) H. Costin, S. Bejinariu, Diana Costin, "Biomedical Image Registration by means of Bacterial Foraging Paradigm", *International Journal of Computers, Communications & Control (IJCCC)*, vol. 11, No. 3 (June), Oradea, 2016, pp. 329-345, ISSN 1841-9836 (ISI rated).
- 21) S.-I. Bejinariu, H. Costin, "A Comparison of Some Nature Inspired Optimization Metaheuristics Applied in Biomedical Image Registration", *Methods of Information in Medicine*, (I.F.: 1.53 (2017)), No. 57(05/06; 2018), pp. 280-286, DOI: 10.1055/s-0038-1673693
- 22) H. Costin, T.M. Deserno, "Computational Intelligence Re-Meets Medical Image Processing", *Methods of Information in Medicine*, 57(5-6), pp. 270-271, dec. 2018, (I.F.: 1.53 (2017)).

**Research Projects**

- MEDCARE - Internet for E-health , Grant No. INES 2001-32316, European Commission's FP5 ( www.euoines.com ), through Romsoft Co. (2001-2003) (**technical manager**)
  - Monitors – integrated system for automatic monitoring of sound level in Iasi city. Grant No. 26/19.04.2004, European Environment Association (**project manager**)
  - Multimedia platform for implementing complex medical teleservices - TELMES, Romanian Ministry of Education and Research, CEEX - 604/645/2005, 2005-2007 (**co-ordinator of the partner UMF Iasi**)
  - TELPROT – Communication system with persons having severe neuro-locomotor handicap, Romanian Ministry of Education and Research, grant No. 69 CEEX II - 03/28.07.2006, 2006-2008 (**co-ordinator of the partner Gr. T. Popa Univ. of Medicine, Iasi**)
  - TELEMON - Integrated System for Real Time Telemonitoring of Patients and Elderly People, Romanian Ministry of Education and Research, grant No. 11-067/2007, 2007-2010 (**project director**)
- „Biomedical Engineering Education Tempus Initiative in Eastern Neighbouring Area - BME-ENA”, Contract No. 543904-TEMPUS-1-2013-1-GR-TEMPUS-JPCR European Commission, Executive Agency for Education, Audiovisual & Culture, **project co-ordinator** UMF Iasi, dec. 2013 - nov. 2016.

**Other 7 funded national research projects - member of the R&D teams.**

- Conferences** - Many participations at international conferences, as paper author (~80 in last 12 years), invited speaker, session chairman or main organizer (e.g. EHB (E-Health & Bioengineering) conference series, 2007-2009-2011-2013-2015-2017-2019-2020-2021-2022 - general chair).
- Honors and awards** - "Inventa" award of the National Society of Inventics, 1990.  
- "120 years of medical teaching" diploma, Gr. T. Popa Univ. of Medicine and Pharmacy, Iasi, 2000.
- Memberships** - IEEE Senior Member (Engineers in Medicine and Biology Society - EMBS) – 2002 – present  
- Member of the Romanian Fuzzy System Society – 1990  
- Founder and member of the Romanian Society for Medical Bioengineering – 1991  
- Founder and president of the Romanian Society for Digital Health and Education - 2023
- Scholarships** - Postdoc research scholarships in medical imaging (Universite des Science Techniques Lille2, France, 2003) and biosignal (ECG) processing (University of Applied Sciences, Jena, Germany, 2013).
- Scientific visibility** - About 460 citations of own papers in WoS, H index=13 (WoS, Clarivate Analytics Core Collection), H index = 21 on Google Scholar. Member of editorial board of three international journals, WoS rated.
- Publishing activity** - About 205 papers published in rated journals and conference proceedings, 18 books or book chapters, 31 annual research reports for Romanian Academy.
- ANNEXES** - Upon request, for any of the above topic.