Francesco Cepolina CV

Country

Other IDs

Email

Employment (1)

University of Genoa: Genoa, Liguria, IT
2021-02-01 to present | Temporary research fellow (Depart
ment of Mechanical, Energy, Management and Transport En
gineering - DIME)
Employment

Education and qualifications (4)

Université de Paris: Paris, Île-de-France, FR 2006 | PhD in Mechanical, Acoustic and Electronic
Science (Mechanical engineering) Education

University of Genoa: Genoa, Liguria, IT
2005 | PhD in Mechanics and Design of Machines (Departm ent of Mechanical, Energy, Management and
Transport Engi neering - DIME) Education

University of Genoa: Genoa, Liguria, IT
1999 | Mechanical engineering (Department of Mechanical,
Energy, Management and Transport Engineering - DIME)
Education

University of Leeds: Leeds, Leeds, GB
1977 | Ordinary degree of Bachelor of Engineering in Mecha
nical Engineering (Mechanical engineering)
Education

Surgical robotics

innovative design of mechanisms and kinematic chains to be used as tools for minimally invasive surgical robotics operations.

The research activities began with the doctorate and continued within the research and development section of Intuitive Surgical and in subsequent collaborations with the University of Genoa.

The doctoral thesis starts from the discussion of the current robotic devices for minimally invasive surgery also involving expert surgeons in the field as users and proposes an innovative solution of an articulated minirobot to be used as a support for the operating instrument inside the patient's body. The advantages of this solution convinced the researchers of the Laboratorie de Robotique de Paris of the Université Pierre et Marie Curie - Paris 6 who agreed to conduct the research in collaboration, hence the doctorate in co-tutorship.

The development of the thesis required an in-depth study of functional and structural modeling techniques, kinematic analysis, design and integration of electromechanical micro components resorting, where necessary and/or convenient, to the use of biocompatible functional materials.

During the internship at Intuitive Surgical, Sunnyvale, California, leader in the surgical robotics sector, the research activities focused on studies of distributed mechatronic systems cooperating inside the operating room; these research activities, for confidentiality reasons, have not been published. The candidate participated in the testing of the new equipment studied in the operating room. In order to know in detail the mechanisms on which the candidate has worked, it is necessary to wait for the publication of Intuitive Surgical patents.

The candidate has also collaborated in research activities on the development of miniaturized devices for handling surgical instruments in particular for internal sutures: The synthesis procedures must meet the requirements of accuracy and transmission of 10N law enforcement with the constraints of extremely small dimensions and the biocompatibility of the materials.

In all the publications relating to this sector, the candidate's contribution in terms of innovation and originality has been essential and predominant.

Robotics for cleaning services

The activities in this sector were directed by Electrolux Zanussi and anticipated the industrial developments of domestic cleaning robotics which today boasts a wide diffusion on the market (Electolux Trilobite).

The degree thesis systematically deals with the problem of developing systems with a high level of autonomy for the management, automation and verification of the cleaning processes of large kitchens (kitchens for communities, hotels, etc.) for which there are always health and hygiene standards more stringent. The thesis proposes an innovative multi-agent system which involves the use of two interacting robots for which the conceptual and detailed mechatronic design has been carried out. A special device developed to ensure that the robot adheres to flat vertical surfaces has been patented. For the definition and demonstration of the management and programming options of the cleaning cycles, an object-based simulator in Modsim has been developed which reconstructs the evolution of the process in visual and audio virtual reality. The thesis was awarded the UCIMU SISTEMI PER PRODURRE prize in 1999.

Some of the mechanisms developed both for locomotion and to support the cleaning process are original.

Underwater robotics

The activities in this sector were carried out in collaboration with the PMARlab of the University of Genoa and during the periods carried out at the Istituto de Automatica Industrial (IAI) of the CSIC (Consejo

Superior de Investigaciones Científicas, Ciencia e Investigación, Spanish National Research Council) in Madrid and at the research and development department of the Tecnospamec company of the CUT group (Cutting Underwater Technologies).

The candidate proposed and studied the functional and structural characteristics of robust and reconfigurable gripping mechanisms. These mechanisms must allow an underwater robot to anchor itself on submerged structures. The grip must be firm as it must be able to resist the strong reactions due to the cutting operations. Furthermore, the clamping must be able to adapt to different shapes and dimensions of immersed artefacts.

The studies carried out at the PMARlab concerned the functional design and static analysis of gripping devices with parallel mechanisms for the maintenance of offshore systems and components for telemanipulated robotic systems which were created for the SBC research prototype of the homonymous European project PPC00 -2461 Bottom cutter for diamond wire cutting system.

At the Spanish research center, activities focused on the kinematic and dynamic study of a mobile robot for cleaning and maintaining ship hulls, even partially submerged. The results of the research activities converged in the prototype of Aurora (G3RD-CT-2000-00246), (2002-2004), auxiliary climbing RObot for underwater cleaning of the hull of sea vessels. Grip and detection.

Mechatronics for the stone industry

The research work conducted at the PMARlab and at the Research and Development Department of D'Appolonia SpA focused on the conceptual and structural design of simple mechanisms with actuation based on shape memory materials in the framework of European research projects: OSNET (Ornamental Stone Network); Pro-Stone (COLL-CT-2005-516417 2005-2008 Eco-efficient and high productivity stone processing with multifunctional materials); Istone (integrated project NMP2-CT-2005-515762 Re-Engineering of Natural Stone Production Chain through Knowledge Based Processes, Eco-Innovation and new Organizational Paradigms), as well as for the INNOMECA project (funded under Mis. 1.7.1 Docup 2000 -2006 Innovation Network in the mechanical sector, as a source of enabling technologies for the entire value chain of the stone sector).

Extreme robotics

The ability to invent innovative mechanical architectures and to study their behavioral characteristics through the use of CAD aids, digital mock-ups and virtual testing benches for the comparative evaluation of alternative solutions, has favored the studies conducted at the PMARlab on robotics topics for special risky. In particular the candidate proposed modular architectures for Roboclimber (G1ST-CT-2002-50160, 2002-2004 Development of a remote controlled robot for slope consolidation and landslide monitoring) and Saferdrill Cooperative Research (An autonomous remote controlled robot for walking and climbing for faster and safer landslide monitoring, slope stability analysis and consolidation).

In addition, the candidate collaborated in the development of the 3D dynamic simulation environment (ODE solver) for AirEOD, an aircraft safety robot.

At the University of Leeds, as part of the English thesis, the candidate studied and developed in rapid prototyping a new leg architecture with a three-degree-of-freedom wheel-foot for a small vehicle for lunar exploration.

The candidate tackled the various studies with methodological rigor and with hints of originality.

Micro mechanisms

Previous research for the development of minimally invasive surgical mechanisms and instruments has allowed the candidate to acquire qualified skills for the development of mini and micro devices. While working in the Research and Innovation department of the Bocchiotti company, the candidate is engaged in the design of mechanisms that include mini-micro components for new generation plastic products. These searches for which confidentiality constraints exist have led to the drafting of patents guaranteeing

the priority of the invention that are not yet public. Publication 19, patents on electro mechanical components a,b,c,d.

Review of scientific articles

The results of the research activities carried out were recognized and appreciated by the scientific communities of reference for which the candidate was called to review scientific articles for journals such as: Industrial Robot, The International Journal of Medical Robotics & Computer Assisted Surgery, Journal of Mechanical Engineering Science, Journal "Sensors and Actuators A: Physics. Furthermore, the candidate has reviewed scientific articles for scientific conferences such as IMG04 and ISR. In particular, the candidate has been invited to chair sessions on surgical robotics in international conferences (e.g. ISR'04 Paris, IMG04 Genoa).

Scientific participation in international and national research projects (10)

Project	Duration	Role Covered
European Project - Diamond wire cutting system - sub bottom cutter (SBC PPC00-2461)	30	designer researcher
European Project - Auxiliary climbing robot for underwear ship hull cleaning of the sea adherence and surveying (AURORA G3RD-CT-2000-00246)	43	designer researcher
Thematic NETwork on Ornamental Stones (OSNET)	41	designer researcher
European Project - Eco-efficient and high productive stone processing by multifunctional materials (PRO-STONE COLL-CT-2005-516417)	35	designer researcher
European Project - Re-Engineering of Natural Stone Production Chain through Knowledge Based Processes, Eco-Innovation and new Organizational Paradigms (ISTONE NMP2-CT-2005-515762)	45	designer researcher
Innovation network in the mechanical sector, as a source of enabling technologies for the entire value chain of the stone sector (INNOMECA Mis. 1.7.1 Docup)	72	designer researcher
European Project - Development of a tele-operated climbing robot for slope consolidation and landslide monitoring (Roboclimber G1ST-CT-2002-50160)	27	designer researcher
European Project - A remotely controlled autonomous walking and climbing robot for faster and safer landslide monitoring, slope stability analysis and consolidation (SAFERDRILL COOP-CT-2005-016842)	28	designer researcher
European Project - Development of a cost-effective solution for the safe and definitive remediation of the european landfills which present the danger for the leachate to pollute the waterbed (MICRODRAINAGE EVK4-CT-2002-30012)	27	designer researcher
National Project - Innovative modular micro-robotic instruments for endoscopic transluminal surgery (PRIN08)	24	designer researcher

Attribution of official teaching or research (5)

Contract Professor Research Methodology (cod. 86732) - DIBRIS Unige	2022 – 2023
Teaching support Mechanical Design Methods (cod. 80183) - DIBRIS Unige	2022 – 2023
Teaching support Mechanical Design Methods (cod. 80183) - DIBRIS Unige	2021 – 2022
Teaching International Master in Robotics (IMRob) - University of Genoa	03/2007 04/2007
Teaching Industrial and Service Robotics (ISICT) - University of Genoa	01/2012 02/2012

Participation in highly qualified foreign and international research bodies (3)

Researcher at "Istituto de Automatica Industrial" CSIC IAI, Madrid, Spain	05/2001 08/2001
PhD researcher at Université - Paris 6 + (CEA), Commissariat	01/2003 07/2003
PhD researcher at R&D Intuitive Surgical, Silicon Valley, California	03/2005 11/2005

Achievement of prizes and awards for scientific activity (12)

11.2007	*SIRI "Arturo Baroncelli" Award for the Doctoral Thesis*
9,2005	*Industrial Robot "Highly Commended Award", AirEOD Robot*
3,2005	*Grant donated by Intuitive Surgical to research Surgical Robotics*
6,2004	*Carige Research Fellowship 10 months in California at Intuitive Surgical*
6,2004	*PTC 2004 Award, Certificate of Excellent Design, GigiAndretti*
3,2004	*Invited as chairman for the session "Surgical Robotic Applications" at ISR'04, Paris*
8,2003	*Scholarship for "Summer School of Surgical Robotics" Montpellier*
7.2002	*Scholarship donated by the Italio-Fancese University for a Doctorate in co-supervision*
2, 2002	*Scholarship donated by the MIUR for a three-year PhD study*
4.2001	*"Leonardo da Vinci" scholarship donated by the EU to work 4 months in Madrid*
4.2000	*The Italian degree thesis wins the 1st national prize UCIMU production systems*
9,1996	*"Erasmus" scholarship to study in Leeds, England*

Results obtained in technology transfer/patents (13)

ITGE99000059, 01/06/1999, "Robot locomotion with depression cups"	*University of Genoa*
ITGE20000109, 01/09/2000, "Gripper for flexible elements"	*University of Genoa*
WO2005002797, 13/01/2005, "Gripping element for underwater cuts"	*Tecnospamec company*
ITMI20080557, 01/04/2008, "Isolation system for mobile socket"	*Bocchiotti company*
EP2104186, 21/03/2008, "Body for electric socket or plug"	*Bocchiotti company*
EP2117086, 08/05/2008, "Interlocked electrical outlet "	*Bocchiotti company*
EP2117085, 08/05/2008, "Interlocked electric socket (locking device)"	*Bocchiotti company*
FR2923094, 01/05/2009, "Coupling system for civil series inserts"	*Bocchiotti company*

MI2010A001759, 28/09/2010, "Labeling of electrical components"   *Bocchiotti company*

ITMI2014A001755, 07/10/2014, "Disappearing electric tower"   *Bocchiotti company*

IT102021000024677, 27/09/2021, "Exoskelethon for outdoor work"   *University of Genoa*

IT102022000007367, 13/04/2022, "Elevated platform for steep terrains"   *University of Genoa*

IT102023000002961, 21/02/2023, "Exoskeleton elevation of work tools"   *University of Genoa*

Software knowledge (7)

Languages: Pascal, Visual Basic, HTML, XHTML, ASP, JAVA, SQL

Systems: MS-DOS, MAC-OS, UNIX, Windows XP, Windows Vista, IIS 6.0 Server

2D 3D modelers: Euclid, ProEngineer, SolidWorks, Sweet Home 3D, Google SketchUp, Blender, Autocad

Multibody analyzers: DADS, ProMechanica, Ansys

Computational analyzers: FEM and Thermal

Simulation languages: Modsim III, Matlab, Simulink, ODE 3D dynamic libraries

Office applications: Microsoft Office, Microsoft Access, Adobe After Effects, Adobe Photoshop, GIMP

Works (49 of 49)

Failure analysis of fiberglass cover used for photovoltaic plants *Journal of Applied Polymer Science*
2023-06-20 | journal-article
DOI: 10.1002/app.53961

Infrared Waves and Microwaves Applied to Greenhouse Agriculture
2023-06-01 | preprint
DOI: 10.20944/preprints202306.0019.v1

Simulation and Digital Twin of a Robotic Sanitizing
Process of Environments at Risk During the Pandemic *Intelligent and Fuzzy Techniques for*
Emerging Conditions and Digital Transformation
2023 | journal-article
DOI: 10.1007/978-3-031-15226-9_46
WOSUID: WOS:000881628600043

Brainstorm on artificial intelligence applications and evaluation of their commercial impact
IAES International Journal of Artificial Intelligence (IJ-AI)
2022-09-01 | journal-article
DOI: 10.11591/ijai.v11.i3.pp799-808

An introductory review of robotically assisted surgical systems
The International Journal of Medical Robotics and Computer
Assisted Surgery

2022-08 | journal-article
DOI: 10.1002/rcs.2409

Automation of a garment sewing department assessment by smart simulation
International Journal of Simulation and Process Modelling
2022 | journal-article
DOI: 10.1504/IJSPM.2022.128290

Exact and heuristic static routing algorithms for improving online grocery shopping logistics
Proceedings of the 23rd International Conference on Harbor,
Maritime and Multimodal Logistic Modeling & Simulation
2021 | conference-paper DOI: 10.46354/i3m.2021.hms.003 SOURCE-WORK-ID:
BASE:9768dde25a133d0eb52d04c0a3f208a5ee3ac6d2122a56208b90850cab40046d

On line shopping and logistics: a fast dynamic vehicle routing algorithm for dealing with
information evolution *Proceedings of the 23rd International Conference on Harbor,*
Maritime and Multimodal Logistic Modeling & Simulation
2021 | conference-paper DOI: 10.46354/i3m.2021.hms.004 SOURCE-WORK-ID:
BASE:4de7a91df0a982e2796ca8aa3884053de7ce5cad9a48b5cd133728310adf1081

Twin tools for intelligent manufacturing: a case study
Proceedings of the 33rd European Modeling & Simulation
Symposium
2021 | conference-paper
DOI: 10.46354/i3m.2021.emss.059 **Source:**francesco cepolina

A robotic cutting tool for contaminated structure maintenance and decommissioning
Automation in Construction
2015 | journal-article
DOI: 10.1016/j.autcon.2015.07.006
Part of ISSN: 0926-5805
SOURCE-WORK-ID: BASE:bd33f2d4c3e5da26f743911795383fb365bb28df52c5fb4614c46405fa6f87cb

Personal full electric vehicle PICAV: Non linear dynamic model and simulation
2015 | journal-article
SOURCE-WORK-ID:
BASE:25f10ef446d450d4f81d4086fd61e908eed8178c5b6e04117cbb1b1635020f72
EID: 2-s2.0-84938300263
Part of ISSN: 19980140

A Novel Robotic Handling Device integrated on a Freight Urban Robotic Vehicle
2014 | conference-paper
SOURCE-WORK-ID:
BASE:400bafea12df800f575d833550fa4792f6cdb5eb85b7a3945d09de9e2bf4c66c

Advances in Robot Surgery

*Nanotechnology: Concepts, Methodologies, Tools, and
Applications*
2014 | book-chapter
DOI: 10.4018/978-1-4666-3990-4.ch011 SOURCE-WORK-ID:
BASE:6ef1071554638c03378aafa4530a42b6dd244ebbb967b6b80b264a8925e17244
EID: 2-s2.0-84898262621
Part of DOI: 10.4018/978-1-4666-5125-8.ch042
EID: 2-s2.0-84945397106

Design of a Hyper-flexible cell for handling 3D Carbon fiber fabric

Recent advances in mechanical engineering and mechanics
2014 | journal-article

Design of a robot for hygienization of walls in hospital environments

*ISR/Robotik 2014; 41st International Symposium on
Robotics*
2014 | conference-paper
SOURCE-WORK-ID:
BASE:e4301bc8f515e80e0ef0ddbdad19c183ef4995a8fe631f9bf13e19dba1348529 SOURCE-WORK-
ID:
BASE:078a0452beaebb26a63cbae929d0be41bf73d3fdf482ee5a68a5086793a7990a

Handling carbon fiber fabric in agile manufacturing cells

WSEAS Transactions on Circuits and Systems
2014 | journal-article
EID: 2-s2.0-84904041888 *Part of* ISSN: 2224266X 11092734 SOURCE-WORK-ID:
BASE:acb8ae065a455e8eea0b93a52a06c3ee822906e4841e060e6dbefd9fe64377f3

Innovazione nella macchina utensile

2014 | book-chapter
SOURCE-WORK-ID:
BASE:dd6a58a9ae6f38c50f521b62528526c619c10a253a0c52b993af9237230dcd48

Manoeuvring simulations of the personal vehicle PICAV

*16th International Conference on Harbor, Maritime and
Multimodal Logistics Modelling and Simulation, HMS 2014*
2014 | conference-paper SOURCE-WORK-ID:
BASE:887a10a4353ec4174f7a911f8729a067254642c1c4ee398014cbeb8486d0f1c6 SOURCE-WORK-
ID:
BASE:22ac8b45041699138fb13047af128f4538eb3f4bcc194237e2599dd9553646b6
EID: 2-s2.0-84912090227
Part of ISSN: 23052104

Space optimization in warehouses logistics

16th International Conference on Harbor, Maritime and

Multimodal Logistics Modelling and Simulation, HMS 2014

2014 | conference-paper SOURCE-WORK-ID:

BASE:48d1aca95606c35326729e8b311868dba48642dfe439dd556a466af33f93dd67 SOURCE-WORK-ID:

BASE:2fed77b52ca907b81c33c39494bccdd5d802448ddd6abf2be96127a99cddabdf SOURCE-WORK-

Design of multi-degrees-of-freedom dexterous modular arm instruments for minimally invasive surgery

Proceedings of the Institution of Mechanical Engineers, Part

H: Journal of Engineering in Medicine

2012 | journal-article

SOURCE-WORK-ID:

BASE:b09b252aa0fe2a671d0c695c51973981866a95eab4178457bb0c1889abeb1f8f

DOI: 10.1177/0954411912453239

Part of ISSN: 0954-4119

Modeling and control of a parallel robot for needle surgery

2011 IEEE International Conference on Robotics and

Automation

2011 | conference-paper

SOURCE-WORK-ID: BASE:f58773b3fc0752271f0fc6848959e21b3aab008fdfd2901106ad9fb547005bc5

DOI: 10.1109/icra.2011.5979971 SOURCE-WORK-ID:

BASE:b3425d0d34f09bc6bb86d1ea1f602fe3b4b7e74c3ba99f614326a77c3ed79741

AirEOD

Industrial Robot: An International Journal

2006 | journal-article

DOI: 10.1108/01439910610659132

Part of ISSN: 0143-991X

SOURCE-WORK-ID:

BASE:128ff2385b2e246594089297cf4c01bb3dc6e28f8998bfe5f5f16313b9316a03

AirEOD: a robot for on-board airplanes security

Climbing and Walking Robots

2006 | book-chapter

SOURCE-WORK-ID:

BASE:a5da13044e7e2ec75bed0e1998c5a61bcc68ee992decec5ec5b38d2e9ff25b9a

DOI: 10.1007/3-540-26415-9_119 SOURCE-WORK-ID:

BASE:38578492ced6678f1b204b70f229e5658b31d81c466861871252569f57024ca1

Roboclimber versus landslides: design and realization of a heavy-duty robot for teleoperated consolidation of rocky walls

IEEE robotics & automation magazine

2006 | journal-article

Development of micro-tools for surgical applications

Universita'degli Studi Di Genova

2005 | journal-article

Roboclimber the 3 ton spider

Industrial Robot: An International Journal

2005 | journal-article

Snail surgeon: a new robotic system for minimally invasive surgery

Proceedings of the Fifth International Workshop on Robot Motion and Control, 2005. RoMoCo'05.

2005 | conference-paper

Trends in robotic surgery

Journal of Endourology

2005 | journal-article

A four-legged climbing robot for rocky slope consolidation and monitoring

Int. World Automation Congress WAC2004

2004 | conference-paper

A robotic cleaning agency

Proc. of IAS'2004--8th Conf. on Intelligent Autonomous Systems

2004 | conference-paper

Miniature gripping device

Proc. Int. Conf. Intell. Manipulation Grasping

2004 | conference-paper **Source:**francesco cepolina

Review of robotic fixtures for minimally invasive surgery

*The International Journal of Medical Robotics and Computer
Assisted Surgery*

2004 | journal-article

DOI: 10.1002/rcs.5 *Part of* ISSN: 1478-5951 SOURCE-WORK-ID:
BASE:27a99b5a21ed4e6a08db18f59ad46ce1fbcd28466ef7fdb9870164e63218145d

Robots in medicine: A survey of in-body nursing aids

International Symposium on Robotics, France (March 2004)

2004 | conference-paper

Self Adaptable Clamping Tools for Multiple-Seizure *IEEE International Conference on Intelligent
Manipulation and Grasping IMG 04* 2004 | conference-paper

Self adaptable robotic clamp with flexible elements

First EURON—Technology Transfer Award, Amsterdam

2004 | journal-article

Surgery grippers for minimally invasive heart surgery *IEEE International Conference on Intelligent
Manipulation and Grasping (IMG)* 2004 | conference-paper
SOURCE-WORK-ID:
BASE:da6d45c282b7bab3c236cdf65228cf2e846d78c15aa827f7df34a9e4079c5b5d

**Task based optimization method for the design of modular minimally invasive surgery
instruments**

*15th CISM-IFToMM Symposium on Robots and
Manipulators (ROMANSY), Montreal, Canada*

2004 | conference-paper

Upper limb prosthesis for developing countries

*Proc. of IEEE International Conference on Intelligent
Manipulation and Grasping IMG*

2004 | conference-paper SOURCE-WORK-ID:
BASE:0ee1de5ee9473f2624f665687e04bb8e9fd3dc75a2fc8674b1764e5ce8bb0816
SOURCE-WORK-ID:
BASE:25c72c223e4cef160122fda22e72ba165c95af873b864bb12376e6f591cefc2b SOURCE-WORK-

Videogame for safe flights

2004 | book
SOURCE-WORK-ID:

A family of co-robotic surgical set-ups
Industrial Robot: An International Journal
2003 | journal-article
DOI: 10.1108/01439910310506837
Part of ISSN: 0143-991X

Gecko, a climbing robot for walls cleaning
International Workshop on Advances in Service Robotics
(ASER03), Bardolino, Italy
2003 | conference-paper SOURCE-WORK-ID:
BASE:a2435542e1a16661b74fed38bd5803638024ec059e681563c429cdfd7f7179f7

Roboclimber
International Workshop on Advances in Service Robotics
2003 | conference-paper
SOURCE-WORK-ID:
BASE:4b26d42b1deb4bfcc7874878fc7b6dbdaa3bc509cfa36e248b7d859cb75df567

Gecko, the walls cleaner
Industrial Robot: An International Journal
2002 | journal-article
DOI: 10.1108/01439910210440246
Part of ISSN: 0143-991X
SOURCE-WORK-ID:
BASE:9a7328c8670ec2918c119fd7bb661f896228f8737a02db1e31a81b14c1aaaf6e

Metodologia di progettazione meccatronica per robotica di servizio
2002 | conference-paper
SOURCE-WORK-ID:
BASE:47419f3f9d4f9d8a8025ca19361c659e7ab6603dd8fa9d29b2f31cf5b85da78c

Char-Robot: the design of a co-operative equipment for kitchen cleaning and sanitising tasks
2001 | conference-paper SOURCE-WORK-ID:
BASE:803eccd6166f514adfe0bc37b3ae1a80a567ddf4ec5cdd5b519e6adeaa419a3a

Collie-Gecko: a co-operative multi-robot system for cleaning applications *Proc. 3rd CLAWAR*
2000 | conference-paper
SOURCE-WORK-ID:
BASE:b3e306768bfbf7b6d81ee5995056542a8bf39bf2e396fdff5818b7be9988d3ae

Gecko-Collie - homecleaning automation of floors, walls, and cupboards
Proceedings of the Third International Conference on
Climbing and Walking Robots

2000 | journal-article
WOSUID: WOS:000165883300087

Domestic-chores automation: multi-media analysis and assessment study
11 th ADM International Conference on Design Tools and
Methods in Industrial Engineering" Palermo
1999 | conference-paper SOURCE-WORK-ID:
BASE:217df043eb5b1372268d94d4f1c84e4964dbb908a4741b6b616219377f7dd97c

Design and simulation of an all terrain mobile robot other
SOURCE-WORK-ID:
BASE:4e586aabf9bd033e1f40648ba80cc02952adcbe7783449746572b302ef26626b

Peer review (5)

- review activity for *IEEE Transactions on biomedical Engineering* **(1)**
- review activity for *Institution of ME, Part C, Journal of Mechanicla Engineering Science* **(1)**
- review activity for *Sensors and Actuators, Elsevier* **(1)**
- review activity for *European Projects (ECHORD FP7)* **(1)**
- review activity for **Applied Sciences (1)**