

Prof.dr. Alan Hanjalic



Alan Hanjalic is a professor of computer science (CS) at TU Delft, The Netherlands, founder and head of the Multimedia Computing Group and head of the Department of Intelligent Systems. He was a visiting scientist and lecturer at several academic and industrial research institutes in Europe, United States and China.

Research interests and expertise of Prof. Hanjalic are in the field of multimedia information retrieval (MIR), in which he (co)invented 1 patent and (co)authored and (co)edited more than 250 publications, among which three books. The fundamental question Prof. Hanjalic is interested in is how to provide efficient, effective, intuitive and (socially) responsible access to and interaction with information stored in large (multimedia) data collections in a variety of use scenarios involving both search and recommendation.

Prof. Hanjalic's contribution to the MIR field has had **high and lasting impact** along several research directions, some of which he pioneered himself. Already his early work (1999-2002) on automated low- and high-level video segmentation and key-frame based video representation resulted in publications that have served as standard references in the field for many years. In 2001, he pioneered the research direction on *affective multimedia content analysis and retrieval*, which focusses on the role of the emotional load of the audiovisual content, and the emotional reactions of people to it, in how that content is searched and retrieved. This research direction has developed in one of the largest research subfields of MIR, actively and intensively pursued both in academia and the industrial research labs.

Regarding **awards and honours**, in 2012, he was awarded the *Antoni van Leeuwenhoek Chair*, a full professorship appointment 'reserved for the best young scientists at the Delft University of Technology' (quote: TU Delft). He is also co-recipient of three Best Paper Awards and two Grand Challenge Awards (algorithmic solution to a given practical challenge) in the major ACM and IEEE conferences in his field. In 2016, he was named *IEEE Fellow* for his contribution to the field of multimedia information retrieval.

Prof. Hanjalic was an **elected member of the Technical Committees**, specifically the IEEE Image, Video, and Multidimensional Signal Processing committee (2015-2017) and the IEEE Multimedia Signal Processing committee (2011-2013), and has been involved in the **management of major scientific journals** in the multimedia field. He was the Chair of the Steering Committee of the IEEE Transactions on Multimedia (2014-2016) and the Associate Editor-in-Chief of the IEEE Multimedia Magazine (2014-2017) in charge of Special Issues. Furthermore, he has served as a member of Editorial Boards of the major scientific journals, among which the IEEE Transactions on Multimedia (2006-2014), the IEEE Transactions on Affective Computing (2010-2016), the ACM Transactions on Multimedia (2015-2017), the Springer International Journal of Multimedia Information Retrieval (2011-2017), and, since 2022, the ACM Transactions on Recommender Systems. In addition, he was a Guest Editor of nine special issues in the leading journals in the field of multimedia, including the Proceedings of the IEEE, the IEEE Transactions on Multimedia, the IEEE Transactions on Affective Computing and the IEEE Multimedia Magazine.

He has served on the **organizing committees of all major conferences** in the multimedia field, including the ACM Multimedia Conference (General Chair 2009 and 2016, Program Chair 2007 and 2014), IEEE ICME (Program Chair 2012 and 2013), ACM CIVR/ICMR conference (Program Chair 2008 and 2011). He has also been a Senior Program Committee member of ACM RecSys conference regularly since 2015. Prof. Hanjalic was an **invited (keynote/plenary) speaker** at more than twenty international events, among which the IEEE International Workshop on Multimedia Signal Processing (IEEE MMSP) 2013, the International Conference on Multimedia Modeling 2012, and at the Pacific-Rim Conference on Multimedia 2007.

As **department head**, he has been leading an organization consisting of ~200 scientific and support staff members and being one of the two TU Delft's CS departments serving more than 2500 (under)graduate CS students. Under his leadership, the department has doubled in size within five years, and has grown into a successful, diverse and inclusive academic organization, excelling in education, research and societal impact.

1. CONTACT DETAILS

Delft University of Technology (TU Delft)

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Department of Intelligent Systems

Multimedia Computing Group

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2. EDUCATION

- Ph.D. (1999), Delft University of Technology,
 - Dissertation: *Visual-Content Analysis for Multimedia Retrieval Systems*
 - Advisors: Prof. Reginald L. Lagendijk and Prof. Jan Biemond
- Diplom-Ingenieur (1995), Friedrich-Alexander University, Erlangen, Germany,
 - Thesis: *Estimation of 3D Structure and Motion from Monocular Image Sequence (in German)*,
 - Advisors: Prof. Bernd Girod (Stanford University, USA) and Prof. Eckehard Steinbach (TU Munich, Germany)

3. ACADEMIC POSITIONS @ TU Delft

- Professor, Antoni van Leeuwenhoek Chair 2012 – present
- Associate Professor, Department of Intelligent Systems 2005 – 2012
- Assistant Professor, Department of Mediamatics 1999 – 2005

4. ACADEMIC OFFICES @ TU Delft

- Cluster leader, Program Organization, TU Delft Campus Rotterdam 2023 – present
- Mandate to formally chair PhD committees on behalf of the Rector Magnificus 2022 – present
- Deputy dean, Faculty EEMCS 2021
- Member → Chair, TU Delft Professorship Appointment Committee (for external applicants) 2018 – present
- Chair, 3ME Faculty Advisory Board for Professorship Promotions (for internal applicants) 2020
- Head, Department of Intelligent Systems 2018 - present
- Member, EEMCS Faculty's Academic Career Development Committee 2016 – 2018
- Member, TU Delft Board of Professors (*Raad van Hoogleraren*) 2015 – 2019
- Founder and Head, Multimedia Computing Group 2014 - present
- Chair, Board of Studies Computer Science 2014 – 2018
- Head, Multimedia Signal Processing Group 2012 - 2013
- Founder and Coordinator, Delft Multimedia Information Retrieval Lab 2009 – 2013

5. ACADEMIC VISITS

- UESTC, Chengdu, China 2017, 2019
- University of Granada, Granada, Spain 2008 – 2013
- Microsoft Research Asia, Beijing, China 2005
- Philips Research, Briarcliff Manor, USA 2003
- British Telecom Labs, Ipswich, UK 2000
- Hewlett-Packard Labs, Palo Alto, USA 1998

6. AWARDS AND HONORS

- Named an **IEEE Fellow** (Class of 2016) *for contributions to multimedia information retrieval* (every year, only 0.1% of all IEEE members worldwide are elected Fellows)
- Awarded the **Antoni van Leeuwenhoek Chair** at the Delft University of Technology (*"The Antoni van Leeuwenhoek (AvL) appointments at TU Delft are reserved for the best young Delft scientists."*, Source: TU Delft, February 2012)
- **Best Paper Awards** at the following conferences:
 - IEEE Conference on Multimedia Big Data (BigMM) 2019, together with J. Choi, M. Larson and G. Friedland
 - ACM Multimedia 2017, together with B. Wang, Y. Yang, X. Xu and H.T. Shen
 - ACM Recommender Systems 2012, together with Y. Shi, A. Karatzoglou, L. Baltrunas, M. Larson and N. Oliver
- **Industrial Grand Challenge Winner** at the following conferences:
 - ACM Multimedia 2015, together with J. Choi, E. Kim, M. Larson and G. Friedland
 - ACM Recommender Systems 2010, together with Y. Shi and M. Larson
- **>10000 downloads** of the paper *Collaborative Filtering beyond the User-Item Matrix: A Survey of the State of the Art and Future Challenges*, ACM Computing Surveys, July 2014 (in journal's Top-10 downloaded articles in 2015)

7. TALKS, PUBLICATIONS AND PATENTS

Prof. Hanjalic held **20+ invited talks**, as a keynote or plenary speaker in the international conferences and workshops, or at various other occasions at academic institutes, in industry or in general public contexts. He is co-inventor of one patent and has (co-)authored and (co-)edited 3 books, 8 invited book chapters/sections, more than **250 publications** in major international scientific journals and conferences, and 8 special issues/sections in top-level IEEE journals (among which the Proceedings of the IEEE and IEEE Trans. on Multimedia). See the latest update of the publications list on the [Google Scholar](#) profile.

8. PROFESSIONAL APPOINTMENTS AND COMMITTEE MEMBERSHIPS (selected)

- **Chair, Advisory Board**, ARIA, joint project of TU Delft, Leiden University and Erasmus University since 2022
- **Member of the Board**, Dutch 4TU National Research Institute on ICT (NIRICT) since 2019
- **Chair, Steering Committee**, IEEE Transactions on Multimedia 2014-2016
- **Associate Editor-in-Chief**, IEEE Multimedia Magazine, responsible for special issues 2014-2017
- **Member, IEEE Technical Committee**, Image, Video, and Multidimensional Signal Processing 2015-2017
- **Member, Steering Committee**, IEEE Transactions on Multimedia 2012-2014
- **Member, IEEE Technical Committee**, Multimedia Signal Processing 2011-2013
- **Member, expert panel evaluating project teams of INRIA**, France 2010
- **Editorial Board member**
 - ACM Transactions on Recommender Systems 2022 - now
 - ACM Transactions on Multimedia 2015 - 2017
 - IEEE Transactions on Multimedia 2006 - 2014
 - IEEE Transactions on Affective Computing 2010 - 2016
 - Springer International Journal of Multimedia Information Retrieval 2011 - 2017
 - Elsevier Image and Vision Computing journal 2009 - 2013
 - Hindawi Advances in Multimedia journal 2009 - 2013
 - Journal of Multimedia (Academy Publisher) 2006 - 2014
- **General Chair**
 - ACM Multimedia Conference **2016**, Amsterdam, The Netherlands and **2009**, Beijing, China
 - IS&T/SPIE Conference on Multimedia Content Access: Algorithms and Systems, **2006** and **2007**, San Jose, USA
- **Program Chair** (large venues only)
 - ACM Multimedia Conference **2007**, Augsburg, Germany and **2014**, Orlando, Florida, USA
 - IEEE International Conference on Multimedia and EXPO (ICME) **2012**, Melbourne, Australia, **2013**, San Jose, USA
 - ACM International Conference on Multimedia Retrieval (ICMR) 2011, Trento, Italy
 - ACM Conference on Image and Video Retrieval (CIVR) 2008, Niagara Falls, Canada

9. PROFESIONAL AND EDUCATIONAL ACTIVITIES AND ACHIEVEMENTS (selected)

- The main responsible supervisor of **30+ PhD students** (20 already graduated, the rest still active)
- Examiner/assessor of Ph.D. theses, funding proposals and academic promotions at universities: EPFL, TU Munich, TU Vienna, Nanyang Technological University, Tsinghua University, SUNY Albany, Dublin City University, City University of Hong Kong, Monash University, Florida Atlantic University, universities of Newcastle, Bordeaux, Twente, Lille, Surrey, Amsterdam, Klagenfurt, Alabama and Miami
- Acquired research funding of in total 12.5 MEuro from the European and national research projects and directly from industry, of which 4.5 MEuro as the share for the TU Delft
- Scientific coordinator, EU FP7 STREP project PHENICX (2.8 MEuro), 2013-2016
- Project leader, *Socially-Enriched Access to Linked Cultural Media - SEALINCMedia*, (2.5 MEuro) Dutch FES/COMMIT program, 2011-2016
- Co-initiator, main applicant, and member of the Steering Board, EU FP7 Network of Excellence *PetaMedia* (4.4 MEuro), 2008-2011
- Project leader, Project *Video at your Fingertips* (1.3 MEuro), Dutch BSIK MultimediaN research program, 2004 - 2009
- Coordinator of the Strategic Research Agenda on Natural and Intuitive Interaction and Information Access, Dutch National Center for Research on ICT (NIRICT), 2006-2008
- Two of my Ph.D. students received Google European Doctoral Fellowships
- One of my Ph.D. students (Cynthia Liem) received the Best Ph.D. Candidate Award of the Delft University of Technology in 2012
- One of my Ph.D. students (Christoph Kofler) received the ACM SIGMM Award for Outstanding PhD Thesis in Multimedia Computing, Communications and Applications in 2016
- Proud of my former PhD students and postdocs, who are now faculty members at top universities or (senior) scientists at Airbus, Google, Microsoft, Facebook/META, Bloomberg, NETFLIX, Pandora, Dolby, etc.