

## **LISTA** **lucrărilor și activităților științifice**

### **Lista celor mai reprezentative 10 lucrări**

- [1]. **B. Mocanu**, R. Tapu and T. Zaharia, "*Multimodal emotion recognition using cross modal audio-video fusion with attention and deep metric learning*", Image and Vision Computing, vol. 133, 2023 **WOS:000983760500001 (Q1 – IF 4.7, 10 citations)**.
- [2]. T. Zaharia, M. Parmentier, **B. Mocanu**, R. Tapu, "*Automatic caption synchronization and positioning*," **European Patent of Invention (EPO)**, 2021 - Patent No. 1209/3839953.
- [3]. R. Tapu, **B. Mocanu**, T. Zaharia, "*Wearable assistive devices for visually impaired: A state of the art survey*", Pattern Recognition Letters 2018, **WOS: 000564698700006. (Q2 - IF 5.1, 146 citations)**.
- [4]. R. Tapu, **B. Mocanu**, A. Bursuc, T. Zaharia - "*A Smartphone-Based Obstacle Detection and Classification System for Assisting Visually Impaired People*", International Conference on Computer Vision ICCV Workshops, pp.444 - 451, 1-8 Dec. 2013; **WOS:000349847200061, 175 citations**).
- [5]. **B. Mocanu**, R. Tapu, T. Zaharia, "*When Ultrasonic Sensors and Computer Vision Join Forces for Efficient Obstacle Detection and Recognition*", Sensors, 16(11):1807, pp. 1-23, 2016, ISSN 1424-8220, **WOS:000389641700040 (Q1 - IF 3.031, 92 citations)**.
- [6]. R. Tapu, **B. Mocanu**, T. Zaharia: "*DEEP-SEE: Joint Object Detection, Tracking and Recognition with Application to Visually Impaired Navigational Assistance*" Sensors, vol. 17, 2017(**Q1 – FI 3.031, 84 citations**).
- [7]. R. Tapu, **B. Mocanu**, T. Zaharia, "*A computer vision-based perception system for visually impaired*", Multimedia Tools and Applications, pp. 1-37, 2017; **WOS:000400845000037. (Q2 – IF 3.1, 30 citations)**.
- [8]. **B. Mocanu**, R. Tapu, T. Zaharia: "*DEEP-SEE FACE: A Mobile Face Recognition System Dedicated to Visually Impaired People*," in IEEE Access, vol. 6, pp. 51975-51985, 2018 (**Q1 – IF: 4.098, 37 citations**).
- [9]. R. Tapu, **B. Mocanu**, T. Zaharia, "*ALICE: A smartphone assistant used to increase the mobility of visual impaired people*", Journal of Ambient Intelligence and Smart Environments, vol. 7, no. 5, pp. 659-678, 2015, **WOS:000361063200006 (Q2 - IF 1.063, 7 citations)**.
- [10]. K. Matej; A. Leonardis, Ales; J. Matas, **B. Mocanu et al.**: „*The Visual Object Tracking VOT2017 challenge results*”, International Conference on Computer Vision (ICCV 2017) Workshops, pp. 1949-1972, 2017, **WOS:000425239602001 386 citations**.

## A. Lista completă de lucrări

### A. Teze de doctorat (T)

- T1.** „Contribuții la rezolvarea problemelor de compresie și morfism pentru modele tridimensionale reprezentate prin suprafețe mesh” - Universitatea Politehnica București, Facultatea de Electronică, Telecomunicații și Tehnologia Informației.
- T2.** „*Métamorphose de maillage 3D*” – “Ecole Doctorales Informatique, Telecommunications et Electronique de Paris (EDITE)”, Universitatea „Pierre et Marie Curie” în cotutelă cu Institutul Mines-Telecom/Telecom Sudparis, Paris, Franța - Calificativ obținut: „*Très honorable*”.

### B. Cărți publicate (C)

**Ca** – Cărți /cursuri (manuale) pentru uzul studenților, publicate în edituri recunoscute.

**Ca1.** **R. Tapu**, B. Mocanu, „*Compresia semnalelor multimedia*” (“*Multimedia signals compression*”), Cavallioti Publisher, ISBN: 978-606-551100-2, 179 pages, 2018.

**Cb** – Cărți de specialitate publicate în edituri recunoscute (autor, coautor, editor)

- Cb1.** **B. Mocanu**, R. Tapu - „*Rețele de comunicații și sisteme multimedia*”, Editura Politehnica Press, ISBN: 978-606-515-380-6, 2012.
- Cb2.** R. Tapu, **B. Mocanu**: - „*Sisteme de compresie și codare video*”, Editura Politehnica Press, ISBN: 978-606-515-506-0, 2013.
- Cb3.** E. Tapu, **B. Mocanu**, R. Tapu – „*Design și procesare imagistică*”, Editura Cavallioti, ISBN: 978-606-551088-3, 259 pagini, 2017.
- Cb4.** **B. Mocanu** - "*Machine Learning Fundamentals: From Theory to Practice*", Editura Matrixrom, ISBN: 978-606-25-0902-6, 125 pagini, 2024.

### C. Alte materiale publicate (I, D)

**D** – Alte lucrări publicate: capitole publicate în volume colective, capitole teoretice redactate, sisteme de laborator funcționale etc.

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### D. Articole / studii în extenso publicate (R, V)

**Ris** - Reviste de specialitate de circulație internațională recunoscute (cotate / indexate ISI Thomson Reuters, sau indexate în alte Baze de Date Internaționale - BDI specifice domeniului, care fac un proces de selecție a revistelor pe baza unor criterii de performanță).

- Ris 1.** **B. Mocanu**, R. Tapu, T. Zaharia, "Multimodal emotion recognition using cross modal audio-video fusion with attention and deep metric learning", *Image and Vision Computing* Volume 133, May 2023, 104676, <http://dx.doi.org/10.1016/j.imavis.2023.104676>, WOS:000983760500001, (**Q1** - **IF 4.7**).
- Ris 2.** **B. Mocanu**, R. Tapu, "Automatic Subtitle Synchronization and Positioning System Dedicated to Deaf and Hearing Impaired People," in *IEEE Access*, vol. 9, pp. 139544-139555, 2021, <http://dx.doi.org/10.1109/ACCESS.2021.3119201> ISSN 2169-3536, WOS:000709062100001 (**Q2** - **IF 3.476**).
- Ris 3.** **B. Mocanu**, R. Tapu, T. Zaharia, "Utterance Level Feature Aggregation with Deep Metric Learning for Speech Emotion Recognition". *Sensors* 2021, 21, 4233. <https://doi.org/10.3390/s21124233> WOS:000666538900001 (**Q1** - **IF 3.847**)
- Ris 4.** R. Tapu, **B. Mocanu** and T. Zaharia, "DEEP-AD: A Multimodal Temporal Video Segmentation Framework for Online Video Advertising," in *IEEE Access*, vol. 8, pp. 99582-99597, 2020 <http://dx.doi.org/10.1109/ACCESS.2020.2997949>. WOS: 000541127800054. (**Q1** - **IF 4.098**).

- Ris 5.** R. Tapu, **B. Mocanu**, T. Zaharia: "DEEP-HEAR: A Multimodal Subtitle Positioning System Dedicated to Deaf and Hearing-Impaired People," in IEEE Access, vol. 7, pp. 88150-88162, 2019. <http://dx.doi.org/10.1109/ACCESS.2019.2925806>, WOS: 000476810500044 (**Q1 - IF 4.098**).
- Ris 6.** **B. Mocanu**, R. Tapu, T. Zaharia: B. Mocanu, R. Tapu and T. Zaharia, "DEEP-SEE FACE: A Mobile Face Recognition System Dedicated to Visually Impaired People," in IEEE Access. 2018, WOS: 000416790500035, <http://dx.doi.org/10.1109/ACCESS.2018.2870334> (**Q1 - IF 4.098**).
- Ris 7.** R. Tapu, **B. Mocanu**, T. Zaharia, "Wearable assistive devices for visually impaired: A state of the art survey", Pattern Recognition Letters 2018, <http://dx.doi.org/10.1016/j.patrec.2018.10.031>, WOS: 000564698700006. (**Q2 - IF 3.225**)
- Ris 8.** R. Tapu, **B. Mocanu**, T. Zaharia: "DEEP-SEE: Joint Object Detection, Tracking and Recognition with Application to Visually Impaired Navigational Assistance" Sensors 2017; vol. 17(11), pp. 1-24, doi: <http://dx.doi.org/10.3390/s17112473>, WOS: 000416790500035, (**Q1 - IF 2.677**).
- Ris 9.** **B. Mocanu**, R. Tapu, T. Zaharia, "When Ultrasonic Sensors and Computer Vision Join Forces for Efficient Obstacle Detection and Recognition", Sensors, 16(11):1807, pp. 1-23, 2016, doi: <http://dx.doi.org/10.3390/s16111807>; WOS:000389641700040, (**Q1 - IF 2.677**).
- Ris 10.** R. Tapu, **B. Mocanu**, T. Zaharia, "A computer vision-based perception system for visually impaired", Multimedia Tools and Applications, pp. 1-37, 2016, doi: <http://dx.doi.org/10.1007/s11042-016-3617-6>, WOS:000400845000037, (**Q2 - IF 2.313**)
- Ris 11.** R. Tapu, **B. Mocanu**, T. Zaharia, "ALICE: A smartphone assistant used to increase the mobility of visual impaired people", Journal of Ambient Intelligence and Smart Environments, vol. 7, no. 5, pp. 659-678, 2015, doi: <http://dx.doi.org/10.3233/AIS-150336>, WOS:000361063200006, (**Q2 - IF 1.063**)
- Ris 12.** R. Tapu, **B. Mocanu**, T. Zaharia, "Automatic Assistant for Better Mobility and Improved Cognition of Partially Sighted Persons," Advances in Electrical and Computer Engineering, ISSN: 1582-7445, vol.15, no.3, pp.45-52, 2015, doi: <http://dx.doi.org/10.4316/AECE.2015.03006>; WOS:000360171500006, **IF 0.661**.
- Ris 13.** **B. Mocanu**, R. Tapu, T. Zaharia, "3D Object Metamorphosis with Pseudo Metameshes," Advances in Electrical and Computer Engineering, ISSN: 1582-7445, vol.15, no.1, pp.115-122, 2015, doi: <http://dx.doi.org/10.4316/AECE.2015.01016>; WOS:000352158600016, **IF 0.661**.
- Ris 14.** R. Tapu, **B. Mocanu**, E. Tapu and T. Petrescu, "Structure from motion using unordered sets of images", Scientific Bulletin, Series C on Electrical Engineering and Computer Science, University „Politehnica” of Bucharest, ISSN 2286-3540, vol.77(4), pp. 155 – 166, 2015 [http://www.scientificbulletin.upb.ro/rev\\_docs\\_arhiva/fulld91\\_154176.pdf](http://www.scientificbulletin.upb.ro/rev_docs_arhiva/fulld91_154176.pdf) SCOPUS.
- Ris 15.** R. Tapu, **B. Mocanu** and T. Petrescu, - "A Complete Framework For Video Temporal Segmentation", Scientific Bulletin, Series C on Electrical Engineering and Computer Science, University „Politehnica” of Bucharest, ISSN 1454-234, vol.73(4), pp. 235 – 246, 2011. [http://www.scientificbulletin.upb.ro/rev\\_docs\\_arhiva/full29698.pdf](http://www.scientificbulletin.upb.ro/rev_docs_arhiva/full29698.pdf) SCOPUS.
- Ris 16.** **B. Mocanu**, R. Tapu and T. Petrescu, - "Open 3D Mesh Parameterization Based On Edge Ratio Preservation", Scientific Bulletin, Series C on Electrical Engineering and Computer Science, University „Politehnica” of Bucharest, ISSN 1454-234, vol.73 (4), pp. 169 – 180, 2011; [http://www.scientificbulletin.upb.ro/rev\\_docs\\_arhiva/full96570.pdf](http://www.scientificbulletin.upb.ro/rev_docs_arhiva/full96570.pdf), SCOPUS.
- Ris 17.** R. Tapu, E. Tapu, **B. Mocanu** and E. Dragulanescu, "A survey of the low-level descriptors used for content based multimedia retrieval", Metalurgia International ISSN: 1582-2214, vol. 14, pp. 12-15, 2009; WOS:000270962400002.
- Ris 18.** **B. Mocanu**, E. Tapu, R. Tapu and E. Dragulanescu, "A complete survey of the 3D shape methods representation", Metalurgia International 2009, ISSN: 1582-2214, vol. 14, pp. 16-20, 2009; WOS:000270962400003.
- Ris 19.** E. Tapu, **B. Mocanu** and E. Dragulanescu, "Complex research to determine the soldering alloys without plumb characteristics", Metalurgia International 2009 (ISI), ISSN: 1582 2214, vol. 14(2), pp. 55-59, 2009; WOS:000263374400010
- Ris 20.** E. Tapu, R. Tapu, **B. Mocanu** and E. Dragulanescu, "Researches on maximizing the generated power of a nanosatellite solar panels", Metalurgia International 2009, ISSN: 1582 2214, vol. 14(6), pp. 57-62, 2009; WOS:000265002600011.

**Vis** – Volumele unor manifestări științifice internaționale recunoscute, organizate în țară și străinătate, indexate ISI Thomson Reuters sau indexate în alte Baze de Date Internaționale BDI specifice domeniului, care fac un proces de selecție a publicațiilor pe baza unor criterii de performanță.

- Vis 1.** **B. Mocanu** and R. Tapu, "Multimodal active speaker detection using cross-attention and contextual information," 2024 IEEE International Conference on Consumer Electronics (ICCE), Las Vegas, NV, USA, 2024, pp. 1-2, <http://dx.doi.org/10.1109/ICCE59016.2024.10444380>. **BDI**.
- Vis 2.** **B. Mocanu** and R. Tapu, "Facial Emotion Recognition using Video Visual Transformer and Attention Dropping," 2023 International Symposium on Signals, Circuits and Systems (ISSCS), Iasi, Romania, 2023, pp. 1-4, <http://dx.doi.org/10.1109/ISSCS58449.2023.10190868>. **BDI**.
- Vis 3.** H. -A. Rusan and **B. Mocanu**, "Human-Computer Interaction Through Voice Commands Recognition," 2022 International Symposium on Electronics and Telecommunications (ISETC), Timisoara, Romania, 2022, pp. 1-4, <http://dx.doi.org/10.1109/ISETC56213.2022.10010253>. **BDI**.
- Vis 4.** **B. Mocanu** and R. Tapu, "Emotion Recognition from Raw Speech Signals Using 2D CNN with Deep Metric Learning," 2022 IEEE International Conference on Consumer Electronics (ICCE), Las Vegas, NV, USA, 2022, pp. 1-5, <http://dx.doi.org/10.1109/ICCE53296.2022.9730534>. **BDI**.
- Vis 5.** **B. Mocanu** and R. Tapu, "Automatic Alignment of Human Generated Transcripts to Speech Signals," 2022 E-Health and Bioengineering Conference, Iasi, Romania, 2022, pp. 1-4, <http://dx.doi.org/10.1109/EHB55594.2022.9991512>. **BDI**.
- Vis 6.** **B. Mocanu** and R. Tapu, "Active Speaker Recognition using Cross Attention Audio-Video Fusion," 10th European Workshop on Visual Information Processing, 1-6, 2022, <http://dx.doi.org/10.1109/EUVIP53989.2022.9922810>. **WOS:** 000886233300034. **BDI**.
- Vis 7.** **B. Mocanu** and R. Tapu, "Audio-Video Fusion with Double Attention for Multimodal Emotion Recognition", IEEE 14th Image, Video, and Multidimensional Signal Processing Workshop (IVMSP), 1-5, 2022, <http://dx.doi.org/10.1109/IVMSP54334.2022.9816349>, **WOS:** 000853856800066.
- Vis 8.** **B. Mocanu** and R. Tapu "Emotion Recognition in Video Streams Using Intramodal and Intermodal Attention Mechanisms", Lecture Notes in Computer Science (LNCS, volume 13599), pp. 295 - 306, vol. 13599, 2022, [http://dx.doi.org/10.1007/978-3-031-20716-7\\_23](http://dx.doi.org/10.1007/978-3-031-20716-7_23), **WOS:** 000916279000023.
- Vis 9.** **B. Mocanu**, R. Tapu, T. Zaharia, "Content Targeted Ad Insertion in Temporal Structured Video Documents," 2021 IEEE International Conference on Consumer Electronics (ICCE), 2021, pp. 1-4, <http://dx.doi.org/10.1109/ICCE50685.2021.9427664>, 9 - 11 Ianuarie 2021, Las Vegas, USA **BDI**.
- Vis 10.** **B. Mocanu** and R. Tapu, "Speech Emotion Recognition using GhostVLAD and Sentiment Metric Learning," 2021 12th International Symposium on Image and Signal Processing and Analysis (ISPA), 2021, pp. 126-130, <http://dx.doi.org/10.1109/ISPA52656.2021.9552068>, Croatia, 13 - 15 Septembrie 2021, **WOS:**000866471200021
- Vis 11.** **B. Mocanu** and R. Tapu, "Automatic Subtitle Placement Through Active Speaker Identification in Multimedia Documents," 9th IEEE International Conference on E-Health and Bioengineering - EHB 2021, Iasi, Romania, November 18-19, 2021, <http://dx.doi.org/10.1109/EHB52898.2021.9657604>, **WOS:** 000558648300168
- Vis 12.** C. Fetita, S. Renotte, M. Latrasse, R. Tapu, M. Maury, B. Mocanu, H. Nunes, and P.-Y. Brillet "Transferring CT image biomarkers from fibrosing idiopathic interstitial pneumonia to COVID-19 analysis", Proc. SPIE 11597, Medical Imaging 2021: Computer-Aided Diagnosis, 1159708 (15 February 2021); <https://doi.org/10.1117/12.2580658>. **WOS:**000672800100005
- Vis 13.** **B. Mocanu**, R. Tapu and T. Zaharia, "Enhancing the Accessibility of Hearing Impaired to Video Content through Fully Automatic Dynamic Captioning," 2019 E-Health and Bioengineering Conference (EHB), Iasi, Romania, 2019, pp. 1-4, <http://dx.doi.org/10.1109/EHB47216.2019.8970038>. **WOS:** 000558648300168.
- Vis 14.** R. Tapu, **B. Mocanu** and T. Zaharia, "Dynamic Subtitles: A Multimodal Video Accessibility Enhancement Dedicated to Deaf and Hearing Impaired Users," 2019 IEEE/CVF International Conference on Computer Vision Workshop (ICCVW), Seoul, Korea (South), 2019, pp. 2558-2566, <http://dx.doi.org/10.1109/ICCVW.2019.00313>. **WOS:** 000554591602075.
- Vis 15.** **B. Mocanu**, R. Tapu, T. Zaharia: „Design of a CNN Face Recognition System Dedicated to Blinds”, 2019 IEEE International Conference on Consumer Electronics (ICCE), Las Vegas, NV, USA, 2019, pp. 1-2. <http://dx.doi.org/10.1109/ICCE.2019.8661933>, **WOS:** 000462912600043.

- Vis 16.** R. Tapu, **B. Mocanu**, T. Zaharia: „Face Recognition in Video Streams for Mobile Assistive Devices Dedicated to Visually Impaired”, 2018 14th International Conference on Signal-Image Technology & Internet-Based Systems (SITIS), Las Palmas de Gran Canaria, Spain, 2018, pp. 137-142, **WOS:** 000469258400019. <http://dx.doi.org/10.1109/SITIS.2018.00030>, **WOS:** 000469258400019.
- Vis 17.** **B. Mocanu**, R. Tapu and T. Zaharia, "Single object tracking using offline trained deep regression networks," 2017 Seventh International Conference on Image Processing Theory, Tools and Applications (IPTA), Montreal, QC, 2017, pp. 1-6. DOI: <http://dx.doi.org/10.1109/IPTA.2017.8310091>, **WOS:**000428743900015.
- Vis 18.** **B. Mocanu**, R. Tapu, T. Zaharia, "Automatic Extraction of Story Units from TV News", 35th edition of the IEEE International Conference on Consumer Electronics (ICCE 2017) , 8-11 January 2017, Las Vegas, SUA. doi: <http://dx.doi.org/10.1109/ICCE.2017.7889377>; **ISI WOS:**000403392300172.
- Vis 19.** **B. Mocanu**, R. Tapu and T. Zaharia, "Single object tracking using offline trained deep regression networks" 2017 Seventh International Conference on Image Processing Theory, Tools and Applications (IPTA), Montreal, QC, 2017, pp. 1-6, doi: <http://dx.doi.org/10.1109/IPTA.2017.8310091>; **ISI WOS:**000428743900015.
- Vis 20.** **B. Mocanu**, R. Tapu, T. Zaharia, "Seeing without sight – An automatic cognition system dedicated to blind and visually impaired people", International Conference on Computer Vision Workshops (ICCV 2017), 22-29 Octombrie 2017, Venetia, Italia. doi: <http://dx.doi.org/10.1109/ICCVW.2017.172>, **ISI WOS:**000425239601056.
- Vis 21.** **B. Mocanu**, R. Tapu, T. Zaharia, "Using computer vision to see", in Springer International Publishing Switzerland 2016, G. Hua and H. Jegou (Eds.): Part II, *ECCV Workshops*, LNCS 9914, Amsterdam, pp. 375-390, ISBN: 978-3-319-48880-6, 2016, doi: [http://dx.doi.org/10.1007/978-3-319-48881-3\\_26](http://dx.doi.org/10.1007/978-3-319-48881-3_26); **ISI WOS:**000389501700026.
- Vis 22.** **B. Mocanu**, R. Tapu and T. Zaharia, "Automatic segmentation of TV News into stories using visual and temporal information", in Springer Berlin Heidelberg, *Advances in Visual Computing*, LNCS – Lecture Notes in Computer Science, Editors: Blanc-Talon, J., Distanto, C., Philips, W., Popescu, D., Scheunders, P., vol. I, pp. 648-660, ISBN 978-3-319-48680-2, 2016; doi: [http://dx.doi.org/10.1007/978-3-319-48680-2\\_57](http://dx.doi.org/10.1007/978-3-319-48680-2_57); **ISI WOS:** 000390177400057.
- Vis 23.** R. Tapu, **B. Mocanu**, T. Zaharia, "TV News Retrieval based on Story Segmentation and Concept Association", The 12th International Conference on Signal Image Technology and Internet based Systems (SITIS 2016), 28 Noiembrie - 1 Decembrie 2016, Naples, Italy, ISBN: 978-1-5090-5698-9, doi: <http://dx.doi.org/10.1109/SITIS.2016.60>, **ISI WOS:**000406473000051.
- Vis 24.** **B. Mocanu**, R. Tapu, T. Zaharia, "Image re-ranking using graph based spanning structures and reciprocal nearest neighbors", 34th edition of the International Conference on Consumer Electronics (ICCE 2016), pp. 437-438, ISSN: 2158-4001, 7-11 January 2016, Las Vegas, SUA, doi: <http://dx.doi.org/10.1109/ICCE.2016.7430681>; **ISI WOS:**000386327000183.
- Vis 25.** **B. Mocanu**, R. Tapu and T. Zaharia, "Efficient graph spanning structures for large database image retrieval," 3rd IAPR Asian Conference on Pattern Recognition (ACPR), Kuala Lumpur, 2015, pp. 594-598. <http://dx.doi.org/10.1109/ACPR.2015.7486572>; **ISI, WOS:**000389269300119.
- Vis 26.** **B. Mocanu**, R. Tapu and T. Zaharia, "An Obstacle Categorization System for Visually Impaired People", 11th International Conference on Signal-Image Technology & Internet-Based Systems (SITIS), Thailand, Bangkok, pp. 147-154, 2015. doi: <http://dx.doi.org/10.1109/SITIS.2015.58>; **ISI WOS:**000380406500023.
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- Vis 28.** R. Tapu, **B. Mocanu**, T. Zaharia - "Real time static/dynamic obstacle detection for visually impaired persons", IEEE International Conference on Consumer Electronics (ICCE), pp. 394 - 395, 10-13 Jan. 2014, doi: <http://dx.doi.org/10.1109/ICCE.2014.6776055>, **ISI, WOS:**000352510400174.
- Vis 29.** R. Tapu, **B. Mocanu**, E. Tapu – "Automatic extraction of salient objects in 3D stereoscopic videos", 11th International Symposium on Electronics and Telecommunications (ISETC), ISBN: 978-1-4799-7265-4/14, pp. 249-252, Timișoara, Romania, Noiembrie 2014; doi: <http://dx.doi.org/10.1109/ISETC.2014.7010794>; **ISI, WOS:**000366633300058.
- Vis 30.** R. Tapu, **B. Mocanu**, E. Tapu – "A survey on wearable devices used to assist the visual impaired user navigation in outdoor environments", 11th International Symposium on Electronics and Telecommunications (ISETC), ISBN: 978-1-4799-7265-4/14, pp. 245-248, Timișoara, Romania, Noiembrie 2014; doi: <http://dx.doi.org/10.1109/ISETC.2014.7010793>; **ISI, WOS:**000366633300057.

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- Vis 32. R. Tapu, B. Mocanu**, E. Tapu – “*Automatic scene/DVD chapter extraction in Hollywoodian movies*”, International Symposium on Signals, Circuits and Systems (ISSCS), pp. 1-4, Iasi, 11-12 July 2013; doi: <http://dx.doi.org/10.1109/ISSCS.2013.6651209>; **ISI, WOS:000337926700042**.
- Vis 33. R. Tapu, B. Mocanu**, T. Zaharia - “*A computer vision system that ensure the autonomous navigation of blind people*”, E-Health and Bioengineering Conference (EHB), pp.1- 4, 21-23 Nov. 2013; doi: <http://dx.doi.org/10.1109/EHB.2013.6707267>; **ISI, WOS:000346672900035**.
- Vis 34. B. Mocanu**, T. Zaharia - “*A Pseudo Metamesh Approach for 3D Mesh Morphing*”, IEEE International Conference on Consumer Electronics (ICCE 2013), ISBN: 978-1-4673-1362-9, pp. 308-311, Las Vegas, Nevada, Ianuarie 2013; doi: <http://dx.doi.org/10.1109/ICCE.2013.6486904>; **ISI WOS:000318797800136**.
- Vis 35. R. Tapu, B. Mocanu**, A. Bursuc, T. Zaharia - “*A Smartphone-Based Obstacle Detection and Classification System for Assisting Visually Impaired People*”, ICCV Workshop on Wearable Computer Vision Systems (WCVS), pp.444 - 451, 1-8 Dec. 2013; doi: <http://dx.doi.org/10.1109/ICCVW.2013.65>; **ISI, WOS:000349847200061**.
- Vis 36. R. Tapu, B. Mocanu**, E. Tapu – “*Salient Object Detection in Video Streams*”, 10th International Symposium on Electronics and Telecommunications (ISETC 2012), ISBN: 978-1-4673-1176-2, pp. 275-278, Timișoara, Romania, Noiembrie 2012; doi: <http://dx.doi.org/10.1109/ISETC.2012.6408089>; **ISI, WOS:000318702700064**.
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- Vis 46. B. Mocanu, T. Zaharia** - “*A Complete Framework for 3D Mesh Morphing*”, 11th ACM SIGGRAPH International Conference on Virtual-Reality Continuum and its Applications in Industry (VRCAI 2012), ISBN: 978-1-4503-1825-9, pp. 161-170, Singapore, Decembrie 2012; doi: <http://dx.doi.org/10.1145/2407516.2407558>, **BDI**.
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## **Vi - Volumele unor manifestări științifice internaționale recunoscute, organizate în țară și străinătate.**

- Vi1. B. Mocanu, E. Tapu, R. Țapu** - “*3D mesh metamorphosis*”, 4<sup>th</sup> International Conference on Engineering Graphics and Design – ICEGD 2011, ISSN: 1011-2855, pp. 99-106, Iasi, Romania, 2-4 June 2011.
- Vi2. E. Tapu, R. Țapu, B. Mocanu, E. Drăgulănescu** - „*Modeling algorithm of the auditory receptor*”, The 3<sup>rd</sup> International Conference on Engineering Graphics and Design, ICEGD 2009, in Acta Technica Napocensis, ISSN: 1221-5872, vol. 1a, pp. 379 - 384, Cluj-Napoca, Romania, June 2009.
- Vi3. E. Tapu, R. Țapu, B. Mocanu** - „*Research regarding the influence of graphical processing over the quality of images*”, The 3<sup>rd</sup> International Conference on Engineering Graphics and Design, ICEGD 2009, in Acta Technica Napocensis, ISSN: 1221-5872, vol. 1a, pp. 373 - 378, Cluj-Napoca, Romania, June 2009
- Vi4. E. Tapu, R. Țapu, B. Mocanu** - “*Projecting the shape using the genetic algorithms*”, 2nd International Conference on Engineering Graphics and Design, pp. 209 – 212, Galati, Romania, June 7-10, 2007.

## **E. Brevete de invenție / inovații**

- E1. T. Zaharia, M. Parmentier, B. Mocanu, R. Tapu**, “*Automatic caption synchronization and positioning*,” **European Patent of Invention** (EPO), 2021 - Patent No. 1209/3839953.

## **F. Contracte și rapoarte științifice (P,F)**

**P** – Proiecte de cercetare-dezvoltare – inovare obținute prin competiție, pe bază de contract/grant, în țara / străinătate (**Pn** – naționale, **Pi** - internaționale).

- Pn1. Project coordinator:** Excellence Research Grants Program, UPB – GEX. Identifier: UPB-EXCELENȚĂ-2016 Research project „*Sistem autonom cu abilități cognitive de asistare a deplasării autovehiculelor inteligente*” (“*Autonomous system with cognitive abilities designed to assist the autonomous displacement of intelligent vehicles*”), Nr. 97/26.09.2016, 2016 – 2017.
- Pn2. Project coordinator:** Proiect UEFSCDI Resurse Umane (TE) - “*Sistem multimodal bazat pe conținut semantic pentru inserția de publicitate în fluxurile video redatate online – SemanticAd*”, PN-III-P1-1.1-TE-2021-0393, Coordonator Universitatea Politehnica București, Buget: 450000Ron. [https://uefiscdi.gov.ro/resource-862317-te\\_2021\\_proiecte-aprobrate\\_informatica.pdf](https://uefiscdi.gov.ro/resource-862317-te_2021_proiecte-aprobrate_informatica.pdf)
- Pn3. Project coordinator:** Contract de cercetare cu agenți economici - “*Fotonation 4 - Image Quality Experimental Methods for Data Collection for In-cabin Sensing Technologies*”, beneficiar FotoNation Limited Ireland. Budget 20180 Euros, 2023- 2024.
- Pn4. Project coordinator:** Proiect UEFSCDI PNCDI IV Soluții (SOL2024-5) - Sistem integrat avansat pentru identificarea autovehiculelor, utilizând multiple elemente de recunoaștere / confirmare, bazat pe inteligență artificială (IA), Buget: 3.000.000Ron, 2024-2026 ([https://uefiscdi.gov.ro/resource-861281-Tema-5\\_Rezultate-preliminare.pdf](https://uefiscdi.gov.ro/resource-861281-Tema-5_Rezultate-preliminare.pdf) [https://uefiscdi.gov.ro/resource-867994-Tema-5\\_Expresii-eligibile.pdf](https://uefiscdi.gov.ro/resource-867994-Tema-5_Expresii-eligibile.pdf))
- Pn5. Researcher:** Programul Operațional Competitivitate 2014-2020 - Axa Prioritară 1, Prioritatea de investiții: PI1b, Acțiune: 1.2.1 - Tip de proiect: PROIECT TEHNOLOGIC INOVATIV. “*Sistem inteligent de evaluare și interpretare automată a comportamentului disimulat pentru personalul din infrastructuri critice*”. Buget 29.086.565,98 RON.
- Pn6. Researcher:** UEFSCDI Youth Team (TE) Project - “*A multimodal video accessibility enhancement system dedicated to deaf and hearing impaired users – SMART-VIEW*”, PN-III-P1-1.1-TE-2019-0420, Coordonator: University “Politehnica” of Bucharest, Romania, 2020 – 2022.
- Pn7. Researcher:** UEFSCDI Human Resources (MCD) – „*Automatic caption synchronization and positioning*”, PN-III-P1-1.1-MCD-2019-0157, Coordonator: University “Politehnica” of Bucharest, 2019.

- Pn8. Researcher:** UEFISCDI Youth Team (TE) Project - "*Intelligent outdoor navigation system dedicated to visually impaired people - SEE*", PN-II-RU-TE-2014-4-0202, Coordinator: University "Politehnica" of Bucharest, Romania, 2015 – 2017.
- Pn9. Researcher:** Excellence Research Grants Program, UPB – GEX. Identifier: UPB-EXCELENȚĂ-2017 Research project: „*Autonomous obstacle detection and recognitions system based on deep convolutional neural networks dedicated to visually impaired people*”, Nr. 40/25.09.2017.
- Pi10. Researcher:** "*Subtil - Amélioration automatisée des services d'accessibilité en multimédia*" - collaborative research project supported by the French research program, Fonds National pour la société Numérique - Programme d'Investissement d'Avenir, Coordinated by France National Television, 2017 -2019.
- Pi11. Researcher:** "*ALICE (Assistance for Better Mobility and Improved Cognition of Elderly Blind and Visually Impaired)*" - collaborative research project supported by the European AAL (Ambient Assisted Living) program AAL-2011-4-099, Coordinator: Comland d.o.o. IT Solutions Development, 2012 - 2015.
- Pi12. Researcher:** International research contract funded by ESA - "*GaVPro Developing a Galileo Vector Processing Receiver for Difficult Signal Conditions*", Nr: 4000114741/15/NL/ MM\_EGEP ID 89.29, 2015 - 2016.
- Pi13. Research responsible for partner** (Telecom SudParis): Research project supported by the European Union through the Competitiveness and Innovation program: "*Smart City + - Plateforme numérique de services d'hyperproximité*", 2013 - 2014.
- Pi14. Researcher:** Collaborative research project supported by the French research program FUI7 (Fonds Unique Interministériel), *3D-LIVE*, 2009-2012.
- Pi15. Research responsible for partner** (Telecom SudParis): Collaborative research project supported by the French research program FUI7 (Fonds Unique Interministériel), "*Media4DPlayer - Accessible Media Player for All*", 2014 – 2016.
- Pi16. Researcher:** within the UBIMEDIA joint laboratory established between Institut Mines-Télécom France and Alcatel Lucent Bell Labs France, within the project „*MultiXE/MNEMOS - Multimédia numérique enrichi multi-modal optimisé et sémantique*”, 2009-2011.
- Pi17. Researcher:** Research project „*AlgoFab - Ecosystème de Services pour la Valorisation d'Algorithmes de Traitement de Contenus Multimédia*”, research project supported by the French program Investissements d'Avenir, Développement de l'Economie Numérique, Informatique en nuage, 2016-2017.
- Pn18. Researcher:** PNCD II National Research Contract – "*Expertiza store tehnico (stare metal) a recipientelor scadente ISCIR din cadrul CET Bucuresti Vest in vederea autorizarii functionarii de către ISCIR*", Contract number PNCD II - 12/08.II.2011, 2011-2013.

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