

# Juan G. Victores

## Journal Articles (21)

1. Raul Fernandez-Fernandez, Bartek Łukawski, Juan G. Victores, and Claudio Pacchierotti. Transferring human emotions to robot motions using neural policy style transfer. *Cognitive Systems Research*, 82:101121, 12 2023. ISSN 1389-0417. doi: 10.1016/J.COGSYS.2023.05.010 [robot] [xgnitive: cgda] (Q2)
2. Raul Fernandez-Fernandez, Juan G Victores, Jennifer J Gago, David Estevez, and Carlos Balaguer. Neural policy style transfer. *Cognitive Systems Research*, 72:23–32, 3 2022a. ISSN 1389-0417. doi: 10.1016/j.cogsys.2021.11.003. URL <https://doi.org/10.1016/j.cogsys.2021.11.003> [robot] [xgnitive: cgda] (Q2)
3. Andrea Gil Ruiz, Juan G Victores, Bartek Łukawski, and Carlos Balaguer. Design of an active vision system for high-level isolation units through q-learning. *Applied Sciences*, 10:5927, 8 2020. ISSN 2076-3417. doi: 10.3390/app10175927. URL <https://doi.org/10.3390/app10175927> [robot] [textiles: horus] (Q2)
4. David Estevez, Juan G. Victores, Raul Fernandez-Fernandez, and Carlos Balaguer. Enabling garment-agnostic laundry tasks for a robot household companion. *Robotics and Autonomous Systems*, 123: 103330, 1 2020. ISSN 0921-8890. doi: 10.1016/j.robot.2019.103330. URL <https://doi.org/10.1016/j.robot.2019.103330> [robot] [textiles: folding] [textiles: ironing] (Q2)
5. Alice Stazio, Juan G. Victores, David Estevez, and Carlos Balaguer. A study on machine vision techniques for the inspection of health personnels’ protective suits for the treatment of patients in extreme isolation. *Electronics*, 8:743, 6 2019. doi: 10.3390/electronics8070743. URL <https://doi.org/10.3390/electronics8070743> [robot] [textiles: horus] (Q2)
6. Jennifer J. Gago, Juan G. Victores, and Carlos Balaguer. Sign language representation by teo humanoid robot: End-user interest, comprehension and satisfaction. *Electronics*, 8:57, 1 2019a. ISSN 2079-9292. doi: 10.3390/electronics8010057. URL <https://doi.org/10.3390/electronics8010057> [robot] [sign-language] (Q2)
7. Raul Fernandez-Fernandez, Juan G. Victores, David Estevez, and Carlos Balaguer. Real evaluations tractability using continuous goal-directed actions in smart city applications. *Sensors*, 18:3818, 11 2018a. ISSN 1424-8220. doi: 10.3390/s18113818. URL <https://doi.org/10.3390/s18113818> [robot] [xgnitive: cgda] (Q1)
8. Santiago Martinez, Juan Miguel Garcia-Haro, Juan G. Victores, Alberto Jardon, and Carlos Balaguer. Experimental robot model adjustments based on force-torque sensor information. *Sensors*, 18:836, 3 2018. ISSN 14248220. doi: 10.3390/s18030836. URL <https://doi.org/10.3390/s18030836> [robot] [humanoid] (Q1)
9. Elisabeth Menendez, Juan G. Victores, Roberto Montero, Santiago Martínez, and Carlos Balaguer. Tunnel structural inspection and assessment using an autonomous robotic system. *Automation in Construction*, 87:117–126, 3 2018. ISSN 09265805. doi: 10.1016/j.autcon.2017.12.001. URL <https://doi.org/10.1016/j.autcon.2017.12.001> [robot] [construction] (Q1)
10. Eugenio Marinetto, Juan G. Victores, Mónica García-Sevilla, Mercedes Muñoz, Felipe Ángel Calvo, Carlos Balaguer, Manuel Desco, and Javier Pascau. Technical note: Mobile accelerator guidance using an optical tracker during docking in ioert procedures. *Medical Physics*, 44:5061–5069, 2017. ISSN 2473-4209. doi: 10.1002/mp.12482. URL <http://dx.doi.org/10.1002/mp.12482> [robot] [medical] (Q1)

11. Konstantinos Loupos, Anastasios D Doulamis, Christos Stentoumis, Eftychios Protopapadakis, Konstantinos Makantasis, Nikolaos D Doulamis, Angelos Amditis, Philippe Chrobocinski, Juan G. Victores, Roberto Montero, Elisabeth Menendez, Carlos Balaguer, Rafa Lopez, Miquel Cantero, Roman Navarro, Alberto Roncaglia, Luca Belsito, Stephanos Camarinopoulos, Nikolaos Komodakis, and Praveer Singh. Autonomous robotic system for tunnel structural inspection and assessment. *International Journal of Intelligent Robotics and Applications*, pages 1–24, 2017. ISSN 2366-598X. doi: 10.1007/s41315-017-0031-9. URL <https://doi.org/10.1007/s41315-017-0031-9> [robot] [construction]
12. David Estevez, Juan G. Victores, Santiago Morante, and Carlos Balaguer. Robot devastation: Using diy low-cost platforms for multiplayer interaction in an augmented reality game. *EAI Endorsed Transactions on Collaborative Computing*, 15:1–5, 2015a. doi: 10.4108/icst.intetain.2015.259753. URL <http://dx.doi.org/10.4108/icst.intetain.2015.259753> [robot] [video-game]
13. Santiago Morante, Juan G. Victores, and Carlos Balaguer. Cryptobotics: Why robots need cyber safety. *Frontiers in Robotics and AI*, 2:1–4, 2015a. doi: 10.3389/frobt.2015.00023. URL <http://dx.doi.org/10.3389/frobt.2015.00023> [robot] [cryptography]
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15. Santiago Morante, Juan G. Victores, Alberto Jardón, and Carlos Balaguer. Humanoid robot imitation through continuous goal-directed actions: An evolutionary approach. *Advanced Robotics*, 29:303–314, 2015b. ISSN 1568-5535. doi: 10.1080/01691864.2014.964314. URL <http://dx.doi.org/10.1080/01691864.2014.964314> [robot] [xgnitive: cgda] (Q4)
16. Juan G. Victores, Santiago Morante, Alberto Jardón, and Carlos Balaguer. An accessible interface for programming an assistive robot. *Journal of Accessibility and Design for All (JACCES)*, 4:161–176, 2014a. ISSN 2013-7087. doi: 10.17411/jacces.v4i3.49. URL <http://dx.doi.org/10.17411/jacces.v4i3.49> [robot] [assistive]
17. Jonathan Crespo, Ramon Barber, Juan G. Victores, and Alberto Jardón. Algorithm for graph visibility obtainment from a map of non-convex polygons. *Journal of Mechanical Engineering and Robotics Research*, 3:150–170, 2014. ISSN 2278-0149. URL [http://www.ijmerr.com/v3n2/ijmerr\\_v3n2\\_19.pdf](http://www.ijmerr.com/v3n2/ijmerr_v3n2_19.pdf) [robot] [planning]
18. Santiago Martínez, Alberto Jardón, Juan G. Victores, and Carlos Balaguer. Flexible field factory for construction industry. *Assembly Automation*, 33:175–183, 2013. doi: 10.1108/01445151311306708. URL <http://dx.doi.org/10.1108/01445151311306708> [robot] [construction] (Q4)
19. Alberto Jardón, Juan G. Victores, Santiago Martínez, and Carlos Balaguer. Experience acquisition simulator for operating microtunneling boring machines. *Automation in Construction*, 23:33–46, 2012a. doi: 10.1016/j.autcon.2011.12.002. URL <http://dx.doi.org/10.1016/j.autcon.2011.12.002> [robot] [construction] (Q1)
20. Alberto Jardón, Juan G. Victores, Santiago Martínez, Antonio Giménez, and Carlos Balaguer. Personal autonomy rehabilitation in home environments by a portable assistive robot. *IEEE Trans. on Systems, Man, and Cybernetics, Part C: Applications and Reviews*, 42:561–570, 2011a. doi: 10.1109/TSMCC.2011.2159201. URL <http://dx.doi.org/10.1109/TSMCC.2011.2159201> [robot] [assistive] (Q1)

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## Patents (2)

1. Alberto Jardón Huete, Santiago Martínez, Juan G. Victores, Carlos Balaguer, Rafael Portero, and Marc Martí. Sistema y método para la verificación de la trayectoria de un tunel, 2014. URL <http://invenes.oepm.es/InvenesWeb/detalle?referencia=P201330794> [robot] [construction]
2. Juan G. Victores, Santiago Martinez, Alberto Jardón, and Carlos Balaguer. Tool and method for the automatic remote application of strips of fibre-reinforced polymer tape, comprising the dispensing of epoxy adhesive, 2011b. URL <http://www.google.im/patents/WO2011138481A1?cl=en> [robot] [construction]

## Book Chapters (8)

1. Raul Fernandez-Fernandez, Juan G. Victores, and Carlos Balaguer. New trends and challenges in the automatic generation of new tasks for humanoid robots. pages 169–176. CSIC, 5 2016. ISBN 978-84-608-8452-1. URL <http://www.robocity2030.org/events/event/evento-esp-2-2/> [xgnitive: cgda]
2. David Estevez, Juan G. Victores, and Carlos Balaguer. A new generation of entertainment robots enhanced with augmented reality. pages 129–136. CSIC, 5 2016a. URL <http://www.robocity2030.org/events/event/evento-esp-2-2/> [robot] [video-game]
3. David Estevez, Juan G. Victores, and Carlos Balaguer. Future trends in perception and manipulation for unfolding and folding garments. pages 333–340. CSIC, 5 2016b. URL <http://www.robocity2030.org/events/event/evento-esp-2-2/> [robot] [textiles: folding]
4. Roberto Montero, Juan G. Victores, Elisabeth Menéndez, and Carlos Balaguer. The robot-spect eu project: Autonomous robotic tunnel inspection. pages 91–100. 2015b. URL <http://www.robocity2030.org/events/event/13th-robocity2030-workshop/> [robot] [construction]
5. Santiago Morante, Juan G. Victores, Santiago Martínez, and Carlos Balaguer. Force-sensorless friction and gravity compensation for robots. volume 418. Springer International Publishing, 2015c. ISBN 9783319271484. doi: 10.1007/978-3-319-27149-1\_5. URL [http://doi.org/10.1007/978-3-319-27149-1\\_5](http://doi.org/10.1007/978-3-319-27149-1_5) [robot] [modelling]
6. Alberto Jardón, Félix R. Cañadillas, Juan G. Victores, Santiago Martínez, and Carlos Balaguer. A review of eight years of ceabot contest: A national wide mini humanoids competition. pages 41–52. Springer International Publishing, 2014a. ISBN 978-3-319-03652-6. doi: 10.1007/978-3-319-03653-3\_4. URL [http://dx.doi.org/10.1007/978-3-319-03653-3\\_4](http://dx.doi.org/10.1007/978-3-319-03653-3_4) [robot] [contests]
7. Juan G. Victores, Félix R. Cañadillas, Santiago Morante, Alberto Jardón, and Carlos Balaguer. Assistive robot multi-modal interaction with augmented 3d vision and dialogue. pages 209–217. Springer International Publishing, 2014b. ISBN 978-3-319-03412-6. doi: 10.1007/978-3-319-03413-3\_15. URL [http://dx.doi.org/10.1007/978-3-319-03413-3\\_15](http://dx.doi.org/10.1007/978-3-319-03413-3_15) [robot] [assistive]
8. Carlos Balaguer and Juan G. Victores. Robotic tunnel inspection and repair. pages 445–460. CRC Press, 2010. URL <http://www.crcpress.com/product/isbn/9780415551052> [robot] [construction]

## Conference Proceedings (50)

1. Raul Fernandez-Fernandez, Marco Aggravi, Paolo Robuffo Giordano, Juan G Victores, and Claudio Pacchierotti. Neural style transfer with twin-delayed ddpg for shared control of robotic manipulators. pages 4073–4079, 5 2022b. doi: 10.1109/ICRA46639.2022.9812245. URL <https://doi.org/10.1109/ICRA46639.2022.9812245> [robot] [xgnitive: cgda]
2. J. Enrique Sierra-Garcia, Matilde Santos, and Juan G. Victores. Neural controller of uavs with inertia variations. pages 169–177. Springer International Publishing, 11 2019. ISBN 978-3-030-33617-2. doi: 10.1007/978-3-030-33617-2\_19. URL [https://doi.org/10.1007/978-3-030-33617-2\\_19](https://doi.org/10.1007/978-3-030-33617-2_19) [robot] [control]
3. Jennifer J. Gago, Valentina Vasco, Bartek Łukawski, Ugo Pattacini, Vadim Tikhanoﬀ, Juan G. Victores, and Carlos Balaguer. Sequence-to-sequence natural language to humanoid robot sign language. page 44. ARGESIM, 7 2019b. ISBN 978-3-901608-92-6. doi: 10.11128/arep.58. URL <https://www.doi.org/10.11128/arep.58> [robot] [sign-language]
4. David Estevez, Juan G. Victores, Raul Fernandez-Fernandez, and Carlos Balaguer. Towards clothes hanging via cloth simulation and deep convolutional networks. page 35. ARGESIM, 7 2019. ISBN 978-3-901608-92-6. doi: 10.11128/arep.58. URL <https://www.doi.org/10.11128/arep.58> [robot] [textiles: hanging]
5. Raul Fernandez-Fernandez, Juan G. Victores, David Estevez, and Carlos Balaguer. Quick, stat!: A statistical analysis of the quick, draw! dataset. page 27. ARGESIM, 7 2019. ISBN 978-3-901608-92-6. doi: 10.11128/arep.58. URL <https://www.doi.org/10.11128/arep.58> [robot] [xgnitive: drl]
6. Jennifer J. Gago, Bartek Łukawski, Juan G. Victores, and Carlos Balaguer. A study on the effects of an embodied humanoid robot representing sign language. pages 26–28, 2019c. URL [https://calc.ff.cuni.cz/en/gswp19\\_programme/](https://calc.ff.cuni.cz/en/gswp19_programme/) [robot] [sign-language]
7. Raul Fernandez-Fernandez, Juan G. Victores, David Estevez, and Carlos Balaguer. Robot imitation through vision, kinesthetic and force features with online adaptation to changing environments. pages 6546–6551. IEEE, 2018b. ISBN 978-1-5386-8094-0. doi: IROS.2018.8593724. URL <https://doi.org/10.1109/IROS.2018.8593724> [robot] [xgnitive: cgda]
8. David Estevez, Juan G. Victores, Raul Fernandez-Fernandez, and Carlos Balaguer. Robotic ironing with 3d perception and force/torque feedback in household environments. volume 2017-Sept, pages 6484–6489. IEEE, 2017a. ISBN 9781538626818. doi: 10.1109/IROS.2017.8206556. URL <https://doi.org/10.1109/IROS.2017.8206556> [robot] [textiles: ironing]
9. Elisabeth Menendez, Juan G. Victores, and Carlos Balaguer. Sistema robótico para la inspección y análisis estructural de túneles. 2017a. URL <http://jnr2017.ai2.upv.es/wp-content/uploads/2016/11/Programa-JNR2017.pdf> [robot] [construction]
10. David Estevez, Juan G. Victores, and Carlos Balaguer. Horus: Inspección robotizada de los trajes de protección del personal sanitario de pacientes en aislamiento de alto nivel, incluido el Ébola. 2017b [robot] [horus]
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12. Roberto Montero, Elisabeth Menendez, Juan G. Victores, and Carlos Balaguer. Intelligent robotic system for autonomous crack detection and characterization in concrete tunnels. pages 316–321. IEEE, 2017. ISBN 9781509062331. doi: 10.1109/ICARSC.2017.7964094. URL <https://doi.org/10.1109/ICARSC.2017.7964094> [robot] [construction]

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33. Miguel González-Fierro, Miguel Angel Maldonado, Juan G. Victores, Santiago Morante, and Carlos Balaguer. Object tagging for human-robot interaction by recolorization using gaussian mixture models. 2013. URL [https://www.researchgate.net/publication/269631653\\_Object\\_Tagging\\_for\\_Human-Robot\\_Interaction\\_by\\_Recolorization\\_Using\\_Gaussian\\_Mixture\\_Models](https://www.researchgate.net/publication/269631653_Object_Tagging_for_Human-Robot_Interaction_by_Recolorization_Using_Gaussian_Mixture_Models) [robot] [vision]
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36. Alberto Jardón, Santiago Martínez, Juan G. Victores, M. Marti, and Carlos Balaguer. Extended range guidance system for micro-tunnelling machine. 2012b. URL <http://gerontechnology.info/index.php/journal/article/view/1814> [robot] [construction]
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## Conference Videos (2)

1. Juan G Victores, Santiago Morante, Alberto Jardón, and Carlos Balaguer. On using humanoid robot imagination to perform the shortened token test. page 172. IEEE, 2014c. doi: 10.1109/HUMANOIDS.2014.7041355. URL <https://youtu.be/KFHFw9dJfzA> [robot] [xgnitive: ris]
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## PhD Thesis (Author)

1. Juan G. Victores. *Robot Imagination System*. PhD thesis, 2014. URL <http://e-archivo.uc3m.es/handle/10016/19834>

## PhD Thesis (Advisor)

1. Santiago Morante. *Continuous Goal-Directed Actions: Advances in Robot Learning*. PhD thesis, Universidad Carlos III de Madrid, mar 2016. URL <http://e-archivo.uc3m.es/handle/10016/23459>

## Research Stays (2)

- |                           |                                                                                                                                                                                                                                                                     |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Oct. 2018 –<br>Jan. 2019  | <b>The University of Manchester.</b> Cognitive Robotics Lab.<br>Estancia de 3 meses destinado a la investigación del uso de Deep Learning para el estudio de conceptos abstractos con el robot iCub (Manchester, UK).                                               |
| Sept. 2011 –<br>Dic. 2011 | <b>Istituto Italiano di Tecnologia.</b> Department of Robotics, Brain and Cognitive Sciences.<br>Estancia de 3 meses destinado a la investigación del uso de Support Vector Machines y Gaussianas mixtas para el control en fuerza del robot iCub (Génova, Italia). |



## Workshop Organizer (2)

1. Juan G. Victores, Lorenzo Natale, Eiichi Yoshida. Towards Humanoid Robots OS. HUMANOIDS. Cancun, Mexico. Nov 15. 2016. <https://roboticslab-uc3m.github.io/workshop-humanoids2016/>
2. Angelos Amditis, Konstantinos Loupos, Juan G. Victores. Autonomous Robotic Systems for Inspection and Structural Assessment of Civil Underground Infrastructures. European Robotics Forum (ERF). Ljubljana, Slovenia. Mar 22. 2016. [https://www.eu-robotics.net/robotics\\_forum/upload/digest\\_1-96\\_without\\_emails\\_250ppi1.pdf](https://www.eu-robotics.net/robotics_forum/upload/digest_1-96_without_emails_250ppi1.pdf)

## Talks (2)

1. Juan G. Victores. XGNITIVE: Avances hacia la generalización avanzada de acciones y sistemas de imaginación en robótica. Technology Festival (Techfest). Universidad Rey Juan Carlos (URJC). 2017. <https://www.eventbrite.es/e/registro-technology-festival-urjc-2017-28838850779?aff=es2#>
2. Angelos Amditis, Juan G. Victores, Fedi Francesco. Welcome and Introduction. Autonomous Robotic Systems for Inspection and Structural Assessment of Civil Underground Infrastructures. European Robotics Forum (ERF). Ljubljana, Slovenia. Mar 22. 2016. [https://www.eu-robotics.net/robotics\\_forum/upload/digest\\_1-96\\_without\\_emails\\_250ppi1.pdf](https://www.eu-robotics.net/robotics_forum/upload/digest_1-96_without_emails_250ppi1.pdf)