

List of publications

Romulus Mircea Terebeș, Assoc. Prof. Ph.D.

A) Ph.D. Thesis

1. Diffusion directionnelle. Applications à la restauration et à l'amélioration d'images de documents anciens (in french) " / "Difuzie direcțională. Aplicații în restaurarea și ameliorarea imaginilor reprezentând documente vechi (in romanian) – co-advised Ph.D. Thesis, University of Bordeaux 1, France- Technical University of Cluj-Napoca, Romania, 2004.

B) Books and book chapters

1. **R. Terebeș** (coord. A. Vlaicu, B.Orza, S. Meza, L. Grindei) – "Utilizarea TIC in Procesul Educational. Distribuirea și Accesarea Materialelor Online. Blended & e-Learning", ISBN:978-973-662-694-4, U.T.Press Cluj-Napoca, 2012
2. M.Alexandru, C. Butnaru, M. Romanca, D.Manea, N.Aleman, **R. Terebeș** - „Dezvoltarea carierei în învățământul universitar tehnic”, ISBN 978-973-662-820-7, U.T.Press Cluj-Napoca 2012.
3. H. Vălean– "Sisteme ierarhizate și distribuite", ISBN 978-973-662-787-3, Editura Academiei Oamenilor de Știință, 2011. Author of the 4th chapter **R. Terebes** - "Implementarea sistemelor ierarhizate și distribuite", pp. 43-52.
4. **R. Terebeș** - "Mobile communications systems. Part 1: GSM Networks", ISBN:978-973-662-694-4, U.T.Press Cluj-Napoca, 2006.
5. S. Pop, **R. Terebes**, M. Borda - Traitement du signal et d'image par ondelettes. Travaux pratiques, UTPRES, Cluj-Napoca, 2008, ISBN 978-973- 662-427-8.
6. M. Borda, **R. Terebeș**, C. Văduva, S. Zăhan –Teoria Transmiterii Informației, îndrumător de laborator Litografia UTCN, 1996, 72 pag , program TEMPUS S-JEP 08012-94.

C) Journal articles

1. B. Belean, **R.Terebeș**, A.Bot – "Low-complexity PDE-based approach for automatic microarray image processing ", MEDICAL & BIOLOGICAL ENGINEERING & COMPUTING, Volume: 53 Issue: 2, pp. 99-110, 2015, ISSN: 0140-0118.
2. **R. Terebeș**—"A diffusion approach for oriented volume data denoising", Acta Technica Napocensis-Electronics and Telecommunications, Volume: 55, Number: 4, 2015, pp.7-12, ISSN:1221-6542.
3. V. Hermann N'Guessan, M.Bachir Saley, S. Pop, **R. Terebeș**, B. Belean, E. Valere Djagoua, F.Kouamé, M. Borda, K. Affian—"Markovian approach for analysis and prediction of monthly precipitation field in the department of Sinfra (Central-west of Côte d'Ivoire) ", International Journal of Engineering Research and General Science Volume: 2, Issue: 1, 2014, pp. 34-49, ISSN 2091-2730.

4. B.Belean, M.Borda, B.Le Gal, **R.Terebeş**–“FPGA based system for automatic cDNA microarray image processing ”, COMPUTERIZED MEDICAL IMAGING AND GRAPHICS, Volume: 36, Issue: 5, pp: 419-429, 2012, ISSN: 0895-6111.
5. **R. Terebeş**, M. Borda, S. Pop, O. Laviaille, C. Germain, C.Luduşan–"A novel diffusion filter for image restoration and enhancement", REVUE ROUMAINE DES SCIENCES TECHNIQUES-SERIE ELECTROTECHNIQUE ET ENERGETIQUE Volume: 55 Issue: 3, 2010, pp. 310-319, ISSN: 0035-4066.
6. **R. Terebeş**, M.Borda, S.Pop, C.Ludusan, O.Laviaille–"Asymmetric Diffusion and Fusion Techniques for Image Restoration", Acta Technica Napocensis- Electronics and Telecommunications, Volume: 51, Number: 1, pp. 21-26, 2010, ISSN:1221-6542.
7. C. Luduşan, O. Laviaille, S.Pop, **R.Terebeş**, M.Borda–"Image enhancement using a new shock filter formalism", Acta Technica Napocensis- Electronics and Telecommunications, Volume: 50, Number: 3, pp. 27-30, 2009, ISSN:1221-6542.
8. S. Pop, O. Laviaille, M.Donias, **R.Terebeş**, M.Borda, S.Guillon, N.Keskes–"A PDE-based approach to three-dimensional seismic data fusion",–IEEE TRANSACTIONS ON GEOSCIENCE AND REMOTE SENSING, Volume:46, Issue:5, pp. 1385-1393,2008, ISSN: 0196-2892
9. **R. Terebeş**, Otmane Lahlou–"Camera phone based barcode decoding system", Acta Technica Napocensis-Electronics and Telecommunications, Volume:49, Number:3, pp. 57-62, 2008, ISSN:1221-6542.
10. C.Luduşan, O.Laviaille, S.Pop, **R.Terebeş**, M.Borda–"An improved method for directional image smoothing based on structure tensors and vector field visualisation techniques", Scientific Bulletin of the Politehnica University of Timisoara - Transactions on Electronics and Communications, Volume:53, Issue:67, Pages:124-128, 2008, p-ISSN 1583-3380.
11. **R. Terebeş**, M. Borda, C. Ludusan, S. Pop –"A combined fusion-diffusion approach for image filtering and enhancement", Scientific Bulletin of the Politehnica University of Timisoara - Transactions on Electronics and Communications, Volume:53, Issue:67, Pages:103-108, 2008, p-ISSN 1583-3380.
12. S. Pop, O.Laviaille, **R.Terebeş**, M.Borda–"A new partial differential equation-based approach for 3D data denoising and edge preserving", REVUE ROUMAINE DES SCIENCES TECHNIQUES-SERIE ELECTROTECHNIQUE ET , ENERGETIQUE, Volume: 52 Issue: 4, pp. 407-418, 2007 ISBN:0035-4066.
13. C. Luduşan, O.Laviaille, **R.Terebeş**, M. Borda–"An approach to image fusion implementing feature level fusion on seismic attributes", Buletinul Ştiinţific al Universităţii "Politehnica" din Timişoara, Seria ELECTRONICĂ ŞI TELECOMUNICAŢII, pp:9-15, Tom 52(66), Fascicola 1, 2007.
14. **R. Terebeş**– "Image restoration through fusion and diffusion",Buletinul Ştiinţific al Universităţii "Politehnica" din Timişoara, Seria ELECTRONICĂ ŞI TELECOMUNICAŢII, pp:3-9, Tom 52(66), Fascicola 1, 2007.
15. **R. Terebeş**, Olivier Laviaille, Monica Borda, Pierre Baylou–"Flow Coherence Diffusion. Linear and Nonlinear Case", Lecture Notes in Computer Science Volume 3708, 2005, pp 316-323,ISSN: 0302-9743.

16. **R. Terebeș**, O. Laviaille, P.Baylou, M.Borda—"Orientation driven diffusion", Acta Technica Napocensis-Electronics and Telecommunications, Volume:43, Number:2, pp.20-24,2002.ISSN:1221-6542
17. **R. Terebeș**, O.Laviaille, M.Borda, I.Naforniță—"Gradient based curvature estimation", Image Analysis and Stereology, Volume:20, Issue:suppl. 1, Pages:287-292, 2001, ISSN:1580-3139.
18. M. Borda, **R.Terebeș**—"DSP TMS 320C25 based decoding algorithms for Reed-Solomon codes", Buletinul științific al Universității " Politehnica" din Timișoara, România:Seria electronică și telecomunicații, Volume:41, Issue:1, pp.77 -80, 2006. p-ISSN 1583-3380.
19. **R.Terebeș** –"Non-parametric curvature estimation for gray scale images", Acta Technica Napocensis-Electronics and Telecommunications, Volume: 41, Number:1, pp. 75-78, 2001, ISSN:1221-6542
20. A. Z. Bodo, **R. Terebeș**, M. Borda "A Watershed Algorithm and it's Application in Image Segmentation", Acta Technica Napocensis-Electronics and Telecommunications, Volume: 40, Number:2, pp.9-13,2000, ISSN:1221-6542.

D) Conference proceedings

1. D.M Daniel, M. Cislariu, **R. Terebeș**– "Combining feature extraction level and score level fusion in a multimodal biometric system", 2014 11th IEEE International Symposium on Electronics and Telecommunications (ISETC), pp.309-312, Publisher:IEEE, 2014.
2. E. Luchian, **R.Terebeș**, M. Cremene – "Design and implementation of a mobile VoIP system on Android", 2014 11th International Symposium on Electronics and Telecommunications (ISETC), pp.157-160, Publisher: IEEE, 2014.
3. **R. Terebeș**, M. Borda, C.Germain, O. Laviaille –"A novel shock filter for image restoration and enhancement", 2012 PROCEEDINGS OF THE 20TH EUROPEAN SIGNAL PROCESSING CONFERENCE (EUSIPCO). Pages: 255- 259.Location: Bucharest, Romania, Date: AUG 27-31, 2012.
4. M. Gherman, M. Borda, **R. Terebeș**—"Time series analysis using wavelets and GJR-Garch models", 2012 PROCEEDINGS OF THE 20TH EUROPEAN SIGNAL PROCESSING CONFERENCE (EUSIPCO), Page: 2138- 2142, Location: Bucharest, Romania. Date:AUG 27-31, 2012
5. M. Borda, B.Belean, **R.Terebeș**, R.Măluțan– "FPGA based SoC for automated cDNA microarray image processing", IEEE 2011 E-HEALTH AND BIOENGINEERING CONFERENCE (EHB), Iasi, Romania, Date:NOV 24-26, 2011.
6. C. Ludusan, O.Laviaille, M.Borda, **R.Terebeș** –"Filtre de choc hybride pour la restauration d'images", Colloque GRETSI 2011, GRETSI Symposium on Signal and Image Processing. Pages : 72-75. Location : Bordeaux, France. Date: SEP 2011.
7. **R. Terebeș**, S.Pop, M.Borda, C.Ludușan, O. Laviaille– "3D Image Restoration using Diffusion and Fusion Techniques", 52nd International Symposium ELMAR, Zadar, Croatia, pp.37-40, Date: SEP 15-17, 2010.
8. S. Pop, **R.Terebeș**, J.P. DaCosta, C.Germain, M.Borda, O.Laviaille—"A novel 3D anisotropic diffusion filter", Conference on Three-Dimensional Image Processing

- (3DIP) and Applications Location: San Jose, CA. doi:10.1117/12.838742. Date: JAN 18-19 2010.
9. C. Luduşan, **R. Terebeş**, M. Borda, O.Lavialle—"Coherence enhancing image sharpening and denoising using a novel shock filter model", 9th IEEE International Symposium on Electronics and Telecommunications (ISETC). Pages: 333 – 336. Location: Timisoara, ROMANIA Date: NOV 11-12, 2010
 10. C. Luduşan, **R.Terebeş**, M.Borda, O.Lavialle—"Morphological Sharpening and Denoising Using a Novel Shock Filter Model,"Image and Signal Processing", Lecture Notes in Computer Science Volume 6134, Pages: 19-27, 2010. Location: Trois-Rivières, QC, Canada. Date: JUN 30-JUL 2, 2010.
 11. C.Luduşan, O. Lavialle, **R. Terebeş**, M.Borda, S.Pop—"Image enhancement using hybrid shock filters", 2010 IEEE International Conference on Automation Quality and Testing Robotics (AQTR). Volume: 3. Pages:1-6, DOI: AQTR.2010.5520666. Location: Cluj-Napoca, Romania. Date: 28-30 May 2010.
 12. **R. Terebeş**, O.Lavialle, C.Germain, M.Borda, S.Pop—"Asymmetric anisotropic diffusion", 16th IEEE International Conference on Image Processing. Pages: 3889 – 3892. Location: Cairo, EGYPT. Date: NOV 07-10, 2009
 13. S.Pop, **R.Terebeş**, M.Borda, O.Lavialle—"A new discrete PDE-based fusion model", International IEEE Conference Devoted to the 150-Anniversary of Alexander S Popov. Location: St Petersburg, RUSSIA. Pages: 2075- 2082. Date: MAY 18-23, 2009.
 14. C.Germain, **R.Terebeş**, O.Lavialle—"Diffusion anisotrope asymétrique et multi-orientée", XXIIe colloque GRETSI (traitement du signal et des images). Location: Dijon (FRA). Date: 8-11 SEP 2009.
 15. O. Lavialle, S. Pop, **R.Terebeş**, C.Luduşan, M.Borda—"Approches EDP pour la fusion d'images bruitées", XXIIe colloque GRETSI (traitement du signal et des images). Location: Dijon (FRA). Date: 8-11 SEP, 2009.
 16. **R.Terebeş**, M.Borda, C.Germain, S.Pop, O.Lavialle—"Asymmetric directional diffusion based image filtering and enhancement", IEEE International Conference on Automation, Quality and Testing, Robotics (AQTR 2008). Pages: 413- 418. Location: Cluj Napoca, ROMANIA Date: MAY 22-25, 2008.
 17. **R.Terebeş**, M.Borda, S.Pop, C.Luduşan—"Image restoration using directional diffusion and shock filters", 8th IASTED International Conference on Visualization, Imaging, and Image Processing, VIIP 2008. Location: Palma de Mallorca; Spain. Date: 1 SEP 2008 through 3 SEP, 2008.
 18. S.Pop, **R.Terebeş**, M.Borda, S.Guillon, N.Keskes, O.Lavialle, Pierre Baylou—"3D seismic data fusion and filtering using a PDE-based approach ", IEEE International Conference on Image Processing (ICIP 2007). Pages: Page(s): IV-117 - IV-120 Location: San Antonio, TX. Date: SEP 16-19, 2007.
 19. S. Pop, O.Lavialle, **R.Terebeş**, M. Borda—"Low-level fusion: a PDE-based approach", 10th International Conference on Information Fusion. Pages:1-8. Location: Quebec City, CANADA Date: JUL, 2007.

20. S. Pop, O.Lavialle, **R.Terebeş**, M.Borda—"A PDE-based approach for image fusion", 9th International Conference on Advanced Concepts for Intelligent Vision Systems. Pages:121-131.Location: Delft, NETHERLANDS Date: AUG 28-31, 2007.
21. S. Pop, **R. Terebeş**, O.Lavialle, M.Borda—"Pixel-level fusion: a PDE-based approach", IEEE International Symposium on Signals, Circuits and Systems. Pages: Location: Iasi, ROMANIA Date: JUL 12-13, 2007.
22. O. Lavialle, S.Pop, **R.Terebeş**, P.Baylou, M. Borda—"Fusion-Diffusion d'images : approche par EDP", Colloque GRETSI, Groupe d'Etudes du Traitement du Signal et des Images. Location: Troyes, France. Date: SEP 11-14, 2007.
23. B. Keresztes, M. Borda, **R.Terebeş**, P.Vaysse, C.Germain, J.P. Da Costa, G. Grenier, O. Lavialle—"Object Based Image Segmentation: Application to fruit detection in shipping bins", 6th Int. Conference Communications 2006, Academia Tehnica Militara, Universitatea Politehnica Bucuresti, pp 169-172, ISBN 973718-479-3, 2006.
24. **R. Terebeş**, M. Borda, I. Naforniță—"Image filtering and enhancement using directional and anisotropic diffusion techniques", International Symposium on Electronics and Telecommunications ETC 2006 Seventh Edition. Pages: 85-90. Location: Timișoara, Romania. Date:SEP 21-23, 2006.
25. S. Pop, **R.Terebeş**, M.Borda,O.Lavialle, I.Voicu, P.Baylou—"3-D directional diffusion", International Conference on Computer as a Tool (EUROCON 2005). Pages: 955 - 958. Location:Belgrade,SERBIA MONTENEGRO.Date: NOV 21-24, 2005.
26. R. Dargent, **R. Terebeş**, O. Lavialle, P.Baylou—"3D tangential diffusion", XII European Signal Processing Conference, ISSN (online) 2219-5491, Pages: 485-488. Location:Vienna, Austria. Date: SEP 6-10, 2004.
27. **R.Terebeş**, M. Borda, BZ. Yuan,O.Lavialle, P.Baylou—"A new PDE based approach for image restoration and enhancement using robust diffusion directions and directional derivatives based diffusivities", 7th International Conference on Signal Processing, Pages: 707- 712 vol.1. Location: Beijing, PEOPLES R CHINA Date: AUG 31-SEP 04, 2004.
28. **R.Terebeş**, M. Borda, O. Lavialle, P.Baylou, S.Pop, Tihamer Adam—"Linear Flow Coherence Diffusion", International Carpathian Control Conference. Pages: 65-71,Location:Miskolc-Lillafüred, Hungary. Date: OCT 2004.
29. O.Lavialle, **R.Terebeş**, C.Germain, J.P. Da Costa, G. Grenier—"Diffusion orientée pour le filtrage d'images: application à l'amélioration d'images aériennes de parcelles de vignes", 19e colloque GRETSI'03 sur le traitement du signal et des images. Location: Paris, France. Date: SEP 8-11, 2003.
30. **R. Terebeş**, O. Lavialle, P. Baylou, M. Borda—"Flow coherence diffusion", Proceedings of the 2003 International TICSP Workshop on Spectral Methods and Multirate Signal Processing SMMSP 2003, ISBN 952-15-1062-5. Location: Barcelona, Spania, pp. 197-202. Date:2003.
31. **R. Terebeş**, O. Lavialle, P. Baylou, M. Borda, A. Tihamer—"Adaptive smoothing using anisotropic diffusion and median filter based diffusivities, Proceedings of the

- 4th Workshop on European Scientific and Industrial Collaboration Wesic 2003. Location: Miskolc, Hungary. Date: MAY 28–30, 2003.
32. **R. Terebeș**, O.Lavialle, P.Baylou, M.Borda—"Mixed anisotropic diffusion", 16th International Conference on Pattern Recognition (ICPR). Pages: 760-763, vol.3 Location: QUEBEC CITY, CANADA. Date: AUG 11-15, 2002.
 33. **R. Terebeș**, M.Borda, BZ Yuan, O.Lavialle, P.Baylou—"Adaptive filtering using morphological operators and genetic algorithms", 6th International Conference on Signal Processing. Page(s): 853- 857, vol.1. Location: BEIJING, PEOPLES R CHINA Date: AUG 26-30, 2002.
 34. **R.Terebeș**, O.Lavialle, M.Borda, P.Baylou—"Anisotropic diffusion of strongly oriented patterns", Proceedings of the IEEE International Workshop "Trends and Recent Achievements in Information Technology. Pages:102-108. Location: Cluj-Napoca, Romania. Date: MAY 16-18, 2002.
 35. **R. Terebeș**, O.Lavialle, P.Baylou, M. Borda—"Directional anisotropic diffusion", Proceedings of the XI-th European Signal Processing Conference EUSIPCO2002: Volume:2, Pages:266-269. Location: Toulouse, France, Date: SEP 3-6, 2002.
 36. **R. Terebeș**, O.Lavialle, P.Baylou, M.Borda, I.Naforniță—"Erosion adaptative pour les images en niveaux de gris", 18° Colloque sur le traitement du signal et des images, FRA, Publisher:GRETSI, Groupe d'Etudes du Traitement du Signal et des Images. Location: Toulouse, France. Date: SEP 10-13, 2001.
 37. **R. Terebeș**, O. Lavialle, M. Borda, P. Baylou –"Normal field curvature estimation, Proceedings of the IEEE International Conference on Telecommunications ICT 2001, ISBN 973-99995-1-4, vol.1/3, pag.193-199. Location: Bucharest, Romania. Date:JUN 4-7, 2001.
 38. **R.Terebeș**, O. Lavialle, P. Baylou, M. Borda, I.Naforniță—"Adaptive directional morphological operators", Xth European Signal Processing Conference. Location: Tampere, Finland. Date:SEP 4-8, 2000.
 39. M. Borda, **R. Terebeș**, K. Obis –"Recursive convolutional codes. Upper bound for the decoded bit error rate", IEEE Symposium on Signal, Circuits and Systems. Pages: 523- 526. Location: Iasi, Romania. Date:1997.
 40. **R. Terebeș**, M. Borda –"Recursive convolutional codes", Symposium on Basis of Electronics- SBE 97. Pages: 133-138. Location:Cluj Napoca, Romania. Date: 1997.
 41. M. Borda, **R. Terebeș** –"Decoding algorithms for Reed-Solomon codes" a XXVI-a Sesiune de comunicări științifice, ATM 96. Pages: 139-146. Location: Bucharest, Romania. Date: 1996.
 42. M. Borda, **R. Terebeș** –"Real time decoders for Reed Solomon codes", IEEE Symposium on communications- Communications '96. Pages: 538-543. Location: Bucharest, Romania. Date: 1996.

D) Patent applications

1. M. Borda, O.Tornea, **R. Terebeș**, R. Măluțan—"OTP encryption system and method based on random sequences determined by DNA structures", Patent Number(s):

RO129751-A2, indexed in Web of Science. Derwent Primary Accession Number: 2014-Q48050 [58]

2. B. Belean, M. Borda, **R. Terebeș**, R. Măluțan—"Method and hardware architecture for automatic microarray image addressing", Patent Number(s): RO127341-A2, indexed in Web of Science. Web of Science/Derwent Primary Accession Number: 2012-G18344 [68].