

Maria Vanrell
Curriculum Vitae
December 16th, 2020

DNI:	43038223W
Expiration Date:	06/11/2024
Date and Place of Birth:	20/09/1967 – Alcúdia – Mallorca
Address:	Carrer Pont de Can Vernet, 5, Baixos, 2a, 08173 Sant Cugat del Vallès (Barcelona)
Mobile phone:	(+34)658377303
Current Position:	Professora Titular d'Universitat
Department:	Computer Science
Faculty/School:	Escola d'Enginyeria
Accreditation Date:	27/10/2015
Gender:	Female
Line phone:	(+34) 935811828 - 2415
Fax:	(+34) 935811670
e-mail:	maria.vanrell@uab.cat
Web page:	http://cic.cvc.uab.cat/maria-vanrell

Academic Degrees

1990 - Computer Science Engineering Degree (Universitat Autònoma de Barcelona)
1996 - Phd Degree in Science (Computer Science) (Universitat Autònoma de Barcelona). Doctorate Program: Computer Science. Reg.:1997/155227

Current professional situation

Employing entity: Universitat Autònoma de Barcelona
Department: *Ciències de la Computació*
Professional category: *Titular d'Universitat*
Start date: *06/09/1997*
Type of contract: *Permanent*
Dedication: *Full time*

Previous positions and activities

Employing entity: *Universitat Autònoma de Barcelona*
20/11/1993 - Titular d'Escola Universitària
15/09/1991 - Titular d'Escola Universitària (interina)
01/10/1990 - Professor Ajudant

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Teaching Activities

Undergraduate Courses

Year / Course:	Since 2019 / Artificial Intelligence
Degree:	Matemàtica Computacional i Anàlisi de Dades
Institution:	Facultat de Ciències / UAB
<i>Course Responsible: #Students:30 / #Teaching Team Members: 2</i>	
Year / Course:	Since 2012 / Artificial Intelligence
Degree:	Computer Science Engineering Degree
Institution:	Escola d'Enginyeria / UAB
<i>Course Responsible: #Students:300 / #Teaching Team Members: 6-7</i>	
Year / Course:	1998-2011 Artificial Intelligence I
Degree:	Computer Science Engineering
Institution:	Escola d'Enginyeria / UAB
<i>Course Responsible: #Students:150 / #Teaching Team Members: 3</i>	
Year / Course:	1997-2013 / Expert Systems
Degree:	Computer Science Technical Engineering
Institution:	Escola Universitària d'Informàtica de Sabadell / UAB
<i>Course Responsible: #Students: 40 / #Teaching Team Members: 2</i>	
Year / Course:	1993-1998 Computer Vision (Practicum)
Degree:	Computer Science Engineering
Institution:	Facultat de Ciències / UAB
Year / Course:	1993-1998 / Artificial Intelligence I
Degree:	Computer Science Engineering
Institution:	Facultat de Ciències / UAB
Year / Course:	1992-1993 / Algorithms and programming II (Practicum and Problems)
Degree:	Computer Science Engineering
Institution:	Facultat de Ciències / UAB
Year / Course:	1990-1993 / Computers and programming (Practicum and Problems)
Degree:	Computer Science Degree
Institution:	Facultat de Ciències / UAB
Year / Course:	1990-1993 General Systems Theory (Practicum and Problems)
Degree:	Computer Science Degree
Institution:	Facultat de Ciències / UAB

Lectures in Master

Year / Course:	Since 2019 / Machine Learning for Computer Vision
Master:	Master in Computer Vision (MCV)
Institution:	Engineering School / UAB-UOC-UPC-UPF
Year / Course:	Since 2016 / Advanced Color Image Processing
Degree:	Master Erasmus-Mundus in Colour in Science and Industry (COSI)
Institution:	Facultad de Ciencias / Universidad de Granada
Year / Course:	2014-2016 / Advanced Color Image Processing
Degree:	Master Erasmus-Mundus in Color in Informatics and Media Technology (CIMET)
Institution:	Facultad de Ciencias / Universidad de Granada
Year / Course:	2006-2013 / Advanced Computer Vision
Degree:	Master in Computer Vision and Artificial Intelligence (MCVAI)
Institution:	Escola d'Enginyeria / Universitat Autònoma de Barcelona
Year / Course:	2009-2013 / Introduction to Computer Vision and Artificial Intelligence II
Degree:	Master in Computer Vision and Artificial Intelligence (MCVAI)
Institution:	Doctoral School / Universitat Autònoma de Barcelona
Year / Course:	1997-2006/ Texture and Color
Degree:	Doctoral Program on Computer Science
Institution:	Doctoral School / Universitat Autònoma de Barcelona
Year / Course:	2003-2004 / Colour and Texture in Image Segmentation
Degree:	Doctoral Program on Information Technology
Institution:	Doctoral School / Universitat de Girona

Online Lectures

Coursera MOOC

Year / Course:	Since 2015 / MOOC: Curso de detección de detección de objetos
Institution:	Coursera & Universitat Autònoma de Barcelona
Total Learners:	24,267 <i>(Updated on Dec 2020)</i>
Course Completers:	477 <i>(Updated on Dec 2020)</i>
Active Learners (All Time):	15,835 <i>(Updated on Dec 2020)</i>

Research Webinar

Title:	October 2020 / Color Encoding in Convolutional Neural Networks
Institution:	IS&T: Society for Imaging Science and Technology
Registered:	337 <i>(Updated on Nov 2020)</i>
LIVE attendees:	177

Teaching Innovation Activities

Participation in 2 Projects

Project 1:	<i>Curs de Reconeixement Visual d'objectes</i> (Ref: 2014 MOOC 00022)
PI:	Ernest Valveny
Details:	<i>Ajudes AGAUR per a la creació de MOOCs , Pressupost: 7962€</i>
Project 1:	<i>Curs de Reconeixement Visual d'objectes</i> , Modalitat: Especialització
PI:	Ernest Valveny
Details:	<i>Ajudes MOOC UAB-Coursera. Pressupost: 2000 €</i>

Publication

Eduard Vázquez, Maria Vanrell. *"Eines per al desenvolupament de competències d'enginyeria en un assignatura d'Intel·ligència Artificial"*.

V Jornades d'innovació docent, organized by IDES-UAB, 08/2008

(ISSN/ISBN): 978-84-490-2594-5

Teaching Innovation Courses

10 Courses given by IDES (Unitat d'Innovació Docent en Educació Superior de la UAB):

Course Title	#Hours	Academic Year
<i>Com aprèn l'alumne</i>	8 hours	1994-1995
<i>Direcció d'equips de treball</i>	8 hours	2000-2001
<i>Pràctiques sobre el discurs oral en l'àmbit acadèmic: estratègies de comunicació a l'aula</i>	15 hours	2003-2004
<i>L'aprenentatge per problemes I l'EEES</i>	15 hours	2004-2005
<i>Avaluació de l'ECTS: com ha de ser?</i>	15 hours	2004-2005
<i>Les competències del pensament científic a les classes de ciència</i>	15 hours	2004-2005
<i>Avaluació continuada en grups grans</i>	8 hours	2016-2017
<i>La importància del feedback i el feedforward en l'avaluació de les competències dels estudiants</i>	4 hours	2016-2017
<i>Creació i configuració de l'activitat de "Qüestionaris" a través de Moodle</i>	4 hours	2018-2018
<i>Formació sobre l'eina TFE</i>	2 hours	2018-2019

Erasmus Agreements

- Socrates Erasmus Bilateral Agreement 2004-2006
Nottingham Trent University. Prof. Gerald Shaefer
- Erasmus Learning Agreement 2009-2010
University of Amsterdam. Prof. Theo Gevers
- Erasmus+ Prácticas 2017
Imperial College of London. Prof. Krystian Mikolajczyk

Research Activities

Publications (Journals)

(2 IEEE TPAMI, 1 IJCV, 1 IEEE TIP, 1 PRL, 1 PR, 2 CVIU, 1 IVC, 4 JOSA, 2 VR, 3 JOV, 2 CRA, 3 JIST, 1 MVA, 1 CyS)

1. *Guillem Arias, Luís Alexandre, Maria Vanrell, Ivet Rafegas.*
Understanding trained CNNs by indexing neuron selectivity.
Pattern Recognition Letters, 2020.
2. *Hassan A. Sial, Ramon Baldrich, Maria Vanrell.*
Deep intrinsic decomposition trained on surreal scenes yet with realistic light effects.
Journal of the Optical Society of America A, 37 - 1, pp. 1 – 15, 2020.
3. *Ivet Rafegas, Maria Vanrell.*
Color encoding in biologically inspired convolutional neural networks.
Vision Research, 2018.
4. *Ivet Rafegas, Javier Vazquez-Corral, Robert Benavente, Maria Vanrell, Susana Alvarez.*
Enhancing spatio-chromatic representation with more-than-three color coding for image description.
Journal of the Optical Society of America A, 2017.
5. *Naila Murray, Maria Vanrell, Xavier Otazu, C. Alejandro Parraga.*
Low-level Spatio-Chromatic Grouping for Saliency Estimation.
IEEE Transaction on Pattern Analysis and Machine Intelligence, 35 - 11, pp. 2810 - 2816. 06/2013.
6. *Jordi Roca, C. Alejandro Parraga, Maria Vanrell.*
Chromatic settings and the structural color constancy index.
Journal of Vision, 13 - 4(3), pp. 1 - 2. 2013.
7. *Susana Alvarez, Anna Salvatella, Maria Vanrell, Xavier Otazu.*
Low Dimensional and comprehensive color texture.
Computer Vision and Image Understanding, 116 - 1, 01/2012.
8. *Javier Vazquez, J. Kevin O'Regan, Maria Vanrell, Graham D. Finlayson.*
A new spectrally sharpened basis to predict colour naming, unique hues, and hue cancellation.
Journal of Vision. 2012.
9. *Javier Vázquez, Maria Vanrell, Ramon Baldrich, Francesc Tous.*
Color Constancy by Category Correlation.
IEEE Transactions on Image Processing, 2012.
10. *Fahad S. Khan, J.V. de Weijer, Maria Vanrell.*
Modulating Shape Features by Color Attention for Object Recognition.
International Journal of Computer Vision, 2012.
11. *Graham D. Finlayson, Javier Vazquez, Sabine Süssstrunk, Maria Vanrell.*
Spectral sharpening by spherical sampling.
Journal of the Optical Society of America A, 2012
12. *Susana Alvarez, Maria Vanrell.*
Texton theory revisited: a bag-of-words approach to combine textons.
Pattern Recognition. 45 - 12, pp. 4312 - 4325. 12/2011.
13. *Eduard Vázquez, Ramon Baldrich, J.V. de Weijer, Maria Vanrell.*

Describing Reflectances for Colour Segmentation Robust to Shadows, Highlights and Textures.
IEEE Trans. on Pattern Analysis and Machine Intelligence, 33 - 5, pp. 917 – 930, 05/2011.

14. *Xavier Otazu, C. Alejandro Párraga, Maria Vanrell.*
Toward a unified chromatic induction model.
Journal of Vision, 10, pp. 5 – 12, 2010.
15. *Javier Vázquez, C. Alejandro Párraga, Maria Vanrell, Ramon Baldrich.*
Color Constancy Algorithms: Psychophysical Evaluation on a New Dataset.
Journal of Imaging Science and Technology. 53 - 3, 06/2009.
16. *C. Alejandro Párraga, Robert Benavente, Maria Vanrell, Ramon Baldrich.*
Psychophysical measurements to model inter-colour regions of colour naming.
Journal of Imaging Science and Technology, 53 - 3, pp. 031106-(8). 2009.
17. *Robert Benavente, Maria Vanrell, Ramon Baldrich.*
Parametric fuzzy sets for automatic color naming.
Journal of the Optical Society of America A. 25 - 10, pp. 2582 - 2593. 01/04/2008.
18. *Xavier Otazu, Maria Vanrell, C. Alejandro Párraga.*
Multiresolution wavelet Framework models brightness induction.
Vision Research. 48, pp. 733 - 751. 01/02/2008.
19. *Robert Benavente, Maria Vanrell, Ramon Baldrich.*
A Data Set for Fuzzy Color Naming.
Color Research and Application. 31, pp. 48 - 56. 01/02/2006.
20. *Xavier Otazu, Maria Vanrell.*
Perceptual Representation of textured images.
Journal of Imaging Science and Technology. 49, pp. 262 - 271. IST, 01/03/2005.
21. *Robert Benavente, Maria Vanrell, Ramon Baldrich.*
Estimation of Fuzzy Sets for Computational Colour Categorization.
Color Research and Application. 29, pp. 342 - 353, 01/10/2004.
22. *Maria Vanrell, Ramon Baldrich, Anna Salvatella, Robert Benavente, Francesc Tous.*
Induction operators for a computational Colour Texture representation.
Computer Vision and Image Understanding. 94, pp. 92 – 114, 01/04/2004.
23. *Robert Benavente, Ramon Baldrich, M. Olive, Maria Vanrell.*
Colour Naming considering the Colour Variability Problem.
Computación y Sistemas. pp. 30 - 43. 01/01/2000.
24. *Maria Vanrell, Jordi Vitrià, Xavier Roca.*
A Multidimensional Scaling approach to explore the behavior of texture perception algorithm.
Machine Vision and Applications. 9, pp. 262 – 271, 01/01/1997.
25. *Maria Vanrell, Jordi Vitrià.*
Optimal 3x3 descomposable disks for morphological transformations.
Image and Vision Computing. 15 - 2, pp. 845 – 854, 01/01/1997.

Publications (Books)

(5 chapters, co-editor of 4 volumes)

1. **Coloresia: An Interactive Colour Perception Device for the Visually Impaired.**
Multimodal Interaction in Image and Video Applications. 48, pp. 47 - 66. Springer-Verlag, 2013.
A. Gonzalez, R. Benavente, O. Penacchio, J. Vazquez, M. Vanrell, C. A. Párraga.
2. **Color Naming.**
Color in Computer Vision - Fundamental and Applications. pp. 287 - 317. Wiley, 2012.
J. van de Weijer, R. Benavente, M. Vanrell, C. Schmid, R. Baldrich, J. Verbeek, D. Larlus.
3. **Multiresolution texture classification of ceramic tiles.**
Recent Research Developments in Optical Engineering. 2, pp. 213 - 228. (India): Signpost Research (Ed. S.G. Pandalai), 1999.
Felipe Lumberras, Ramon Baldrich, Maria Vanrell, Joan Serrat, J.J. Villanueva.
4. **Morfología Matemática.**
Reconocimiento de Formas y análisis de imágenes. 1, Catalonia (Spain), AERFAI 1998.
Jordi Vitrià, Maria Vanrell.
5. **Visual behaviours for autonomous systems.**
Pattern Recognition and Applications - Frontiers on Artificial Intelligence and Applications (IOS Press) 2000
Xavier Roca, Jordi Vitrià, Maria Vanrell, J.J. Villanueva.
6. **Co-editor of 4 Volumes on the IAPR International Conference on Pattern Recognition 2000**

Conferences

(72 conferences including: 4 LNCS in JCR, 14 Abstracts in JCR Journals)

0. (SUBMITTED) Single Image Relighting: a surreal dataset and baseline evaluations
IEEE Conf. on Computer Vision and Pattern Recognition (CVPR), 2021 (virtual)
Yixiong Yang, Hassan A. Sial, Ramon Baldrich, M. Vanrell.
1. Light Direction and Color Estimation from Single Image with Deep Regression.
IS&T London Imaging Meeting (LIM), United Kingdom, (online) 28/09/2020
Hassan A. Sial, Ramon Baldrich, Maria Vanrell, Dimitris Samaras
2. Intrinsic Decomposition of Document Images In-the-Wild
British Machine Vision Conference, United Kingdom, (online) 07/09/2020
Sagnik Das, Hassan A. Sial, Ke Ma, Ramon Baldrich, Maria Vanrell, Dimitris Samaras.
3. Color-based Data Augmentation
IS&T Color and Imaging Conference (CIC), Vancouver, Canada, 12/11/2018
Hassan A. Sial, Sergio Sancho-Asensio, Ramon Baldrich, Robert Benavente, Maria Vanrell.
4. Color representation in CNNs: parallelisms with biological systems
IEEE International Conference on Computer Vision (ICCV) - Workshop, Venice, Italy, 29/10/2017
Ivet Rafegas, Maria Vanrell.
5. Color spaces emerging from deep convolutional networks
IS&T Color and Imaging Conference (CIC), San Diego, United States of America, 07/11/2016
Ivet Rafegas, Maria Vanrell
6. Colour Visual Coding in trained Deep Neural Networks
Europ. Conf. on Visual Perception (ECPV), Barcelona, 2016 (Abstract in JCR Journal – Perception)
Ivet Rafegas, Maria Vanrell.
7. Intrinsic Image Evaluation on Synthetic Complex Scenes
IEEE International Conference on Image Processing (ICIP), 2013, Melbourne, Australia.
S. Beigpour, M. Serra, J. van de Weijer, R. Benavente, M. Vanrell, O. Penacchio, D. Samaras.
8. Color Names as a constraint for Computer Vision problems
Applied Vision Association Spring Meeting (AVA-BMVA 2012), Cambridge, United Kingdom, 2012
Javier Vazquez, Robert Benavente, Maria Vanrell.
9. Computation of saliency maps using psychophysical measurements of colour induction
Applied Vision Association Spring Meeting (AVA-BMVA 2012), Cambridge, United Kingdom, 2012
Maria Vanrell, Naila Murray, Xavier Otazu, C. Alejandro Párraga.
10. Color Attributes for Object Detection
IEEE Conf. on Computer Vision and Pattern Recognition (CVPR), 2012, Providence, Rhode Island, USA.
F. S. Khan, M. Anwer, J. van de Weijer, A.D. Bagdanov, M. Vanrell, A. López.
11. Names and Shades of Color for Intrinsic Image Estimation
IEEE Conf. on Computer Vision and Pattern Recognition, 2012, Providence, Rhode Island, USA.
Marc Serra, Olivier Penacchio, Robert Benavente, Maria Vanrell.
12. Categorical focal colours are structurally invariant under illuminant changes

- Europ. Conf. on Visual Perception (ECVP)**, 2011, Toulouse, France, (*Abstract in JCR Journal – Perception*)
Jordi Roca, C. Alejandro Párraga, Maria Vanrell.
13. Retinal filtering matches natural image statistics at low luminance levels
Europ. Conf. on Visual Perception (ECVP), 2011, Toulouse, France, (*Abstract in JCR Journal – Perception*)
C. Alejandro Párraga, Olivier Penacchio, Maria Vanrell.
 14. Do basic colors influence chromatic adaptation?
Vision Science Society 11th Annual Meeting (VSS), 2011, Naples, Florida, USA.
C. Alejandro Párraga, Jordi Roca, Maria Vanrell.
 15. Perception Based Representations for Computational Colour
Computational Color Imaging Workshop (CCIW), 2011, Milano, Italy (LNCS).
M. Vanrell, N. Murray, R. Benavente, C. A. Párraga, X. Otazu, R. Baldrich.
 16. Portmanteau Vocabularies for Multi-Cue Image Representation
Conference on Neural Information Processing Systems (NIPS), 2011, Granada, Spain
Fahad S. Khan, J.V. de Weijer, A.D. Bagdanov, Maria Vanrell.
 17. Saliency Estimation Using a Non-Parametric Low-Level Vision Model
IEEE Conf. on Computer Vision and Pattern Recognition (CVPR), 2011, Colorado Springs, USA.
Naila Murray, Maria Vanrell, Xavier Otazu, C. Alejandro Párraga.
 18. Perceptual color texture codebooks for retrieving in highly diverse texture datasets
International Conference on Pattern Recognition (ICPR), 2010, Istanbul, Turkey
Susana Alvarez, Anna Salvatella, Maria Vanrell, Xavier Otazu.
 19. Towards a general model of colour categorization which considers context
Europ. Conf. on Visual Perception (ECVP), 2010, Lausanne (Switzerland) (*Abstract in JCR Journal – Perception*)
C. Alejandro Párraga, Robert Benavente, Maria Vanrell.
 20. 3D Texton Spaces for color-texture retrieval
International Conf. on Image Analysis and Recognition (ICIAR), 2010, Povo de Varzim, Portugal
Susana Alvarez, Anna Salvatella, Maria Vanrell, Xavier Otazu.
 21. Local Perceptual Weighting in JPEG2000 for Color Images
Europ. Conf. on Colour in Graphics, Imaging and Vision (CGIV), 2010, Terrassa, Barcelona.
J.J. Moreno, Xavier Otazu, Maria Vanrell.
 22. A compact singularity function to predict WCS data and unique hues.
Europ. Conf. on Colour in Graphics, Imaging and Vision (CGIV), 2010, Terrassa, Barcelona.
Javier Vázquez-Corral, G.D. Finlayson, Maria Vanrell.
 23. Who painted this painting?
CREATE Conference, 2010, Gjøvik, Norway.
Fahad S. Khan, Joost van de Weijer, Maria Vanrell.
 24. Contribution of CIWaM in JPEG2000 quantization for colour images
CREATE Conference, 2010, Gjøvik, Norway.
Jaime Moreno, Xavier Otazu and Maria Vanrell.

25. Colour names as a constraint for computer vision problems
CREATE Conference, 2010, Gjøvik, Norway.
 Javier Vazquez-Corral, Maria Vanrell and Robert Benavente
26. A new cone activation-based natural images dataset
Europ. Conf. on Visual Perception (ECVP), 2009, Regensburg, Germany (*Abstract in JCR Journal – Perception*)
 C. Alejandro Párraga, Robert Benavente, Maria Vanrell.
27. Colour categories boundaries are better defined in contextual conditions
Europ. Conf. on Visual Perception (ECVP), 2009, Regensburg, Germany (*Abstract in JCR Journal – Perception*)
 Robert Benavente, C. Alejandro Párraga, Maria Vanrell.
28. Ordinal pairwise method for natural images comparison
Europ. Conf. on Visual Perception (ECVP), 2009, Regensburg, Germany (*Abstract in JCR Journal – Perception*)
 Javier Vázquez, C. Alejandro Párraga, Maria Vanrell.
29. Top-Down Color Attention for Object Recognition
IEEE International Conference on Computer Vision (ICCV), 2009, Kyoto, Japan.
 Fahad S. Khan, J.V. de Weijer, Maria Vanrell.
30. Modelling Inter-Colour Regions of Colour Naming Space
Europ. Conf. on Colour in Graphics, Imaging and Vision (CGIV), 2008, Amsterdam, the Netherlands
 C. Alejandro Párraga, Robert Benavente, Maria Vanrell, Ramon Baldrich.
31. Towards a Psychophysical Evaluation of Colour Constancy Algorithms
Europ. Conf. on Colour in Graphics, Imaging and Vision (CGIV), 2008, Amsterdam, the Netherlands
 Javier Vázquez, Maria Vanrell, Ramon Baldrich.
32. Colour induction effects are modelled by a low-level multiresolution wavelet framework
Europ. Conf. on Visual Perception (ECVP), 2008, Utrecht, The Netherlands (*Abstract in JCR Journal-Perception*)
 Xavier Otazu, Maria Vanrell, C. Alejandro Párraga.
33. Modeling Colour-Naming Space with Fuzzy Sets
Europ. Conf. on Visual Perception (ECVP), 2008, Utrecht, The Netherlands (*Abstract in JCR Journal-Perception*)
 C. Alejandro Párraga, Robert Benavente, Maria Vanrell, Ramon Baldrich.
34. A colour space based on the image content
Int. Meeting of the Catalan Assoc. of Artificial Intelligence (CCIA), 2007, Sant Julià de Lòria, Andorra
 Javier Vázquez, Maria Vanrell, Anna Salvatella, Eduard Vázquez.
35. Parametrización del espacio de categorías de color
VIII Congreso Nacional de Color, 2007, Madrid, Spain.
 Robert Benavente, Maria Vanrell.
36. Modeling Colour-Naming Space with Fuzzy Sets
Europ. Conf. on Visual Perception (ECVP), 2007, Arezzo, Italy (*Abstract in JCR Journal-Perception*)
 C. Alejandro Párraga, Robert Benavente, Maria Vanrell.
37. Multiresolution Wavelet Framework Reproduces Induction Effects
Europ. Conf. on Visual Perception (ECVP), 2007, Arezzo, Italy (*Abstract in JCR Journal-Perception*)
 Xavier Otazu, Maria Vanrell.
38. Topological histogram reduction towards colour segmentation

- Iberian Conf. on Pattern Recognition and Image Analysis (IBPRIA)**, 2007, Girona, Catalonia (LNCS)
Eduard Vázquez, Ramon Baldrich, Javier Vázquez, Maria Vanrell.
39. N-dimensional distribution reduction preserving its structure.
Int. Meeting of the Catalan Assoc. of Artificial Intelligence (CCIA), 2006, Perpignan, France.
Eduard Vázquez, Francesc Tous, Ramon Baldrich, Maria Vanrell.
 40. Several lightness induction effects with a computational multiresolution wavelet framework
Europ. Conf. on Visual Perception (ECVP), 2006, Saint Petersburg, Russia (*Abstract in JCR Journal-Perception*)
Xavier Otazu, Maria Vanrell.
 41. A surround-induction function to unify assimilation and contrast in a computational model of color appearance
Europ. Conf. on Visual Perception (ECVP), 2006, Saint Petersburg, Russia (*Abstract in JCR Journal-Perception*)
Xavier Otazu, Maria Vanrell.
 42. Segmentation based on Inter-Feature Distance Map
Int. Meeting of the Catalan Assoc. of Artificial Intelligence (CCIA), 2005, L'Alguer, Italy.
Susana Alvarez, Xavier Otazu, Maria Vanrell.
 43. A five-stage model for computational colour-texture perception
1st Iberian Congress on Perception, 2005, Barcelona, Catalonia.
M. Vanrell, R. Baldrich, X. Otazu, R. Benavente, A. Salvatella, F. Tous, S. Alvarez.
 44. How can we explain what is perceived in texture images
1st Iberian Congress on Perception, 2005, Barcelona, Catalonia.
Anna Salvatella, Maria Vanrell.
 45. Relaxed Grey-World: Computational Colour Constancy by Surface Matching
Iberian Conf. on Pattern Recognition and Image Analysis (IBPRIA), 2005, Storil, Portugal (LNCS 3523 In JCR)
Francesc Tous, Maria Vanrell, Ramon Baldrich.
 46. Fast surface grading using color statistics in the CIE Lab space
Iberian Conf. on Pattern Recognition and Image Analysis (IBPRIA), 2005, Storil, Portugal (LNCS 3523 In JCR)
F. López, J.M. Valiente, Ramon Baldrich, Maria Vanrell.
 47. Marble classification using scale spaces
Dimension Stone, 2004: New perspectives for a traditional building material, Praga, Czech Republic
G. Dislaire, E. Pirard, Maria Vanrell.
 48. Building perceived images
Europ. Conf. on Colour in Graphics, Imaging and Vision (CGIV), 2004, Aachen, Germany
Xavier Otazu, Maria Vanrell.
 49. Exploring colour constancy solutions
Europ. Conf. on Colour in Graphics, Imaging and Vision (CGIV), 2004, Aachen, Germany
Francesc Tous, Maria Vanrell, Ramon Baldrich.
 50. Fuzzy colour naming based on sigmoid membership functions
Europ. Conf. on Colour in Graphics, Imaging and Vision (CGIV), 2004, Aachen, Germany
Robert Benavente, Maria Vanrell.

51. Texture Description based on Subtexture Components
IEEE International Conference on Computer Vision (ICCV)- Workshop, 2003, Nice, France.
Anna Salvatella, Maria Vanrell, Juan J. Villanueva.
52. Sobre la Elusividad del paisaje. Análisis de la textura del paisaje mediante SOM
Jornadas Ibéricas de Ecología del Paisaje, 2003, Alcalá de Henares, Spain
J. Pino, F. Rodà, Xavier Otazu, Maria Vanrell.
53. Color Enhancement based on perceptual sharpening
IEEE International Conference on Image Processing (ICIP), 2003, Barcelona, Catalonia
Ramon Baldrich, Maria Vanrell, Robert Benavente, Anna Salvatella
54. High-Level Clothes Description Based on Color-Texture and Structural Features
Iberian Conf. on Pattern Recognition and Image Analysis (IBPRIA), 2003, Port d'Andratx, Balearic Islands (LNCS 2652 in JCR)
Agnès Borràs, Francesc Tous, Josep Lladós, Maria Vanrell.
55. Subtexture Components for Texture Description
Iberian Conf. on Pattern Recognition and Image Analysis (IBPRIA), 2003, Port d'Andratx, Balearic Islands (LNCS 2652 in JCR)
Anna Salvatella, Maria Vanrell, Ramon Baldrich.
56. Textual descriptors for browsing people by visual appearance
Int. Meeting of the Catalan Assoc. of Artificial Intelligence (CCIA), 2002, Castelló, Spain (LNCS)
Francesc Tous, Agnès Borràs, Robert Benavente, Ramon Baldrich, Maria Vanrell, Josep Lladós.
57. Perceptual colour image segmentation
Int. Conf. on Visualization, Imaging and Image Processing (IASTED), 2002, Málaga, Spain.
Ramon Baldrich, Ricardo Toledo, Ernest Valveny, Maria Vanrell.
58. Statistical Modelling of a Colour Naming Space
Europ. Conf. on Colour in Graphics, Imaging and Vision (CGIV), 2002, Poitiers, France
Robert Benavente, Francesc Tous, Ramon Baldrich, Maria Vanrell.
59. From colour normalisation to colour constancy by background information
IEEE International Conference on Image Processing (ICIP), 2001, Tesaloniki, Greece
Maria Vanrell, Felipe Lumbreras, A. Pujol, Ramon Baldrich, Josep Lladós.
60. Color Texture recognition through multiresolution features
Quality Control by Artificial vision (QCAV), 2001, Le Creuost, France
Felipe Lumbreras, Joan Serrat, Ramon Baldrich, Maria Vanrell, Juan J. Villanueva.
61. Normalized Colour Segmentation for human appearance description
International Conference on Pattern Recognition (ICPR), 2000, Barcelona, Catalonia.
Robert Benavente, Gemma Sánchez, Ramon Baldrich, Maria Vanrell, Josep Lladós.
62. Gaze control in a binocular robot system
IEEE International Conference on Emerging Technologies and Factory Automation, 1999, Barcelona, Catalonia
Xavier Roca, Jordi Vitrià, Maria Vanrell, Juan J. Villanueva.
63. Texture-colour features for tile classification

- EUROPTO/SPIE Conference on Colour and Polarisation Techniques in Industrial Inspection** (1999), Munich, Germany
Ramon Baldrich, Maria Vanrell, Juan J. Villanueva.
64. Visual behaviours for binocular navigation with autonomous systems
Simposium Nacional de reconocimiento de formas y análisis de imágenes (1999), Bilbao, Spain
Xavier Roca, Jordi Vitrià, Maria Vanrell.
65. Multiresolution texture classification of ceramic tiles
Simposium Nacional de reconocimiento de formas y análisis de imágenes (1999), Bilbao, Spain
Felipe Lumbreras, Ramon Baldrich, Maria Vanrell, Joan Serrat, Juan J. Villanueva.
66. Colour perception: A simple method for colour naming
Int. Meeting of the Catalan Assoc. of Artificial Intelligence (CCIA), 1999, Girona, Catalonia
Robert Benavente, M.C. Olivé, Ramon Baldrich, Maria Vanrell.
67. Ceramic Tile Classification based on Colour Similarity Measurements
Workshop on European Scientific and Industrial Collaboration, 1998, Girona, Catalonia
Ramon Baldrich, Maria Vanrell, Juan J. Villanueva, J. López-Krahe.
68. A four dimensional texture representation space
National Symposium on Pattern Recognition and Image Analysis, 1997, Barcelona
Maria Vanrell, Jordi Vitrià
69. 3x3 decomposition of circular structuring elements
IEEE International Conference on Image Processing (ICIP), 1996, Laussane, Switzerland
Maria Vanrell, Jordi Vitrià
70. Mathematical Morphology, Texture Perception and Granulometries
SPIE International Symposium on Optical Instrumentation and Applied Science, 1993, San Diego, USA
Maria Vanrell, Jordi Vitrià
71. A General Morphological Framework for Perceptual Texture Discrimination based on Granulometries
Mathematical Morphology and its Applications to Signal Processing, 1993, Barcelona, Catalonia
Maria Vanrell, Xavier Roca, Jordi Vitrià.
72. Reconstrucción tridimensional de imágenes microscópicas
Simposium Nacional de reconocimiento de formas y análisis de imágenes (1992), València, Spain
Xavier Binefa, Jordi Vitrià, Maria Vanrell.

Projects (Public Funding)

(15 Projects, 9 IP (2 of them EU funding))

Project 15:	MIRANDA: <i>Massive and interactive recognition of our ancestor's natural and digital</i>
PI / Co-PI:	Josep Lladós / Alicia Fornés,
Funded by:	Ministerio de Ciencia, Innovación y Universidades (RTI2018-09564-BC21)
Details:	#Researchers: 14 / Period: 01/01/2019 - 31/12/2017 / Total amount: 126,570 €
Project 14:	MILETRANS: <i>Deep study of intrinsic scene properties to minimize lighting effects in vision-based intelligent transportation Systems</i>
PI / Co-PI:	Maria Vanrell / Robert Benavente
Funded by:	Ministerio de Economía y Competitividad (TIN2014-61068-R)
Details:	#Researchers: 3 / Period: 01/01/2015 - 31/12/2017 / Total amount: 114.345 €
Project 13:	BIO-COLTEX: <i>Inserting Color and Attention Mechanisms to biologically-inspired CV models (Sub-project of: Image Understanding based on biologically-inspired CV models)</i>
PI / Co-PI:	Maria Vanrell
Funded by:	Ministerio de Ciencia e Innovación (TIN2010-21771-C02-1)
Details:	#Researchers: 14 / Period: 01/01/2011 - 31/12/2013 / Total amount: 148.830 €
Project 12:	CIC: <i>Colour in Context Group</i>
PI / Co-PI:	Maria Vanrell
Funded by:	Generalitat de Catalunya (2009 SGR 669)
Details:	#Researchers: 17 / Period: 01/01/2009 - 31/12/2012 / Total amount: 30.000 €
Project 11:	TS-VICI: <i>Task Specific Description of Visual Color information</i>
PI / Co-PI:	Maria Vanrell
Funded by:	Marie Curie Actions. European Re-integration Grants (ERG) (Ref: 224737)
Details:	#Researchers: 2 / Period: 01/11/2008 - 30/01/2011 / Total amount: 45.000 €
Project 10:	CREATE: <i>Colour Research for European Advanced Technology Employment</i>
PI / Co-PI:	Carinna Parraman, (CVC Coordinator: Maria Vanrell)
Funded by:	Marie Curie Conferences and Training Courses. (MSCF-CT-2006-045963)
Details:	#Researchers: 20 / Period: 01/01/2008 - 31/12/2010 / Total amount: 532.363 €
Project 9:	<i>Gestión del contenido visual en color: modelización de percepción espacial y semántica</i>
PI / Co-PI:	Maria Vanrell
Funded by:	Ministerio de Educación y Ciencia (TIN 2007-64577)
Details:	#Researchers: 8 / Period: 01/11/2007 - 31/12/2019 / Total amount: 105.000 €
Project 8:	MIPRCV: <i>Multimodal Interaction in Pattern Recognition and Artificial Vision</i>
PI / Co-PI:	Enrique Vidal
Funded by:	MConsolider-Ingenio Ref: CSD 2007-00018
Details:	#Researchers: 227 / Period: 01/11/2007 - 30/10/2011 / Total amount: 397.700 €
Project 7:	<i>Automatización de la anotación textual de bases de datos de imágenes basada en descriptores visuales que integran información espacio-cromática</i>
PI / Co-PI:	Maria Vanrell
Funded by:	Ministerio de Educación y Ciencia (TIN 2004-02970)
Details:	#Researchers: 7 / Period: 12/12/2004 - 11/12/2007 / Total amount: 82.340 €
Project 6:	<i>Sistema Integral de Seguridad y Vigilancia Automático basado en Visión Artificial</i>
PI / Co-PI:	Josep Lladós
Funded by:	Ministerio de Educación y Ciencia (TIC2000-0382)
Details:	#Researchers: 15 / Period: 01/01/2001 - 31/12/2003 / Total amount: 215.402,74 €
Project 5:	<i>Sistema de visión artificial para el reconocimiento de personas a partir de la extracción automática de características fisonómicas y de vestimenta</i>
PI / Co-PI:	Josep Lladós
Funded by:	Fondos FEDER (2FD97-1800)
Details:	#Researchers: 10 / Period: 01/01/2000 - 31/12/2000 / Total amount: 100.429,12 €

Project 4:	ATIC:Procesamiento computacional de la textura y el color para la inspección visual en la industria
PI / Co-PI:	Maria Vanrell
Funded by:	Ministerio de Educación y Ciencia (TAP98-0618)
Details:	#Researchers: 9 / Period: 01/01/1998 - 31/12/2000 / Total amount: 31.252,63 €
Project 3:	Sistema automático de clasificación de baldosas basado en características textuales y de color
PI / Co-PI:	Maria Vanrell
Funded by:	Fondos FEDER (FD97-0104)
Details:	#Researchers: 6 / Period: 01/01/1998 - 31/12/1998/ Total amount: 51.975,53 €
Project 2:	Construcción de un entorno para la investigación y desarrollo en visión artificial
PI / Co-PI:	Jordi Vitrià
Funded by:	Ministerio de Educación y Ciencia (DGICYT TAP96-0629-C04-03)
Details:	#Researchers: 13 / Period: 01/01/1996 - 31/12/1997/ Total amount: 47.840,56 €
Project 1:	Reconocimiento y modelización de texturas mediante análisis multiescala de imágenes. Aplicación al diagnóstico automático de pneumoconiosis
PI / Co-PI:	Joan Serrat
Funded by:	Ministerio de Educación y Ciencia
Details:	#Researchers: 4 / Period: 01/01/1992 - 31/12/1994 / Total amount: 16.828,34 €

Projects (Private Funding)

9 projects (6 IP, 2 participant, 1 submitted)

Project 9:	<i>Optical Detection Integrated to a highly-sensitive Nanoparticle-based Rapid Diagnostic Test</i>
PI:	Maria Vanrell
Funded by:	<i>Submitted to INNOTECH 2020 / Company: PaperDrop Diagnostics SL / Funding: 64.190 €</i>
Project 8:	<i>Study for the selection of subtitle colors for dichromats</i>
PI:	Maria Vanrell
Funded by:	Corporació Catalana de Mitjans Audiovisuals (CCMA) (3 months), 2019. Funding: 1000 €
Project 7:	<i>Xerox Sponsored Research on Visual Aesthetics</i>
PI:	Maria Vanrell
Funded by:	Xerox Research Centre Europe , 2011. Funding: 30.000 €
Project 5-6:	<i>Color parameter determination for printed paper production (I and II)</i>
PI:	Maria Vanrell
Funded by:	Masadecor S.A. 1999 (8 months) and 2000 (6 months) Funding: 14.424,29 € and 9.015,18 €
Project 4:	<i>WLK2 - Who looks like – Automatic physionomical description of people</i>
PI:	Josep Lladós
Funded by:	Inverama S.A. 1999 (2 years) 41.824,43 €
Project 2-3:	<i>ATIC – Automatic Tile Classification</i>
PI:	Maria Vanrell
Funded by:	ALCALAGRÉS S.A. – 1998 (6 months) and 1997 (5 months). Funding: 10.012,86 € and 5.889,92 €
Project 1:	<i>Automatic classification of Xray pneumoconiosis images based on ILO standards</i>
PI:	Joan Serrat
Funded by:	AGFA ESPAÑA - 1991 (2 years). Funding: 6.010,12 €

Administration Activities

University positions

<i>Position</i>	<i>Start date:</i>	<i>End date:</i>
Responsible of the Master in Computer Vision and Artificial Intelligence	15/09/2009	14/09/2012
Coordinator of the Master in Computer Vision and Artificial Intelligence	15/09/2012	15/09/2013
Teaching Coordinator	01/01/2013	04/06/2014
Coordinator of the Studies of the Master in Computer Vision	15/01/2013	04/06/2014
Coordinator of the Master in Computer Vision	05/06/2014	At present

Awards:

- **ACCREDITATION WITH EXCELLENCE** by AQU (*The Catalan University Quality Assurance Agency*), October 21st, 2016 (Certificate number: 4314099-71123-16, valid for 4 Years)
- **EXCELLENT MASTER Grant** by **Catalunya-La Pedrera Foundation**, to the Best Graduate Students admitted in the Master, for 7 Editions since 2013.

Spanish Committees

- Member of the Evaluation Committee of the Spanish National Research Plan I+D+I, in the Program: *Tecnologías Informáticas*, of the MINECO in December 2015.
- Vice-President of the Board of Directors of the *AERFAI: Asociación Española de Reconocimiento de Formas y Análisis de Imágenes*, from 12/2012 to 12/2016.
- Spokesman of the Board of Directors of the *AERFAI: Asociación Española de Reconocimiento de Formas y Análisis de Imágenes*, from 09/2008 to 12/2012.
- Member of the Evaluation Committee of the Spanish National Research Plan I+D+I, in the Program: *Tecnologías Electrónicas y Telecomunicaciones*, of the MINECO in December 2005.

International Committees

- **Vice-President of the Board of Directors of the *IS&T: Society for Imaging Science and Technology***, from 01/07/2019 - 01/07/2021, at Springfield, United States of America
- **General Chair of the 27th CIC Color Imaging Conference** (Virtual), November 2020, with invited speakers:
 - Sophie Wuerger (University of Liverpool)
 - Derya Akkaynak (Florida Atlantic University)
 - Ayan Chakrabarti (Washington Univ. St. Louis)
- **Also General Chair of the 28th CIC Color Imaging Conference** (at Japan) September 2021, with invited speakers:
 - Jean-François Lalonde (Université Laval, Québec)
 - Ko Nishino (Kyoto University, Japan)
 - Jay Gondek (Hewlett-Packard-Vancouver, Canada)
- **Co-Chair of the Local Organizing Committee** for the 15th International Conference on **Pattern Recognition**, September 2000, at Hotel Barceló Sants, Barcelona (More than 1000 Participants)

Organization of Events

- **Co-Chair of the Annual Catalan Meeting for Computer Vision (ACMCV)** from 2014 to 2020. The following Invited Speakers:
 - o ACMCV 2020 - Jordi Pont-Tuset (Google Research – Switzerland)
 - o ACMCV 2019 - Gerard Pons-Moll (Max Planck Institute for Informatics)
Àgata Lapedriza (SUNAI-UOC).
 - o ACMCV 2018 – Marco Pedersoli (Ecole de Techn. Sup. De Montréal),
Guillem Alenyà (IRI-UPC)
 - o ACMCV 2016 – Florent Perronnin (Facebook París),
Luca Marchesotti (Beautifeye, Ireland)
 - o ACMCV 2015 – Cristian Cantón (Microsoft Seattle)
 - o ACMCV 2014 – Vincent Poulin (University of La Rochelle)
- **Organization of an MCV Open Lecture: Oriol Vinyals** (Google DeepMind - London) at UAB Engineering School in the frame of the Master in Computer Vision, March 24th, 2017
- **Chair of the Summer school:**
CVC/AERFAI SUMMER Lectures & Colloquium ON DEEP Learning FOR Computer Vision.
Casa de la Convalescència (UAB), Barcelona July 17th-18th 2019. Invited Speakers:
 - o Antonio Torralbe (MIT/IBM, USA)
 - o Antonio López-Peña (CVC/UAB, Barcelona)
 - o Joan Bruna (New York University, USA)
 - o Marco Bressan (Satellogic, Barcelona)
 - o Eduard Vázquez (CorTexica, London)
- **Co-organizer of the Course** on Procesamiento visual de bajo nivel: Introducción a la visión activa. Invited Lecturer: Prof: Jan-Olof Eklundh, Royal Institute of Estocolm, Sweden, Start date: 10/01/1994

Conference Chairing

Technical Program co-chair of the 26th CIC Color Imaging Conference, Paris 2019.
Technical Program co-chair of the 25th CIC Color Imaging Conference, Vancouver 2018.
Workshop co-chair of the 25th CIC Color Imaging Conference, Lillehammer 2017.
Workshop co-chair of 24th CIC Color and Imaging Conference, San Diego 2016.
Program Committee of the European Conference on Visual Perception, Barcelona 2016.
Chair of session: Do you see what I see?, at the 23th CIC Color and Imaging Conference, Darmstadt 2015.
Tutorial co-chair of the 7th Iberian Conference on Pattern Recognition and Image Analysis, Santiago 2015.
Area Co-Chair of the Computer Vision Track for the 5th Iberian Conference on Pattern Recognition and Image Analysis, Las Palmas 2011.
Area Chair of the Color Vision/Psychophysics of the 6th CGIV European Conference on Graphics, Imaging and Vision, Amsterdam 2012.
Program Committee of the 3rd Color and Reflectance in Imaging and Computer Vision Workshop (CRICV2010), with ECCV Workshop, Greece, 2010.
Program Committee of the 2nd Color and Reflectance in Imaging and Computer Vision Workshop (CRICV2012), ECCV Workshop, Florence, 2013.
Program Committee of Color and Reflectance in Imaging and Computer Vision Workshop, Kyoto (ICCV Workshop), Japan, 2009.
Program Committee of the IEEE Workshop on color and Photometric Methods in Computer Vision (ICCV Workshop) 2003, Nice (France).
Chair de la sesión "Computer Vision Applications" en International Conference on Image Processing, Barcelona 2001..
Chair de la sesión "Texture and Color" at the International Conference on Pattern Recognition 2000
Program Committee of CCIA: Congrés Internacional de l'Associació Catalana d'Intel·ligència Artificial since 2007.

Other Merits

Supervised PhD Thesis

(9 finished, 3 to be submitted)

PhD Title	<i>Single Image Relighting: datasets, deep architectures and physical constraints</i>
Student	Yixiong Yang
Date	July 2023
PhD Title	<i>Understanding CNN internal representations and applications</i>
Student	Guillem Arias
Stay abroad	HUAWEI Nice (France) Summer 2021 – Dr. Joseph Mehaan
Date	October 2022
PhD Title	<i>Exploring Deep Architectures and Visual Cues for Intrinsic Image Estimation</i>
Student	Hassan A. Sial (Co-supervisor: Dr. Ramon Baldrich)
Stay abroad	Stony Brooks University, New York (USA) Spring 2019 – Dr. Dimitris Samaras
Date	January 2021
PhD Title	<i>Color in Visual Recognition: from flat to deep representations and some biological parallelisms</i>
Student	Ivet Rafegas Fonoll
Stay abroad	Universidade da Beira Interior, Covilha (Portugal) Autumn 2016 – Dr. Luís Alexandre
Date	13/11/2017
PhD Title	<i>Predicting Saliency and Aesthetics in Images: A Bottom-up Perspective</i>
Student	Naila Murray (Co-supervisor: Dr. Xavier Otazu)
Stay abroad	Xerox Research Centre Europe, Grenoble (France), 2010 – Dr. Luca Marchesotti
Date	12/2012
PhD Title	<i>Constancy and inconstancy in categorical colour perception</i>
Student	Jordi Roca (Co-supervisor: Dr. Alejandro Párraga)
Stay abroad	Institute of Neuroscience, University of Newcastle – Dr. Anya Hurlbert
Date	11/2012
PhD Title	<i>Coloring Bag-of-Words based Image Representations</i>
Student	Fahad Shahbaz Khan (Co-supervisor: Dr. Joost van de Weijer)
Date	02/12/2011
PhD Title	<i>Colour constancy in natural images through colour naming and sensor sharpening</i>
Student	Javier Vazquez Corral (Co-supervisor: Dr. Graham Finlayson)
Stay abroad	University of East Anglia, Norwich (UK) – Dr. Graham D. Finlayson
Date	28/01/2011
PhD Title	<i>Texton Theory Revisited: A computational colour approach</i>
Student	Susana Álvarez (Co-supervisor: Dr. Xavier Otazu)
Date	27/07/2010
PhD Title	<i>A Parametric Model for Computational Colour Naming</i>
Student	Robert Benavente Vidal
Stay abroad	University of East Anglia, Norwich (UK) – Dr. Graham D. Finlayson
Date	29/06/2007
PhD Title	<i>Computational Framework for the white point interpretation based on colour nameability</i>
Student	Francesc Tous (Co-supervisor: Dr. Ramon Baldrich)
Stay abroad	University of East Anglia, Norwich (UK) – Dr. Graham D. Finlayson
Date	28/07/2006
PhD Title	<i>Perceptual Approach to colour-texture representation</i>
Student	Ramon Baldrich
Date	13/12/2001

Supervised Msc Thesis

(14 MSc Thesis)

MSc Title	<i>Deep Single Image Relighting Based on Intrinsic Decomposition</i>
Student	Yixiong Yang (Co-supervisor: Dr. Hassan A. Sial)
Date	2020
MSc Title	<i>Reflectance estimation using an EURNet deep network architecture</i>
Student	Sergio Sancho Asensio
Date	2017
MSc Title	<i>Exploring Physiological Measurements in Aesthetics Judgements</i>
Student	Conrad Triquell (Co-supervisor: Ricard Balagué)
Date	2015
MSc Title	<i>An eye-tracking investigation into the role of bottom-up saliency and top-down guidance in visual recognition and memory</i>
Student	Aitor Matilla (Co-supervisor: Dr. Laura Dempere-Marco)
Date	2013
MSc Title	<i>Exploring low-level vision models. Case study: saliency prediction</i>
Student	Ivet Rafegas
Date	2013
MSc Title	<i>Towards Invariance in Perceptual Texture Description</i>
Student	Cristian Olivares Rodriguez
Date	2010
MSc Title	<i>Colour naming using context-based learning through a perceptual model</i>
Student	Hany M. SalahEldeen (Co-supervisor: Dr. Robert Benavente)
Date	2009
MSc Title	<i>Perceptual Feature Detection</i>
Student	Naila Murray (Co-supervisor: Dr. Xavier Otazu)
Date	2009
MSc Title	<i>Relative number of short wavelength receptors in the human retina</i>
Student	Olivier Penacchio
Date	2009
MSc Title	<i>Combining Color and Texture Vocabularies for Image Classification</i>
Student	Fahad S. Khan (Co-supervisor: Dr. Joost van de Weijer)
Date	2008
MSc Title	<i>Content-based Colour Space</i>
Student	Javier Vázquez Corral
Date	2007
MSc Title	<i>Study of colour normalisation for skin detection</i>
Student	Francesc Tous Terrades
Date	2002
MSc Title	<i>On Texture Description</i>
Student	Anna Salvatella Giralt
Date	2001
MSc Title	<i>Dealing with Colour Variability Application to a colour naming task</i>
Student	Robert Benavente Vidal
Date	1999

Grants and Awards

- CIARP Award Aurora Pons Porrata 2018 to Women Research Trajectory
- POSITIVE Evaluation of 1 *TRAMO de TRANSFERENCIA* (CNEAI) and 1 *TRAM* (AQU)
- POSITIVE Evaluation of 4 *TRAMOS de INVESTIGACIÓN* (CNEAI) and 4 *TRAMS* (AQU)
- POSITIVE Evaluation of 5 *TRAMOS de DOCENCIA* (ANECA) and 5 *TRAMS* (AQU)
- Certification for the FULL-PROFESSORSHIP MEMBERSHIP (ANECA) 10/2015
- Best Poster Award at the IS&T Color and Imaging Conference in San Diego, USA, November 2016.
- 2n Prize at the PASCAL Visual Object Classes Challenge 2009 (VOC2009) – CVC Group.
- Best PHD thesis of the Academic Year 2006-2007. PHD Title: A parametric model for Computational Colour Naming. Student: Robert Benavente Vidal
- CIRIT Grant for Research and Studies Abroad, 1992. Generalitat de Catalunya.

Invited/Keynote Talks

- Invited Talk at **Huawei France Future Image Signal Processing Workshop**, September 2020 at University Cote d'Azur (moved to online). Talk title: *Color encoding in CNNs and parallelisms with human vision*.
- Invited Talk at **IS&T Workshop on Color and Deep Learning**, Vancouver (Canada), 2018. Talk title: *Color encoding in CNNs and parallelisms with human vision*.
- Invited Talk at **Annual Colour Vision Meeting, Palmer Lecture and CRS Sponsored Lecture**. Organized by The Colour Group (Great Britain) at the Institute of Ophthalmology, London (United Kingdom), 2013, Talk title: *Colour vision for image understanding*.
- Keynote speaker at **CCIW2011 - Computational Color Imaging Workshop**, Milano (Italy), 2011. Talk Title: *Perception based representations for computational colour*.
- Invited Talk at the **2nd CREATE Event: Putting the Human Back into Colour**, Charleville-Mézières, Ardennes (France), 2008. Talk title: *Computing perceived images: When colour meets texture*.
- Keynote speaker en **RECA'07: 6a. Reunión Científica sobre atención**. Casa de la Convalescència, Barcelona, Catalonia, 2007. Talk Title: *Computational approach to color attention mechanisms*.
- Invited Talk at the **Inauguration of the Instituto de Investigación de Informática - Universidad de Alicante**, Alacant (Spain), 2007. Talk Title: *Percepción computacional de textura y color. Investigación básica aplicable*.
- Invited Talk at the **Taller sobre Imagen y Visión**, at the Cátedra TELÉFONICA de Telemedicina at the Universidad de Santiago, Santiago de Compostela (Spain), 2005. Talk Title: *Computational models for colour and texture perception*.

TV program

Participation in the **TV Scientific Program** entitled **"Color"** in the series: TRES/14 of TV2

Link to the program: <http://www.rtve.es/television/20110304/color-tres14/413536.shtml>

First emission date: 13/03/2011

Research Stays

- **School of Information Systems - University of East Anglia**, Norwich, United Kingdom
On 06/07/2004 (for 1 month) and on 10/03/2002 (for 1 month).
- **Colour & Imaging Institute - University of Derby**, Derby, United Kingdom
On 05/09/1999 (for 1 month).
- **Ecole Nationale Supérieure des Télécommunications**, Paris, France
On 01/02/1992 (for 6 months).

Seminars

- **Hospital Germans Trias i Pujol**, Badalona. Invited by Dr. Xavier Valldeperas, 2016.
- **German Research Center for Artificial Intelligence (DFKI)**, Kaiserslautern (Germany).
Invited by Prof. Andreas Dengel, 2015.
- **Institute of Neuroscience at University of Newcastle**, Newcastle (United Kingdom).
Invited by Dr. Anya Hurlbert, 2014.
- **Universitat Pompeu Fabra**, Barcelona. Invited by Dr. Xavier Binefa, 2012.
- **Stony Brook University**, New York (USA). Invited by Dr. Dimitris Samaras, 2011.
- **Facultat de Medicina-UAB**, Bellaterra. Invited by Dr. Jesús Giraldo, 2011
- **University of Amsterdam**, Amsterdam (The Netherlands). Invited by Dr. Theo Gevers, 2008
- **Xerox Research Centre Europe**, Grenoble (France). Invited by Dr. Luca Marchesotti, 2008
- **Université de Liège**, Liège (Belgium). Invited by Dr. Eric Pirard, 2002.
- **University of East Anglia**, Norwich (United Kingdom). Invited by Dr. Graham D. Finlayson, 2002.
- **Universitat Rovira i Virgili**, Tarragona. Invited by Dr. Doménec Ros, 2000.
- **University of Derby**, Derby (United Kingdom). Invited by Dr. Graham D. Finlayson, 1998.

Hosted Pre-doctoral Students

Student	Sagnik Das
From/Supervisor	Stony Brook University, New York (USA) -Prof. Dimitris Samaras
Date	(1 month) 2020.
Student	Alex Setkov
From/Supervisor	Paris-Sud XI University (France) -Prof. Christian Jacquemin and Prof. Michèle Gouiffès
Date	(6 months) 2014.
Student	Sandra Jiménez
From/Supervisor	Universitat de València -Prof. Jesús Malo
Date	(3 months) 2012.
Student	Fernando López
From/Supervisor	Universitat Politècnica de València -Prof. José M. Valiente
Date	(3 months) 2009.
Student	Edwin Gómez
From/Supervisor	Universidad Nacional de Colombia (Colombia) -
Date	(6 months) 2006.
Student	Godefroid Dislaire
From/Supervisor	Université de Liège (Belgium) -Prof. Eric. Pirard
Date	(6 months) 2003.
Student	Jeff Berens
From/Supervisor	University of Derby (United Kingdom) -Prof. Graham D. Finlayson
Date	(4 months) 2000.

PhD Examiner

1. Ghalia Hemrit, *Phd Title: Illuminant estimation and colour constancy*. University of East Anglia, Norwich (UK), 2021
2. Yuval Barkan, *Phd Title: Adaptation mechanisms in the visual system: computational models, phenomena and algorithms..* Tel Aviv University, Tel Aviv (Israel), 2021

3. Ahmed Mohammed, *Phd Title: Computational Techniques for Pathology Detection and Quality Enhancement with emphasis on Colonic Capsule Endoscopy*. Norwegian University of Science and Technology, Gjøvik (Norway), 2019
4. Júlia Navarro, *Phd Title: Multi-view Imaging: Depth estimation and enhancement*. Universitat de les Illes Balears, Palma, 2019
5. Ronak Kosni, *Phd Title: Visual Scene Context in Emotion Perception*. Universitat Oberta de Catalunya, Barcelona, 2019
6. Rada Deeb, *Phd Title: Interreflections in Computer Vision Importance, Modeling & Application in Spectral Estimation*. University of Jean Monnet, Saint-Étienne (France), 2018
7. Syed Waqas Zamir, *Phd Title: Perceptually-Inspired Gamut Mapping for Display and Projection Technologies*. Universitat Pompeu Fabra, Barcelona, 2017
8. Stuart Crichton, *Phd Title: Investigations into colour Constancy by Bridging Human and Computer colour Vision*. University of Newcastle, Newcastle (UK), 2014
9. Hamid Reza Vaezi Joze, *Phd Title: Estimating the colour of the illuminant using specular reflection and exemplar-based methods*. Simon Fraser University, Burnaby (Canada), 2013
10. Aurora Troncoso Rey, *Phd Title: Extending Minkowski Norm Illuminant Estimation*. University of East Anglia, Norwich (UK), 2012
11. Pere Obrador, *Phd Title: Media Aesthetics Based Multimedia Storytelling*. Universitat Politècnica de Catalunya, Barcelona, 2011
12. Sira Ferradans, *Phd Title: Color image processing problems in digital photography*. Universitat Pompeu Fabra, Barcelona, 2011
13. Valero Laparra, *Phd Title: Learning efficient image representations: Connections between statistics and neuroscience*. Universitat de València, València (Spain), 2011
14. Luis Anton Canalis, *Phd Title: Swarm intelligence in computer vision an application to object tracking*. Universidad de las Palmas de Gran Canaria, Gran Canaria (Spain), 2010
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