Short Curriculum Vitae - Giovanni Maria Farinella

Last upgrade: 08/02/2022

Short Biography

Giovanni Maria Farinella is Full Professor at the Department of Mathematics and Computer Science of the University of Catania where he serves as teacher of the courses of Machine Learning and Deep Learning for the master's degree in computer science.

He has got the National Scientific Qualification to Full Professor (ASN - Prima Fascia) in the areas of Computer Science (SSD INF/01) and Information Engineering (SSD ING-INF/05) on 28/03/2018 and 26/07/2018 respectively.

Prof. Farinella is member of the Research Center CUTGANA of the University of Catania and senior co-leader of the IPLab research group (http://iplab.dmi.unict.it/). His research interests lie in the field of Computer Vision, Pattern Recognition and Machine Learning with focus on First Person (Egocentric) Vision (http://iplab.dmi.unict.it/fpv). He is also an Associate Member of the Laboratory of Cognitive Robotics and Social Sensing – ICAR of the Italian National Research Council since 2018.

Since 2005 he has been scientifically involved in different public and private research projects. He is research member of the Public-Private Laboratory involving the University of Catania and STMicroelectronics, Italy (since 2007).

Prof. Farinella has supervised (or co-supervised) more than 10 PhD Students granted by industry (STMicroelectronics, OSRAM, Centro Studi, Park Smart, DWORD). He is currently supervisor of two Research Associate (Assegnista di Ricerca) working in the research area of First Person (Egocentric) Vision.

He is author of more than 190 publications in international books, conferences and journal (see SCOPUS: https://www.scopus.com/authid/detail.uri?authorId=57191972987). He is also co-inventor of 9 patents, as well as editor (or guest editor) of different volumes (SPRINGER) and special issues (CVIU, PRL, IEEE J-BHI, JOGO). He is Associate Editor of the international journals IEEE Transactions on Pattern Analysis and Machine Intelligence (since Nov 2019), Pattern Recognition – Elsevier (since Nov 2017) and IET Computer Vision (since Aug 2015). He has been involved in the board committee of international events and in particular he has taken part as Area Chair of CVPR 2020/21, ECCV 2020, BMVC 2020, ICCV 2017/2019/2021, WACV 2019, ICIAP 2019, ICPR 2018 and as Programme Chair of ICIAP 2021, VISAPP 2019/2020/2021. He regularly serves as reviewer for major international journals (IEEE - TIFS, TIP, TMI, TMM, TCSVT, ELSEVIER - PR, PRL, CVIU) and international conferences (CVPR, ICCV, ECCV, WACV, BMVC, ICIAP, ACM MM).

Prof. Farinella founded (in 2014) and currently directs the International Computer Vision Summer School - ICVSS (website: www.dmi.unict.it/icvss). He also founded (in 2014) and currently directs the International Medical Imaging Summer School - MISS (MISS website: http://iplab.dmi.unict.it/miss). He is Senior Member of the IEEE association. He was awarded the PAMI Mark Everingham Prize 2017.

In addition to academic work, Giovanni's industrial experience includes scientific advisory to different national and international companies and startups, as well as the leadership as Founder and Chief Scientific Officer of Next Vision - Spinoff of the University of Catania (https://www.nextvisionlab.it/).

More information are available at the URL www.dmi.unict.it/farinella

Selected International Events

- Scientific Director of the "International Computer Vision Summer School - ICVSS" since 31/10/2006. Web: www.dmi.unict.it/icvss
- Scientific Director of the "Medical Imaging Summer School - MISS" since 02/10/2013. Web: www.dmi.unict.it/miss
- General Chair – International Workshop on Assistive Computer Vision and Robotics (ACVR), 2014, 2015, 2016, 2017, 2018, 2019, 2020. https://iplab.dmi.unict.it/acvr2020/previous-editions

- Program Chair – European Conference on Computer Vision 2022
- Programme Chair - International Conference on Computer Vision Theory and Applications, 2019/2020/2021/22
- Program Chair – International Workshop on Machine Learning, Optimization and big Data, 2015
- Program Chair - International Conference on Image Analysis and Processing, 2021
- Area Chair – International Conference on Computer Vision (ICCV), 2017/2019/2021
- Area Chair – IEEE/CVF Conference on Computer Vision and Pattern Recognition 2020/2021/2022
- Area Chair – European Conference on Computer Vision, 2020
- Area Chair – British Machine Vision Conference, 2020
- Area Chair – Winter Conference on Applications of Computer Vision 2019
- Area Chair - International Conference on Image Analysis and Processing, 2019
- Area Chair – International Conference on Pattern Recognition, 2018
- Workshops Chair – International Conference on Image Analysis and Processing, 2017
- Workshops Chair – International conference on Advanced Video and Signal-based Surveillance, 2017
- Workshops Chair – International Conference on Pattern Recognition, 2020
- Publicity Chair – European Conference on Computer Vision (ECCV), 2018
- Web Chair – International Conference on Computer Vision (ICCV), 2017

Selected Invited Talks

- Invited Speaker at the IEEE International Conference on Image Processing, Applications and Systems (IPAS), 9 Dic 2020, Talk Title: Future Predictions in Egocentric Vision
- Invited Speaker at the International Workshop on Pattern Forecasting 2020, Talk Title: Towards Future Predictions in Egocentric Perception
- Invited Speaker at the Facebook Ego4D Workshop, 20-21 February 2020
- Invited Speaker at the International Workshop on Applications of Egocentric Vision (EgoApp), Talk Title: First Person Vision: Where, What, and What's Next?, 12 sept 2019, Cardiff, UK
- Invited Speaker at the International Summer School on Artificial Intelligence, Talk Title: "Wearable Visual Intelligence", 3 June 2019, Udine, Italy
- Invited Speaker at the Joint Research Centre (JRC) of the Europen Commission, Ispra, 26/11/2019. Talk Title: Wearable AI-driven Computer Vision
- Invited Speaker at the International Workshop on Applications of Pattern Analysis 2010 (WAPA2010), Cumberland Lodge, Windsor, UK, 31August -2 September 2010. Talk Title: Visual Pattern Recognition.
- Invited Speaker at the 34th Pattern Recognition and Computer Vision Colloquium, Czech Technical University, Prague, Czech Republic, 3 April 2014. Talk Title: Instant Scene Context Recognition on Mobile Platform
- Invited Tutorial Speaker on "Recent Trends in Computer Vision" at the International Conference on Computer Vision Theory and Applications (VISAPP), Berlin, Germany, 11-14 March 2015 (http://www.visapp.visigrapp.org/Tutorials.aspx?y=2015#3)
- Invited Tutorial Speaker on "Introduction to Computer Vision", at the Modeling Clinic for Industrial Mathematics Training School 2016, Catania 14-27, February 2016
- Invited Tutorial Speaker on "Recent Advances in Computer Vision" at the International Conference on Computer Vision Theory and Applications (VISAPP), Roma, Italy, 27-29 February 2016 (http://www.visapp.visigrapp.org/Tutorials.aspx?y=2016#1)
- Invited Tutorial Speaker on "Egocentric (First-Person) Vision" at the International Conference on Computer Vision Theory and Applications (VISAPP), Porto, Portugal, 27 February – 1 March 2017 (http://www.visapp.visigrapp.org/Tutorials.aspx?y=2017#1)
- Invited speaker at the Panel Discussion of the International Workshop on Lifelogging Tools and Applications, 16 Oct 2016, Amsterdam, The Netherland
- Invited Tutorial Speaker on "Visual Intelligence in Egocentric (First-Person) Vision Systems" at the International Conference on Computer Vision Theory and Applications (VISAPP), Porto, Portugal, 27-29 January 2018 (http://www.visapp.visigrapp.org/Tutorials.aspx?y=2018#1)

Selected Research Project

- Principal Investigator "PhilHumans: Personal Health Interfaces Leveraging Human-MAchine Natural interactionS", MARIE SKŁODOWSKA-CURIE ACTIONS Innovative Training Networks (ITN) Call: H2020-MSCA-ITN-2018, Partners involved in this project are: Dipartimento di Matematica e Informatica dell'Università di Catania - IT, Dipartimento di Matematica e Informatica dell'Università di Cagliari - IT, University of Aberdeen - UK, Technische Universiteit Eindhoven – NL, R2M Solution – UK, Philips Research – NL.
- Principal Investigator of the project "ENIGMA - Egocentric Navigator for Industrial Guidance, Monitoring and Anticipation" – Bando MISE "Fabbrica intelligente e Agrifood", Partners involved in this project is XENIA Progetti, s.r.l, Morpheos s.r.l.
- Co-Principal Investigator of the Project PO FESR 2014/2020 - Azione 1.1.5. - VALUE (Feb 2020 - July 2021)
- Co- Principal Investigator of the project "The Mohamed Bin Zayed International Robotics Challenge 1-2" (Mar 2018 – Feb 2020)
- Co-Principal Investigator of the Project MISE Horizon - VEDI (Jan 2017 - Dec 2018)
- Co- Principal Investigator of the project "The Mohamed Bin Zayed International Robotics Challenge 1" (Nov 2016 – Mar 2017)
- Coordinator of the R&D Team for the project FP7 ENIAC 2011-1 - PANORAMA -Ultra Wide Context Aware Imaging (Apr 2012 - Dec 2015)
- Coordinator of the R&D Team for the project PO/FESR Misura 4.1.1.1 – DIGINTEGRA (Jun 2012 - Dec 2014)
- Coordinator of the R&D Team for the project PO/FESR Misura 4.1.1.2 - EMOCUBE (Jun 2012 - Dec 2014)
- Coordinator of the R&D Team for the project PO/FESR 2007-2013 Misura 4.1.1.1 – CET Fruizione Sostenibile di Circuiti Ecoturistici (Mar 2014 - Dec 2015)

Awards

- Unrestricted Research Grant Gift by Facebook Artificial Intelligence Research 2019/2020/2021
- Unrestricted Research Grant Gift by Intel AI 2021
- Top 10% Paper Award – Award for the paper "Egocentric Action Anticipation by Disentangling Encoding and Inference" – Authors: A. Furnari, G. M. Farinella – Conference: International Conference on Image Processing 2019
- Finanziamento Ricerca di Base, LEGGE 11 dicembre 2016, n. 232, art.1, commi 295-302, MIUR
- Best Oral Presentation - Workshop Technical Staff Day 2017, assigned by STMicroelectronics in recognition for the research work "A Novel ST Platform for Extending Advanced Driver Assistance System in the Next Generation Cars: DADSS"
- Patent Awards 2017 – assigned by STMicroelectronics in recognition of the patent "Method and system for multi-touch shape recognition, related screen apparatus and computer program product"
- PAMI Mark Everingham Prize 2017.
- Meritorious Papers Award (Top 10%) - Award for the paper "G. M. Farinella, D. Allegra, M. Moltisanti, F. Stanco, S. Battiato, Retrieval and classification of food images. Computers in Biology and Medicine, 77:23-39, 2016"
- Top 10% Paper Award – Award for the paper "Affine Region Detectors on the Fisheye Domain" – Authors: A. Furnari, G. M. Farinella, G. Puglisi, A. Bruna, S. Battiato – Conference: International Conference on Image Processing 2014, 08-12-2014
- Top 10% Paper Award – Award for the paper "Generalized Sobel Filters for Gradient Estimation of Distorted Images" – Authors: A. Furnari, G. M. Farinella, A. Bruna, S. Battiato – Conference: International Conference on Image Processing 2015, 01-07-2015
- April 2004: Awarded with a recognition from Department of Mathematics and Computer Science of the University of Catania for distinguished career in undergraduate studies.
- 2013: Awarded with a certificate of appreciation by the editorial board of the Journal of Electronic Imaging for the service given as a reviewer during the year 2013
- "IEEE Senior Member" - Awarded by the Institute of Electrical and Electronics Engineers, 26-07-2016

Knowledge Transfer - Patents

- G. M. Farinella, A. Furnari, F. Ragusa, E. Ragusa, G. G. Sorbello, A. Lopes, L. Santo, M. Samarotto, E. Scarso, B. Scarso, "Metodo di assistenza virtuale relativo dispositivo e sistema", Application number 812021000008261, filling date: 19/01/2021, Università degli Studi di Catania, Xenia Progetti, Morpheos

- G. M. Farinella, G. Signorello, A. Furnari, S. Battiato, E. Scuderi, A. Lopes, L. Santo, M. Samarotto, G. P. A. Distefano, D. G. Marano, "Metodo Integrato con Kit Indossabile per Analisi Comportamentale e Visione Aumentata", Patent Application number 102018000009545, filling date: 17/10/2018, Università degli Studi di Catania, Xenia Gestione Documentale S.R.L., IMC Service S.R.L.

- G. M. Farinella, M. Guarnera, G. Messina, "Metodo ed Apparato di Filtraggio di Artefatti da Occhi Rossi e/o Gialli", Filling Date: 18 December 2009, Application Number: RM2010G000095, Publication Date: 19 Giugno 2011, ST Microelectronics S.R.L., Agrate Brianza (IT); Università degli Studi di Catania, Catania (IT) - dal 19-06-2011 a oggi

- G. Messina, D. Ravì, M. Guarnera, G. M. Farinella, "Method and apparatus for filtering red and/or golden eye artifact", Filling Date: 15 December 2010, United States Patent Application Number: 12/969252, United States Publication Number US20110158511A1, Publication Date: 30 June 2011, ST Microelectronics S.R.L., Agrate Brianza (IT); Università degli Studi di Catania, Catania (IT) - dal 30-06-2011 a oggi

- V. Tomaselli, D. Ravì, M. Guarnera, G. M. Farinella, S. Battiato, "Image Representation Model for Semantic Context Description", United States Patent, Filling Date: 9 November 2012, ST Application ID : 81939442 (Ref: 12-CT-0989) ST Microelectronics S.R.L., Agrate Brianza (IT); Università degli Studi di Catania, Catania (IT) dal 09-11-2012 a oggi

- G. Spampinato, A. Bruna, G. Puglisi, G. M. Farinella, S. Battiato, "Advanced low power outliers removal", United States Patent, ST Application ID: 82279241, Filling Date: 03 April 2013, ST Microelectronics S.R.L., Agrate Brianza (IT); Università degli Studi di Catania, Catania (IT), dal 03-04-2013 a oggi

- S. Battiato, A. Capra, F. Cristaldi, G. M. Farinella, I. Guarneri, "Procedimento e sistema per riconoscimento di forme del tatto, apparecchiatura a schermo e prodotto informatico relativi", Filling Date: 23 December 2011, Patent Deposit: 4 October 2012, European Patent Application Number: TO2012A000864, Publication Date: 05 April 2014, ST Microelectronics S.R.L., Agrate Brianza (IT); Università degli Studi di Catania, Catania - dal 05-04-2014 a oggi

- I. Guarneri, A. Capra, S. Battiato, G. M. Farinella, F. Cristaldi, "Method and system for multi-touch shape recognition, related screen apparatus and computer program product", United States Patent, Filling Date: 4 October 2013, United States Publication Number US20140098045A1, Publication Date: 10 April 2014, ST Microelectronics S.R.L., Agrate Brianza (IT); Università degli Studi di Catania, Catania (IT) - dal 10-04-2014 a oggi

- V. Santarcangelo, G. M. Farinella, S. Battiato, A. Camporesi, "Advanced Kinesthesis Analysis based on Artificial Vision and Audio Analysis for Process Control in a Delimited Area", International Patent, PTC number: PCT/IT2017/000007, filling date, 18/01/2017, Centro Studi srl, Università degli Studi di Catania

12 Selected Publications

1) A. Furnari, G. M. Farinella, "Rolling-Unrolling LSTMs for Action Anticipation from First-Person Video", IEEE Transactions on Pattern Analysis and Machine Intelligence (PAMI), ISSN: 0162-8828, (ISI Impact Factor 2018: 17.730), 2020

2) D. Damen, H. Doughty, G. M. Farinella, S. Fidler, A. Furnari, E. Kazakos, D. Moltisanti, J. Munro and T. Perrett, W. Price, M. Wray, "The EPIC-KITCHENS Dataset: Collection, Challenges and Baselines" , IEEE Transactions on Pattern Analysis and Machine Intelligence (PAMI), ISSN: 0162-8828, (ISI Impact Factor 2018: 17.730), 2020

3) A. Furnari, G. M. Farinella, "What Would You Expect? Anticipating Egocentric Actions with Rolling-Unrolling LSTMs and Modality Attention", International Conference on Computer Vision (ICCV), (ACCEPTED AS ORAL, 187 oral over 4303 submissions, Top 4.3%), Seul, Korea, 27 Oct - 2 Nov 2019

4) D. Damen, H. Doughty, G. M. Farinella, S. Fidler, A. Furnari, E. Kazakos, Evangelos, D. Moltisanti, J. Munro, T. Perrett, W. Price, M. Wray, Michael, "Scaling Egocentric Vision: The EPIC-KITCHENS Dataset", (ACCEPTED AS ORAL, 59 oral over 2439 submissions, Top 2.42%), European Conference on Computer Vision, Munich Germany, 8-14 September 2018

5) A. Furnari, S. Battiato, G. M. Farinella, "Personal-Location-Based Temporal Segmentation of Egocentric Video for Lifelogging Applications", Journal of Visual Communication and Image Representation, Elsevier, ISSN: 1047-3203, (ISI Impact Factor 2017: 1.836), Vol. 52, pp. 1-12, doi: 10.1016/j.jvcir.2018.01.019, 2018

6) M. Leo, G. Medioni, M. Trivedi, T. Kanade, G. M. Farinella, "Computer Vision for Assistive Technologies", Computer Vision and Image Understanding, Elsevier (Impact Factor 2017: 2.391), ISSN: 1077-3142, Vol. 154, pp. 1-15, doi: http://dx.doi.org/10.1016/j.cviu.2016.09.001, 2017

7) A. Furnari, S. Battiato, K. Grauman, G. M. Farinella, "Next-Active-Object Prediction from Egocentric Videos", Journal of Visual Communication and Image Representation, Elsevier ISSN: 1047-3203, (ISI Impact Factor 2017: 1.836), Vol. 49, pp. 401-411, doi: 10.1016/j.jvcir.2017.10.004, 2017

8) D. Ravì, M. Bober, G. M. Farinella, M. Guarnera, S. Battiato,"Semantic Segmentation of Images Exploiting DCT based Features and Random Forest", Pattern Recognition, Elsevier (Impact Factor 2016: 4.582), ISSN: 0031-3203, Vol. 52, pp. 260-273, doi: 10.1016/j.patcog.2015.10.021, 2016

9) G. M. Farinella, D. Ravì, V. Tomaselli, M. Guarnera, S. Battiato, "Representing Scenes for Real-Time Context Classification on Mobile Devices", Pattern Recognition, Elsevier, ISSN: 0031-3203, (ISI, Impact Factor 2015: 3.399), Volume: 48, Issue: 4, pp. 1086 - 1100, doi: 10.1016/j.patcog.2014.05.014, 2015

10) S. Battiato, G. M. Farinella, A. Furnari, G. Puglisi, A. Snijders, J. Spiekstra, "An Integrated System for Vehicle Tracking and Classification", Expert Systems with Applications, Elsevier (Impact Factor 2015: 2.981), ISSN 0957-4174, Vol. 42, N. 21, pp.7263-7275, doi:10.1016/j.eswa.2015.05.055, 2015

11) S. Battiato, G. M. Farinella, G. Puglisi, D. Ravì, "Saliency Based Selection of Gradient Vector Flow Paths for Content Aware Image Resizing", IEEE Transactions on Image Processing, ISSN: 1057-7149, (ISI, Impact Factor 2014: 3.625), Volume: 23, Issue: 5, pp. 2081 - 2095, doi:10.1109/TIP.2014.2312649, 2014

12) S. Battiato, G. M. Farinella, E. Messina, G. Puglisi, "Robust Image Alignment for Tampering Detection", IEEE Transactions on Information Forensics and Security, ISSN : 1556-6013, (ISI, Impact Factor 2012: 1.895), Volume: 7, Issue: 4, pp. 1105-1117 doi: 10.1109/TIFS.2012.2194285, 2012

Bibliometric Scores (26 Jan 2022)

Scopus: https://www.scopus.com/authid/detail.uri?authorId=14053984700
Citations: 2024
h-index: 23

Google Scholar: https://scholar.google.com/citations?user=YwQboCoAAAAJ&hl=en
Citations: 3567
h-index: 31