

PERSONAL INFORMATION

Adorni Giovanni



- DIBRIS Viale Francesco Causa 13, 16145 Genova (Italia)
- +39 329 2104392
- adorni@unige.it
- https://rubrica.unige.it/personale/VUdCUlxp
- Skype giovanni.adorni

Sex Male | Date of birth 26/03/1952 | Nationality Italian

PROFESSIONAL EXPERIENCE

1 Nov. 2022 - to the current day

Retired Full Professor of Computer Science and Engineering

University of Genoa, Genoa (Italy):

- Coordinator of the Working Group for Research and Innovation on Digital Skills in the School of the University of Genoa - Rector's Note N° 48667 of 2.9.2021 (https://competenzedigitali.uniqe.it/).
- Coordinator of the University of Genoa Node of the National Laboratory 'CFC: ICT Skills Training Certification' of CINI, the National Interuniversity Consortium for Informatics (https://www.consorzio-cini.it/index.php/it/lab-cfc).
- Member of the National Laboratory 'Informatics and School' of CINI, the National Interuniversity
 Consortium for Informatics (https://www.consorzio-cini.it/index.php/it/laboratori-nazionali/informatica-scuola).
- Member of the Working Group of the DigComp Community of Practice and the Repubblica Digitale team that edited the Italian localisation of the European framework DigComp 2.2 (https://repubblicadigitale.innovazione.gov.it/digicomp-parla-italiano/).

Full Professor of Computer Science and Engineering

1 Nov. 99-31 Oct. 2022

University of Genoa, Genoa (Italy):

- Member of the Scientific and Technical Board of CeDIA Data, Informatics and Telematics Centre
 of the University of Genoa, from 1.12.2020 to 31.10.2022.
- Rector's Deputy at CINI, the National Interuniversity Consortium for Informatics, for the five-year period 2013-2018.
- Rector's Deputy at CRUI, Conference of Rectors of Italian Universities, for "ICT and E-Learning", from 2001 to 2004.
- Vice President (with signing authority) and Member of the Board of Faculty of Science of Education from 1 November 2000 to 31 October 2008.
- Member of the Polytechnic School Board for the three-year period 2015-2018.
- Member of the CRUI National Committee for E-Learning and Coordinator of the University's "eLearning" initiative from 2001 to 2004.
- Member of the Board of the Department of Informatics, Systematics and Telematics (DIST) from 1
 November 2008 to 31 October 2012 and, subsequently, Member of the Board of DIBRIS for the
 three-year period 2012-2015.
- Founder of the Doctorate (PhD) Degree in Arts, Communication and New Technologies (XXII Cycle academic year 2006-2007) and member of its Advisory Board until the XXX Cycle (academic year 2014-2015).
- Founder of the Doctorate (PhD) Degree in Digital Humanities Digital Technologies, Arts, Languages, Cultures and Communication, and Director of this Program from November 2015 (Cycle XXXI) until 31 October 2022 (Cycle XXXVII).
- Founder of the Laurea Degree (Bachelor) in Science of Communication (University Campus of Savona) and President of its Advisory Board from 1 November 2001 to 31 October 2003.
- Director of the Laurea Degree (Bachelor) in Science of Communication (University Campus of Savona) from 1 November 2006 to 31 October 2010.



- Founder of the Master's Degree (Laurea Magistralis) in Communication and Information Sciences and Technologies, degree course delivered in e-learning blended mode (University Campus of Savona) and President of its Advisory Board from 1 November 2005 to 31 October 2006.
- Director of the Master's Degree (Laurea Magistralis) in Communication and Information Sciences and Technologies, degree course delivered in e-learning blended mode (University Campus of Savona) from 1 November 2006 to 31 October 2010.
- Founder of the Master's Degree (Laurea Magistralis) in Digital Humanities Communication and New Media, and President of its Advisory Boar from 1 November 2014 to 31 October 2015.
- Director of the Master's Degree (Laurea Magistralis) in Digital Humanities Communication and New Media from 1 November 2015 to 31 October 2021.
- Director of the First Level University Master Course, delivered in e-learning mode, "E-learning for School, University and Enterprise", from academic year 2003-2004 to academic year 2010-2011.
- Director of the First Level University Master Course, delivered in e-learning mode, "EPICT Designer for Schools: The European ICT Pedagogical License for Instructional Design", from academic year 2010-2011 to academic year 2016-2017.
- Director of the First Level University Master's Course, delivered in e-learning blended mode, "Communication with New Media and Immersive ICT Technologies", for the academic years from 2010-2011 (edition funded POR FSE Liguria 2008-2014) to 2012-2013.
- Director of the First Level University Master Course, delivered in e-learning blended mode, "IT-Trainer: E-Learning & Knowledge Management for Enterprises", for the academic year 2010-2011 (edition funded POR FSE Liguria 2008-2014).
- Director of the First Level University Master Course in "EPICT European Pedagogical Certification on the Use of Digital Technologies: Coding and Robotics for Creativity" for the academic year 2017-2018.
- Director of the 2nd Level University Master Course "Internet of Things and Big Data" funded by POR FSE Liguria 2014-2020 for the academic year 2017-2018.
- Director of the University Postgraduate Course, delivered in e-learning mode, "EPICT European Pedagogical Certification on the Use of Digital Technologies", from 2005 to 2020 (15 edition), that allowed to train in e-learning mode according to the standards of the European Consortium EPICT about 1000 teachers of the Italian School (www.epict.it).
- Coordinator of the University of Genoa Node of the National Laboratory "CFC: ICT Competences -Training - Certification" of CINI, the National Interuniversity Consortium for Informatics.
- Coordinator of the University of Genoa Node of the National Laboratory 'Informatics and School' of CINI, the National Interuniversity Consortium for Informatics.
- Coordinator of the Working Group for Research and Innovation on Digital Skills in the School of the University of Genoa - Rector's Note N° 48667 of 2.9.2021.
- Scientific Coordinator of the E-Learning & Knowledge Management Laboratory of DIBRIS, University of Genoa, a meeting place between Artificial Intelligence and Human Sciences in the wider context of Digital Humanities.

1 Nov. 90-31 Oct. 99

Full Professor of Computer Science and Engineering (1994-1999) Associate Professor of Computer Science and Engineering (1990-1993)

University of Parma, Parma (Italy):

- Rector's Deputy for "Information and Communications Technology" and Member of the University Scientific Board from 1 November 1994 until 31 October 1999.
- Member of the National Scientific Board of the Consortium NETTUNO Network for Universities Everywhere, from 1 November 1994 until 31 October 1999.
- Director of the University Diploma Courses in Information Engineering from 1 November 1991 until 31 October 1999.
- Director of the University Diploma Courses in Computer Engineering, Electronic Engineering and Telecommunication Engineering, delivered by the NETTUNO Consortium from 1 November 1994 to 31 October 1999.
- Founder and Scientific Coordinator of the Research Laboratory on "Artificial Intelligence and Mobile Robotics".



1 Jan. 92–31 Dec. 94 Visiting Scientist

Thinking Machine Corporation, Boston (MA) (USA):

 Scientific Director of a Research project on the "Use of CM-2 Supercomputer for computation in Artificial Intelligence and Computer Vision".

1 Nov. 87–31 Oct. 90 Associate Professor of Computer Science and Engineering

University of Trent, Trent (Italy):

- Member of the CUD Hub Distance University Consortium, University Campus of Rovereto, contributing to the activation of the University Diploma in Computer Engineering.
- Scientific Coordinator of the joint research project of the University of Trent and IRST Institute of Culture (today FBK - Fondazione Bruno Kessler) on "Artificial Intelligence and Natural Language".

1 Jan., 80–31 Oct. 87 Academic Researcher (tenured)

University of Genoa, Genoa (Italy):

 Scientific Coordinator of the research project "Artificial Intelligence and Knowledge Representation Models and Techniques for Scene Analysis and Generation and for Natural Language Dialogue".

1 Mar. 84–30 Apr. 84 Visiting Scientist

Facultad de informática, Universidad deSan Sebastian, San Sebastian (España):

 Scientific Coordinator of the Research Project "Knowledge Representation Methodologies and Techniques for Scene Generation".

1 Jan. 79–31 Dec. 79 Research associate

CNR, National Research Council - Institute of Psychology, Rome (Italy):

 Research Project on "Models and Techniques of Knowledge Representation for Natural Language Generation".

1 Jan. 77-31 Dec. 78

Research associate (Istituto di Elettrotecnica - Cattedra di Calcolatori Elettronici)

University of Genoa, Genoa (Italy):

 Research project on "Artificial Intelligence models and techniques for the restoration of partially damaged films".

EDUCATION AND TRAINING

20/12/1976 Master's Degree in Electrical Engineering

University of Genoa, Genoa (Italy)

ORGANISATIONAL AND MANAGEMENT SKILLS

European/International Projects Co-ordination

- 1988 1995 European Eureka Project "PROMETHEUS PROgram for a European Traffic with Highest Efficiency and Unprecedent Safety", research project "PRO-ART: needs and principles of ARTificial intelligence to be used in PROMETHEUS":
- 1992 1994 Research grant from the Thinking Machine Corporation, Boston, MA on "Use of CM-2 Supercomputer for computation in Artificial Intelligence and Computer Vision":
 - Project Coordinator (\$100.000,00);
- 2001 2004 European Leonardo da Vinci Project "SPA Sport Physioterapy for All", a joint project of the International Federation for Sports Physical Therapy and the Leonardo da Vinci programme:
 - National Research Unit Coordinator (approx. € 90.000,00);



- 2002 2005 European e-Content Project "EPICT European Pedagogical ICT Licence":
 National Research Unit Coordinator (approx. € 360.000,00);
- 2011 2013 Progetto Europeo "SCORE Sustainable COnstruction in Rural and fragile areas for Energy efficiency" nell'ambito del programma comunitario MED - European Regional Development Fund.
- 2019 2021 Progetto Europeo "MigraCode European network of code schools for youth refugees and migrants" nell'ambito del programma Erasmus+ Key Action 2.
- 2020 2022 Progetto Europeo "ESSA European Software Skills Alliance" nell'ambito del programma Erasmus+.
 - Partner of the National Research Unit until 30/01/2022 (approx. € 70.000,00).

National Projects Co-ordination

- 1987 1997 CNR National Research Council: Progetto Finalizzato Trasporti II:
 - ® National Theme Coordinator "Artificial Intelligence on board the car " (approx. € 440.000,00);
- 1998 2000 CNR National Research Council, Special Project "SIAD Distributed Artificial Intelligence Systems":
 - National Coordinator (approx. € 45.000,00);
- 1998 2003 CNR-MIUR 5% Joint Project "Multimedia":
 - Research Unit Coordinator (approx. € 60.000,00);
- 1999 2001 CNR National Research Council, Special Proje "Azzurra Robot Team" funded as part of the international RoboCup Project:
 - National Coordinator (approx. € 30.000,00);
- 1999 2004 Cluster Robotics Vision of ASI Italian Space Agency:
 - National Coordinator (approx. € 350.000,00);
- 2000 2003 ENEA Italian National Agency for New Technologies, Energy and Sustainable Economic Development, Project "SENSI – Intelligent Sensors":
 - Research Unit Coordinator (approx. € 90.000,00);
- 2001 2004 CRUI Conference of Italian University Rectors, Project "Campus-One":
 - Member of CRUI National Board for e-Learning and coordinator of the action "e-Learning" of the University of Genoa (approx. € 180.000,00);
- 2003 2005 CNR-MIUR 5% Joint Project "IS-MANET Distributed Software Infrastructure for Hazardous Environments":
 - Research Unit Coordinator (approx. € 90.000,00);
- 2011 2013 POR FSE Project "IT-Trainer: E-Learning & Knowledge Management for Enterprises", P.O. Liguria Region FSE 2008-2014, for the implementation of training actions for the use of innovative teaching methodologies in favour of the operators of the regional education and training system:
- 2014 2018 IPRASE Institute for Educational Research and Experimentation of the Autonomous Province of Trent "Training of school teachers in the use of digital technologies" (FSE Operational Project 2014-2020 Autonomous Province of Trent):
- 2016 2018 University/Region Project "Liguria 2.0'Digital School" (FSE Operational Project 2014-2020 Liguria Region):
 - ® Project Coordinator (approx. €20.000,00).
- 2018 2020 POR FSE Project "Internet of Things and Big Data", P.O. Liguria Region FSE 2014-2020, for the implementation of training actions for the use of innovative teaching methodologies in favour of the operators of the regional education and training system:
 - Project Coordinator (approx. € 180.000,00).





- 2019 2022 POR FSE Project "A.TE.N.A.- Environments and Technologies for New Learning, P.O. Liguria Region FSE 2014-2020, for the implementation of training actions for the use of innovative teaching methodologies in favour of the operators of the regional education and training system:
 - Project Coordinator (approx. € 380.000,00).

Research Activities

His research activity has addressed various aspects of Artificial Intelligence and digital technology-mediated learning from different perspectives: methodological, algorithmic and architectures, not forgetting the impact and use of these technologies in real applications.

The research topics addressed during more than forty years of activity have been:

- Human-computer interaction with a focus on symbolic artificial intelligence approaches for analysing and generating natural language in order to create dialogue and control systems for Italian-language devices;
- mixed symbolic and sub-symbolic approaches for scene generation and analysis; such approaches have led to the development of computer vision systems for the navigation of autonomous robots and their coordination within dynamic and partially structured environments with the aim of achieving previously defined goals (RoboCup project);
- ^{III} hybridisation of symbolic-geometric reasoning systems and adaptive learning; this approach, together with the study of cellular and massively parallel architectures, led to the development of binocular computer vision systems capable of operating in real time for the autonomous driving of motor vehicles, and to the realisation of the first prototypes of autonomous vehicles at European level (PROMETHEUS project);
- mextraction of knowledge from textual sources and structuring the subject matter. This subject originated with the initial objective of understanding and summarising the contents of texts for teaching purposes, through the use of symbolic artificial intelligence techniques. Over the years, this objective has evolved towards the study of systems for micro and macro design in education and distance learning.

He is the author/co-author of more than 270 papers in international journals and conference proceedings on various aspects of computer science, artificial intelligence, computer vision, autonomous robotics and distance learning, and is the author of 2 books on artificial intelligence topics.

He is also the author of an e-Learning platform (EIFFE-L – EnvIronment For Freeddom in E-Learning) compliant with the W3C Web Content Accessibility Guidelines 2.0 and the CNIPA guidelines including the legal provisions on accessibility, published on Source Forge under the GPL licence.

[(Scopus) Hindex 11 (Scholar) Hindex 21 – i10-index 46 - Citations 1483].

Teaching Activities

(NOTE: most of the teaching was delivered in Italian. Only the titles of the lectures that were delivered in English are translated into English.)

University of Trent

- Master's Degree of Economics, Faculty of Economics:
 - "Teoria e Tecnica di Elaborazione Automatica dei Dati" dall'a.a.1987-1988 al 1990-1991.
- University Diploma in Computer Engineering, Faculty of Engineering, Rovereto (TN) / CUD -Distance University Consortium:
 - "Fondamenti di Informatica" dall'a.a.1988-1989 al 1990-1991;
 - o "Ingegneria del Software" dall'a.a.1988-1989 al 1990-1991.

University of Parma

- Master's Degree in Electronic Engineering, Faculty of Engineering:
 - "Sistemi Operativi", dall'a.a.1988-1989 al 1989-1990,
 - "Intelligenza Artificiale" dall'a.a. 1991-1992 al 1994-1995,
 - "Fondamenti di Informatica II" dall'a.a. 1991-1992 al 1999-2000;
- Master's Degree in Electronic Engineering, Faculty of Engineering:
 - "Ingegneria del Software" dall'a.a.1997-1998 al 1999-2000,
 - o "Visione Artificiale e Robotica" dall'a.a.1998-1999 al 1999-2000;
- University Diploma in Computer Engineering:
 - o "Ingegneria del Software" dal 1997 al 2000,
 - "Visione Artificiale e Robotica" dal 1998 al 2000.



- Master's Degree of Economics, Faculty of Economics:
 - o "Fondamenti di Informatica" dal 1994 al 1996.

University of Genoa

- Postgraduate Degree in Computer Engineering, Faculty of Engineering:
 - o "Tecniche di Interazione Uomo Macchina", a.a. 1980-1981 e 1981-1982;
- Master's Degree in Electronic Engineering, Faculty of Engineering:
 - o "Complementi di teoria dei Linguaggi", a.a. 1981-1982 e 1982-1983
 - "Compilatori e Sistemi Operativi", a.a. 1987-1988;
- Master's Degree in Civil Engineering, Faculty of Engineering:
 - "Fondamenti di Informatica", a.a. 1991-1992;
- Master's Degree in Civil and Environmental Engineering, Faculty of Engineering:
 - "Fondamenti di Informatica", a.a.2009-2010, 2010-2011;
- Master's Degree in Environmental Engineering, Faculty of Engineering:
 - o "Modulo di Fondamenti di Informatica", a.a. 2010-2011;
- Master's Degree in Computer Engineering, Faculty of Engineering:
 - "Tecnologie Software per il Web", a.a. 2011-2012, 2012-2013;
- Master's Degree in Computer Engineering, Polytechnic School:
 - o "Formal Languages and Compilers", dall' a.a. 2013-2014 al 2022-2023;
 - o "Knowledge Management and Engineering", a.a. 2019-2020;
- Master's Degree in Psychology, Faculty of Education:
 - o "Fondamenti di Informatica", dall'a.a.2004-2005 al 2008-2009;
- Master's Degree in Pedagogical and Educational Sciences, Faculty of Education:
 - "Fondamenti di Informatica", dall'a.a.2004-2005 al 2010-2011;
- Master's Degree in Science of Communication, Faculty of Education:
 - "Fondamenti di Informatica" dall'a.a.2001-2002 al 2012-2013;
 - Master's Degree in Science of Communication, School of Social Sciences:
 - "Fondamenti di Informatica Umanistica", dall'a.a.2013-2014 al 2018-2019;
- Interfaculty Master's Degree, Faculty of Engineering and Faculty of Education, in Science and Technology of Communication and Information:
 - "Laboratorio di Web Design" dall'a.a.2004-2005 al 2009-2010, corso erogato in modalità e-learning blended.
- Master's Degree in Digital Humanities, Polytechnic School:
 - "Web Design", dall' a.a. 2014.2015 al 2018-2019;
 - "Tecnologie e Linguaggi per le Digital Humanities", da a.a. 2019-2020 al 2022-2023:
 - o "Intelligenza Artificiale per i Beni Culturali", dall'a.a. 2016-2017 al 2022-2023;
- Master's Degree in Mechanical Engineering, Polytechnic School:
 - o "Architetture Software per Sistemi Embedded", dall' a.a.2017-2018 al 2022-2023;
- Ph.D. Degree in "Arts, Communication and New Technologies":
 - "Project Management", from cycle XXVI to cycle XXX;
 - "Artificial Intelligence", from cycle XXII to cycle XXX;
- Ph.D. Degree in "Digital Humanities Digital Technologies, Arts, Language, Cultures and Communication", from cycle XXXI to cycle XXXVII:
 - "Project Management";
 - o "Artificial Intelligence and Cultural Heritage".

University of Pavia

IUSS - University School for Advanced Studies:

• "Artificial Intelligence and Robotics", a.a. 2003-2004 e 2005-2006.



Evaluation activity

- ANVUR (Italian National Agency for the Evaluation of the University and Research Systems) Disciplinary Expert. In this role, he served for (1) evaluations of courses proposed for new activation for the a.y. 2016/2017 and 2017-2018, and (2) evaluations of four universities (IUAV Venice, Brescia, Pavia, eCampus Telematic University).
- Chairperson of Disciplinary Expert ANVUR for initial accreditation of the university degree programs for a.y. 2018-19, 2019-20, 2020-21.
- Distinguished External Referee of the French "Agence Nationale de la Recherche", 50 avenue Daumesnil – 75012 PARIS, since 2017.
- Enrolled in the Register of independent Italian and foreign scientific experts established at the Ministry of Education, University and Research (REPRISE) for basic research (ERC sectors PE6_1 PE6_2 PE6_7 PE6_9 SH4_1), for Competitive industrial research and for social development (Sector P.85), and for the Dissemination of scientific culture (Scientific Technological Humanistic Sector). In this role he has carried out the evaluation of several technology transfer projects.
- Participation from 1996 to 1999 in the CAMPUS Project of the CRUI Conference of Italian University Rectors, "experimentally" activating the evaluation process of the Computer Engineering Degree Diplomas of the Faculty of Engineering of the University of Parma.
- Participation from 2001 to 2004 in the CAMPUS-ONE Project of the CRUI Conference of Italian University Rectors, to evaluate the innovative effects of the university reform such as the introduction of training credits, flexibility and teaching autonomy, the connection between training and world of work. In particular, as part of this project, he coordinated the quality model for the elearning activities of the University of Genoa (see "Organizational and managerial skills"), also taking care of the design of an e-Learning portal.

Awards and Acknowledgments

- European Artificial Intelligence Prize on "Cognitive Modeling" of the European Coordinating Committee for Artificial Intelligence (ECCAI, 1984),
- System Research Foundation Outstanding Scholarly Contribution Award for its research on "knowledge based planning" (National Science Foundation, USA, 1988),
- Best Paper at the XXXVI International Conference on Communications (1988),
- Silver medal at the World Championship for autonomous soccer robots "RoboCup 1999",
- Silver medal at the first European Championship for autonomous soccer robots "Euro-RoboCup 2000".
- Innovation System Award on Mobile Agents (CIA Cooperative Information Agents, 2001),
- "Fellow" of ECCAI European Coordinating Committee for Artificial Intelligence (August 2004), "for his pioneering activities in the field of applications of Artificial Intelligence techniques to the autonomous navigation of motor vehicles".
- "Fellow" of the AAIA Asia-Pacific Artificial Intelligence Association (January 2020).
- Italian Representative in the "Technical Committee on Artificial Intelligence" of the International Federation for Information Processing (IFIP- UNESCO) since 2017.

Technology transfer

 Co-founder of AUTOMA scrl. Cooperative Society (1988), an engineering company that operated in the field of control systems and intelligent automation systems, and Member of its Board of Directors until 1993.

Miscellaneous

- Co-founder of GLIA A.I.C.A. Working Group for Artificial Intelligence (1977).
- Co-Founder of Al*IA Italian Association for Artificial Intelligence (1988).
- Vice President of Al*IA Italian Association for Artificial Intelligence (2002-2005).
- Coordinator of the Al*IA Working Group on "Artificial Intelligence and E-Learning" (2007-20016).
- Co-founder of the European Consortium EPICT European Pedagogical ICT license / European Pedagogical Certification on the Use of Information and Communication Technologies (2006).
- President of the European Epict Consortium (2009-2013).
- Member of the Board of the European EPICT Consortium and Coordinator of the activities of the Italian node of the Consortium (www.epict.it), from 2006 to present.
- Chair of AICA Italian Association for Computer Science and Automatic Computing (2019-2021).





- Chair of the Scientific Committee of the journal "Mondo Digitale" (indexed Scopus with ISSN(S) 1720-898X), from 2016 to 2021.
- Vice President, Member of the Board of Directors, and Member of the Executive Committee of ISICT - Institute for Advanced Studies in Information and Communication Technologies, University of Genoa until 2018.
- Promoter of the eCampus Telematic University and member of the Board of Technical Ordering Committee of that Telematic University during its two-year start-up period 2006-2008, also chairing the Computer Engineering Degree Course Council during that period.
- Chairman of the Examination Selection Board for the State Licensing Examinations for the Profession of Engineer for the years: 2014, 2017, 2021.
- Taught lectures and seminars at several foreign institutes and research laboratories working on Artificial Intelligence, including the Faculty of Computer Science at the University of San Sebastian (Spain), the Institute for Semantic and Cognitive Studies at the University of Geneva (Switzerland), the Department of Computer Science at Linkoeping University (Sweden), the Department of Brain and Cognitive Science at MIT and the Department of Computer Science at MIT (Cambridge -USA), Thinking Machines Co. (Boston), the Department of Neural Computation at the University of Ulm (Germany).

Genoa, March 26, 2023