

CURRICULUM VITAE

Personal Information	<ul style="list-style-type: none">▪ Surname and name: MARIȚA TIBERIU▪ Nationality: Romanian▪ Date of birth: 22 dec. 1971▪ Place of Birth: Cluj-Napoca▪ Marital status: single
Education	<p>High school (1986 – 1990): “Emil-Racoviță” College, Cluj-Napoca</p> <p>University (1990-1995): Technical University Cluj-Napoca, Faculty of Automation and Computer Science, Computer Science Department</p> <ul style="list-style-type: none">▪ Bachelor of Science in Computer Science <p>Postgraduate (1997-1998): Technical University Cluj-Napoca, Faculty of Electronics and Telecommunications</p> <ul style="list-style-type: none">▪ Master of Science in Electronics and Telecommunications: “Design Techniques of Complex Electronic Circuits” <p>Ph.D. in "Computer Science" (1998-2008): Technical University Cluj-Napoca.</p>
Academic position	<p>Senior lecturer, Technical University Cluj-Napoca, Faculty of Automation and Computer Science, Computer Science Department</p>
Programming skills	C, C++, Visual C, Matlab, Pascal, Delphi, ASP, VBScript, VHDL, 8x86 Assembler.
Professional experience	<p>1996 – 1997 GED Service Cluj-Napoca Position: Hardware Engineer Main responsibilities:</p> <ul style="list-style-type: none">▪ Hardware/software maintenance <p>1997 Energobit Cluj-Napoca Position: Software Engineer Main responsibilities:</p> <ul style="list-style-type: none">▪ Software development and maintenance▪ Programming in Delphi and C▪ Applications for remote data acquisition via serial interface or modem. <p>1997 – 2000 Technical University Cluj-Napoca, Faculty of Electronics and Telecommunications, Optoelectronics and Optical Communications Department Position: Junior Lecturer (febr. 1997 – sept. 1999), Lecturer (oct. 1999 – sept. 2000) Main responsibilities:</p> <ul style="list-style-type: none">▪ Teaching activities: seminars, labs, and projects in Optoelectronics, Optical Communications▪ Optical Communications modeling and simulation applications development (Delphi)

2000 – now: Technical University of Cluj-Napoca, Faculty of Automation and Computer Science, Computer Science Department

Position: **Lecturer** (oct. 2000 – febr. 2002), **Senior lecturer** (febr. 2002 - present),

Main responsibilities:

- Teaching activities: seminars, labs, and projects in Image Processing, Pattern Recognition, Computer Architecture and Organization, Design with Microprocessors
- Research activities in the field of Computer Vision, Image Processing and Pattern Recognition in national and international projects:

Professional visits: Nov. 2001- Jan.2002, Iul. 2003, Mai-Sept. 2004, Oct. 2005: Research consultant at the “Electronic Research Department – Driving Assistance Systems”, Volkswagen AG.

Active member of the following research projects:

Research projects

Computer Vision:

“Research Project SCABOR (Stereo-Camera Based Object Recognition System for Vehicle Application)” – research contract financed by Volkswagen AG, director Sergiu Nedevschi, (2001-2004).

“Metoda si sistem pentru achizitia in timp real a imaginilor tridimensionale de inalta rezolutie bazat pe stereoviziune trinoculara”, national research contract, director Sergiu Nedevschi, (2004-2006).

“Research Project DESBOR (DENSE Stereo-Based Object Recognition system for automatic cruise control in urban traffic environments)” – research contract financed by Volkswagen AG, director Sergiu Nedevschi, (2005-2006).

“Research Project STEROPED (Dense STEREO-Based Object Tracking and PEDESTRIAN Recognition for Pre-Crash-Applications)” - – research contract financed by Volkswagen AG, director Sergiu Nedevschi, (2007 – 2008).

“Research Project STEREOSENS (Stereo Sensor for City Automatic Cruise Control)” - – research contract financed by Volkswagen AG, director S. Nedevschi, (2007 – 2008).

Medical imaging:

“Sistem distribuit pentru achizitia, procesarea, arhivarea si regasirea imaginilor medicale in mediu spitalicesc, compatibil cu standardul DICOM ” national research contract (2001-2003).

“Cercetări privind dezvoltarea tehnicilor computerizate de screening citologic și asistare a diagnosticului histopatologic”, national research contract, (2004-2006).

“Teleasistența Ultrasonografică în Screeningul și Monitorizarea Hepatocarcinomului – TELEHEPASCAN”, national research contract (2005-2008)

“Studiul calitativ si cantitativ al elastografiei ultrasonore si angioultrasonografiei tridimensionale native in depistarea, diagnosticul si monitorizarea prin tehnici neinvazive a cancerului mamar - ELASTOBREAST ”, national research contract (2006-2008)

“Tratamentul tumorilor renale prin crio-chirurgie laparoscopica, individualizat prin simulare pe model tridimensional reconstituit – CRIOLAPSIM”, national research contract (2006-2008)

1 proposal in evaluation process in Germany: “Fahrbahnranderkennung mit Hilfe einer Stereo-Kamera-generierten Hohenkarte”, Volkswagen invention notification EM 2006/0710, K 14673.

Patents

Publications

Computer Vision:

ISI Journals:

1. S. Nedevschi, C. Vancea, **T. Marita**, T. Graf, On-Line Calibration Method for Stereovision Systems Used in Far Range Detection Vehicle Applications, *IEEE Transactions on Intelligent Transportation Systems*, vol.8, no. 4, pp. 651-660, 2007, ISSN 1524-9050.

IEEE conferences proceedings:

2. **T. Marita**, F. Oniga, S. Nedevschi, T. Graf, Calibration Accuracy Assessment Methods for Stereovision Sensors Used in Vehicles, in *Proceedings of IEEE 3-rd International Conference on Intelligent Computer Communication and Processing (ICCP2007)*, 6-8 Sept. 2007, Cluj-Napoca, Romania, pp. 111-118, ISBN 1-4244-149-1.
3. S. Nedevschi, R. Danescu, **T. Marita**, F. Oniga, C. Pocol, S. Sobol, C. Tomiuc, C. Vancea, M.M. Meinecke, T. Graf, T. B. To, M.A. Obojski, A Sensor for Urban Driving Assistance Systems Based on Dense Stereovision, *Proceedings of 2007 IEEE Intelligent Vehicles Symposium, (IV2007)*, Istanbul, Turkey, June 13-15, 2007, pp 276-283, ISBN 1-4244-1068-1/07.
4. **T. Marita**, F. Oniga, S. Nedevschi, T. Graf, R. Schmidt, Camera Calibration Method for Far Range Stereovision Sensors Used in Vehicles, *Proceedings of IEEE Intelligent Vehicles Symposium, (IV2006)*, June 13-15, 2006, Tokyo, Japan, pp. 356-363, ISBN 4-901122-86-X.
5. S. Nedevschi, C. Vancea, **T. Marita**, T. Graf, On-Line Calibration Method for Stereovision Systems Used in Vehicle Applications, *Proceedings of the IEEE Intelligent Transportation Systems Conference (ITSC 2006)*, Toronto, Canada, September 17-20, 2006, pp. 957-962, ISBN 1-4244-0094-5/06.
6. S. Nedevschi, S. Bota, **T. Marita**, F. Oniga, C. Pocol, Real-Time 3D Environment Reconstruction Using High Precision Trinocular Stereovision, 2006 **IEEE-TTTC International Conference on Automation, Quality&Testing, Robotics AQTR 2006 (THETA 15)**, May 25-28 2006 Cluj-Napoca, Romania, ISBN 1-4244-0361-8/06.
7. S. Nedevschi, R. Danescu, **T. Marita**, F. Oniga, C. Pocol, S. Sobol, T. Graf, R. Schmidt, Driving Environment Perception Using Stereovision, *Proceedings of IEEE Intelligent Vehicles Symposium, (IV2005)*, June 2005, Las Vegas, USA, pp.331-336., ISBN 0-7803-8961-1/05.
8. S. Nedevschi, R. Schmidt, T. Graf, R. Danescu, D. Frentiu, **T. Marita**, F. Oniga, C. Pocol, 3D Lane Detection System Based on Stereovision, *IEEE Intelligent Transportation Systems Conference (ITSC)*, October 2004, Washington, USA, pp.161-166, ISBN 0-7803-8501-2.
9. S. Nedevschi, R. Danescu, D. Frentiu, **T. Marita**, F. Oniga, C. Pocol, R. Schmidt, T. Graf, "High Accuracy Stereo Vision System for Far Distance Obstacle Detection", *IEEE Intelligent Vehicles Symposium, (IV2004)*, June 2004, Parma, Italy, pp. 292-297, ISBN 0-7803-8311-7.
10. S. Nedevschi, R. Danescu, D. Frentiu, **T. Marita**, F. Oniga, C. Pocol, Spatial Grouping of 3D Points from Multiple Stereovision Sensors, *IEEE International Conference of Networking, Sensing and Control*, March 2004, Taipei, Taiwan, pp.874-879, ISBN 0-7803-8194-7.
11. S. Nedevschi, **T. Marita**, D. Puiu, Intermediate Representation in Model Based Recognition Using Straight Line and Ellipsoidal Arc Primitives, *Proceeding of 11th International Conference on Image Analysis and Processing 2001*, 26-28 September, 2001, Palermo, Italy, pp. 156-161, ISBN 0-7695-1183-X.

International conferences proceedings:

12. S. Nedevschi, **T. Marita**, R. Danescu, F. Oniga, C. Pocol, S. Sobol, C. Tomiuc, C. Vancea, S. Bota, Stereovision Sensor for Driving Assistance, in *Proceedings of IEEE 2-nd International Conference on Intelligent Computer Communication and Processing (ICCP2006)*, 1-2 Sept. 2006, Cluj-Napoca, Romania, pp. 105-112, ISBN (10) 973-662-233-9.
13. S. Nedevschi, R. Danescu, **T. Marita**, F. Oniga, C. Pocol, Moving Camera Rotation Estimation Using Horizon Line Features' Motion Field, in *Proceedings of 6-th International Carpathian Control Conference*, 24-26 May 2005, Lilafured-Miskolc, Hungary, pp.449-454., ISBN 963-661-645-0.
14. S. Nedevschi, **T. Marita**, R. Danescu, F. Oniga, C. Pocol, Camera Calibration Method for High-Accuracy Stereovision, in *Proceedings of the Joint-Hungarian-Austrian Conference on Image Processing and Pattern Recognition*, Veszprem, Hungary, 11-13 May 2005, pp. 303-310, ISBN 3-85403-192-0
15. S. Nedevschi, R. Danescu, D. Frentiu, **T. Marita**, F. Oniga, C. Pocol, Thorsten Graf, Rolf Schmidt, High Accuracy Stereovision Approach for Obstacle Detection on Non-Planar Roads, *IEEE Intelligent Engineering Systems (INES)*, September 2004, Cluj Napoca, Romania, pp. 211-216, ISBN 973-662-120-0.
16. S. Nedevschi, R. Danescu, D. Frentiu, **T. Marita**, F. Oniga, C. Pocol, R. Schmidt,

- T. Graf, Stereovision Approach For Obstacle Detection On Non-Planar Roads, *IEEE and IFAC International Conference on Informatics in Control, Automation and Robotics*, August 2004, Setubal, Portugal, pp. 11-18, ISBN 072-8865-12-0.
17. S. Nedevschi, R. Danescu, D. Frentiu, **T. Marita**, F. Oniga, C. Pocol, Online detection of dynamic traffic description using stereo sensor, GPS and wireless communication equipped vehicles, *IIS International Conference on Computing Communication and Control Technologies*, August 2004, Austin, Texas, pp. 410-415, ISBN 980-6560-17-5
 18. S. Nedevschi, R. Danescu, D. Frentiu, **T. Marita**, F. Oniga, C. Pocol, "Dynamic traffic description using stereovision equipped vehicles and ad-hoc wireless networking", *IEEE-TTTC International Conference on Automation, Quality Testing and Robotics*, May 2004, Cluj-Napoca, Romania, pp.153-158, ISBN 973-713-047-2.
 19. S. Nedevschi, R. Danescu, D. Frentiu, **T. Marita**, F. Oniga, C. Pocol, 3D Environment Reconstruction Using Multiple Moving Stereovision Sensors, *microCAD International Scientific Conference*, March 2004, Miskolc, Hungary, pp. 93-98, ISBN 1-85338-855-6.
 20. S. Nedevschi, **T. Marita**, R. Danescu, D. Frentiu, F. Oniga, C. Pocol, Real-Time Extraction of 3D Dynamic Environment Description Using Multiple Stereovision Sensors, *Proceedings of International Conference on CCCT 2003*, Orlando, Florida, 29 July – 1 August, 2003, Volume 3, pp. 520-524.
 21. S. Nedevschi, **T. Marita**, R. Danescu, D. Frentiu, F. Oniga, C. Pocol, Camera Calibration Error Analysis in Stereo Measurements, *Proceedings of MicroCAD 2003 International Scientific Conference*, Miskolc, 6-7 March 2003, pp. 51-57.
 22. S. Nedevschi, **T. Marita**, M. Vaida, R. Danescu, D. Frentiu, F. Oniga, C. Pocol, Camera Calibration Method for Stereo Measurements, *Proceedings of the IEEE-TTTC International Conference on Automation, Quality and Testing, Robotics*, May 2002, Cluj-Napoca, Romania, pp. 111-116.

National journals (mark B):

23. S. Nedevschi, R. Danescu, D. Frentiu, **T. Marita**, F. Oniga, C. Pocol, Thorsten Graf, Rolf Schmidt, High Accuracy Stereovision Approach for Obstacle Detection on Non-Planar Roads, *Journal of Automation, Computers and Applied Mathematics (ACAM)*, Vol.14, No. 2, 2005, Cluj-Napoca, Romania, pp. 173-178, ISSN 1221-437X.
24. Nedevschi, **T. Marita**, M. Vaida, R. Danescu, D. Frentiu, F. Oniga, C. Pocol, Camera Calibration Method for Stereo Measurements, extended version, *Journal of Control Engineering and Applied Informatics (CEAI)*, Vol.4, No. 2, pp.21-28, 2002, ISSN 1454-8658.

Medical Imaging:

National journals (mark B):

1. R. Gălătuș, **T. Marita**, Computer Aided Diagnosis Tool for Cytological Slides, *Journal of Automation, Computers and Applied Mathematics (ACAM)*, Vol.16 (2007), No. 3, pp. 40-47, ISSN 1221-437X.
2. Sorin M. Ducea, S. Nedevschi, C. Pantilie, C. Botar-Jid, D. Dumitriu, **T. Marita**, Ultrasound Elastography: from Physical Principles to Computer-Aided Image Analysis and Quantification, *Journal of Automation, Computers and Applied Mathematics (ACAM)*, Vol.16 (2007), No. 3, pp. 34-39, ISSN 1221-437X.
3. O. M. Gurzau, D. Popa, **T. Marita**, M. Lucan, "Mathematical and Experimental Models of the Heat Transfer in Tissues", lucrare publicata in *Journal of Automation, Computers and Applied Mathematics (ACAM)*, Vol.16 (2007), No. 3, pp. 67-73, ISSN 1221-437X.
4. R. Galatus, S. Persa, D. Moga, V. Trifa, Liliana Neaga, **T. Marita**, R. Munteanu jr. - Toward Abnormal Nuclei Detection Using an Integrated Automatic System, *Acta Electrotehnica*, vol. 45, nr.5, 2004, Cluj-Napoca, pp. 553-560, ISSN 1224-2497.

National journals (mark D):

5. R. Galatus, S. Persa, L. Neaga, **T. Marita**, D. Moga, M. Dumitrean, V. Trifa, "Method for Automated Screening of Cytological Slides", *Applied Medical*

Informatics, Vol. 15, No.3, 4 / 2004, Cluj-Napoca, pp. 73-79.

6. D. Gui, **T. Marita**, Galatus R. – “Area Computation of AgNOR as a Prognostic Marker in Tumoral Pathology”, Presented at “*XIV ISDQP Congress – Diagnostics Molecular Pathology*”, 26-29 September 2001, Oviedo, Spain, abstract published in the conference proceedings at pp.100. Extended version published in the *Journal of Applied Medical Informatics*, Vol.8, nr 1-2/2001, pag 48-54, Cluj-Napoca, Romania.

International conferences proceedings:

7. R. Galatus, S. Persa, **T. Marita**, V. Trifa, Robust Image Segmentation Method for Cytological Slides, in Proceedings of IEEE 2-nd International Conference on Intelligent Computer Communication and Processing, 1-2 Sept. 2006, Cluj-Napoca, Romania, Vol. 2, pp. 53-60, ISBN (10) 973-662-233-9.
8. R. Galatus, **T. Marita**, S. Persa, D. Moga, M.. Dumitrean, V. Trifa, “Proposal for a Computerized Cytological Screening System”, in *Proceedings of 6-th International Carpathian Control Conference*, 24-26 May 2005, Lilafured-Miskolc, Hungary, pp.443-448, ISBN 963-661-645-0.

February 2008,

Eng. Tiberiu Marița