Curriculum Vitae

Federica Proietto Salanitri

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Contents

1 Personal Information

Name: Federica Proietto Salanitri

Position: Assistant Professor (Tenure-Track Researcher, RTD-A), Department of Electrical, Electronic and Computer Engineering, University of Catania, Italy

Nationality: Italian

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2 Education and Professional Experience

2.1 Education

- **Ph.D. in Systems, Energy, Computer and Telecommunications Engineering**, University of Catania, awarded on 13 November 2023. Doctoral thesis: "From Centralization to Collaboration: harnessing generative models in Federated Learning for Medical Image Analysis". Supervisor: Prof. Daniela Giordano (UNICT), Co-supervisors: Prof. Concetto Spampinato (UNICT), Prof. Ulas Bagci (Northwestern University, Chicago)
- **M.Sc. in Computer Engineering**, University of Catania, awarded on 17 July 2020 with a final grade of 110/110 cum laude. Thesis: "3D Dynamic Visual Attention Assessment through Multi-Scale Conspicuity Maps".
- **B.Sc. in Computer Engineering**, University of Catania, awarded on 26 July 2017 with a final grade of 110/110. Thesis: "MAITRE: web-application for hospital catering - Meal Reservation and Kitchen Logistics."
- **High School Diploma in Computer Science** (Technical Diploma), Istituto Tecnico Industriale "E. Fermi", Giarre (CT), Italy, with a final grade of 100/100.

2.2 Training and Research Periods at Foreign and International Universities or Research Institutes

Mar 2022 - Jun 2022 **Visiting Researcher** at CentraleSupélec - Université Paris-Saclay, Gif-sur-Yvette, Paris, France
Research topic: Whole Slide Image Signature Regression.

2.3 Professional Experience

Jan 2024 - Present	**Assistant Professor** (fixed-term full-time researcher, RTD-A, art. 24 c.3-a Law 240/10), scientific sector 09/H1 (Information Processing Systems), Department of Electrical, Electronic and Computer Engineering, University of Catania, Italy
Nov 2019 - May 2020	**Internship** at STMicroelectronics - ADG R&D - AI for Modeling and Predictive Reliability Team, Catania, Italy. Design and implementation of a convolutional neural network for motion estimation in car-driving scenarios.
Dec 2016 - Jul 2017	**Internship** at SPLIT srl, Giarre (CT), Italy. Design and implementation of an application for collecting, managing and processing meal reservations within a hospital.

3 Teaching Activities

3.1 University Teaching

3.1.1 Courses Taught

A.Y. 2025/2026

- Lecturer of **Database**, B.Sc. in "Computer Engineering" (L-8 R), University of Catania.
  ING-INF/05, 6 ECTS, 58 hours (Class A-E).

- Lecturer of **Database**, B.Sc. in "Computer Engineering" (L-8 R), University of Catania.
  ING-INF/05, 6 ECTS, 58 hours (Class P-Z).

A.Y. 2024/2025

- Lecturer of **Database**, B.Sc. in "Computer Engineering" (L-8), University of Catania.
  ING-INF/05, 6 ECTS, 58 hours (Class A-E).

- Lecturer of **Database and Web Programming - Database Module**, B.Sc. in "Computer Engineering" (L-8), University of Catania.
  ING-INF/05, 6 ECTS, 50 hours.

A.Y. 2023/2024

- Lecturer of **Database**, B.Sc. in "Computer Engineering" (L-8), University of Catania.
  ING-INF/05, 6 ECTS, 58 hours (Class A-E).

- Lecturer of **Database**, B.Sc. in "Computer Engineering" (L-8), University of Catania.
  ING-INF/05, 2 ECTS, 30 hours (Class P-Z).

A.Y.	Course	Degree	University	ECTS
2025/2026	Database	L-8 R	UNICT	6
2025/2026	Database	L-8 R	UNICT	6
2024/2025	Database	L-8	UNICT	6
2024/2025	Database and Web Programming	L-8	UNICT	6
2023/2024	Database	L-8	UNICT	6
2023/2024	Database	L-8	UNICT	2
			Total	**32**

Table 1: Summary of ECTS credits for university courses.

3.1.2 Examination Boards

- **Chair of the examination boards** for all exam sessions (at least 6 sessions per year) of the courses listed in Table 1

- **Member of the examination boards** for other courses

3.1.3 Teaching Assistant Activities

A.Y. 2022/2023 - Teaching assistant for **Cognitive Computing and Artificial Intelligence** (ING-INF/05, 60 hours), M.Sc. in Computer Engineering (University of Catania).

A.Y. 2021/2022 - Teaching assistant for **Cognitive Computing and Artificial Intelligence** (ING-INF/05, 60 hours), M.Sc. in Computer Engineering (University of Catania).

A.Y. 2020/2021 - Teaching assistant for **Cognitive Computing and Artificial Intelligence** (ING-INF/05, 60 hours), M.Sc. in Computer Engineering (University of Catania).

3.2 Doctoral Programmes

3.2.1 Doctoral Theses

- **Supervisor** of the doctoral thesis "Trustworthy Learning in Medical AI" by Rutger Hendrix, 38th cycle of the Italian National Ph.D. Programme in Artificial Intelligence, "Health and Life Sciences" area, Campus Bio-Medico University of Rome.

3.2.2 Ph.D. Student Supervision

41st cycle - **Co-supervisor** of Ph.D. student Zhi Yu, research topic "A Vision-Language Model Approach for Comprehensive Analysis and Clinical Decision Support in Distal Radius Fracture", *Ph.D. in Systems, Energy, Computer and Telecommunications Engineering, University of Catania.*

40th cycle - **Co-supervisor** of Ph.D. student Marco Finocchiaro, research topic "Brain Augmented AI: Neuroimaging Data for Better Artificial Intelligence Models and Neuro-Assistive Devices", *Italian National Ph.D. Programme in Artificial Intelligence, "Health and Life Sciences" area, Campus Bio-Medico University of Rome.*

- **Co-supervisor** of Ph.D. student Muhammad Zawar Ul Hassan, research topic "Causal Transformers for Neuroimaging Data Analysis", *Ph.D. in Systems, Energy, Computer and Telecommunications Engineering, University of Catania.*

38th cycle - **Co-supervisor** of Ph.D. student Rutger Hendrix, research topic "Federated Explainable AI", *Italian National Ph.D. Programme in Artificial Intelligence, "Health and Life Sciences" area, Campus Bio-Medico University of Rome.*

3.2.3 Ph.D. Boards and Committees

- **Member of the Evaluation Committee**, Italian National Ph.D. Programme in Artificial Intelligence (Health and Life Sciences area), 41st cycle, A.Y. 2025/2026

3.3 Additional Teaching Activities

3.3.1 Thesis Supervision

- Advisor of 4 B.Sc. theses in Computer Engineering at the University of Catania.
- Co-advisor of 5 theses (B.Sc. and M.Sc.) in Computer Engineering at the University of Catania.
- Co-advisor of 2 M.Sc. theses in Data Science for Management at the University of Catania.
- Supervision of a diploma thesis at the Scuola Superiore di Catania. Topic: attention-based neural networks for the classification of genomic information from lung CT scans.

3.3.2 Student Mentoring

- Supervision of the internship of Rutger Hendrix, Eindhoven University of Technology, Eindhoven, The Netherlands. Internship topic: NSCLC classification assessment: A Radiomics machine learning baseline with AI perspective.
- Supervision of the internship of Giulia Pötgens, Medical Engineering - Eindhoven University of Technology, Eindhoven, The Netherlands. Internship topic: Training-free Gaze-Guided Medical Image Segmentation using SAM.

4 Research Activities

4.1 Organization, Coordination and Participation in Research Groups

4.1.1 National Research Groups

- **Member** of the Pattern Recognition and Computer Vision Laboratory (PeRCeiVe Lab), Department of Electrical, Electronic and Computer Engineering, University of Catania (www.perceivelab.com), where she is the PI of the "Brain and Medical Imaging Analysis" group.

- **Collaboration** with the Parallel Computing research group of the University of Turin, led by Prof. Marco Aldinucci. Research topic: Federated and Collaborative Learning.
  Publications resulting from the collaboration:
  - FedER: Federated Learning through Experience Replay and privacy-preserving data synthesis.
  - Experience Replay as an Effective Strategy for Optimizing Decentralized Federated Learning.

4.1.2 International Research Groups

- **Collaboration** with the Machine and Hybrid Intelligence Lab led by Prof. Ulas Bagci at Northwestern University, Chicago (USA). Research topics: Medical Imaging Analysis, Explainable AI.
  Publications resulting from the collaboration:
  - A Privacy-Preserving Walk in the Latent Space of Generative Models for Medical Applications.
  - Neural Transformers for Intraductal Papillary Mucosal Neoplasms (IPMN) Classification in MRI images.
  - Hierarchical 3D Feature Learning for Pancreas Segmentation.

- **Collaboration** with the Center for Research in Computer Vision (University of Central Florida), led by Prof. Mubarak Shah. Research topics: Explainable AI, Prompt optimization

- **Collaboration** with the research group of Prof. Kevin McGuinness at the School of Electronic Engineering, Dublin City University. Research topic: Video Saliency Detection.
  Publications resulting from the collaboration:
  - TinyHD: Efficient Video Saliency Prediction with Heterogeneous Decoders using Hierarchical Maps Distillation.

- **Collaboration** with the βiomathematics group of Prof. Maria Vakalopoulou at the MICS laboratory, CentraleSupélec, Université Paris-Saclay, Paris, France. Research topic: Multiple Instance Learning applied to Whole Slide Images.

4.2 Scientific Responsibility for Research Projects

4.2.1 International and National Research Projects

- **Principal Investigator** for the University of Catania of the Erasmus+ project *GEMS – Girls' Empowerment in Digital Skills*, Action KA220-HED – Cooperation partnerships in higher education (Call 2025, Round 1), 2025–2028. The project aims to promote gender equality in ICT studies through training of academic staff in inclusive teaching, an extracurricular STEM programme for secondary-school girls, and a mentorship programme with female role models. Funding for the University of Catania: €57,750.00.

- **Co-Principal Investigator** for the University of Catania of the *AFRICAI Mentorship Program 2025–2026*, a 12-month international initiative supporting African students and early-career researchers in developing AI research projects and preparing papers for submission to MICCAI 2026, with the aim of promoting capacity building and inclusiveness in artificial intelligence for health and life sciences.

- **Principal Investigator** of the technology transfer project *AquaVision AI: Automatic Detection and Behavioral Analysis of Fish in Aquaculture and Controlled Marine Environments*, FAIR Technology Transfer Call (2025).

4.3 Participation in Research Projects

4.3.1 National and International

- Participant in the research project *"Rete eHealth: AI e strumenti ICT innovativi orientati alla Diagnostica Digitale (rAIdD)"* (eHealth Network: AI and innovative ICT tools for digital diagnostics), funded by the Health Development and Cohesion Plan – Trajectory 2 "eHealth, advanced diagnostics, medical devices and minimally invasive procedures", Action line 2.1 "Creation of a national network for high-impact diseases", project code T2-AN-04. Role: development of artificial intelligence algorithms for the segmentation and analysis of multiple sclerosis lesions in MRI, and design of multimodal models for modelling and predicting disease progression.

- Participant in the research project *"FAIR: Future Artificial Intelligence Research"*, PNRR (Italian National Recovery and Resilience Plan) call PE_1: Artificial intelligence: foundational aspects. Role: research on neuro-inspired learning and deep learning methods for medical image analysis.

- Participant in the research project *"Bias-Free Artificial Intelligence methods for automated visual recognition: detecting human prejudice in visual annotations and mitigating its effects on models' learning (B-FAIR)"*, PRIN 2022 call (Projects of Relevant National Interest). Role: *development of bias detection methods and study of de-biasing techniques for visual recognition models.*

- Participant, for the University of Catania, in the PRIN 2020 project *"LEarning the Geometry of knOwledge in AI systems (LEGO.AI)"*. Role: *development of artificial intelligence methods for neural signal decoding and geometric modelling of knowledge in AI systems.*

- Participant in the research project *"RehaStart: Ricerca e sviluppo di tecnologie e metodologie per l'implementazione di soluzioni di teleriabilitazione ad alta sostenibilità economica e sociale"* (Research and development of technologies and methodologies for economically and socially sustainable telerehabilitation solutions), call "Action 1.1.5" (ERDF Operational Programme 2014/2020 - Sicily Region). Role: *development and evaluation of artificial intelligence models supporting telerehabilitation pathways.*

- Participant in the research project *"iHOSP: Assistenza medica domiciliare a distanza attraverso un'infrastruttura interattiva di smart medicine"* (Remote home healthcare through an interactive smart-medicine infrastructure), call "Action 1.1.5 - Support for the technological advancement of companies through funding of pilot lines, early product validation and

large-scale demonstrations" - ERDF Operational Programme 2014/2020 - Sicily Region. Role: design and development of deep learning methods for remote monitoring of clinical conditions.

- Participant in the research project *"Progetto 4FRAILTY – Sensoristica intelligente, infrastrutture e modelli gestionali per la sicurezza di soggetti fragili"* (Smart sensors, infrastructures and management models for the safety of frail individuals), National Operational Programme (PON) Research and Innovation 2014-2020, Italian Ministry of University and Research. Role: design and implementation of deep learning-based systems for analysing and monitoring the cognitive status of patients with mild cognitive impairment (MCI).

- Participant in the research project *"Biotrak: Definizione e qualificazione di un sistema innovativo di tracciabilità e certificazione di filiere zootecniche caratterizzate dall'utilizzo mangimistico di biomasse residuali del settore olivicolo"* (An innovative traceability and certification system for livestock supply chains using olive-sector residual biomass as feed), call "Action 1.1.5 - Support for the technological advancement of companies through funding of pilot lines, early product validation and large-scale demonstrations" - ERDF Operational Programme 2014/2020 - Sicily Region. Role: monitoring and tracking of agricultural products through machine learning techniques.

4.3.2 Competitive Calls

- Participant in the research project *"Intelligenza Artificiale e Citizen Science per il monitoraggio delle specie aliene marine nel Mediterraneo"* (Artificial intelligence and citizen science for monitoring alien marine species in the Mediterranean), funded under the University of Catania competitive research call "SYR-AI, Supporting Young Researchers through Artificial Intelligence". Role: development of artificial intelligence models for automatic recognition of alien species, multimodal data integration, and design of the AI pipeline of the decision-support platform.

- Participant in the research project *"CHROMA-AI: Cultural Heritage Reconstruction of Original chromatic appearance through Modeling and ArtificiAl Intelligence"*, funded under the University of Catania competitive research call "SYR-AI, Supporting Young Researchers through Artificial Intelligence". Role: development of machine and deep learning models for data-driven colour reconstruction, and application of explainable AI techniques for the interpretability of predictions.

- Participant in the research project *"INTELLIDERM: Intelligenza artificiale in Dermatologia per un triage Efficiente e Riduzione delle liste d'attesa: un approccio Multimodale"* (Artificial intelligence in dermatology for efficient triage and waiting-list reduction: a multimodal approach), funded under the University of Catania competitive research call "SYR-AI, Supporting Young Researchers through Artificial Intelligence". Role: development of multimodal artificial intelligence models for automatic triage of dermatology appointment requests and care prioritization.

- Participant in the research project *"ViSTA: Virtual Sustainability Officer: Intelligenza artificiale per la Sostenibilità e la Trasparenza nelle Aziende"* (Artificial intelligence for corporate sustainability and transparency), funded under the University of Catania competitive research call "SYR-AI, Supporting Young Researchers through Artificial Intelligence". Role: development of artificial intelligence models for collecting, classifying and integrating ESG data, using

Retrieval-Augmented Generation, large language models and Generative Engine Optimization to build indicators and operational recommendations.

- Participant in the research project *"GEN-IA: Gender Norms, Belief and Educational Outcomes: An AI-Powered Empirical Framework"*, funded under the University of Catania competitive research call "SYR-AI, Supporting Young Researchers through Artificial Intelligence". Role: development of NLP and interpretable machine learning models for the analysis of gender norms and educational trajectories.

- Participant in the research project *"PHYCO-AI: Smart Monitoring and AI-Driven Optimization of Microalgal Wastewater Treatment Systems"*, funded under the University of Catania competitive research call "SYR-AI, Supporting Young Researchers through Artificial Intelligence". Role: development of artificial intelligence models to optimize the use of microalgae in wastewater treatment and biomass reuse.

4.3.3 Scientific Supervision of Researchers, Research Fellows and Research Contractors

- **Research grant**: "Strategies for gender-inclusive communication and impact evaluation in digital education initiatives", El Houm Yassine, since 15 June 2026 (ongoing)

- **Consultancy contract:** "GEMS – Girls' Empowerment in Digital Skills", ongoing

4.4 Organization of and Talks at National and International Scientific Events

4.4.1 Organization of Scientific Events

- **Organizer** of the *11th IEEE International Forum on Research and Technologies for Society and Industry (RTSI 2027)*, Catania, Italy, September 2027.

- **General Chair** of the "1st Workshop on Computer Vision for Biodiversity Monitoring and Conservation (CVBMC)", held in conjunction with ICPR 2026, Lyon, France, 21 August 2026.

- **General Chair** of the "2nd Workshop on Multimodal Sign Language Recognition (MSLR 2026)", held in conjunction with CVPR 2026, Denver, Colorado (USA), 3 June 2026.

- **General Chair** of the special session "Privacy-Aware, Data-Efficient AI via Personalized Incremental and Federated Learning in Healthcare" at the *IEEE International Symposium on Biomedical Imaging (ISBI 2026)*, London (UK), 10 April 2026.

- **General Chair** of the "1st Multimodal Sign Language Recognition Workshop (MSLR 2025)", held in conjunction with the *IEEE/CVF International Conference on Computer Vision (ICCV 2025)*, Honolulu, Hawaii (USA), 20 October 2025.

- **General Chair** of the workshop "AIPAD: AI in Pancreatic Disease Detection and Diagnosis", held in conjunction with the *27th International Conference on Medical Image Computing and Computer Assisted Intervention (MICCAI 2024)*, Marrakesh, Morocco, 6–10 October 2024.

- **General Chair** of the workshop "Federated Learning in Medical Imaging and Vision (FEDMED)", held in conjunction with the 22^{nd} International Conference on Image Analysis and Processing (ICIAP 2023), Udine, Italy, 11 September 2021.

- **General Chair** of the workshop "Medical Transformers (MEDXF)", held in conjunction with the 21^{st} International Conference on Image Analysis and Processing (ICIAP 2021), Lecce, Italy, 23 May 2022.

4.4.2 Talks at Scientific Conferences and Research Institutions

- **Speaker** at the "FAIR General Conference 2025 – AI for Health" (FAIR Foundation), Rome, Italy. Talk title: *Privacy-preserving federated learning for medical image analysis.*

- **Tutorial** at the *INAF AI in Astronomy Workshop.* Catania, 22 May 2025.
Tutorial title: "Deep Learning Best Practices in Astrophysics".

- **Speaker** at the "47th IEEE International Engineering in Medicine and Biology Conference" (EMBC 2025), Copenhagen, Denmark. Talk title: *Gaze-guided medical image segmentation: a training-free approach using SAM foundation model.*

- **Speaker** at the "47th IEEE International Engineering in Medicine and Biology Conference" (EMBC 2025), Copenhagen, Denmark. Talk title: *Liver cirrhosis stage estimation from MRI with deep learning.*

- **Speaker** at the workshop "AIPAD: AI in Pancreatic Disease Detection and Diagnosis", held in conjunction with MICCAI 2024, Marrakesh, Morocco, October 2024. Talk title: *Leveraging SAM and learnable prompts for pancreatic MRI segmentation.*

- **Speaker** at "Women in Computer Vision", held in conjunction with ICCV 2023, Paris, France, 3 October 2023. Talk title: *Experience Replay as an Effective Strategy for Optimizing Decentralized Federated Learning*

- **Speaker** at the "3rd MICCAI Workshop on Distributed, Collaborative and Federated Learning (DeCaF)", virtual event, 22 September 2022. Talk title: *GAN Latent Space Manipulation and Aggregation for Federated Learning in Medical Imaging*

- **Speaker** at the "44th International Engineering in Medicine and Biology Conference" (EMBC), Glasgow, United Kingdom, 11-15 July 2022. Talk title: *Neural Transformers for Intraductal Papillary Mucosal Neoplasms (IPMN) Classification in MRI images*

- **Speaker** at the "International Workshop on Machine Learning in Medical Imaging (MLMI)", held in conjunction with MICCAI 2021, virtual event, 27 September 2021. Talk title: *Hierarchical 3D Feature Learning for Pancreas Segmentation*

4.4.3 Session Chair at International Events

- **Session chair** of the oral session "Advanced methods in imaging informatics", Annual International Conference of the IEEE Engineering in Medicine and Biology Society 2025 (EMBC 2025), Copenhagen, Denmark.

4.5 Peer Review Activities

4.5.1 Journals

- IEEE Transactions on Multimedia
- Computer Vision and Image Understanding
- IEEE Transactions on Parallel and Distributed Systems
- Neurocomputing

4.5.2 International Conferences

- ACM Multimedia Conference (ACM-MM)
- IEEE/CVF International Conference in Computer Vision and Pattern Recognition (CVPR)
- IEEE/CVF Winter Conference on Applications of Computer Vision (WACV)
- IEEE/CVF International Conference on Computer Vision (ICCV)
- European Conference on Computer Vision (ECCV)
- International Conference on Medical Image Computing and Computer Assisted Intervention (MICCAI)
- International Conference on Image Analysis and Processing (ICIAP)

4.6 Membership in Scientific Societies

- **Member of the Computer Vision Foundation**.
- **Member of the MICCAI Society**.

4.7 Technology Transfer

4.7.1 Patents

- G. M. De Ferrari, F. D'Ascenzio, O. De Filippo, M. Iannaccone, M. Aldinucci, J. M. Hughes, M. Millesimo, W. Grosso Marra, G. Quadri, **F. Proietto Salanitri**, G. Bellitto, C. Spampinato, R. Mineo, S. Palazzo. "Angiographic Image Processing method and System". Patent No. WO2025262634, 26.12.2025

4.8 Awards and Honours

- The project *"AquaVision AI: Automatic Detection and Behavioral Analysis of Fish in Aquaculture and Controlled Marine Environments"* was selected as a case study in the volume *"Umanesimo Tecnologico – Eccellenza Italiana nell'Intelligenza Artificiale"* (Technological Humanism – Italian Excellence in Artificial Intelligence) of the Italian Ministry of Foreign Affairs (MAECI), edited by AIRI and the FAIR Foundation, presented at the 40th Guadalajara International Book Fair and distributed through Italian Embassies and Consulates worldwide (2026).

- *NeurIPS Spotlight Paper* – "Saliency-Driven Experience Replay for Continual Learning" (NeurIPS 2024).
- *Top 5% Paper Recognition* – "VITO: Vision Transformer Optimization via Knowledge Distillation on Decoders" (IEEE ICIP 2024); nominated for the Best Paper Award.

5 Other Activities

5.1 Third Mission and Public Engagement

5.2 Invited Talks, Tutorials and Keynotes

2026

- **Invited talk** at the event *"Sanità e Intelligenza Artificiale – ESIDIA Tour 2026"* (Healthcare and Artificial Intelligence), Palazzo della Cultura, Catania, 27 June 2026.
  Title: "La ricerca UniCT per la medicina del futuro" (UniCT research for the medicine of the future).

- **Seminar** for the M.Sc. programme in *Health Informatics* (Department of Mathematics and Computer Science, University of Catania). Catania, June 2026.
  Title: "Research directions in medical AI: decoding, federated learning, and prompting".

- **Invited talk** at the international workshop *"Intelligent Technologies for Health, Cities and Mobility"*, organized by Strathmore University and Université Polytechnique Hauts-de-France (UPHF). Nairobi (Kenya), 22 April 2026.
  Title: "AFRICAI–UNICT Partnership: Advancing AI for Medical Imaging in Africa".

2025

- **Invited talk** at *UniStem Day 2025: "L'infinito viaggio della ricerca scientifica"* (The endless journey of scientific research). Catania, March 2025.
  Talk title: "Intelligenza artificiale e medicina: un futuro di collaborazione" (Artificial intelligence and medicine: a collaborative future).

- **Invited lecture** for the continuing medical education (CME) course *"Intelligenza artificiale in nefrologia"* (Artificial intelligence in nephrology), Medical Association of Syracuse. Syracuse, October 2025.
  Talk title: "Sistemi di intelligenza artificiale e diagnostica" (Artificial intelligence systems and diagnostics).

- **Invited talk** at the school-year opening ceremony of the *Biology with Biomedical Curriculum*, Liceo Ginnasio Statale "Mario Cutelli e Carmelo Salanitro" (high school). Catania, October 2025.
  Talk title: "Intelligenza artificiale e medicina: un futuro di collaborazione" (Artificial intelligence and medicine: a collaborative future).

2024

- **Invited lecture** for the CME course *"Innovazione e intelligenza artificiale nelle attività delle professioni sanitarie"* (Innovation and artificial intelligence in the healthcare professions), ASP Catania (Local Health Authority).
  Catania, December 2024.
  Talk title: "Intelligenza Artificiale in Sanità: Cosa È, Cosa Non È e Cosa Può Diventare" (Artificial intelligence in healthcare: what it is, what it is not, and what it can become).

- **Invited talk** at the medical conference *"Malattia di Fabry: dalla diagnosi alla gestione clinica"* (Fabry disease: from diagnosis to clinical management). Ragusa, May 2024.
  Talk title: "Intelligenza artificiale e malattie rare" (Artificial intelligence and rare diseases).

- **Invited talk** at the event *"L'intelligenza artificiale: rischi e opportunità"* (Artificial intelligence: risks and opportunities), organized by Associazione Nazionale Donne Elettrici di Catania, Associazione Ex Alunne Collegio Sacro Cuore di Catania and FIDAPA Catania. Catania, April 2024.
  Talk title: "AI alla scoperta delle nuove frontiere della tecnologia" (AI exploring the new frontiers of technology).

6 Publications

6.1 Journals with Impact Factor

For each journal, the Clarivate **impact factor**[1] and the Scimago **quartile and subject category**[2] are reported. Values refer to the year 2026.

J1. S. Calcagno, M. Pennisi, **F. Proietto Salanitri**, A. Sorrenti, S. Palazzo, C. Spampinato, G. Bellitto. *Dream2Learn: Structured Generative Dreaming for Continual Learning.* INTERNATIONAL JOURNAL OF COMPUTER VISION, 2026. DOI: 10.1007/s11263-026-02958-1
- **Impact factor**: 10.3
- **Scimago Quartile**: Q1 (Artificial Intelligence, Computer Vision and Pattern Recognition, Software)

J2. M. Moradi, M. Moradi, A.Borji, **F. Proietto Salanitri**, G. Bellitto, F. Rundo, S. Palazzo, C.Spampinato. *Learning long-and short-term dynamics for human attention prediction using large video models.* COMPUTER VISION AND IMAGE UNDERSTANDING, Volume 268, 2026. DOI: 10.1016/j.cviu.2026.104740
- **Impact factor**: 3.6
- **Scimago Quartile**: Q1 (Computer Vision and Pattern Recognition)

J3. **F. Proietto Salanitri**, G. Bellitto, S. Calcagno, U. Bagci, C.Spampinato, M.Pennisi. *SAM-guided prompt learning for Multiple Sclerosis lesion segmentation.* PATTERN RECOGNITION LETTERS, Volume 199, 2025. DOI: 10.1016/j.patrec.2025.11.018
- **Impact factor**: 3.5
- **Scimago Quartile**: Q1 (Computer Vision and Pattern Recognition)

J4. S. Calcagno, M. Finocchiaro, G. Bellitto, C.Spampinato, **F. Proietto Salanitri**. *Decoding attention from the visual cortex: fMRI-based prediction of human saliency maps.* PATTERN RECOGNITION LETTERS, Volume 199, 2025. DOI: 10.1016/j.patrec.2025.11.019
- **Impact factor**: 3.5
- **Scimago Quartile**: Q1 (Computer Vision and Pattern Recognition)

J5. A. Sorrenti, G. Bellitto, **F. Proietto Salanitri**, M. Pennisi, S. Palazzo, C. Spampinato. *Wake-sleep consolidated learning.* IEEE TRANSACTIONS ON NEURAL NETWORKS AND LEARNING SYSTEMS, Volume 36, 2025. DOI: 10.1109/TNNLS.2024.3458440
- **Impact factor**: 4.5
- **Scimago Quartile**: Q1 (Artificial Intelligence)

J6. R. Mineo, **F. Proietto Salanitri**, G. Bellitto, I. Kavasidis, O. De Filippo, M. Millesimo, G. M. De Ferrari, M. Aldinucci, D. Giordano, S. Palazzo, F. D'Ascenzio, C. Spampinato, *A convolutional-transformer model for FFR and iFR assessment from coronary angiography.* IEEE TRANSACTIONS ON MEDICAL IMAGING, Volume 43, 2024. DOI: 10.1109/TMI.2024.3383283
- **Impact factor**: 12.4
- **Scimago Quartile**: Q1 (Computer Science Applications)

[1] https://clarivate.com/
[2] https://www.scimagojr.com/

J7. M. Pennisi, **F. Proietto Salanitri**, G. Bellitto, B. Casella, M. Aldinucci, S. Palazzo, C. Spampinato, *FedER: Federated Learning through Experience Replay and privacy-preserving data synthesis*. COMPUTER VISION AND IMAGE UNDERSTANDING, Volume 238, 2024. DOI: 10.1016/j.cviu.2023.103882
- **Impact factor**: 3.6
- **Scimago Quartile**: Q1 (Computer Vision and Pattern Recognition)

J8. G. Bellitto, **F. Proietto Salanitri** , S. Palazzo, F. Rundo, D. Giordano, C. Spampinato, *Hierarchical Domain-Adapted Feature Learning for Video Saliency Prediction*. INTERNATIONAL JOURNAL OF COMPUTER VISION, Volume 129, 2021. DOI: 10.1007/s11263-021-01519-y
- **Impact factor**: 10.3
- **Scimago Quartile**: Q1 (Artificial Intelligence, Computer Vision and Pattern Recognition, Software)

J9. M. Pennisi, I. Kavasidis, C. Spampinato, V. Schinina, S. Palazzo, **F. Proietto Salanitri**, G. Bellitto, F. Rundo, M. Aldinucci, M. Cristofaro, P. Campioni, E. Pianura, F. Di Stefano, A. Petrone, F. Albarello, G. Ippolito, S. Cuzzocrea, S. Conoci, *An explainable AI system for automated COVID-19 assessment and lesion categorization from CT-scans*. ARTIFICIAL INTELLIGENCE IN MEDICINE, Volume 118, 2021. DOI: 0.1016/j.artmed.2021.102114
- **Impact factor**: 7.8
- **Scimago Quartile**: Q1 (Artificial Intelligence)

6.2 Multidisciplinary Journals with Impact Factor

The following are journal publications in fields other than computer engineering, computer science and engineering in general (typical of the ING-INF/05 sector). As in the previous section, for each journal the Clarivate **impact factor**[3] and the Scimago **quartile and subject category**[4] are reported. Values refer to the year 2026.

[M1] S. Varrasi, A. Pulvirenti, V. Catania, M. Palesi, C. Spampinato, D. Patti, O. Tomarchio, G. Micale, A. Simone, L. Passarello, **F. Proietto Salanitri**, G. Patanè, ..., F. Patti and The rAIdD Study Group (2026) *AI-based predictive biomarkers for chronic neurological diseases: the rAIdD prospective, multicenter, observational study protocol.* Frontiers in Neurology 17:1885919. doi: 10.3389/fneur.2026.1885919
- **Impact factor**: 3.3
- **Scimago Quartile**: Q2 (Neurology)

[M2] O. De Filippo, R. Mineo, M. Millesimo, W. Wańha, **F. Proietto Salanitri**, A. Greco, *et al. Non-invasive physiological assessment of intermediate coronary stenoses from plain angiography through artificial intelligence: the STARFLOW system*. European Heart Journal – Quality of Care and Clinical Outcomes, 11(3), 343–352, April 2025.
- **Impact factor**: 5.6
- **Scimago Quartile**: Q1 (Cardiology and Cardiovascular Medicine)

[3] https://clarivate.com/
[4] https://www.scimagojr.com/

6.3 International Conference Proceedings

[C1] M. Finocchiaro, S. Calcagno, S. Palazzo, C. Spampinato, **F. Proietto Salanitri.** *Sequential geodesic adaptation for auditory attention detection.* IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP). May 4–8, 2026.

[C2] R. Mineo, A. Sorrenti, G. Caligiore, **F. Proietto Salanitri**, G. Bellitto, S. Polikovsky, S. Fontana, E. Ragonese, C. Spampinato, S. Palazzo. *A benchmark for radar-based Italian sign language recognition using frequency-domain range-time maps.* IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR). Denver, USA. June 3-7, 2026.

[C3] G. Pötgens, R. Hendrix, C. Scannell, U. Bagci, C. Spampinato, **F. Proietto Salanitri**. *Gaze-guided medical image segmentation: a training-free approach using SAM foundation model.* 47th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC 2025). Copenhagen, Denmark. July 2025. - **Rating GII-GRIN-SCIE**: Class 2, Rating A-

[C4] M. Finocchiaro, S. Calcagno, I. Kavasidis, A. Sorrenti, S. Šúchalová, R. Hudec, M. Pennisi, **F. Proietto Salanitri**, C. Spampinato. *From questions to neural insights: towards query-based fMRI decoding.* 47th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC 2025). Copenhagen, Denmark. July 2025. - **Rating GII-GRIN-SCIE**: Class 2, Rating A-

[C5] J. Zeng, D. Jha, E. Aktas, E. Keles, A. Medetalibeyoglu, M. Antalek, **F. Proietto Salanitri**, A. A. Borhani, D. P. Ladner, G. Durak, U. Bagci. *Liver cirrhosis stage estimation from MRI with deep learning.* 47th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC 2025). Copenhagen, Denmark. July 2025. - **Rating GII-GRIN-SCIE**: Class 2, Rating A-

[C6] R. Mineo, G. Bellitto, **F. Proietto Salanitri**, R. Hendrix, C. Spampinato, S. Palazzo. *Learning Joint Text and Visual Tokens in CLIP for Medical Image Analysis.* 2^{nd} International Workshop on Multimedia Computing for Health and Medicine. Dublin, Ireland. October 28, 2025.

[C7] R. Hendrix, G. Patanè, L. Russo, S. Carnemolla, **F. Proietto Salanitri**, G. Bellitto, C. Spampinato, M. Pennisi. *Pre-Forgettable Models: prompt learning as a native mechanism for unlearning.* 33^{rd} ACM International Conference on Multimedia. Dublin, Ireland. October 27-31, 2025.
- Rating GII-GRIN-SCIE: Class 1, Rating A++

[C8] Z. Hong, H. E. Aktas, A. M. Bejar, K. Wu, H. Pan, G. Durak, Z. Zhang, S. Kayali, T. Tirkes, **F. Proietto Salanitri**, C. Spampinato, M. Goggins, T. Gonda, C. Bolan, R. Keswani, F. Miller, M. Wallace, U. Bagci. *Pancreas part segmentation under federated learning paradigm.* International Workshop on Predictive Intelligence in Medicine (PRIM). Springer Nature Switzerland. September 2025.

[C9] R. Mineo, G. Caligiore, **F. Proietto Salanitri**, I. Kavasidis, S. Polikovsky, S. Fontana, E. Ragonese, C. Spampinato, S. Palazzo. *Radar-based imaging for sign language recognition in medical communication.* Medical Image Computing and Computer-Assisted Intervention

(MICCAI). Springer Nature Switzerland. September 2025. - **Rating GII-GRIN-SCIE: Class 2, Rating A**

[C10] R. Mineo, A. Sorrenti, G. Caligiore, **F. Proietto Salanitri**, G. Bellitto, S. Polikovsky, S. Fontana, E. Ragonese, C. Spampinato, S. Palazzo. *Text-aligned radar-based sign language recognition for healthcare communication.* IEEE/CVF International Conference on Computer Vision Workshops (ICCVW). Honolulu, USA. October 19-23, 2025.

[C11] R. Mineo, I. Kavasidis, **F. Proietto Salanitri**, L. Passarello, G. Piccininno, V. Masciale, A. Anselmo, C. Convertino, D. Rotondi, N. Laurieri, S. Palazzo, C. Spampinato, M. Pennisi, D. Giordano. *Automated MoCA score estimation using eye-gaze data and vision transformers.* 38th IEEE International Symposium on Computer-Based Medical Systems (CBMS 2025). Madrid, Spain. June 18–20, 2025. - **Rating GII-GRIN-SCIE: Class 3, Rating B**

[C12] R. Mineo, G. Bellitto, **F. Proietto Salanitri**, R. Hendrix, U. Bagci, D. Giordano, C. Spampinato, S. Palazzo. *Conditional visuo-textual prompt learning for medical image analysis.* IEEE 22^{nd} International Symposium on Biomedical Imaging (ISBI). Houston, USA. April 14-17, 2025.
- **Rating GII-GRIN-SCIE: Class 3, Rating B**

[C13] H. Luqman, R. Mineo, M. Aljubran, A. A. Hasanaath, A. Sorrenti, S. Alyami, S. Al-Azani, M. Alowaifeer, J. Moon, V. Javorek, T. Železný, M. Hruz, G. Caligiore, S. Giancola, S. Polikovsky, M. Alfarraj, S. Fontana, M. Mahmud, M. H. Khan, K. Islam, S. Gurbuz, E. Ragonese, G. Bellitto, **F. Proietto Salanitri**, C. Spampinato, S. Palazzo. *The signeval 2025 challenge at the iccv multimodal sign language recognition workshop: Results and discussion.* Proceedings of the IEEE/CVF International Conference on Computer Vision (ICCV). Honolulu, USA. October 19-23, 2025.

[C14] G. Bellitto, **F. Proietto Salanitri**, M. Pennisi, M. Boschini, L. Bonicelli, A. Porrello, S. Calderara, S. Palazzo, C. Spampinato. *Saliency-driven experience replay for continual learning.* 38^{th} Annual Conference on Neural Information Processing Systems (NeurIPS). Vancouver, Canada, December 10-15, 2024.
- **Rating GII-GRIN-SCIE: Class 1, Rating A++**

[C15] L. Palazzo, M. Pennisi, **F. Proietto Salanitri**, G. Bellitto, S. Palazzo, C. Spampinato. *FedRewind: Rewinding Continual Model Exchange for Decentralized Federated Learning.* 27^{th} International Conference on Pattern Recognition (ICPR). Kolkata, India. December 1-5, 2024.
- **Rating GII-GRIN-SCIE: Class 2, Rating A-**

[C16] R. Hendrix, **F. Proietto Salanitri**, C. Spampinato, S. Palazzo, U. Bagci. *Evidential federated learning for skin lesion image classification.* International Conference on Pattern Recognition (ICPR 2024). Cham: Springer Nature Switzerland, December 2024. - **Rating GII-GRIN-SCIE**: Class 2, Rating A-

[C17] G. Bellitto, R. Sortino, P. Spadaro, S. Palazzo, **F. Proietto Salanitri**, G. Fiameni, E. Gavves, C. Spampinato. *Vito: Vision Transformer Optimization Via Knowledge Distillation On Decoders.* IEEE International Conference on Image Processing (ICIP). Abu Dhabi, UAE. October 27-30, 2024.
- **Rating GII-GRIN-SCIE: Class 2, Rating A-**

[C18] C. Delle Castelle, F. Spampinato, **F. Proietto Salanitri**, G. Bellitto, C. Spampinato. *Leveraging SAM and Learnable Prompts for Pancreatic MRI Segmentation.* International Workshop on Personalized Incremental Learning in Medicine. Marrakesh, Morocco. October 10, 2024.

[C19] R. Mineo, **F. Proietto Salanitri**, L. Passarello, A. Sardella, L. Messina, M. Pennisi, D. Giordano, S. Palazzo, C. Spampinato. *Magnifying facial micro-movements for cognitive evaluation.* 46th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC 2024). [Città], [Paese]. July 2024. - **Rating GII-GRIN-SCIE**: Class 2, Rating A-

[C20] F. Rizza, G. Bellitto, C. Calcagno, S. Palazzo. *Exploring wearable emotion recognition with transformer-based continual learning.* International Workshop on Personalized Incremental Learning in Medicine. Marrakesh, Morocco. October 10, 2024.

[C21] R. Mineo, **F. Proietto Salanitri**, G. Bellitto, O. De Filippo, F. D'Ascenzo, S. Palazzo, C. Spampinato. *Coronary Artery Stenosis Assessment in X-Ray Angiography Through Spatio-Temporal Attention for Non-Invasive FFR and iFR Estimation..* 17^{th} International Joint Conference on Biomedical Engineering Systems and Technologies (BIOSTEC). Rome, Italy, February 21–23, 2024.

[C22] M. Pennisi, **F. Proietto Salanitri**, G. Bellitto, S. Palazzo, U. Bagci, C. Spampinato. *A Privacy-Preserving Walk in the Latent Space of Generative Models for Medical Applications.* 26^{th} International Conference on Medical Image Computing and Computer-Assisted Intervention (MICCAI 2023). Vancouver, Canada. October 8-12, 2023. - **Rating GII-GRIN-SCIE: Class 2, Rating A**

[C23] M. Pennisi, **F. Proietto Salanitri**, G. Bellitto, B. Casella, M.Aldinucci, S. Palazzo, C. Spampinato. *Experience Replay as an Effective Strategy for Optimizing Decentralized Federated Learning.* International Conference on Computer Vision (ICCV) Workshops (ICCVW 2023). Parigi, France. October 2-6, 2023.

[C24] A.Sorrenti, G. Bellitto, **F. Proietto Salanitri**, M. Pennisi, C. Spampinato, S. Palazzo. *Selective Freezing for Efficient Continual Learning.* International Conference on Computer Vision (ICCV) Workshops (ICCVW 2023). Parigi, France. October 2-6, 2023.

[C25] R. Mineo, A.Sorrenti, **F. Proietto Salanitri**. FeDETR: a Federated Approach for Stenosis Detection in Coronary Angiography. 22^{nd} International Conference on Image Analysis and Processing (ICIAP) Workshops. Udine, Italy. September 11-15, 2023.

[C26] F. Hu, S. Palazzo, **F. Proietto Salanitri**, G. Bellitto, M. Moradi, C. Spampinato, K. McGuinness, *TinyHD: Efficient Video Saliency Prediction with Heterogeneous Decoders using Hierarchical Maps Distillation.* 2023 IEEE/CVF Winter Conference on Applications of Computer Vision (WACV 2023). Waikoloa, Hawaii, USA. January 3-7, 2023. - **Rating GII-GRIN-SCIE**: Class 2, Rating A

[C27] M. Pennisi, **F. Proietto Salanitri**, S. Palazzo, C. Pino, F. Rundo, D. Giordano, C. Spampinato. *GAN Latent Space Manipulation and Aggregation for Federated Learning in Medical Imaging.* International Workshop on Distributed, Collaborative, and Federated Learning (DECAF), MICCAIW. Singapore. September 18-22, 2022.

[C28] F. Rundo, C. Pino, R. E. Sarpietro, C. Spampinato, **F. Proietto Salanitri**. *A Hierarchical 3D Segmentation Model for Cone-Beam Computed Tomography Dental-Arch Scans.* 26^{th} International Conference on Pattern Recognition (ICPR 2022) Workshop. Montreal, Quebec, Canada. August 21-25, 2022.

[C29] **F. Proietto Salanitri**, G. Bellitto, S. Palazzo, I. Irmakci, M. B. Wallace, C. W. Bolan, M. Engels, S. Hoogenboom, M. Aldinucci, U. Bagci, D. Giordano, C. Spampinato. *Neural Transformers for Intraductal Papillary Mucosal Neoplasms (IPMN) Classification in MRI images.* 2022 44^{th} Annual International Conference of the IEEE Engineering in Medicine & Biology Society (EMBC 2022). Glasgow, Scotland, UK. July 11-15, 2022. - **Rating GII-GRIN-SCIE**: Class 2, Rating A-

[C30] F. Rundo, R. Leotta, F. Trenta, G. Bellitto, **F. Proietto Salanitri**, V. Piuri, A. Genovese, R. Donida Labati, F. Scotti, C. Spampinato, S. Battiato. *Advanced car driving assistant system: A deep non-local pipeline combined with 1D dilated CNN for safety driving.* International Conference on Image Processing and Vision Engineering. Berlin, Germany, December 25-26, 2021.

[C31] **F. Proietto Salanitri**, G. Bellitto, I. Irmakci, S. Palazzo, U. Bagci, C. Spampinato. *Hierarchical 3D Feature Learning for Pancreas Segmentation.* Machine Learning in Medical Imaging: 12^{th} International Workshop (MLMI 2021), Held in Conjunction with MICCAI 2021, Strasbourg, France, September 27, 2021.

[C32] F. Murabito, S. Palazzo, **F. Proietto Salanitri**, F. Rundo,U. Bagci, D. Giordano, R. Leonardi, C. Spampinato, *Deep Recurrent-Convolutional Model for Automated Segmentation of Craniomaxillofacial CT Scans*, 25^{th} International Conference on Pattern Recognition (ICPR 2020). Virtual. January 10-15, 2021 - **Rating GII-GRIN-SCIE**: Class 2, Rating A-

6.4 Book Chapters

[B1] **F. Proietto Salanitri**, S. Viriri, U. Bagci, P. Tiwari, B. Gong, C. Spampinato, S. Palazzo, G. Bellitto, N. Zlatintsi. Artificial Intelligence in Pancreatic Disease Detection and Diagnosis, and Personalized Incremental Learning in Medicine. Lecture Notes in Computer Science, vol 15197. 2024.

[B2] I. Kavasidis, **F. Proietto Salanitri**, S.Palazzo, C.Spampinato. *History of AI in clinical medicine.* In: AI in Clinical Medicine: A Practical Guide for Healthcare Professionals (John Wiley & Sons, Ltd), 2023, p. 39-48

6.5 Bibliometrics

- Google Scholar: `https://scholar.google.com/citations?user=G5rufDwAAAAJ&hl=it`

- Scopus: `https://www.scopus.com/authid/detail.uri?authorId=57226020618`

Overall Scientific Output	
Total journal publications with IF	11
Scimago Quartile Q1	10
Scimago Quartile Q2	1
Scimago Quartile Q3	–
Scimago Quartile Q4	–
Total conference publications	32
Total book chapters	2
Average journal publications per year (2021-2026)	1.83
Average publications per year (2021-2026)	7.5

Table 2: Summary of overall scientific output. Values updated to **24th September 2026.**

Indicators	
Total citations (source: Scopus)	315
Total citations (source: Google Scholar)	612
Average citations per publication (source: Scopus)	7.88
Average citations per publication (source: Google Scholar)	11.12
Total journal impact factor	68.4
Average impact factor per publication	6.22
h-index (source: Scopus)	10
h-index (source: Google Scholar)	14

Table 3: Bibliometric indicators updated to **24th September 2026.**