

PREZENTARE

Profesor **MARCO CECCARELLI**

1. ELEMENTE GENERALE

- născut în 1958 la Roma.
- în 1982 a primit titlul de inginer mecanic, diploma cum laude la Universitatea Sapienza, Roma
- în 1987 a fost visiting scholar la Stanford University, U.S.A
- în 1988 a primit titlul de doctor inginer, în mecanică aplicată la Universitatea Sapienza, Roma
- în 1990 a primit o bursă CNR-NATO ca visiting profesor la Technical University of Valencia, Spania
- din 1990 predă cursurile de Organe de mașini și mecanisme, precum și Mecanica roboților la Școala de Inginerie a Universității din Cassino, Italia
- Din 1996 este Director al Laboratorului de Roboți și Mecatronică, de pe lângă Departamentul de Mecanică și Structuri al Universității din Cassino, Italia.
- Din 2001 este Full Professor la Universitatea din Cassino
- Între 2003-2005 a fost director al departmentului de Mecanică și Structuri al Universității din Cassino, Italia.

2. RECUNOAȘTERE INTERNAȚIONALĂ PRIN:

2.1. AFILIERE LA ORGANIZAȚII ȘTIINȚIFICE DE PRSTIGIU:

1. Între 1998 și 2004 a fost Președinte al Comisiei de Istorie a științei Mașinilor și Mecanismelor, de pe lângă IFToMM - International Federation for the Promotion of Machine and Mechanism Science, actualmente membru în aceasta
2. Membru al Comitetului Tehnic pentru Robotică, din cadrul IToMM
3. Membru al IFToMM TC pentru Cinematică Computațională
4. Membru al Comisiei de Mecatronică al FeIbIM, Federación Iberoamericana de Ingeniería Mecánica
5. Între 2007-2009 Coordonator Științific al Comitetului pentru RAAD, International Workshops on Robotics in Alpe-Adria-Danube Region.
6. Președinte al Comitetului Științific al Conferinței Internaționale de Mecatronică și Sisteme Multicorp MUSME, IFToMM-FeIbIM.
7. Doctor Honoris Causa al National University of Lima, Perù,
8. Doctor Honoris Causa al Universității Transilvania din Brasov,
9. Ales secretar General al IFToMM între 2004-2007
10. Ales Președinte al IFToMM între 2008-2011

2.2 PREZENTĂRI CA INVITED SPEAKER

1. Ceccarelli M., “An Overview of History of Robotics with an Eye to the Future”, Proc. of 2000 IEEE Int.Conf. on Intelligent Engineering Systems, **Portoroz, Slovenia**, 2000, Plenary Lecture 4, pp.25-33.
2. Ceccarelli M., “The Challenges for Machine and Mechanism Design at the Beginning of the Third Millennium as Viewed from the Past”, Proceedings of Brazilian Congress on Mechanical Engineering COBEM2001, **Uberlandia, Brazilia**, 2001, Invited Lectures, Vol.20, pp.132-151.
3. Ceccarelli M., “Low-Cost Robots for research and teaching activity”, Keynote lecture, 5^o Congreso Iberoamericano de Ingeniería Mecánica, **Merida, Mexico**, 2001, CD Proceedings,

- 2nd Plenary Keynote.
4. Ceccarelli M., "An optimum design of parallel manipulators formulation and experimental validation", Proceedings of 1-st Int. Colloquium "Collaborative Research Centre 562", **Braunschweig, Germania**, 2002, invited lecture, pp. 47-63.
 5. Ceccarelli M., Ottaviano E., "Design Problems for Parallel Manipulators in Assembling Operations", Keynote Lecture, IFAC Workshop in Intelligent Assembly and Disassembly IAD03, **Bucuresti, România**, 2003, pp. 13-26.
 6. Ceccarelli M., "Evolution of TMM (Theory of Machines and Mechanisms) to MMS (Machine and Mechanism Science): An Illustration Survey", Keynote Lecture, 11th IFToMM World Congress in Mechanism and Machine Science, 2004, **Tianjin, China**, 2004, Vol.1, pp.13-24.
 7. Ceccarelli M., Carbone G., Ottaviano E., "Multi Criteria Optimum Design of Manipulators", VIII Polish National Conference on Robotics, Polanica Zdrój, Plenary Speech, pp.3-20, 2004; Bulletin of the Polish Academy of Sciences, **Polonia**, Technical Sciences, Vol. 53, n.1, pp.9-18, 2005.
 8. Ceccarelli M., Carbone G., "Numerical and experimental analysis of the stiffness performance of parallel manipulators", 2nd International Colloquium Collaborative Research Centre 562, **Braunschweig, Germania** invited lecture, pp.21-35, 2005.
 9. Ceccarelli M., Ottaviano E., "Numerical and Experimental Analysis of Manipulator Workspace", Keynote Lecture, Proceedings of First International Congress Design and Modelling of Mechanical Systems, CMSM'2005, Plenary Lecture, **Monastir, Tunisia**, Paper n.CMSM05-CECCARELLI, 2005.
 10. Ceccarelli M., "Kinematic Design of Manipulators: A Survey and Future Challenges", Keynote Lecture, 14th Int. Workshop on Robotics in Alpe-Andria-Danube Region RAAD 2005, **Bucuresti, România**, pp.11-26, 2005.
 11. Ceccarelli M. "A Brief Account on the Evolution of TMM (Theory of Machines and Mechanisms) to MMS (Machine and Mechanism Science), Keynote Lecture, 12th National Conference on Machine and Mechanism, NaCoMM-2005, IIT **Guwahati, India**, 2005, pp.53-59.
 12. Ceccarelli M., "Problems and Procedures for Kinematic Design of Manipulators", Keynote Lecture, Proceedings of Eight National Conference on the Design of Mechanisms and Machines, **Taiwan**, 2005, pp.c-n.
 13. Ceccarelli M., "El Renacimiento de las maquinas: primer desarrollo de la ingenieria mecanica moderna", invited lecture, Congreso de Historia del Patrimonio e de la Ingenieria, **Las Palmas, Spania**, 2006, pp.3-26.
 14. Ceccarelli M., "Mechanism Design: what is new in what is old and what is old in what is new", Proceedings of CCMMS 2006 The Fifth Chinese Conference on Mechanisms and Machine Science, Keynote paper, **China**, 2006, pp.19-26.
 15. Ceccarelli M., What is old in what is new in MMS research, Invited Lecture, Proc. of 13-th Symposium on MMM, Japan Council of IFToMM; **Tokyo, Japonia**, pp.1-11.

2.3. PARTICIPĂRI ÎN POZIȚII DE PRESTIGIU LA CONFERINȚE DE TRADIȚIE

1. Chairman al HMM, the IFToMM Int. Symposium on History of Machines and Mechanisms 2000, 2004 la **Cassino, Italia**;
2. Co-Chairman pentru MUSME, the FelbIM-IFToMM Int. Symposium on Multibody Systems and Mechatronics în 2002 la **Mexico City**, in 2005 la **Uberlandia, Brazil**, și in 2008 la **San Juan, Argentina**.
3. Chairman pentru RAAD Workshops on Robotics in Alp-Adria-Danube Region la **Cassino, Italia** in 1997 and 2003.
4. Chairman pentru CK2005, IFToMM Int. Workshop on Computational Kinematics la **Cassino, Italia** in 2005.

2.4. PROIECTE DE CERCETARE ELABORATE:

- Din 1997 "Design and operation of robots and manipulations" with funds by University of Cassino, for LARM, Laboratory of Robotics and Mechatronics.
- 1999-2000 "Design of Robotic Grippers" within the program of Integrated Action between Italy and Spain in collaboration with a team of University of Coruna whose chair was by prof Javier Cuadrado Aranda.
- 2001-2002 "Design of a Robot for Restoration activity of Monumental Goods" within the program of Integrated Action between Italy and Spain in collaboration with a team of Technical University of Valencia whose chair was d by prof Juan Ignacio Cuadrado Iglesias.
- 2001-2002 "Design and Experimental Validation of Robots for Medical Applications" within the program CNR-CMOS between Italy and Israel in collaboration with a team of Technical University of Haifa whose chair was d by prof. Moshe Shoham.
- 2001-2004 "Kinematics and Design of Workspace of Robotic Manipulators" within the program of CNR-CSIC between Italy and Spain in collaboration with a team of the Institute for Industrial Robotics of Barcelona whose chair was d by dr Federico Thomas
- 1999-2001 "METAFORE: Design of Robots for Medical Applications" within the Italian national research program PRIN 1999-2001.
- 2001-2003 "RIME: Robots in Medical Environment" within the Italian national research program PRIN
- 2003-2005 "Design and Validation of cam mechanical transmissions" within the Italian national research program PRIN
- 1997-98 "Study of manipulation and optimization of robot operation" within a research contract with the enterprise Videocolor SpA in Anagni.
- 2002 "Study of feasibility for a robotic system for pipeline cuts in a nuclear plants' within a research contract with the enterprise Sogin SpA of Rome.
- 2005 "Design and construction of a robotic system cleaning tanks' within a research contract with the enterprise Italgasbeton Sud SpA in Anagni.
- 2007 "Analysis and characterization of unbalance sources in pneumatic tyres' within a research contract with the enterprise Marangoni Tyres SpA in Anagni.
- 2007-2009 "Design and operation of robots for medical robot services" with funds by University of Cassino, for LARM, Laboratory of Robotics and Mechatronics.
- 2006-2009 "Design of mechanism for robotic structures" within the Italy-Russia program with a team of the Technical University of Kursk whose research director is prof. Sergey Jatsun.
- 2006-2009 "Design, Simulation, and Experimental Validation of a Hand with Underactuated Fingers" within the program between Italy and China in collaboration with a team of the BUAA Bheang University of Beijing, China whose research director is prof Lu Zhen.

3. ISTORIC ÎN ULTIMII 10 ANI

3.1 articole la conferințe internaționale sau în reviste de prestigiu (447 apariții):

3.2. MONOGRAFII (3 apariții):

1. Ceccarelli M., Fundamentals of Mechanics of Robotic Manipulation, Kluwer/Springer, Dordrecht, 2004. ISBN 1-4020—1810-X (cited 18)
2. Bautista Paz E., Bernardos Rodriguez R., Ceccarelli M., et al., A Short illustrated History of Machines, Technical University of Madrid, Madrid, 2007. ISBN 978-84-7484-200-5. (in Spanish)
3. Lopez-Cajùn C., Ceccarelli M., Mechanisms: Kinematic Design of Machinery, Trillas, Mexico City, 2008. ISBN 978-968-24-8181-9 (in Spanish)

3.2. EDITOR DE CĂRȚI ȘI PROCEEDINGS (18 apariții):

3.3. MEMBRU AL MAI MULTOR ASOCIAȚII PROFESIONALE ȘI ȘTIINȚIFICE:

- ASME (The American Society of Mechanical Engineers),
- AEIM (Spanish Society of Mechanical Engineers),
- SIRI (Italian Association of Robotics and Automation),
- IEEE (the Institute of Electrical and Electronics Engineers),
- IFAC (International Federation on Automation and Control),
- FeIbIM (Iberoamerican Federation for Mechanical Engineering),
- AISI (Italian Society for the History of Engineering),
- GMA (Italian Group for Mechanics of Machinery).

Mai multe informații la web page: <http://webuser.unicas.it/weblarm/larminindex.htm>