



prof. Marco Ceccarelli
 LARM2: Laboratory of Robot Mechatronics
 Dept of Industrial Engineering
 University of Rome Tor Vergata,
 Via del Politecnico 1, 00133 Rome, Italy
 Phone +39-333-4479314 marco.ceccarelli@uniroma2.it

Marco Ceccarelli was born in Rome in 1958. He received the mechanical engineer degree cum laude in 1982 at the University “La Sapienza” of Rome. At the same University he received a Ph.D. degree in Applied Mechanics in 1987. In 1987 he was visiting scholar at Stanford University, U.S.A., and in 1990 he received a CNR-NATO annual grant as visiting professor at the Technical University of Valencia, Spain. Since 1990 he teaches courses on Mechanics of Machinery and Mechanisms, and Mechanics of Robots at Cassino University, and from September 2018 in University of Rome Tor Vergata. Since 1996 up to 2018 he was Director of LARM, the Laboratory of Robot Mechatronics at the University of Cassino and South Latium and since 2019 he is Director of LARM2, the Laboratory of Robotics and Mechatronics in University of Rome Tor Vergata. Since 2001 he is Full Professor of Mechanics of Machinery and Mechanisms at Cassino University. From 2003 to 2005 he has been Vice Director of DiMSAT Department. Since March 2019 he is full Professor in University of Rome Tor Vergata, Italy.

He is ASME fellow (The American Society of Mechanical Engineers) and member of AEIM (Spanish Society of Mechanical Engineers), IFToMM Italy (Italian Association of MMS), IEEE (the Institute of Electrical and Electronics Engineers), IFAC (International Federation of Automation and Control), FeIbIM (Iberoamerican Federation for Mechanical Engineering), AISI (Italian Society for the History of Engineering), GMA (Italian Group for Mechanics of Machinery).

From 1998 to 2004 he has been Chairman of the Permanent Commission for History of Machine and Mechanism Science of IFToMM, the International Federation for the Promotion of Machine and Mechanism Science, and currently he is still a member. Since 1999 he is also member of the IFToMM Technical Committee for Mechatronics and Robotics. He has been member of IFToMM TC for Computational Kinematics. He has been Chairman of the Commission for Mechatronics of FeIbIM, Federaciòn Iberoamericana de Ingenieria Mecànica until 2016. In 2008-09 and 2014-16 he has been Coordinator of the Scientific Committee for RAAD, International Workshops on Robotics in Alpe-Adria-Danube Region being member since 1995. From 2002 to 2018 he has been founder Chairman of the Scientific Committee of MUSME, IFToMM-FeIbIM International Conference on Mechatronics and Multibody Systems. Since 2010 is founder Chairman of the Scientific Committee of MEDER, IFToMM International Conference on Mechanism Design for Robots. He is member of scientific Committees for several other international conferences, like, Romansy, CK, SYROM, EUCOMES, ASIAN MMS; in 2008-2015 he has been associate editor for the Journal Mechanics Based Design of Structures and Machines, he is associate editor for International Journal of Mechanics and Control, Chinese Journal of Mechanical Design (Europe editor), and Journal Advanced Robotic Systems (editor-in-chief for Service Robotics), Int. Journal of Mechanisms and Robotic Systems, Frontiers of Mechanical Engineering, and many others; he has served as associated editor for Mechanism and Machine Theory; he has served and serves as reviewer for several international conferences and journals; he has served and serves as reviewer for national and international projects for Italian and foreign agencies. In 2015-16 he has been member of GEV the Italian commission for the research evaluation and since 2012 member AVA for University evaluation. He has been invited as visiting professor in institutions of several countries and has given invited lectures and short courses in many countries at conference events, celebration events, or within regular courses. He has carried out consulting activity for companies and in industrial plants on problems regarding with Automation and Robotics. He has been the founder and then Scientific Editor for the Proceedings of HMM 2000, HMM 2004, HMM 2008, HMM 2012, HMM 2016, 2018 and HMM2022 International Symposium on History of Machines and Mechanisms. He has been Chairman for HMM 2000 and 2004 that have been held in Cassino. He has been the co-founder of MUSME, the IFToMM-FeIbIM Symposium on Multibody Systems and Mechatronics. He has been Co-Chairman for MUSME in 2002 in Mexico City, in 2005 in Uberlandia, Brazil, in 2008 in San Juan, Argentina, in 2011 in Valencia, Spain and in 2014 in Huatulco, Mexico. He has been Chairman for RAAD Workshops held in Cassino in 1997 and 2003. He has been Chairman for CK2005, IFToMM International Workshop on Computational Kinematics that has been held in Cassino in 2005. He has been co-founder of EUCOMES, the European conference on Mechanism Science and he has been Chairman for the second event held in Cassino in 2008. He is the Scientific Editor of a Book Series on History of Mechanism and Machine Science published by Springer since 2007. In 2007 he has edited ‘Distinguished Figures in MMS – Part 1’ published by Springer in the above-mentioned book series and he has also editor again for the Part 2, 3, and 4. He is Scientific Editor of a Book Series on Mechanism and Machine Science published by Springer since 2010. He has co-authored the book ‘A short Illustrated History of Machines’ published at Technical University in Madrid in 2008 with a revised version published by Springer in 2010. In 2008 he edited the book ‘Robot Manipulators’ published by I-Tech Education Publishing KG in Wien. In 2012 he edited the book ‘Service Robots and Robotics’ published by IGI-Global. In 2015 he co-edited two ASME books on ‘Design and prototypes of Mobile Robots’. In 2018 he coedited the Elsevier book ‘Design and operation of human-like locomotion systems. He has written the book ‘Fundamentals of Mechanics of Robotic Manipulation’ published by Kluwer/Springer in 2004 with second extended edition in 2023. Together with prof Carlos Lopez-Cajun he has written the book ‘Mecanismos –Fundamentos cinematicos para el diseno y optimizacion de maquinaria’ published by Trillas Publisher in Mexico in 2008 with second edition in 2014. He also edited or co-edited books as proceedings of several other conferences. With LARM team he has conceived and developed several algorithms and systems, like ring formula for workspace determination, design formulation for circular-arc cams, CAPAMAN manipulator, LARM Hand, CATRASYS, CALOWI, LARM Rickshaw robot, LARM Hexapod, LARM clutched arm, Cassino Hexapod, Surveybot, leg exoskeletons, CADEL, Space astronaut robot TORVEASTRO, Exoskeleton Finger, LARMbot humanoid, Heritagebot Platform, Medical devices as robotic wheelchair and rib fixator, with patent releases, experimental characterizations and prototype results. He has also worked out findings and interpretations in the History of Mechanical Engineering, like on Screw Theory by Giulio Mozzi and on personalities like Lorenzo Allievi, Giuseppe Antonio Borgnis, Francesco di Giorgio, and Vitruvius.

In November 2003 he has received the Degree of Doctor Honoris Causa in Mechatronic Engineering from UNI, National University of Lima, Perú; in May 2009 he received Honoris Causa Degree in Engineering from Technical University of Kursk, Russia; in October 2009 he received Honoris Causa Doctor Degree in Engineering from Technical University of Brasov, Romania; in April 2010 he received Honoris Causa Doctor Degree in Engineering from University of Craiova, Romania, as recognizing his academic and scientific career, and his support to the activity. In 2021. He has also received the 2010 Engineer-Historian Award of the American Society of Mechanical Engineers (ASME) for his lifelong involvement in mechanical engineering, specifically the history of machines and mechanisms. He received Dedicated Service Award for his career from IFToMM Italy in September 2020 and from AEIM Spanish society in 2021. In 2023 he was granted of IFToMM Honorary Membership by the IFToMM General Assembly. He is 2017-2020 member of ASME committee National Inventors Hall of Fame and member 2019-2023 of HHC History Heritage Committee. He has been Coordinator of the Commission for Research of GMA, Italian National Group for Mechanics of Machinery for the period 2002-2006. He has been elected Secretary-General of IFToMM for the term 2004-2007. He has been elected President of IFToMM for the term 2008-2011 and again in 2016-2019 since his IFToMM leadership with different positions since 1998.

His research interests cover aspects of Machine and Mechanism Science (MMS) and Mechanics of Robots. Specific subjects of his interest are Analysis and Design of Workspace and Manipulation; Mechanical Design of Manipulators, Legged Robots; Service Robotics, Medical Devices Grippers and Hands; Mechanics of Grasp; History of MMS; and Mechanism Design. He is author or co-author of more than one thousand papers, which have been presented at Conferences or published in national and international journals. His publication impact is with Scopus H= 33.

More information at the web page: LARM2 webpage: <https://larm2.ing.uniroma2.it/marco-ceccarelli/>