Dubravko Ćulibrk, PhD

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1. Fields of Specialization and Interest

 Deep Learning, Computer Vision, Knowledge Discovery and Data Mining, Machine Learning, Neural Networks, Multimedia, Remote Sensing, Deep Tech Entrepreneurship.

2. Educational Background

Aug 2003 – Aug 2006 Ph.D. in Computer Engineering
 Florida Atlantic University, Boca Raton, Florida (USA)

 Oct 2000 – May 2003 M Sc Degree in Computer Engineering University of Novi Sad, Yugoslavia

• Sep 1995 – Sep 2000 B.Sc. Degree in Electrical and Computer Engineering, University of Novi Sad, Yugoslavia

3. Employment History

08/2018 to date	Senior Research Scientist, TandemLaunch Inc.
1/2018 to date	Full Professor, University of Novi Sad, Serbia
05/2016 to 08/2018	Director of the Industry/University Collaborative Research Center for Advanced Knowledge Enablement (I/U CRC CAKE) of the Faculty of Technical Sciences, University of Novi Sad (candidate international site of US NSF supported I/U CRC CAKE)
1/2013 to 1/2018	Associate Professor, University of Novi Sad, Serbia
10/2013 to 10/2015	Research Fellow, University of Trento, Italy
6/2012 to 12/2012	Visiting Researcher, Florida Atlantic University, USA
12/2007 to 1/2013	Assistant Professor, University of Novi Sad, Serbia
10/2007 to 12/2017	Cofounder, Chief Scientist, PanonIT DOO, Novi Sad, Serbia
2/2006 to date	Cofounder, Consultant and Director of technology development, CoreTex Systems, LLC, Florida, USA
1/2004 to 8/2006	Research Assistant, Florida Atlantic University, USA

1/2004 to 4/2004	Instructor for Introduction to Microprocessors, Florida Atlantic University, USA
8/2003 to 12/2003	Graduate Teaching Assistant for Logic Design and Introduction to Microprocessors, Florida Atlantic University, USA
10/2000 to 8/2003	Graduate Teaching Assistant for Design of Real-Time Systems, University of Novi Sad, Serbia
10/2000 to 8/2003	Graduate Teaching Assistant for Design of Custom Computer Systems, University of Novi Sad, Serbia
10/2000 to 8/2003	Associate at Micronas NIT LLC (Design/Implementation), Novi Sad, Serbia

4. Computing Experience

- **Programming Languages:** C#, C/C++, JavaScript, HTML, PHP, VC++ (MFC), Assembly (DSP/ARM), Java/J++, VHDL, Pascal, Prolog, Python.
- Development and Programmable Environments: OpenCV, Caffe, Matlab, MS Visual Studio, NVIDIA CUDA, Weka, R, Oracle, SQL, MySQL, APL, HPCC, ARM Code Warrior, ACE Compiler Generator Toolkit, MPI.
- Data Visualisation Tools: OpenCV, VisualAnalytics, D3.js, PowerBI.

5. Teaching

10+ years of teaching, course and curriculum design experience. Key role in the development of all levels of study (BSc, MSc, PhD) of the Information systems engineering program at the Faculty of Technical Sciences, University of Novi Sad.

Undergraduate courses:

- · Business Process Automation, Faculty of Technical Sciences, University of Novi Sad, Serbia.
- Algorithms and Data Structures, Faculty of Technical Sciences, University of Novi Sad, Serbia.
- Computer Technology, University of Novi Sad, Serbia.
- Business intelligence, University of Novi Sad, Serbia.
- Introduction to Microprocessors, Florida Atlantic University, USA and University of Novi Sad, Serbia.
- Applied electronics, Technical College Zrenjanin, Serbia.

Master courses:

- E-Business Technology, Faculty of Technical Sciences, University of Novi Sad, Serbia.
- Advanced Information Technology, Faculty of Technical Sciences, University of Novi Sad, Serbia.
- Multimedia and Global Media, Faculty of Technical Sciences, University of Novi Sad, Serbia.
- Data Mining, University of Novi Sad, Serbia.
- Big Data, University of Novi Sad, Serbia.

PhD courses:

- Data Mining, Faculty of Technical Sciences, University of Novi Sad, Serbia.
- Raster and Imaging Technologies in Industrial Engineering and Management, Faculty of Technical Sciences, University of Novi Sad, Serbia.

- Computer Vision, Faculty of Technical Sciences, University of Novi Sad, Serbia.
- Deep learning and biologically inspired machine learning
- Computer vision and information extraction from multimedia
- Data Mining

PhD Thesis supervision:

- Milan Mirkovic, "Application of data mining techniques and methods in the domain of publicly available, user-generated multimedia content analysis", FTS, Novi Sad, 2012.
- Andras Anderla, "Metal artifact reduction method for images obtained from computed tomography", FTS, Novi Sad, 2013.
- Srdjan Sladojevic, "Quality driven streaming of multimedia content in wireless telecommunication networks", FTS, Novi Sad, 2013.
- Katarina Gavric, "Mining large amount of mobile object data", FTS, Novi Sad, 2017.

6. Some of the Commercial Projects Completed

- Design and implementation of a C Compiler for a family of Digital Signal Processors MAS35xx (made by MICRONAS). Responsible for liveness analysis, code synchronization modules and code optimization modules for Micronas GmbH, Hans-Bunte-Strasse 19, D-79108 Freiburg Germany.
- Design, implementation and maintenance of a tool used to optimize DSP assembler code for Micronas GmbH, Hans-Bunte-Strasse 19, D-79108 Freiburg Germany.
- MIDI audio synthesis DSP based application for Micronas GmbH, Hans-Bunte-Strasse 19, D-79108 Freiburg Germany.
- Porting the GNU C compiler to a MIPS based platform for Micronas NIT, 21000 Novi Sad, Serbia.
- Implementing a multithreading environment to a MIPS based platform for Micronas NIT, 21000 Novi Sad, Serbia.
- Design of FPGA-s for AES and DES cryptographic algorithms for Coretex Systems, LLC, 2851 S Ocenal Blvd. Boca Raton, FL33432, USA.
- Implementation of MPEG Audio decoder for OMAP platform for Telex, 8601 East Cornhusker Hwy. Lincoln, NE 68507, USA.
- Video coding consulting for RealNetworks, Inc., 2601 Elliott Avenue, Seattle, WA 98121, USA
- Video processing and computer forensics consulting for Cypherensics, LLC, 20125 Ne 25th Ave Miami, FL 33180 Florida, USA.
- PLC and SCADA programming consulting for ADS Engineering, 4701 N Federal HWY, Suite 390, Pompano Beach Fl 33064 Florida, USA.
- CropsIT (Deep-learning-based crop disease identification mobile app), PanonIT, Novi Sad, Serbia.

7. Research Projects

- H2020 Projext SENSIBLE: SENSors and Intelligence in BuLt Environment, 2017-2021, work-package leader, Budget EUR 859 500.
- FP7 Project xLiMe: Cross-lingual Cross-media Knowledge Extraction, 2013-2016, Budget \$5.6 million, responsible for functional requirements specification and the design and implementation of the video and image annotation modules.
- QoSTREAM Video Quality Driven Multimedia Streaming in Mobile Wireless Networks, FP7 IRSES Project 2012-2016, **coordinator (PI)**, Budget \$460,000.
- COST action IC0903 " MOVE: Knowledge Discovery from Moving Objects", MC substitute member (CO-PI for Serbia), 2010-2013, Budget \$485,000.

- COST action IC0702 "Combining Soft Computing Techniques and Statistical Methods to Improve Data Analysis Solutions", MC member and national coordinator (PI for Serbia), 2009-2012, Budget \$500,000.
- FP7-ENV Project ENORASIS (Grant Agreement 282949). The core aim of the project is to develop an integrated Decision Support System for environmentally optimized irrigation management by farmers and water management organizations based on advanced technologies and models, 2012 2014, CO-PI for University of Novi Sad, Budget \$2.66 million.
- Wireless Sensor Networks and Remote Sensing Foundation of a modern agricultural infrastructure in the region, FP7 AgroSense Project: REGPOT-2007-3, Project number: FP7-204472, 2008 – 2011, Budget \$1.275 million.
- Wireless Sensor Networks and Remote Sensing Foundations of Modern Agricultural Infrastructure, Serbian National Technology Development Project, Project number: TR-11022, 2008 – 2010, Budget \$150,000.
- COST action TD1007 Bimodal PET-MRI molecular imaging technologies and applications for in vivo monitoring of disease and biological processes, and national coordinator (PI for Serbia), 2011-2014, Budget \$450,00.
- "Production and Profitability improvement in Serbia Enterprises by adopting Lean Thinking Philosophy and strengthening Enterprise Academia connections" (LeanEA), TEMPUS project, 2011-2013, Budget \$1.1 million.
- Parallel processing for vector optimization in audio/video signal processing, Serbian National Fundamental Research Project, Project number: OI-161003, 2008 2010, CO-PI, \$220,000.
- Video Content Analysis for Automated Traffic Surveillance, EUREKA Project, Project number: E!4160-VICATS, 2008-2010, Budget **\$1.91 million**.
- Center for Coastline Security Technologies, US Federal Earmark Research Project, Florida Atlantic University, USA, 2004-2006.
- One Pass to Production, Motorola's sponsored research project, Florida Atlantic University, USA. 2003-2005.

8. Academic Recognitions, Honors, and Awards

• 2005-2006 The Daniel B. Newell and Aurel B. Newell Doctoral Fellowship, Florida Atlantic University.

9. Selected Publications

Books:

- D. Culibrk et al., Sensing Technologies For Precision Irrigation, Springer; 2013, ISBN-13: 978-1461483281.
- D. Culibrk, Otkrivanje znanja iz podataka: Odabrana poglavlja (Serbian Edition), 2012, ISBN-13: 978-1480280229.

Book Chapters:

- Culibrk, D. (2016). Saliency and Attention for Video Quality Assessment. In From Human Attention to Computational Attention (pp. 399-412). Springer New York.
- D. Ćulibrk, M. Mancas, V. Crnojevic, 2012, "Dynamic Texture Recognition Based on Compression Artifacts", in Towards Advanced Data Analysis by Combining Soft Computing and Statistics in Fuzziness and Soft Computing Volume 285, 2013, pp 253-266.
- Milan Mirkovic, Dubravko Culibrk and Vladimir Crnojevic, Mining geo-referenced community-contributed multimedia data, Computational Social Networks: Mining and Visualization Abraham, Ajith (Ed.), Springer, 2013, ISBN 978-1-4471-4053-5.
- Daniel Socek, Vladimir Božović and Dubravko Ćulibrk: Securing Biometric Templates where Similarity is Measured with Set Intersection, CCIS (Communications in Computer and Information Science), 2008, Vol. 23, pp. 139-151, ISSN 1865-0929.Ica

Journal Papers:

- Sangineto E., Nabi M., Culibrk D., Sebe N., Self Paced Deep Learning for Weakly Supervised Object Detection, IEEE Transactions on Pattern Analysis and Machine Intelligence, Volume: PP, Issue: 99, 2018, doi: 10.1109/TPAMI.2018.2804907.
- Culibrk J., Mitrović S., Delić M., and Culibrk D. "Job Satisfaction, Organizational Commitment and Job involvement: The Mediating Role of Job Involvement." Frontiers in Psychology 9 (2018): 132.
- Brdar S., Gavric K., Culibrk D., Crnojevic V., Unveiling Spatial Epidemiology of HIV with Mobile Phone Data, Scientific Reports 6, Article number: 19342 (2016) doi:10.1038/srep19342.
- A. Sartori; D. Culibrk; Y. Yan; R. Job; N. Sebe, "Computational Modeling of Affective Qualities of Abstract Paintings," in IEEE MultiMedia, 2016, in press, doi: 10.1109/MMUL.2016.20
- Sladojevic, S., Arsenovic, M., Anderla, A., Culibrk, D. and Stefanovic, D., Deep Neural Networks Based Recognition of Plant Diseases by Leaf Image Classification. Computational Intelligence and Neuroscience, Volume 2016 (2016), Article ID 3289801, 11 pages, http://dx.doi.org/10.1155/2016/3289801.
- Vladimir Crnojević, Marko Panić, Branko Brkljač, Dubravko Ćulibrk, Jelena Ačanski, and Ante Vujić, "Image Processing Method for Automatic Discrimination of Hoverfly Species," Mathematical Problems in Engineering, vol. 2014, Article ID 986271, 12 pages, 2014. doi:10.1155/2014/986271
- Sladojevic, M., Sladojevic, S., Culibrk, D., Tadic, S., Jung, R., Echocardiographic parameters as predictors of in-hospital mortality in patients with acute coronary syndrome undergoing percutaneous coronary intervention, The Scientific World Journal, pn:9, ISSN: 2356-6140, 2014.
- Anderla, A., Culibrk, D., Delso, G., Mirkovic, M. (2013). MR Image Based Approach for Metal Artifact Reduction in X-Ray CT. The Scientific World Journal, vol. 2013, Article ID 524243, 8 pages, 2013. doi:10.1155/2013/524243.
- Mirkovic, M., Vrgovic, P., Culibrk, D., Stefanovic, D., Anderla, A., Evaluating The Role Of Content In Subjective Video Quality Assessment. The Scientific World Journal, 2013, accepted.
- D. Culibrk, M. Mirkovic, V.Zlokolica, M. Pokric, V. Crnojevic, D. Kukolj, "Salient Motion Features for Video Quality Assessment", IEEE Trans. on Image Processing, Volume: 20 Issue:4, pp(s): 948 958, ISSN: 1057-7149, 2011.
- D. Culibrk, O. Marques, D. Socek, H. Kalva and B. Furht, "Neural Network Approach to Background Modeling for Video Object Segmentation", IEEE Trans. on Neural Networks, Vol. 18, No. 6, pp. 1614-1627, ISSN 1045-9227, 2007.
- Mladen Pečujlija, Dubravko Ćulibrk, Why We Believe The Computer When It Lies, Computers in Human Behavior, in press, doi:10.1016/j.chb.2011.08.020, 2011.
- Daniel Socek, Hari Kalva, Spyros S. Magliveras, Oge Marques, Dubravko Ćulibrk and Borko Furht: New approaches to encryption and steganography for digital videos, Multimedia Systems, Vol. 13, No. 3, pp. 191- 294, ISSN 1432-1882, 2007.
- Dubravko Culibrk, Milan Mirkovic, Predrag Lugonja and Vladimir Crnojevic, Mining Web Videos for Video Quality Assessment, International Journal of Computer Information Systems and Industrial Management (IJCISIM), vol. 4, 2012.
- J. Radonić, D. Ćulibrk, M. Vojinović-Miloradov, B. Kukić, M. Turk-Sekulić, Prediction Of Gas-Particle Partitioning Of Pahs Based On M5' Model Trees, Thermal Science, No. 1, vol. 15, pp.105-114, 2011.
- D. Socek, D. Ćulibrk, O.F. Marques, H. Kalva and B. Furht: A Hybrid Color-Based Foreground Object Detection Method for Automated Marine Surveillance, Lecture Notes in Computer Science, Vol. 3708, pp. 340- 347, ISSN 0302-9743, 2005.
- Ćulibrk, D., Daniel Socek and Michal Sramka: Cryptanalysis of a Symmetric Probabilistic Encryption Scheme Based on Chaotic Attractors of Neural Networks, Tatra Mountains Mathematical Publications, Vol. 37, pp. 75-91, 2007.

- Daniel Socek, Spyros Magliveras, Dubravko Ćulibrk, Oge Marques, Hari Kalva, and Borko Furht: Digital Video Encryption Algorithms Based on Correlation-Preserving Permutations, EURASIP Journal on Information Security, ISSN 1687-4161, 2007.
- Daniel Socek, Vladimir Božović and Dubravko Ćulibrk, "Issues and Challenges in Storing Biometric Templates Securely", Revue de l'Electricité et de l'Electronique (REE), 2008.

Conference Papers:

- Romani, E., da Silva, W. B., Fonseca, K. V. O., Culibrk, D., & Pohl, A. D. A. P. (2015, September). Full-Reference SSIM Metric for Video Quality Assessment with Saliency-Based Features. In New Trends in Image Analysis and Processing--ICIAP 2015 Workshops (pp. 547-554). Springer International Publishing.
- Mirkovic, M., Culibrk, D., Sladojevic, S., & Anderla, A. (2015, September). Video Quality Assessment for Mobile Devices on Mobile Devices. In New Trends in Image Analysis and Processing--ICIAP 2015 Workshops (pp. 555-562). Springer International Publishing.
- Sartori, A., Culibrk, D., Yan, Y., & Sebe, N. (2015, October). Who's Afraid of Itten: Using the Art Theory of Color Combination to Analyze Emotions in Abstract Paintings. In Proceedings of the 23rd Annual ACM Conference on Multimedia Conference (pp. 311-320). ACM.
- Mihai Marian Puscas, Enver Sangineto, Dubravko Culibrk and Nicu Sebe, (2015, December)
 Unsupervised Tube Extraction using Transductive Learning and Dense Trajectories. In
 Computer Vision, 2015 IEEE International Conference on (ICCV), IEEE.
- Dubravko Culibrk, Nicu Sebe, "Temporal Dropout of Changes Approach to Convolutional Learning of Spatio-Temporal Features", ACM Multimedia Conference, 2014.
- Srdjan Sladojevic, Dubravko Culibrk, Milan Mirkovic, Damian Ruiz Coll, Gustavo R. Borba, "Logging real packet reception patterns for end-to-end quality of experience assessment in wireless multimedia transmission", Multimedia and Expo Workshops (ICMEW), 2013 IEEE International Conference on, 2013, Page(s): 1 6, DOI: 10.1109/ICMEW.2013.6618453.
- K. Gavric, S. Brdar, D. Culibrk, V. Crnojevic, "Linking the Human Mobility and Connectivity Patterns with Spatial HIV distribution", Special session on the D4D challenge, NetMob 2013, Cambridge, USA.
- S. Brdar, D. Culibrk, V. Crnojevic, Demographic Attributes Prediction on the Real-World Mobile Data, Mobile Data Challenge Workshop, Pervasive 2012.
- N. Riche, M. Mancas, D. Culibrk, V. Crnojevic, "Dynamic saliency models and human attention: a comparative study on videos." Computer Vision–ACCV 2012. Springer Berlin Heidelberg, 2013. 586-598.
- D. Ćulibrk, S. Sladojevic, N. Riche, M. Mancas, V. Crnojevic, 2012, "Data-driven approach to dynamic visual attention modelling", Proceedings of SPIE, vol. 8436, pp. 84360N, April 30th, 2012.
- Milan Mirkovic, Dubravko Culibrk, Symeon Papadopoulos, Christos Zigkolis, Yiannis Kompatsiaris, Gavin Mcardle and Vladimir Crnojevic, A Comparative Study of Spatial, Temporal and Content-based Patterns Emerging in YouTube and Flickr, Proceedings of the Computational Aspects of Social Networks (CASoN'11), 2011.
- Katarina Gavric, Dubravko Culibrk, Milan Mirkovic and Vladimir Crnojevic, Using YouTube Data to Analyze Human Continent-Level Mobility, Proceedings of the Computational Aspects of Social Networks (CASoN'11), 2011.
- K. Gavrić, D. Ćulibrk, P. Lugonja, M. Mirković, V. Crnojević, Detecting Attractive Locations and Tourists' Dynamics using Geo-referenced Images, Proceedings of TELSIKS 2011, Nis, Serbia.
- S. Sladojević, D. Ćulibrk, V. Crnojevic, Predicting the Churn of Telecommunication Service Users using Open Source Data Mining Tools, Proceedings of TELSIKS 2011, Nis, Serbia.
- Ćulibrk D., Mirković M., Lugonja P., Crnojević V.: Mining Web Videos for Video Quality Assessment, International Conference of Soft Computing and Pattern Recognition (SoCPaR), Paris, November 7-10, 2010.
- Ćulibrk D.: GPU-based parallel processing approach to moving object segmentation in video, The International Machine Vision and Image Processing Conference (IMVIP), Limerick, Ireland, September 8-10, 2010.

- Ćulibrk D., Srdjan S., Igor Š.: Saturation filter approach to outlier detection in software quality improvement domain, 9. Infoteh, Jahorina, Bosnia and Herzegovina, March 17-19, 2010, pp. 418-422.
- Antić B., Ćulibrk D., Crnojević V., Minić V.: Primena sistema za daljinsko prikupljanje podataka u modernoj poljoprivrednoj proizvodnji, 53. ETRAN, Vrnjacka BanjaSerbia, June 15-18, 2010.
- Ćulibrk D., Petrović N., Lugonja P., Stojmenović M., Crnojević V.: Detekcija poplavljenog poljoprivrednog zemljišta u multispektralnim satelitskim snimcima, 18. Telecommunication forum TELFOR, Belgrade, November 23-25, 2010.
- Ćulibrk D., Letić D., Crnojević V.: Detekcija pokretnih objekata u video sekvencama zasnovana naparalelnoj obradi u okviru jedinice za grafičku obradu, 18. Telecommunication forum TELFOR, Belgrade, November 23-25, 2010.
- Ćulibrk D., Mirković M., Milisavljević S., Crnojević V.: Detecting attractive locations using publicly available user-generated video content central Serbia case study, 18. Telecommunication forum TELFOR, Belgrade, November 23-25, 2010.
- Ćulibrk D., Šetrajčić I., Delić N., Šetrajčić J.: Unapređeni pristup detekcije ekstremnih vrednosti na bazi saturacionog filtra, Savremeni materijali (Contemporary Materials), Banja Luka, Bosnia and Herzegovina, July 2-31, 2010
- Ćulibrk D., Šetrajčić J., Šetrajčić I.: Predikcija kristalne strukture primenom tehnika istraživanja podataka i mašinskog učenja, Savremeni materijali (Contemporary Materials), Banja Luka, Bosnia and Herzegovina, July 2-31, 2010.
- Dubravko Ćulibrk, Borislav Antić, Vladimir Crnojević: Real-time Stable Texture Regions Extraction for Motion-based Object Segmentation, 20th British Machine Vision Conference, BMVC 2009, London, UK: British Machine Vision Association, 7.-10. September, 2009.
- Dubravko Culibrk, Dragan Kukolj, Petar Vasiljevic, Maja Pokric, Vladimir Zlokolica: Feature Selection for Neural-Network Based No-Reference Video Quality Assessment, Artificial Neural Networks – ICANN 2009, Part II, LNCS, Theoretical Computer Science and General Issues, Vol. 5769, 2009, ISBN: 978-3-642-04276-8.
- Vladimir Crnojević, Borislav Antić, Dubravko Ćulibrk: Optimal Wavelet Differencing Method for Robust Motion Detection, 16th IEEE International Conference on Image Processing, ICIP 2009, Cairo, Egypt: IEEE, 07.-11. November, 2009
- Borislav Antić, Dragan Letić, Dubravko Ćulibrk, Vladimir Crnojević: K-means Based Segmentation for Real-Time Zenithal People Counting, 16th IEEE International Conference on Image Processing, ICIP 2009, Cairo, Egypt: IEEE, 07.-11. November, 2009
- Borislav Antić, Jorge Oswaldo Niño Castaneda, Dubravko Ćulibrk, Aleksandra Pižurica, Vladimir Crnojević, Wilfried Philips: Robust Detection and Tracking of Moving Objects in Traffic Video Surveillance, 11th International Conference on Advanced Concepts for Intelligent Vision Systems, ACIVS 2009, Bordeaux, France: Lecture Notes in Computer Science 5807, Springer-Verlag, 28. September - 2. October 2009, pp. 494-505.
- Borislav Antić, Vladimir Crnojević, Dubravko Ćulibrk: Efficient wavelet based detection of moving objects, 16th International Conference on Digital Signal Processing, DSP 2009, Santorini, Greece: IEEE, 5.-7. July, 2009, pp. 1-6, ISBN 978-1-4244-3298-1.
- Dubravko Ćulibrk, Vladimir Crnojević, Borislav Antić: Multiscale Background Modelling and Segmentation, 16th International Conference on Digital Signal Processing, DSP 2009, Santorini, Greece: IEEE, 5.-7. July, 2009, pp. 1- 6, ISBN 978-1-4244-3298-1.
- Dragan Letić, Borislav Antić, Dubravko Ćulibrk, Vladimir Crnojević: Automatic Estimation of Traffic Flow Parameters in Traffic Video Surveillance Systems, INFOTEH-JAHORINA 2009, Jahorina, BiH, 18.-20. mart, 2009.
- Dubravko Ćulibrk, Borislav Antić, Vladimir Crnojević: Motion Detail Driven Vehicle Detection in Surveillance Videos, INFOTEH-JAHORINA 2009, Jahorina, BiH, 18.-20. mart, 2009
- Ćulibrk, D., Antic B., Crnojevic V.: Boosting change based features for vehicle detection, National Conf. of Digital speech and image processing, Kelebija: 2008
- Ćulibrk, D., "Efficient Motion Based Object Segmentation For Traffic Surveillance", IS '08 XIV International Scientific Conference On Industrial Systems, Novi Sad: 2008.

- Ćulibrk, D., Antic B., Crnojevic V., "Boosting change based features for vehicle detection", National Conf. of Digital speech and image processing, Kelebija: 2008,
- Antic B., Letic D., Crnojevic V., Ćulibrk, D., "Performance analysis of algorithms for video background subtraction", National Conf. of Digital speech and image processing, Kelebija: 2008,
- Daniel Socek, Dubravko Culibrk and Vladimir Bozovic, "Practical Secure Biometrics Using Set Intersection as a Similarity Measure", SECRYPT 2007, July 28-31, Barcelona Spain.
- Vladimir Bozovic, Daniel Socek, Dubravko Culibrk, "Issues and Challenges in Storing Biometric Templates Securelly", July 2-5, CRISIS 2007, Marrakech, Morocco.
- Dubravko Ćulibrk, Vladimir Radenković, Daniel Socek, "Enhancing Video Object Segmentation Results Through Biologically Inspired Postprocessing", TELSIKS 2007, September 26 - 28, Niš, Serbia.
- Dubravko Culibrk, Daniel Socek, Oge Marques and Borko Furht, "Automatic Kernel Width Selection for Neural Network Based Video Object Segmentation", VISAPP 2007 (International Conference on Computer Vision Theory and Applications), March 8-12, 2007, Barcelona, Spain.
- D. Socek, M. Sramka, Oge Marques and D. Culibrk, "An Improvement to a Biometric-Based Multimedia Content Protection Scheme", in Proc. *ACM Multimedia and Security Workshop (ACM2006)*, Geneva, Switzerland, September 26-28, 2006.
- Dubravko Culibrk, Oge Marques, Daniel Socek, Hari Kalva, and Borko Furht, "A Neural Network Approach to Bayesian Background Modeling for Video Object Segmentation", VISAPP 2006 (International Conference on Computer Vision Theory and Applications), 25-28 Feb, 2006, Setubal, Portugal.
- Daniel Socek, Hari Kalva, Spyros S. Magliveras, Oge Marques, Dubravko Culibrk, and Borko Furht, "A permutation-based correlation-preserving encryption method for digital videos ", ICIAR 2006 – International Conference on Image Analysis and Recognition, September 18-20, 2006, Póvoa de Varzim, Portugal.
- D. Socek and D. Culibrk, "On the Security of a Clipped Hopfield Neural Network Cryptosystem", in Proc. *ACM Multimedia and Security Workshop (ACM2005)*, New York City, New York, August 1-2, 2005, pp. 71-75
- Daniel Socek, Dubravko Culibrk, Hari Kalva, Oge Marques, and Borko Furht, "Permutation-Based Low-Complexity Alternate Coding in Multi-View H.264/AVC", IEEE International Conference on Multimedia & Expo (ICME) 2006, July 9-12, 2006, Toronto, Canada.
- D. Socek, D. Culibrk, O.F. Marques, H. Kalva and B. Furht, "A Hybrid Color-Based Foreground Object Detection Method for Automated Marine Surveillance", in Proc. Advanced Concepts for Intelligent Vision Systems (ACIVS 2005), Antwerp, Belgium, September 20-23, 2005
- D. Culibrk, D. Socek and M. Sramka, "Cryptanalysis of the Block Cipher based on the Hopfield Neural Network", accepted at the 5-th Central European Conference on Cryptology (MoraviaCrypt '05), Brno, Czech Republic, June 15-17, 2005
- M. Popovic, Z. Jovanovic, I. Pap, V. Medic, D. Culibrk, "A C Compiler Design Concept Used for MAS family of Digital Signal Processors", 5th International Conference on Telecommunications in Modern Satellite, Cable and Broadcasting Services –TELSIKS, Niš, Yugoslavia, 2001.
- N. Trninić, M. Popović, D. Ćulibrk, S. Babić, J. Kovačević, "Implementation of Optimization Techniques for Assembly Language Programs for Deep Pipeline Digital Signal Processors", XLIV ETRAN Conference, Sokobanja, Yugoslavia 2000.

Theses:

• D. Culibrk, "A Solution to the Problem of Determining a Suboptimal Strategy of Assembler Code Optimization for a Class of Processors Using the Genetic Algorithms", M.Sc. Thesis, Department of Computer Engineering, University of Novi Sad, May 2003.

Dissertation:

• D. Culibrk, "Neural Network Approach to Bayesian Background Modeling for Video Object Segmentation", PhD Dissertation, Department of Computer Science & Engineering, Florida Atlantic University, August 2006.

10. Seminar Talks and Lectures

- "Mining Geo-referenced Community-contributed Multimedia Data", Florida Atlantic University, USA, November 2012.
- "Mining Geo-referenced Community-contributed Multimedia Data", University of Mons, Belgium, May 2011.
- "Mining Geo-referenced Community-contributed Multimedia Data", National Center for Geocomputation, Maynooth, Ireland, February 2011.
- "LLL Lattice Basis Reduction Technique", *Algebra/Cryptology Seminar*, Florida Atlantic University, September 2005.

11. Service and Leadership

- Vice-chairman of the Board of the Center for Economic and Technological Development of Vojvodina (2008-2011)
- Chairman of the Board of the Institute of Food Technology, University of Novi Sad (2011-2015).

12. Languages

- Serbian, proficient mother tongue.
- English, proficient.
- · German, basic.
- Italian, basic.
- Bosnian, Croatian, Montenegrin, proficient.