Dr. Petros Daras

Electrical & Computer Engineer, PhD
MSc Medical Informatics

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http://vcl.iti.gr

Personal

Date of birth: 30/05/1974
Place of birth: Athens, Greece
Marital status: Married with two children

Current position: Research Director (Principal Researcher Grade A') at the Information Technologies Institute (I.T.I) of the Centre for Research and Technology Hellas (CE.R.T.H.).

Dr. Petros Daras is a Research Director (Grade A') at the Information Technologies Institute. He received the Diploma in Electrical and Computer Engineering, the MSc degree in Medical Informatics and the Ph.D. degree in Electrical and Computer Engineering all from the Aristotle University of Thessaloniki, Greece in 1999, 2002 and 2005, respectively. His main research interests include 3D object recognition, indexing, classification and retrieval, real-time 3D reconstruction of dynamic scenes, compression and coding of 3D meshes, bioinformatics and medical image processing. His involvement with those research areas has led to the co-authoring of **65** papers in refereed journals (of which 32 in IEEE Journals), **185** in international conferences, **33** book chapters and **4** books. Dr Daras has been involved in more than 59 projects, funded by the EC and the Greek Ministry of Research and Technology, having attracted as Researcher (July 2006 – February 2019): **18.885.440,7.** Among them, he is the Coordinator of the EU funded projects FASTER (H2020 – Running), PROTEIN (H2020 – running), HR-RECYCLER (H2020 – running) and Technical/Scientific Manager of: ALADDIN (H2020 – running), ASGARD (H2020 – running), ANITA (H2020 – running), EPIKOINONO (EDK/GGET– running), NADINE (H2020- running), ADVISE (FP7 - finished), I-SEARCH (FP7 – finished), VICTORY (FP6 - finished), LASIE (FP7 – finished), SURVANT (H2020 – finished), PATHWAY (H2020 –finished), DANTE (H2020 – finished), MATHISIS (H2020 – finished), FORENSOR (H2020 – finished). Dr. Daras is a **Senior Member of IEEE** and member of the Technical Chamber of Greece. He served as **chair** of the IEEE Interest Group on Image, Video and Mesh Coding (2012-2014) and as a **Key member** of the IEEE Interest Group on 3D Rendering, Processing and Communications of IEEE Multimedia (2010–today). He regularly acts as a

reviewer/evaluator for the European Commission; he served as **coordinator** of the Future Media and 3D Internet - Task Force, the "User Centric Media" cluster, and member of the "3D Media" cluster, the Future Internet Architectures (FIArch) group and the Future Internet Assembly of the Networked Media unit of the EC. His involvement to the abovementioned clusters and task forces has led to the co-authoring of numerous reports and white papers published by the EC. He is **leading** the Visual Computing Lab of ITI: http://vcl.iti.gr, which currently employs **62** people. He was the Chairman of the Insitute's scientific board (until Dec 2018).

Education

2002-2005: PhD in Electrical & Computer Engineering department of the Aristotle University of Thessaloniki (AUTH). PhD Thesis: "*3D Content-based Search*".

2000–2002: MSc in Medical Informatics of the Aristotle University of Thessaloniki. MSc Thesis: "*Technologies for Remote Monitoring Patients*".

1993–1999: Diploma in Electrical & Computer Engineering department of the Aristotle University of Thessaloniki. Diploma Thesis: "*Systems Reliability using Fault Tree Analysis*".

Working experience

Since 2008 Dr. Daras is the head of the Visual Computing Lab which currently (January 2016 – February 2019) employs 3 Senior Researchers, 10 Postdoctoral Associates, 6 PhD Candidates and 43 Research Associates.

April 2016 – today: Researcher Grade A' at the Information Technologies Institute (I.T.I) of the Centre for Research and Technology Hellas (CE.R.T.H.). Since 2016 he attracted **8.145.549,34€** (February 2019) corresponding to the following EU funded projects:

1. FASTER: First responder Advanced technologies for Safe and efficienT Emergency Response, (H2020, RIA), 2019-2022, **Coordinator**, CERTH-ITI Budget: 725.000€.
2. INFRASTRESS: Improving resilience of sensitive industrial plants & infrastructures exposed to cyber-physical threats, by means of an open testbed stress-testing system, (H2020, IA), 2019-2021, CERTH/ITI Budget: 399.375€.
3. MEDSAL: Salinization of critical groundwater reserves in coastal Mediterranean areas: Identification, Risk Assessment and Sustainable Management with the use of integrated modelling

and smart ICT tools, (PRIMA, HFRI), 2019-2022, CERTH/ITI Budget: 100.000€.

4. Q-CONPASS: Dynamic Quality Control on Production Lines using Intelligent Autonomous Vehicles, (Special Actions "Aquaculture" - "Industrial Materials" - "Open Innovation in Culture"), 2019-2022, CERTH/ITI Budget: 100.350€.

5. PROTEIN: PeRsOnalized nutriTion for hEalthy living, (H2020, IA), 2018-2022, **Coordinator**, CERTH/ITI Budget: 841.875€.

6. HR-RECYCLER: Hybrid Human-Robot RECYcling plant for electriCal and eLEctRonic equipment, (H2020, DT-FOF, RIA), 2018-2022, **Coordinator**, CERTH/ITI Budget: 667.500€.

7. NADINE: Digital integrated iNtegrAteD system for the socIal support of migraNts / and refugEes, (H2020, IA), 2018-2021, **Technical Project Manager**, CERTH/ITI Budget: 658.750€.

8. REBUILD: ICT-enabled integration facilitator and life rebuilding guidance, (H2020, DT-MIG, IA), 2018-2021, CERTH/ITI Budget: 400.625€.

9. EPIKOINONO: Developing an Application to Convert Sign Language in Writing and Speaking Using Smart Devices, (ESPA), 2018- 2020, **Technical Project Manager,** CERTH/ITI Budget: 299.620.96€.

10. FANDANGO: Fake News discovery and propagation from big Data ANalysis and artificial intelligence Operations, (H2020, ICT-IA), 2018-2021, CERTH/ITI Budget: 396.250€.

11. ANITA: Advanced tools for fighting oNline Illegal TrAfficking, (H2020), 2018-2021, **Technical Project Manager**, CERTH/ITI Budget: 499.625€.

12. MONICA: Management Of Networked IoT Wearables – Very Large Scale Demonstration of Cultural Societal Applicationsata, (H2020, IOT-IA), 2017-2019, CERTH/ITI Budget: 315.890.88€.

13. SURVANT: Surveillance Video Archives investigation assistant, (H2020, FTI), 2017-2018, **Technical Project Manager**, CERTH/ITI Budget: 469.625€.

14. ALADDIN: Advanced hoListic Adverse Drone Detection, Identification Neutralization (H2020, SEC-RIA), 2017-2020, **Technical Project Manager**, CERTH/ITI Budget: 278.125€.

15. 5G-MEDIA: Programmable edge-to-cloud virtualization fabric for the 5G Media industry, (H2020, ICT-IA), 2017-2019, CERTH/ITI Budget: 388.500€.

16. EASYTV: Easing the access of Europeans with disabilities to converging media and content, (H2020, ICT-IA), 2017-2020, CERTH/ITI Budget: 299.937.50€.

17. HYPER360: Enriching 360 media with 3D storytelling and personalisation elements, (H2020, ICT-IA), 2017-2020, CERTH/ITI Budget: 545.375€.

18. VRTOGETHER: An end-to-end system for the production and delivery of photorealistic social immersive virtual reality experiences, (H2020, ICT-IA), 2017-2020, CERTH/ITI Budget: 507.875€.
19. FACTORY2FIT: Empowering and participatory adaptation of factory automation to fit for workers, (H2020, FOF-RIA), 2016-2019, CERTH/ITI Budget: 251.250€.

January 2013 – March 2016: Researcher Grade B' at the Information Technologies Institute (I.T.I) of the Centre for Research and Technology Hellas (CE.R.T.H.). Since 2013 he attracted **5.875.668,1€** corresponding to the following EU funded projects:

1. ASGARD: Analysis System for Gathered Raw Data, (H2020, FCT-RIA), 2016-2020, **Scientific Manager**, CERTH/ITI Budget: 513.750€.

2. DANTE: Detecting and ANalysing TErrorist-related online contents and financing activities, (H2020, FCT-IA), 2016-2019, **Technical Project Manager,** CERTH/ITI Budget: 394.250€.

3. MATHISIS: Managing Affective-learning THrough Intelligent atoms and Smart InteractionS, (H2020, ICT-IA), 2016-2018, **Technical Project Manager**, CERTH/ITI Budget: 812.677.51€.

4. ICT4LIFE: ICT services for Life Improvement for the Elderly, (H2020, PHC-RIA), 2016-2018, CERTH/ITI Budget: 404.375.08€.

5. I-PROGNOSIS: Intelligent Parkinson eaRly detectiOn Guiding NOvel Supportive InterventionS, (H2020, PHC-RIA), 2016-2018, CERTH/ITI Budget: 25.000€.

6. FORENSOR: FOREnsic evidence gathering autonomous seNSOR, (H2020, FCT – IA), **Project coordinator and Technical Project Manager**, 2015-2018, CERTH/ITI Budget: 626.125€.

7. TRILLION: TRusted, CItizen - LEA coILaboratIon over sOcial Networks, (H2020, FCT-RIA), 2015-2017, CERTH/ITI Budget: 374.250€.

8. PROSOCIALLEARN: Gamification of Prosocial Learning for Increased Youth Inclusion and Academic Achievement, (H2020, ICT – IA), 2015-2107, CERTH/ITI Budget: 516.250€.

9. PATHWAY: Technology enabled behavioural change as a pathway towards better self-management of CVD, (H2020, PHC-RIA), 2015-2107, **Technical Project Manager**, CERTH/ITI Budget: 402.500€.

10. FI-STAR: Future Internet Social and Technological Alignment Research, (ICT-PPP, FP7), 2013-2015, Coordinator of the Proposal HeartHealth, which was accepted in the open call, CERTH/ITI Budget: 104.996€.

11. LASIE: Large Scale Information Exploitation of Forensic Data, IP, Security, (FP7), 2014-2017, **Technical Project Manager**, CERTH/ITI Budget: 1.349.637.87€.

12. REPLAY: Reusable low-cost platform for digitizing and preserving traditional participative sport, (ICT − STREP, FP7), 2013-2015, CERTH/ITI Budget: 351.856.64€.

January 2009 − December 2012: Researcher Grade C' at the Information Technologies Institute (I.T.I) of the Centre for Research and Technology Hellas (CE.R.T.H.). As a Researcher C' he attracted **4.522.594€** corrsponding to the following projects:

1. 3DLIVE: 3D Living Interactions through Visual Environments, (ICT − STREP, FP7), 2012-2014, CERTH/ITI Budget: 308.195.02€.

2. EXPERIMEDIA: EXPERiments in live social and networked MEDIA experiences, (ICT-IP, FP7), 2011-2014, CERTH/ITI Budget: 171.070€.

3. REVERIE: REal and Virtual Engagement in Realistic Immersive Environments, (ICT-IP, FP7), 2011-2015, CERTH/ITI Budget: 706.469.03€.

4. CUBRIK: Human-enhanced multimedia search, (ICT-IP, FP7), 2011-2014, CERTH/ITI Budget: 523.800.01€.

5. EMC2: Excellence in media computing and communication, (ICT-SA, FP7), 2011-2014, CERTH/ITI Budget: 93.625€.

6. ADVISE: Advanced video surveillance archives search engine for security applications, (SEC, FP7), 2012-2015, **Technical Project Manager,** CERTH/ITI Budget: 656.496.84€.

7. CEEDS: The Collective Experience of Empathic Data Systems, (FET, FP7), 2010-2104, CERTH/ITI Budget: 198.542.26€.

8. I-SEARCH: A unIfied framework for multimodal content SEARCH, (ICT-STREP, FP7), 2010-2012, **Technical Project Manager**, CERTH/ITI Budget: 466.055.49€.

9. 3DLIFE: Bringing the 3D Internet to Life, (ICT-NoE, FP7), 2010-2013, CERTH/ITI Budget: 394.947.99€.

10. 3DVIVANT: Live Immerse Video-Audio Interactive Multimedia, (ICT-STREP, FP7), 2010-2013, CERTH/ITI Budget: 519.085.32€.

11. ASSETS: Advanced Search Services and Enhanced Technological Solutions for the European Digital Library, (CIP-ICT, PSP, FP7), 2010-2011, CERTH/ITI Budget: 218.500€.

12. NEXTMEDIA: Future Media Internet Coordination Action, (ICT-CA, FP7), 2009-2011, CERTH/ITI Budget: 156.297.04€.

13. ROWER: Building a knowledge repository for Occupational Well-Being, (HEALTH - ICT-CA, FP7), 2009-2011, CERTH/ITI Budget: 95.230€.

14. SAUDI ARAMCO: Development of an Integrated Monitoring System for continuous monitoring of membrane desalination plants, (χρηματόδοτηση από την εταιρεία Saudi Aramco), (2008-2010), CERTH/ITI Budget: 14.280€.

July 2006 – June 2009: Researcher Grade D' at the Informatics and Telematics Institute (I.T.I) of the Centre for Research and Technology Hellas (CE.R.T.H.). As a Researcher D' he attracted **341.629,24€**

Scientific leadership and participation in the following EU and Greek projects:

1. VICTORY: Audio-Visual content search and retrieval in a distributed P2P repository, (FP6 - STREP), 2007-2009, Technical Project Manager, CERTH/ITI Budget: 230.000€.

2. ALTAB23D: 3D object Search engine and validation in e-business environment (e-business-to-3D), (GSRT-PAVET), 2006-2007, CERTH/ITI Budget: 59.500€.

3. TELEDIAB: Study of the Capabilities and Requirements of Operational Client-Server Health Information System for Diabetes, Black Sea Economic Cooperation (BSEC), 2007-2008, CERTH/ITI Budget: 1.549.24€.

4. Προηγμένες μέθοδοι οπτικής υπολογιστικής στην πολιτισμική κληρονομιά, (ΓΓΕΤ -ΠΕΝΕΔ 2003), 2005-2008, CERTH/ITI Budget: 5.865€.

5. Thessaloniki Film Festival.: Digitization of Thessaloniki's Film Festival Cultural Content, InfoSoc – 3rd CSF, 2007-2008 - ITI Budget: 38.850€.

6. Techni Fos Elliniko, 2008, Subcotracting, ITI Budget: 5.865€.

7. Advanced methods of visual computing in the cultural heritage, 2005-2008, CERTH / ITI Budget: 5.865€.

January 2000 – June 2006: Research Associate at the Informatics and Telematics Institute (I.T.I) of the Centre for Research and Technology Hellas (CE.R.T.H.)

Participation in the following Greek and European funded projects (as a group member):

1. "EGEE: Enabling Grids for e-science in Europe", IST, 2004-2006, (FP6 – Integrated Infrastructure Initiative).

2. A Standard for the Evaluation of Health and Safety Conditions in Workplace, GSRT-EPAN, 2003-2005.

3. P2P "Common interests" Search Engine and Collaboration Platform (P2PEOPLE), IST – FP5, 2002-2004.

4. "Wideband Services over ADSL Network", funded by the Greek Telecommunications Organisation (OTE), 2002-2003.
5. "Telemedicine Applications", funded by the GSRT, Greece-Yugoslavia bilateral scientific cooperation agreement project, 2002-2004.
6. "Telemedicine Applications using the WAP Protocol", funded by the GSRT, Greece-Cyprus bilateral scientific cooperation agreement project, 2003-2005.
7. "Technologies for Remote Monitoring Patients", funded by the GSRT - PAVET, (assoc. Interbalkan Medical Center), 2001-2003.
8. "MPEG-4 Toolbook", funded by the GSRT - PENED, 1999-2001.

Teaching Experience

2008 – Today: Visiting professor at the Aristotle University of Thessaloniki, Department of Medicine, MSc Programme in Medical Informatics, Course: "Digital Image Processing".

2003-2004-2005: Aristotle University of Thessaloniki, Department of Electrical and Computer Engineering, Teaching Assistant (of Prof Michael G. Strintzis), Course: "Digital Image Processing".

2002-2003: CITY Liberal Studies, Affiliated Institution of the University of SHEFFIELD, Instructor, Course: "Medical Informatics".

PhD Advisor of the following students:

Nikolaos Baras, (co-supervisor with Prof. M. Dassygenis), University of Western Macedonia, "Optimization algorithms for robotic applications", 2019-

Anargyros Chatzitofis, (co-advisor with Prof. S. Kollias), National Technical University of Athens, "Extending human motion capturing and evaluation to challenging conditions", 2015-

Anastassios Dimou, (co-advisor with Prof. F. Alvarez), Universidad Politecnica de Madrid, "Object recognition and tracking for surveillance applications using deep learning techniques", 2015-

Spyridon Thermos, (co-advisor with Prof. G. Potamianos), University of Thessaly, "Sensorimotor Object Recognition", 2015-

Theodoros Semertzidis, (co-advisor with Prof. Michael G. Strintzis) Aristotle University of Thessaloniki, Department of Electrical and Computer Engineering, "New Architectures for multimedia retrieval", 2010-2016.

Georgios Kordelas, (co-advisor with Prof. Ebroul Izquierdo), Queen Mary University of London, "3D User-Generated Worlds from Visual Data", 2011- 2015.

Dimitrios Zarpalas, (co-advisor with Prof. Nickos Maglaveras) Aristotle University of Thessaloniki, Department of Medicine (Medical Informatics), "Segmentation and reconstruction of 3D brain structures", 2008-2014.

Apostolos Axenopoulos, (co-advisor with Prof. Houstis) University of Thessaly, "Protein docking", 2009-2013.

Athanassios Mademlis, (co-advisor with Prof. Michael G. Strintzis and Dr. D. Tzovaras) Aristotle University of Thessaloniki, Department of Electrical and Computer Engineering, "3D content-based search", 2005-2008.

PhD Examination

Ioannis Kapsouras, Aristotle University of Thessaloniki, "Analysis of skeleton and other 3D data", 2019 - member of the examination committee.

Dimitrios Bechtsis, Aristotle University of Thessaloniki, "Digital manufacturing methodologies and information technology (IT) tools for the management and control of autonomous vehicles in Supply Chains", Mar. 2018 - member of the examination committee

Ilias Kalamaras, (Prof Erol Gelenbe) Imperial College London, "A novel approach for multimodal graph dimensionality reduction", Dec. 2015 - member of the examination committee

Stavros Papadopoulos, (Prof Erol Gelenbe) Imperial College London, "Novel Graph Analytics for Enhancing Data Insight", Dec. 2015 - member of the examination committee

Co-advisor of diploma and MSc theses (with Profs: Strintzis, Mitkas, Maglaveras, Delopoulos, Aletras)

- D. Kaitalidou, "Deep learning techniques for the extraction and visualisation of immunogenic characteristics from Patients with chronic lymphocytic leukemia", AUTH, 2017.
- D. Ataloglou, "Convolutional Neural Networks for segmenting hippocampus in MRIs", AUTH, 2017.
- G. Zampokas, "3D reconstruction using multiple cameras: head orientation determination and surface estimation" AUTH, 2016.
- A. Ioannou (MSc), "Motion compensation of MRIs", AUTH, 2016.
- G. Spanos (MSc), "Automatic segmentation of Hippocampus from human MRIs", AUTH, 2014.
- P. Gkontra (MSc), "Morfometric description and analysis of 3D brain structures", AUTH, 2013.
- A. Zafeiropoulos (MSc), "Hippocampus-amygdala segmentation from MR Images", AUTH, 2012.
- E. Lyka, "Depth estimation from integral images", AUTH, 2010
- G. Vouzounaras, "3D reconstruction from a single image", AUTH, 2010.
- M. Karavaggelas, "Algorithm for determining protein binding sites using geometric complementarity", AUTH, 2010.

- G. Kounakis, "Localization and fitting of 3-D anatomical structures with the means of local regression kernels" AUTH, 2011.
- V. Sakkalis, "Prostate ultrasound image processing" MSc-Thesis, AUTH – Medical informatics, 2010.
- S. Papaioannou, "3D object retrieval using Riemannian geometry" AUTH, 2008.
- N. Georgakakis, "Real-Time single camera Simultaneous Localization and Mapping with object recognition", AUTH, 2008.
- K. Kontonasios, "3D Object Recognition in 2.5D Scenes", AUTH, 2008.
- J. Konstantinides, "Blind Robust 3DMesh Watermarking Based on Oblate Spheroidal Harmonics", AUTH, 2008.
- V. Tsatsaias, "classification of protein data using topological, geometrical and biological information" AUTH, 2007.

IEEE Activities

- **Chair** of the IEEE Interest Group (IG) on Image, Video and Mesh Coding of the IEEE Multimedia Communication Technical Committee (2012 – 2014).
- **Key member** of the IEEE Interest Group (IG) on 3D Rendering, Processing and Communications of the IEEE Multimedia Communication Technical Committee (2010 - today).
- **Area Chair** IEEE ICIP, Phoenix, Arizona, USA (2016).
- **Area Chair** IEEE ICIP, Athens, Greece (2018).

Editorial

- FRONTIERS Human-Robot Interaction Journal, Special Issue on "Artificial Intelligence and Human Movement in Industries and Creation", 2019, **Guest Editor**
- SENSORS Journal, Special Issue on "Sensors Fusion for Human-Centric 3D Capturing", 2019, **Guest Editor**
- Future Internet Assembly 2013: Validated Results and New Horizons,   **Co-editor.** http://www.springer.com/in/book/9783642380815
- Future Internet Assembly (FIA) Book, 2012, **Co-editor.** http://www.future-internet.eu/fiabook-2012
- Future Internet Assembly (FIA) Book, 2011, **Co-editor.** http://www.springer.com/computer/communication+networks/book/978-3-642-20897-3
- ACM Springer Mobile Networks and Applications (MONET) Journal, Special Issue on "Mobility and User-Centric Media", 2010, **Guest Editor.**
- IEEE Wireless Communications Magazine, Special Issue on "Seamless Content Delivery in the Future Mobile Internet", 2009, **Guest Editor.**
- EURASIP Journal on Applied Signal Processing, Special Issue on "Shape and Retrieval of 3D content and associated knowledge", 2006, **Guest Editor.**

Contest participation

- First place of the world-wide contest in SHREC'11 - Shape Retrieval Contest 2011, Track: Generic 3D Warehouse: http://www.itl.nist.gov/iad/vug/sharp/contest/2011/Generic3D.

Press releases & TV

- Newspaper tanea, 18 April 2017: http://www.tanea.gr/instanea/i-poli-mou/article/5439791/h-rompotikh-sthn-yphresia-ths-ekpaideyshs/.
- Voria.gr, 19 March 2016: "SURVANT".
  http://www.voria.gr/article/survant-erevnitiko-ergo-stin-ipiresia-tou-nomou-ke-tis-taxis
- Newspaper Aggelioforos, 8 February 2015: "A flavor from the 3D future":
  http://www.agelioforos.gr/default.asp?pid=7&ct=13&artid=220513.
- Newspaper Kathimerini, 23 August 2014:
  http://www.kathimerini.gr/780815/article/texnologia/computers/odhgos--epiviwshs-sthn-epoxh-twn-polymeswn.
- Newspaper Aggelioforos, 13 October 2013.
- European Researcher's night, 27 September 2013: http://vcl.iti.gr/uropean-researchers-night-2013/
- Newspaper Dimokratia, 29 April 2012.
- ERT, 25 January 2012:
  http://www.amna.gr/pressReleaseView.php?id=12547&doc_id=10747996
- Newspaper Aggelioforos, 8 May 2011:
  http://www.agelioforos.gr/default.asp?pid=7&ct=1&artid=91658
- Newspaper Aggelioforos, 29 June 2011:
  http://www.agelioforos.gr/default.asp?pid=7&ct=1&artid=100033
- Newspaper Kathimerini, 29 December 2010:
  http://news.kathimerini.gr/4dcgi/_w_articles_ell_2_29/12/2010_427046

Distinctions

The paper: Dimitrios S. Alexiadis, Dimitrios Zarpalas, and Petros Daras, "Real-Time, Full 3-D Reconstruction of Moving Foreground Objects From Multiple Consumer Depth Cameras", IEEE Transactions on Multimedia, Vol. 15, No. 2, pages 339-358, 2013, was selected as – distinguished paper – and its analysis was presented in the IEEE COMSOC MMTC R-Letter, April-June 2013, http://committees.comsoc.org/mmc/r-letters/MMTC-RLetter-Jun2013.pdf.

The paper: D. Alexiadis, D. Zarpalas, P. Daras, "Real-time, Realistic Full-body 3D Reconstruction and Texture Mapping from Multiple Kinects", 11th IEEE IVMSP Workshop: 3D Image/Video Technologies and Applications, Yonsei University, Seoul, Korea, 10-12 June 2013, won the Best Paper Award Prize.

The paper: T. Theodoridis, V. Solachidis, N. Vretos, P. Daras, "Human fall detection from acceleration measurements using a Recurrent Neural Network", International Conference on Biomedical and Health Informatics, Thessaloniki, Greece, 18-21 November 2017, won the Best Paper Award Prize.

The paper: K. Christaki, K. C. Apostolakis, A. Doumanoglou, N. Zioulis, D. Zarpalas and P. Daras, "Space Wars: An AugmentedVR Game", 25th International Conference on Multimedia Modelling, Thessaloniki, Greece, 8-11 January 2019 won the Best Demo Award.

MPEG standard contribution

VCL provided MPEG 3D Graphics Compression group (MPEG-3DGC) with datasets of Multiple Kinect-based 3D reconstructed meshes: https://www.gti.ssr.upm.es/~mpeg/3dgc/3Dmodels/

Journal Review

- IEEE Transactions on Pattern Analysis and Machine Intelligence
- IEEE Transactions on Image Processing
- IEEE Transactions on Multimedia
- IEEE Communications Magazine
- IEEE Systems, Man and Cybernetics: Systems
- IEEE Journal of Selected Topics in Signal Processing
- IEEE Signal Processing Letters
- IEEE MultiMedia
- IEEE Communications Letters
- IEEE Transactions on Information Forensics & Security
- IEEE Transactions on Industrial Informatics
- International Journal of Computer Vision (IJCV)
- ACM Journal on Computing and Cultural Heritage
- ACM Transactions on Intelligent Systems and Technology
- ACM Transactions on Multimedia Computing, Communications and Applications (TOMM)
- ELSEVIER: Pattern Recognition Journal
- ELSEVIER: Journal of Systems and Software
- ELSEVIER: Image Communication
- ELSEVIER: Information Processing Letters
- ELSEVIER: Digital Signal Processing
- ELSEVIER: Gait & Posture
- ELSEVIER: Signal Processing
- ELSEVIER: Computer Methods and Programs in Biomedicine
- SPRINGER: Information Retrieval
- SPRINGER: The Visual Computer Journal
- SPRINGER: Knowledge and Information Systems Journal
- SPRINGER: Multimedia Tools and Applications
- SPRINGER: 3D Research

- SPRINGER: SpringerPlus

- SPRINGER: Medical & Biological Engineering & Computing

- EURASIP: Journal on Image and Video Processing

- IET Computer Vision

- International Journal of Informatica

- Journal of Electronic Imaging (JEI)

- Journal of Computer Graphics Forum

- International Journal of Bioinformatics Research and Applications (IJBRA)

Conference/workshop/special session organisation

- **Workshop co-chair** on "Multimodal signal sensing and analysis for assistive environments for improving qualiyy-of-life (AGENT)", ACM Pervasive Technologies Related to Assistive Environments (PETRA) conference, Rhodes, Greece, 5-7 June 2019.

- **Workshop co-chair** on "Patient data acquisition, analysis, profiling and personalized care plan (PEARL)", ACM Pervasive Technologies Related to Assistive Environments (PETRA) conference, Corfu, Greece, 26-29 June 2018.

- **Technical Program co-chair** of QoMEX 2018: 10th International Conference on Quality of Multimedia Experience, Sardinia, Italy, 29-31 May 2018.

- **Special Session co-chair** on "Adaptive and Personalized Game-based Learning Environments", 9th International Conference on Virtual Worlds and Games for Serious Applications (VS-Games 2017), Athens, Greece, 6-8 September 2017.

- **Workshop co-chair** on "Smart Indoor Event and Activity Recognition", 14th IEEE International Conference on Advanced Video and Signal based Surveillance, Lecce, Italy, 29 Aug. – 1 September 2017.

- **Workshop co-chair** on "Analysis of video and audio "in the Wild": addressing real-world data sources to support the fight against crime and terrorism", 14th IEEE International Conference on Advanced Video and Signal based Surveillance, Lecce, Italy, 29 Aug. – 1 September 2017.

- **Special Session co-chair** on "Fighting against crime using video analysis", 23rd ICE/IEEE ITM 2017 International Conference on Engineering, Technology and Innovation, Madeira Island, Portugal, 27-29 June 2017.

- **Special Session co-chair** on "Video Processing in the Wild: Understanding Real CCTV Street-Scenes" IEEE ICIP, Phoenix, Arizona, USA, 25-28 September 2016.

- **Technical chair** of the IET on ICDP-15: Sixth International Conference on Imaging for Crime Detection and Prevention, London, UK, 15-17 July 2015.

- **Workshop co-chair** on "Designing Augmented Experiences", 17th ACM Virtual Reality International Conference – Laval Virtual 2015, Laval, France, 8-12 April 2015.

- **Workshop co-chair** on "SoHuman 2014 – 3rd International Workshop on Social Media in Crowdsourcing and Human Computation", Socinfo 2014, The 6th International Conference on Social Informatics. Barcelona, 10-13 November 2014.

- **Special session co-chair** on "Multi-modal sensing and analysis of human motion for sporting and leisure applications", EUSIPCO

2014: 22nd European Signal Processing Conference, Lisbon, Portugal, 1-5 September 2014.

- **EU Projects session chair** of the IET on ICDP-13: Fifth International Conference on Imaging for Crime Detection and Prevention, London, UK, 16-17 December 2013.

- **Special session co-chair and European Liaison** on "3D reconstruction, coding and transmission for audiovisual interactive services", WIAMIS 2013: 14th International Workshop on Image and Audio analysis for multimedia interactive services, Paris, France, 3-5 July 2013.

- **Special session Co-chair** on "3D Reconstruction and Immersive environments" 11th IEEE IVMSP Workshop: 3D Image/Video Technologies and Applications, Yonsei University, Seoul, Korea, 10-12 June, 2013

- **Workshop co-chair** on "SoHuman 2013 – 2nd International Workshop on Social Media for Crowdsourcing and Human Computation", ACM Web Science 2013, Paris, France, 2-4 May 2013.

- **Symposium Co-chair** on "Sharing Live User Experience: How New Mixed Reality Technologies and Networks Support Real-Time Interactions", 15th Virtual Reality International Conference, Laval, France, 20-24 March 2013.

- **Workshop Co-chair** on "SoHuman 2012 - 1st International Workshop on Social Media for Human Computation, Amsterdam, Holland, 3-6 September 2012.

- **Program co-chair** of the 13th Int. Workshop on Image Analysis for Multimedia Interactive Services (WIAMIS 2012), Dublin City University, Ireland, 23-25 May 2012.

- **Special session chair** of the 18th Int. Conference on Multimedia Modeling (MMM 2012): "Multi-modal and Cross-modal Search", Klagenfurt, Austria, 4-6 January 2012.

- **Program co-chair** of the Workshop on Hyper-media 3D Internet (2008).

- **General chair** of the First International Conference on User Centric Media UCMedia (2009).

PC membership

- Program committee member of the International Conference on Computer Communications and Networks – ICCCN.

- Program committee member of the Asian Conference on Computer Vision – ACCV.

- Program committee member of the EUROGRAPHICS, Workshop on 3D object retrieval.

- Program committee member of the IEEE International Conference on Tools with AI - ICTAI.

- Program committee member of the IEEE Future Multimedia Networking Conference – FMN.

- Program committee member of the VISSAP conference.

- Program committee member of the 3DTV conference.

- Scientific Committee member of eNTERFACE'09.

- Program committee member of the International conference and exhibition on Virtual Reality and converging technologies.

- Program committee member of the IEEE International Conference on Multimedia and Expo: Vision and Graphics Computing for Multimedia Communications workshop.

- Program committee member of the Multimedia Access to 3D Human Objects Workshop - ACM Multimedia

- Program committee member of the Third World Congress on Nature and Biologically Inspired Computing

- Program committee member of the ACM Multimedia workshop on Surreal Media and Virtual Cloning.

- Program committee member of the ACM Multimedia 2010 workshop on 3D object retrieval.

- Program Committee member of the Future Internet Symposium 2010: Towards a Converged, Consolidated and Sustainable Future Internet.

- Program Committee member of the Laval Virtual: International conference and exhibition on virtual reality and converging technologies.

- Program committee member of the International Conference on Computer Convergence Technology

- Program Committee Member of the IASTED International Conference on Signal Processing, Pattern Recognition and Applications - SPPRA

- Program Committee Member of the World Wide Web 2012, Workshop Crowdsourcing Web Search.

- Program Committee Member of the IEEE International Conference on Systems, Man, and Cybernetics.

- Program Committee Member of the ACM Workshop on Crowdsourcing for Multimedia at ACM MM.

- Program Committee Member of the Asian Conference on Computer Vision – ACCV.

- Program Committee Member of the ACM Multimedia Systems.

- Program Committee Member of the IASTED International Conference on Signal Processing, Pattern Recognition and Applications – SPPRA.

- Program Committee Member of the EDBT: International Conference on Extending Database Technology.

- Program Committee Member of WIAMIS.

- Program Committee Member of the 4th IEEE Workshop on Hot Topics in 3D.

- Program Committee Member of the IET International Conference on Imaging for Crime Detection and Prevention.

- Program Committee Member of the International Workshop on Social Behaviour Analysis SBA.

- Program Committee Member of the Ibero-American Conference on Artificial Intelligence IBERIAMA.

- Program Committee Member of the International Conference on Advances in Multimedia (MMEDIA)

- Program Committee Member of the International Conference on Similarity Search and Applications (SISAP).

- Program Committee Member of the International Conference on Advances in Multimedia (MMEDIA).

- Program Committee Member of the 1st International Workshop on the Social Web for Environmental and Ecological Monitoring SWEEM.

- Program Committee Member of the 6th IEEE Workshop on Hot Topics in 3D.

- Program Committee Member of the 3DTV-CON.

- Program Committee Member of the International Conference on Multimedia Modeling (MMM).

- Program Committee Member of the IEEE International Conference on Multimedia and Expo ICME.

- Program Committee Member of the ACM Multimedia Systems Conference (MMSys).

- Program Committee Member of the IEEE International Conference on Multimedia and Expo.

- Program Committee Member of the EUROGRAPHICS.

- Program Committee Member of ACM Multimedia.

- Program Committee Member of ICIP - IEEE International Conference on Image Processing.

- Program Committee Member of the ACM MMSys (Multimedia Systems).

- Program Committee Member of the ICE/ITMC International Conference on Engineering, Technology and Innovation.

- Program Committee Member of the IEEE Computer Vision and Pattern Recognition.

- Program Committee Member of EUSIPCO.

- Program Committee Member of the IEEE International Conference on Multimedia and Expo.

EU review/valuation

- Reviewer of the CPN project (2018, 2019)
- Evaluator of the Swiss National Science Foundation (2018)
- Reviewer of the FLAME project open call (2018)
- Evaluator of the FI-C3 open calls (2015)
- Reviewer of a GSRT project (2014, 2015, 2019)
- Evaluator of FI-ADOPT Open Calls (2014-2015)
- Evaluator of FI-CONTENT 2 Open Call (2014)
- Reviewer of the FI-Content II project (2013)
- Evaluator of FP7 FINESCE Open Call (2013)
- Evaluator of FP7 XiFI Open Call (2013)
- Reviewer of the PPP FI-Content project (2011-2013)
- Evaluator of FP7 calls: Future Internet PPP (2011, 2012)
- Evaluator of COST proposals (2011)
- Evaluator of FP7 calls: eInfrastructures (2011)
- Reviewer of the EU CA Project DRIHMS (2010-2011)
- Reviewer of the EU STREP Project MyMedia (2009-2011)
- Reviewer of the EU NoE Project Content (2008-2010)

Memberships

- Chair of the IEEE IG on Image, Video & Mesh coding.

- Key member of the IEEE IG on 3D rendering, Processing and Communications.

- Member of the working group: Future Internet Architectures, EU Networked Media Unit (2010 - 2012).

- "User centric media" cluster of European projects: **cluster coordinator** (15 FP6-FP7 EU funded projects) (2007 – 2010).

- **Coordinator** of the European task force: Future Media Internet, EU Networked Media Unit (2008 - 2011).

- Member of the working group: Content-Centric Networks, EU Networked Media Unit (2009 - 2010).

- Member of the working group: Content-Centric Internet Architecture, EU Networked Media Unit (2009 -).

- Future Internet Assembly (FIA) core member, EU Networked Media Unit (2008).

- Future content networks @ FIA: Key note speaker: "3D Internet", "3D Content Search" (Bled, Madrid, 2008).

- Real world Internet @ FIA, core member (Madrid 2008).

- ICT event 2008, Speaker: "Networked search" (Lyon 2008).

- "Search engines" cluster of European projects: Member (2007 – 2009).

- "3D media" cluster of European projects: Member (2007 – 2009).

- Rapporteur of the group: Future Internet of Creative Media, EU Networked Media Unit (2007).

- Senior Member of the Institute of Electrical and Electronics Engineers (IEEE).

- Member of the Technical Chamber of Greece.

Publications

Journals

1. **M. Angelou, V. Solachidis, N. Vretos, P. Daras,** "Graph-based Multimodal Fusion with Metric Learning for Multimodal Classification", Pattern Recognition (2019), Vol. 95, p. 296-307. DOI: 10.1016/j.patcog.2019.06.013.
2. **M. Tsourma, S. Zikos, G. Albanis, K. C. Apostolakis, E. E. Lithoxoidou, A. Drosou, D. Zarpalas, P. Daras, D. Tzovaras,** "Gamification Concepts for Leveraging Knowledge Sharing in Industry 4.0", International Journal of Serious Games (2019), Vol. 6 No. 2, p. 75 - 87. DOI: 10.17083/ijsg.v6i2.273.
3. **B. Takacs, Z. Vincze, H. Fassold, A. Karakottas, N. Zioulis, D. Zarpalas, P. Daras**, "Hyper 360 – Towards a Unified Tool Set Supporting Next Generation VR Film and TV Productions", Journal of Software Engineering and Applications (2019), Vol. 12, p. 127-148, DOI: 10.4236/jsea.2019.125009.
4. **D. Ataloglou, A. Dimou, D. Zarpalas, P. Daras,** "Fast and Precise Hippocampus Segmentation Through Deep Convolutional Neural Network Ensembles and Transfer Learning", Neuroinform (2019), p. 1-20, DOI: 10.1007/s12021-019-09417-y.
5. **A. Doumanoglou, P. Drakoulis, N. Zioulis, D. Zarpalas, P. Daras,** "Benchmarking Open-Source Static 3D Mesh Codecs for Immersive Media Interactive Live Streaming", IEEE Journal on Emerging and Selected Topics in Circuits and Systems, Vol 9, Issue: 1, p. 190-203, DOI: 10.1109/JETCAS.2019.2898768.
6. **A. Psaltis, K. Apostolakis, K. Dimitropoulos, P. Daras,** "Multimodal Student Engagement Recognition in Prosocial Games", IEEE Transactions on Games, Vol. 10, Issue 3, p. 292-303, DOI: 10.1109/TCIAIG.2017.2743341.
7. **A. Chatzitofis, D. Zarpalas, S. Kollias, P. Daras**, "DeepMoCap: Deep Optical Motion Capture Using Multiple Depth Sensors and Retro-Reflectors", Special Issue: Depth Sensors and 3D Vision, Sensors 2019, Vol. 19, Issue 2, p. 282, DOI: 10.3390/s19020282.
8. **A. Dimou, D. Ataloglou, K. Dimitropoulos, F. Alvarez**, *P. Daras*, "LDS-Inspired Residual Networks", IEEE Transactions on Circuits and Systems for Video Technology (TCSVT) 2018, pp.1-1, DOI: 10.1109/TCSVT.2018.2869680.
9. **D. Tsatsou, N. Vretos**, *P. Daras*, "Adaptive game-based learning in multi-agent educational settings", Special Issue: Education and Learning for Virtual Environments and Serious Games, Journal of Computers in Education, Springer 2018, pp. 1-25, DOI: 10.1007/s40692-018-0118-9.
10. **A. Triantafyllidis, D. Filos, R. Buys, J. Claes, V. Cornelissen, E. Kouidi, A. Chatzitofis, D. Zarpalas,** *P. Daras*, **D. Walsh, C. Woods, K. Moran, N. Maglaveras, I. Chouvarda,** "Computerized

decision support for benefi• cial home-based exercise rehabilitation in patients with cardiovascular disease", Computer Methods and Programs in Biomedicine 2018, Vol. 162, pp. 1-10, DOI: 10.1016/j.cmpb.2018.04.030.

11. **G. T. Papadopoulos,** *P. Daras,* "Human Action Recognition Using 3D Reconstruction Data", IEEE Transactions on Circuits and Systems for Video Technology, accepted for publication 2018, Vol. 28, Issue 8, pp. 1807-1823, DOI: 10.1109/TCSVT.2016.2643161.

12. **D. Alexiadis, N. Zioulis, D. Zarpalas**, *P. Daras*, "Fast deformable model-based human performance capture and FVV using consumer-grade RGB-D sensors", Pattern Recognition, Elsevier 2018, Vol. 79, pp. 260-278, DOI: 10.1016/j.patcog.2018.02.013.

13. **F. Alvarez, M. Popa, V. Solachidis, G. Hernandez, A. Belmonte-Hernandez, S. Asteriadis, N. Vretos, M. Quintana, D. Dotti, T. Theodoridis,** *P. Daras*, **"**Behavior Analysis through Multimodal Sensing for Care of Parkinson's and Alzheimer's Patients"**,** in IEEE MultiMedia 2018,Vol. 25, Issue 1, pp. 14-25, DOI: 10.1109/MMUL.2018.011921232.

14. **A. Doumanoglou, D. Griffin, J. Serrano, N. Zioulis, T.K. Phan, D. Jimenez, D. Zarpalas, F. Alvarez, M. Rio,** *P. Daras*, "Quality of Experience for 3D Immersive Media Streaming"**,** IEEE Transactions on Broadcasting, Special Issue on Quality of Experience for Advanced Broadcast Service, Accepted for publication in 31 Mar. 2018, Vol. 64, Issue 2, pp. 379-391, DOI: 10.1109/TBC.2018.2823909.

15. **F. Patrona, A. Chatzitofis, D. Zarpalas,** *P. Daras,* "Motion Analysis: Action Detection, Recognition and Evaluation based on motion capture data"**,** Pattern Recognition, Special Issue on Articulated Motion and Deformable Objects 2018, Vol. 76, pp. 612-622, DOI: 10.1016/j.patcog.2017.12.007.

16. **A. Triantafyllidis, D. Filos, R. Buys, J. Claes, V. Cornelissen, E. Kouidi, A. Chatzitofis, D. Zarpalas,** *P. Daras*, **D. Walsh, C. Woods, K. Moran, N. Maglaveras, I. Chouvarda,**"Computerized decision support for beneficial home-based exercise rehabilitation in patients with cardiovascular disease", Computer Methods and Programs in Biomedicine 2018, Vol. 162, pp.1-10, DOI: 10.1016/j.cmpb.2018.04.030.

17. **N. Vretos, P. Daras, S. Asteriadis, E. Hortal, E. Ghaleb, E. Spyrou, H. C. Leligou, P. Karkazis, P. Trakadas, K. Assimakopoulos**, "Exploiting sensing devices availability in AR/VR deployments to foster engagement", Special Issue: VR in Education, Springer Virtual Reality 2018, pp. 1-12, DOI: 10.1007/s10055-018-0357-0.

18. **A. Psaltis, K. Apostolakis, K. Dimitropoulos,** *P. Daras*, "Multimodal Student Engagement Recognition in Prosocial Games", IEEE Transactions on Computational Intelligence and AI in Games (T-CIAIG) 2017, Vol. 10, Issue 3, pp. 292-303, DOI: 10.1109/TCIAIG.2017.2743341.

19. **A. Axenopoulos, V. Eiselein, A. Penta, E. Koblents, E. La Mattina,** *P. Daras*, **T. Semertzidis, M. Lazaridis, A. Dimou, T. Senst, J. Amores, F. Alvarez, L. Kondrad, G. Vella, A. Randazzo, P. Pomo,** "A framework for large-scale analysis of video 'in the Wild' to assist digital forensic examination**",** IEEE Security & Privacy Magazine 2017, Special Issue: Digital Forensics.

20. **S. Asteriadis, P. Daras,** "Landmark-based multimodal human action recognition", Springer Multimedia Tools and Applications Journal (MTAP) 2016, Vol. 76, Issue 3, pp. 4505-4521, DOI: 10.1007/s11042-016-3945-6.

21. **K. Apostolakis, A. Psaltis, K. Stefanidis, K. Kaza, S. Thermos, K. Dimitropoulos, E. Dimaraki, P. Daras,** "Exploring the Prosociality Domains of Trust and Cooperation, through Single and Cooperative Digital Gameplay in Path of Trust", International Journal of Serious Games (IJSG) 2016, Vol. 3.3, pp. 39-57, https://pdfs.semanticscholar.org/30a2/c4a8cf4b65214a1da4c378638f f49ab0a5de.pdf.

22. **D. Alexiadis, A. Chatzitofis, N. Zioulis, O. Zoidi, G. Louizis, D. Zarpalas, P. Daras,** "An integrated platform for live 3D human reconstruction and motion capturing", IEEE Transactions on Circuits and Systems for Video Technology 2016, Vol. 27, Issue 4, pp. 798-813, DOI: 10.1109/TCSVT.2016.2576922.

23. **G. Kordelas, D. Alexiadis,** *P. Daras*, **E. Izquierdo,** "Content-based guided image filtering, weighted semi-global optimization and efficient disparity refinement for fast and accurate disparity estimation", IEEE Transactions on Multimedia 2016, Vol. 18, Issue 2, pp.155-170, DOI: 10.1109/TMM.2015.2505905.

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25. **A. Axenopoulos, D. Rafailidis, Ge. Papadopoulos, E. Houstis,** *P. Daras*, "Similarity Search of Flexible 3D Molecules combining Local and Global Shape Descriptors", IEEE/ACM Transactions on Computational Biology and Bioinformatics 2016, Vol. 13, Issue 5, pp. 954-970, DOI: 10.1109/TCBB.2015.2498553.

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28. **G. Kordelas, D. Alexiadis,** *P. Daras*, **E. Izquierdo,** "Enhanced disparity estimation in stereo images", Image and Vision Computing,

ELSEVIER 2015, Vol. 35, pp. 31-49, DOI: 10.1016/j.imavis.2014.12.001.

29. **T. Semertzidis, D. Rafailidis, M. G. Strintzis, *P. Daras*,** "The Influence Of Image Descriptors' Dimensions Value Cardinalities To Large-Scale Similarity Search", SPRINGER International Journal of Multimedia Information Retrieval 2014, Vol. 4, Issue 3, pp. 187-204, DOI: 10.1007/s13735-014-0073-9.

30. **A. Doumanoglou, D. Alexiadis, D. Zarpalas, *P. Daras*,** "Towards Real-Time and Efficient Compression of Human Time-Varying-Meshes", IEEE Transactions on Circuits and Systems for Video Technology 2014, Vol. 24, Issue 12, pp. 2099-2116, DOI: 10.1109/TCSVT.2014.2319631.

31. **D. Zarpalas, P. Gkontra, *P. Daras*, N. Maglaveras,** "Accurate and fully Automatic Hippocampus Segmentation using subject-specific 3D Optimal Local Maps into a hybrid Active Contour Model", IEEE Journal of Translational Engineering in Health and Medicine 2014, Vol. 2, ISSN 2168-2372, DOI: 10.1109/JTEHM.2014.2297953.

32. **G. T. Papadopoulos, K. Apostolakis, *P. Daras*,** "Gaze-based Relevance Feedback for Realizing Region-based Image Retrieval", IEEE Transactions on Multimedia 2014, Vol. 16, Issue 2, pp. 440-454, DOI: 10.1109/TMM.2013.2291535.

33. **D. Alexiadis, *P. Daras*,** "Quaternionic signal processing techniques for automatic evaluation of dance performances from MoCap data", IEEE Transactions on Multimedia 2014, Vol. 16, Issue 5, pp. 1391-1406, DOI: 10.1109/TMM.2014.2317311.

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35. **K. Apostolakis, *P. Daras*,** "A framework for implicit human-centered image tagging inspired by attributed affect", SPRINGER, The Visual Computer 2013, Vol. 30, Issue 10, pp. 1093-1106, DOI: 10.1007/s00371-013-0903-4.

36. **D. Zarpalas, P. Gkontra, *P. Daras*, N. Maglaveras,** "Gradient based Reliability Maps for ACM based Segmentation of Hippocampus", IEEE Transactions on BioMedical Engineering 2013, Vol. 61, Issue 4, DOI: 10.1109/TBME.2013.2293023.

37. **D. Rafailidis, S. Manolopoulou, *P. Daras*,** "A Unified Framework for Multimodal Retrieval", ELSEVIER, Pattern Recognition 2013, Vol. 46, Issue 12, pp. 3358–3370, DOI: 10.1016/j.patcog.2013.05.023.

38. **D. Rafailidis, *P. Daras*,** "The TFC Model: Tensor Factorization and Tag Clustering for Item Recommendation in Social Tagging Systems", IEEE Transactions on Systems, Man and Cybernetics: Systems 2013, Vol. 43, Issue 3, pp. 673-688, DOI: 10.1109/TSMCA.2012.2208186.

39. **M. Lazaridis, A. Axenopoulos, D. Rafailidis, *P. Daras*,** "Multimedia Search and Retrieval using Multimodal Annotation Propagation and Indexing Techniques", in Elsevier Journal

Signal Processing: Image Communication, Special Issue: Visual Search and Augmented Reality 2013, Vol. 28, Issue 4, pp. 351-367, DOI: 10.1016/j.image.2012.04.001.

40. **A. Axenopoulos, *P. Daras*, Ge. Papadopoulos, E. Houstis,** "SP-Dock: Protein-Protein Docking using Shape and Physicochemical Complementarity", IEEE/ACM Transactions on Computational Biology and Bioinformatics 2013, Vol. 10, Issue 1, pp. 135-150, DOI: 10.1109/TCBB.2012.149.

41. **A. Aggoun, E. Tsekleves, D. Zarpalas, *P. Daras*, A. Dimou, L. Soares, P. Nunes,** "Immersive 3D Holoscopic Video System", IEEE Multimedia Magazine 2013, Special Issue: 3D Imaging Techniques and Multimedia Applications, Vol. 20, Issue 1, pp. 28-37, DOI: 10.1109/MMUL.2012.42.

42. **E. Tiakas, D. Rafailidis, A. Dimou, *P. Daras*,** "MSIDX: Multi-Sort Indexing for Efficient Content-based Image Search and Retrieval", IEEE Transactions on Multimedia 2013, Vol. 15, Issue 6, pp. 1415-1430, DOI: 10.1109/TMM.2013.2247989.

43. **M. Makridis, *P. Daras*,** "Automatic Classification of Archaeological Pottery Sherds", ACM Journal on Computing and Cultural Heritage 2013, Vol. 5, Issue 4, DOI: 10.1145/2399180.2399183.

44. **D. Alexiadis, D. Zarpalas, *P. Daras*,** "Real-time, full 3-D reconstruction of moving foreground objects from multiple consumer depth cameras", IEEE Transactions on Multimedia 2012, Vol. 15, Issue 2, pp. 339-358, DOI: 10.1109/TMM.2012.2229264.

45. ***P. Daras*, S. Manolopoulou, A. Axenopoulos,** "Search and Retrieval of Rich Media Objects Supporting Multiple Multimodal Queries", IEEE Transactions on Multimedia 2012, Vol. 14, Issue 3, pp. 734-746, DOI: 10.1109/TMM.2011.2181343.

46. **S. Essid, X. Lin, M. Gowing, G. Kordelas, A. Aksay, P. Kelly, T. Fillon, Q. Zhang, A. Dielmann, V. Kitanovski, R. Tournemenne, A. Masurelle, E. Izquierdo, N. E. O'Connor, *P. Daras*, G. Richard,** "A multi-modal dance corpus for research into interaction between humans in virtual environments", Journal on Multimodal User Interfaces 2012, Special Issue: Multimodal Corpora, Vol. 7, Isuue 1-2, pp.157-170, DOI 10.1007/s12193-012-0109-5.

47. ***P. Daras*, A. Axenopoulos, G. Litos,** "Investigating the Effects of Multiple Factors towards more Accurate 3D Object Retrieval", IEEE Transactions on Multimedia 2012, Vol. 14, Issue 2, pp. 374-388, DOI: 10.1109/TMM.2011.2176111.

48. **D. Zarpalas, E. Fotiadou, I. Biperis, *P. Daras*,** "Anchoring Graph Cuts towards Accurate Depth Estimation in Integral Images", IEEE/OSA Journal of Display Technology, IEEE/OSA Journal of Display Technology 2012, Vol. 8, Issue 7, pp. 405 - 417.

49. ***P. Daras*, A. Axenopoulos, V. Darlagiannis, D. Tzovaras, X. Le Bourdon, L. Joyeux, A. Verroust-Blondet, V. Croce, T. Steiner, A. Massari, A. Camurri, S. Morin, A-D. Mezaour, L. Sutton, S. Spiller,** "Introducing a Unified Framework for Content Object Description", International Journal of Multimedia Intelligence and

Security 2012, Special Issue: "Challenges in Scalable Context Aware Multimedia Computing", Vol. 2, Number 3-4/2011, pp. 351-375, DOI 10.1504/IJMIS.2011.044765.

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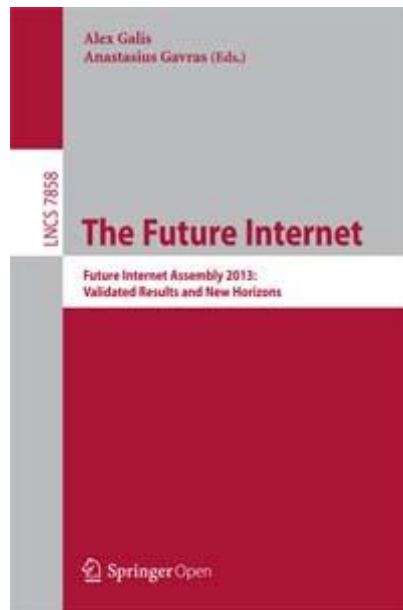
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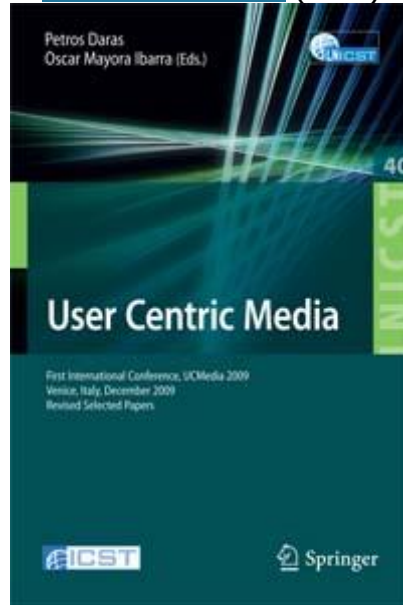Future Internet Assembly 2011: Achievements and Technological Promises.

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