### MULTIMEDIA TECHNOLOGIES AND TELECOMMUNICATIONS RESEARCH CENTRE

# **Contact details**

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Logo	
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## Areas of expertise

Main Field: Information and communications technologies

**Key words**: e-learning, e-health, e-business, e-government, e-citizen, e-content, digital television HD / 3D, new Media, web services, multimedia databases, 3D video coding & compression, collaborative cloud, artificial intelligence, cognitive systems, trainable systems, intelligent interfaces, multimodal analysis and integration, image processing and analysis, artificial vision.

### **Team**

**Prof. Dr. Eng. Aurel Vlaicu**, Assoc. Prof. Dr. Eng. Bogdan Orza, Assist. Dr. Eng. Şerban Meza, PhD. Stud. Aurelia Ciupe, PhD Stud. Alexandru Popa, Prof. Dr. Eng. Mircea Giurgiu, Dr. Eng. Adriana Stan, Assoc. Prof. Dr. Eng. Mihaela Gordan, Assist. Dr. Eng. Camelia Florea, Assist. Dr. Eng. Mihaela Caslariu, Assoc. Prof. Dr. Eng. Zsolt Polgar, Prof. Dr. Eng. Vasile Bota, Assist. Dr. Eng. Mihaly Varga, Prof. Dr. Eng. Virgil Dobrotă, Assoc. Prof. Dr. Eng. Daniel Zinca, Assist. Dr. Eng. Bogdan Rus, Assist. Dr. Eng. Tudor Blaga

### Representative projects

VINIVITIS – "Complex, Integrated System for the Technological Optimisation and Superior Valorisation of Vineyard Sub-products", PCCDI 2018 (2018-2020)

**DIONASYS - "Declarative and Interoperable Overlay Netowork. Applications to Systems of Systems"**, CHIST-ERA (2015-2017)

UCONNECT - "Implementation of Ubiquitous Connectivity for Public Transport, FP7 project, 2012-2014.

4WARD - "Architecture and Design for the Future Internet", FP7-ICT-2007-1 No. 216041, 2008-2010

Wi-QoST: "Traffic and QoS Management in Wireless Multimedia Networks", 2004-2008

CODIV "Enhanced Wireless Communication Systems Employing Cooperative DIVersity", FP7, 2008-2010.

**COST IC 1004 "Cooperative Radio Communications for Green Smart Environments"** 

COST 2100 "Pervasive Mobile & Ambient Wireless Communications", 2007-2010;

Simple4All – "Speech synthesis that improves through adaptive learning" FP7 project, (2011-2014), www.simple4all.org,

Sound2Sense - "Making sense of speech sounds", FP6 project (2007-2011), www.sound2sense.eu,

EU eContentPlus - "KeyToNature" (2008-2010), www.keytonature.eu

EU eTEN "EUROWEX – Online platform using digital signature for the management of university activities" (2006-2008), www.eurowex.org

"Image Processing, Information Engineering & Interdisciplinary Knowledge Exchange", CEEPUS Network CII-AT-0042-05-0910.

Text2Speech - "Development of software services for text to speech synthesis in Romanian language" PNII INOVARE (2008-2010),

COMODICI -,, Sistem de Control și Monitorizare la Distanță a Clădirilor Inteligente", CEEX project (2006-2008)

SIMIMED – "Sistem integrat de management a informaţiilor medicale utilizând standardul HL7", PNII project (2007-2010)

INVITE - "Platformă Inteligentă Colaborativă pentru Dezvoltarea și Susținerea Mecanismelor Intreprinderilor

## Significant results

## The most representative publications of the past 5 years:

- Meza, Radu Mihai; Meza, Serban Nicolae, A Triadic Formal Concept Analysis Approach to Analyzing Online Hate Speech in Facebook Comments BRAIN-BROAD RESEARCH IN ARTIFICIAL INTELLIGENCE AND NEUROSCIENCE Volume: 10 Issue: 1 Pages: 73-81 Published: JAN-FEB 2019
- Diop, Abdou Khadre; Meza, Serban; Gordan, Mihaela; et al.,LDA Based Classification of Video Surveillance Sequences Using Motion Information 20TH INTERNATIONAL CONFERENCE ON ADVANCED COMMUNICATION TECHNOLOGY (ICACT) Book Series: International Conference on Advanced Communication Technology Pages: 499-502 Published: 2018
- L. Cremene, N. Gasko, M. Cremene, M. Suciu, A. Vlaicu, and D. Dumitrescu, "Scarce-resource capacity sharing in cognitive radio environments: a new game theoretical model," Telecommunication Systems, vol. 66, no. 2, pp. 331-342, Oct 2017.
- 4. Gordan, Mihaela; Meza, Serban; Cislariu, Mihaela; et al., A Fuzzy Logic Approach for the Fast Approximate Computation of Image Transforms from Block JPEG DCT Coefficients PROCEEDING OF 2016 IEEE INTERNATIONAL CONFERENCE ON AUTOMATION, QUALITY AND TESTING, ROBOTICS (AQTR) Book Series: IEEE International Conference on Automation Quality and Testing Robotics Pages: 359-364 Published: 2016
- Ciupe, Aurelia; Florea, Camelia; Orza, Bogdan; et al., A Bag of Words Model for Improving Automatic Stress Classification PROCEEDINGS OF THE SECOND INTERNATIONAL AFRO-EUROPEAN CONFERENCE FOR INDUSTRIAL ADVANCEMENT (AECIA 2015) Book Series: Advances in Intelligent Systems and Computing Volume: 427 Pages: 339-349 Published: 2016
- Ciupe, Aurelia; Orza, Bogdan; Florea, Camelia; et al., Skill-Oriented Priority Scheduling for Solving the Resource Constrained Project Scheduling Problem 2015 IEEE 11TH INTERNATIONAL CONFERENCE ON INTELLIGENT COMPUTER COMMUNICATION AND PROCESSING (ICCP) Book Series: IEEE International Conference on Intelligent Computer Communication and Processing ICCP Pages: 85-92 Published: 2015
- Ciupe, A.; Meza, S.; Vlaicu, A., DidaTec LMS as a Framework for Task Assignment Through Blended Learning Techniques International Conference on Social Media in Academia - Research and Teaching (SMART) Timisoara, ROMANIA SEP 18-21, 2014 SMART 2014 - SOCIAL MEDIA IN ACADEMIA: RESEARCH AND TEACHING Pages: 407-415 Published: 2015
- Florea, Camelia, Gordan, Mihaela, Vlaicu, Aurel, et al., "Computationally Efficient Formulation of Sparse Color Image Recovery in the JPEG Compressed Domain", *Journal Of Mathematical Imaging And Vision*, Vol.49, Issue:1, Pp. 173-190, 2014
- 9. Moldovan, Roxana, Orza, Bogdan, Vlaicu Aurel, et al., "Advanced Human-Computer Interaction in External Resource Annotation", *IEEE 19th International Conference on Automation, Quality and Testing, Robotics*, Cluj Napoca, Romania, May 22-24, 2014
- Z. I. Kiss, Z. A. Polgar, M. Giurgiu, and V. Dobrota, "Network coding based resource efficient congestion control for video streaming", *Telecommunication Systems*, vol. 55, pp. 499-512, Apr 2014.
- 11. Danciu, Marius, Gordan Mihaela, Florea Camelia, et al., "A Hybrid 3D Learning-and-Interaction-based Segmentation Approach Applied on CT Liver Volumes", *Radioengineering*, Vol.22, Issue 1, Special Issue: SI, Pp.100-113, Apr 2013

### **Products**

www.didatec.ro – Learning content management system based on Microsoft technologies www.e-start.ro – collaborative tool based on Moodle and Adobe Technologies

www.simac.utcluj.ro - SIMAC - sistem integrat de evaluare a activitatilor didactice, de cercetare si manageriale

### The offer addressed to the economic environment

Research & development	text to speech synthesis, automatic speech recognition, Interactive Voice Response Systems, collaborative cloud systems for project management, data and network security, unified communication solutions, digital transmission systems: evaluation, design and optimization, Computational intelligence based image processing and analysis systems, color image enhancement and restoration for cultural heritage applications, 3D perception using stereoscopic techniques, Integrated platforms and services for innovative applications in eHealth, eGovernment, eBusiness, eMedia, eLearning and eLiving,
Consulting	Multimedia applications in the context of the mobile social web, cloud computing Education management and the use of IT&C for teaching in different blended-learning or e-learning scenarios: virtual collaboration tools, seroius games, on-line social learning. Integrated platforms and electronic services for innovative applications in eHealth, eGovernment, eBusiness, eMedia, eLearning and eLiving.
Training	Audio-video systems engineering, video signal editing and processing, Complex aquistion and processing of visual information for augmented 3D reality, systems and application for processing / editing / rendering 3D video. Bi-modal (audio & video) and multimodal methods for image and video analysis

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