

CONFÉRENCES INTERNATIONALES DE LA THÉMATIQUE BIOMIMÉTIQUE ET COMMANDE 2005 - 2009

Conférences internationales avec comité de lecture et actes 2011

2011

V. Khomenko, O. Bruneau, F.B. Ouezdou, P. Hénaff, A. Melnyk, V. Borysenko “Non-Invasive Low Cost Method for Linear and Angular Accelerations Measurement in Biped Locomotion Mechanisms ”,IEEE Proc. of SENSORS 2011, pp. 1756-1759, Limerick, October 28-31, Ireland, 2011

J.-C. Palyart Lamarche, O. Bruneau and J.-G. Fontaine,“Time-Independent, Spatial Human Coordination For Humanoids”, IEEE Proc. of Intelligent Robots and Systems,

2011, IROS 2011, pp. 3951-3956, IEEE/RSJ International Conference, San Fransisco, California,
USA, September 25-30, 2011.

A. Tayebi, A. Roberts and A. Benallegue, “Inertial Measurements Based Dynamic Attitude Estimation and Velocity-Free Attitude Stabilization”, in American Control Conference (ACC’2011), San Francisco, California, USA June 29 - July 1, 2011.

Conférences internationales avec comité de lecture et actes 200

2010

J.-C. Palyart Lamarche, O. Bruneau and J.-G. Fontaine “ Humanoid Walking Coordination Through a Single Spatial Parameter ”, IEEE-RAS International Conference on Humanoid Robots, Humanoids10, pp. 230-236, December 6-8, 2010, Nashville, TN, USA.

P.-F. Doubliez, O. Bruneau and F. Ben Ouezdou, “Dynamic obstacle crossing by a biped robot, based on control of the propulsion energy”, IEEE Proc. of Intelligent Robots and Systems, 2010, IROS 2010, pp. 3144-3149, IEEE/RSJ International Conference, Taipei, Taiwan, October 18-22, 2010.

J.-C. Palyart Lamarche, O. Bruneau and J.-G. Fontaine, “ The Current Humanoids with Seven Degrees of Freedom per Leg are not Sufficient to Accurately Reproduce Human Walking Kinematics ”, International Conf. on Climbing and Walking Robots, CLAWAR 2010, pp. 467-474, Nagoya, Japan, 31 August- 3 September, 2010.

L. Derafa, L. Fridman, A. Benallegue and A. Ouldali “Super Twisting Control Algorithm for the Four Rotors Helicopter Attitude Tracking Problem” in the 11th IEEE International Workshop on Variable Structure Systems (VSS’2010), June 26-28, 2010, Mexico City, Mexico.

N. Gachadoit, A. El Hadri, A. Benallegue, A. Seba and B. Vidalie “Advanced Modeling with a Symbolic Based Approach Application to the Modeling, Control Design and Real-Time Control and HIL Simulation of a Quadrotor Helicopter” in European Congress in Embedded Real Time Software and Systems (ERTS’2010), May 19-21, Toulouse, France.

Conférences internationales avec comité de lecture et actes 2007 - 2009

2009

A. El Hadri and A. Benallegue “Attitude Estimation with Gyros-Bias Compensation Using Low-Cost Sensors” in IEEE Conference on Decision and Control (CDC’2009), Shanghai, China, December 16-18, 2009.

A. Veinguertener, T. Hoinville, O. Bruneau and J.-G. Fontaine, “ From morphologies of six-, four- and two-legged animals to the kinematics of the recongurable HexaQuaBip robot ”, Second International Conference on Intelligent Robotics and Applications, ICIRA 2009, pp
1255-1265, December 16-18, Singapore, 2009.

A. Hourieh, O. Bruneau and F. Ben Ouezdou, “A Kinematic Approach of Walking of a BipedalSystem Based on Coordination Functions ”, IEEE-RAS International Conference on Humanoid Robots, Humanoids09, pp. 309-316, Paris, December 7-10, 2009.

O. Bruneau, F. Gravez, F.B. Ouezdou, “Planning approach and local reactivity for 3D, Operational space control of 3D bipedal robots with flexible feet”, IEEE Proc. of Intelligent Robots and Systems, 2009, IROS 2009, pp. 3037-3042, IEEE/RSJ International Conference, Saint-Louis, USA, October 11-15, 2009.

S. Alfayad, F.B. Ouezdou, F. Namoun, O. Bruneau, Patrick Hénaff , “ Three DOF hybrid mechanism for humanoid robotic application: Modeling, design and realization ”, IEEE Proc. of Intelligent Robots and Systems, 2009, IROS 2009, pp. 4955-4961, IEEE/RSJ International Conference, Saint-Louis, USA, October 11-15, 2009.

A. El Hadri and A. Benallegue “Sliding mode observer to estimate both the attitude and the gyro-bias by using low-cost sensors” in IEEE Int. Conf. on Intelligent Robots and Systems (IROS’2009), St. Louis, Missouri, USA, October 11-15, 2009

A. Veinguertener, T. Hoinville, O. Bruneau and J.-G. Fontaine “ Morphological design of the bio-inspired reconfigurable HexaQuaBip robot “,International Conf. on Climbing and Walking Robots, CLAWAR 2009, pp 205-214, Turkey, September 9-11, 2009.

H. Imine, A. Benallegue, L. Fridman, “Experimental validation of unknown Inputs

estimation of heavy vehicle Via High Order Sliding Mode Observer", in the 12th IFAC Symposium on Control in Transportation Systems, (CTS'09), September 2-4, 2009, Redondo Beach, California, USA.

H. Imine, A. Benallegue, T. Madani and S. Srairi, "Rollover risk prediction of an instrumented heavy vehicle using high order sliding mode observer", in IEEE Conference on Robotics and Automation (ICRA'2009), Kobe, Japan, May 12-17, 2009.

David Gouallier , Vincent Hugel, Pierre Blazevic, Chris Kilner, Jérôme Monceaux, Pascal Lafourcade, Brice Marnier, Julien Serre, Bruno Maisonnier. Mechatronic Design of NAO Humanoid. 2009 IEEE International Conference on Robotics and Automation, May 12 - 17, 2009, Kobe, Japan.

2008

A. David, O. Bruneau "Sequential Method of Analytical Potentials : an approach for biped robots dynamic gait generation", Intelligent Robots and Systems, 2008, IROS 2008, pp. 2946-2951, IEEE/RSJ International Conference, Nice, France, september 22-26 2008.

C. Zaoui, O. Bruneau, F.B. Ouezdou, A. Maalej, "Compensation of forces exerted over a short period applied to the ROBIAN Biped Robot Trunk: Simulations and Experiments", The International multi-conference on systems, signals and devices, SSD'08 IEEE, pp. 1 - 6,
Amman, Jordan, 20-23 July 2008.

T. Madani and A. Benallegue "Adaptive Control via Backstepping Technique and Neural Networks for a Quadrotor Helicopter" in the 17th World Congress of International Federation of Automatic Control (IFAC'2008), COEX, Seoul, Korea. July 6-11, 2008.

M. Guiatni, A. Benallegue and A. Kheddar, "Learning-Based Thermal Rendering in Telepresence", in 6th International Conference, EuroHaptics 2008 (EH'08), Madrid, Spain: Springer Verlag, June 10-13, 2008, pp. 820-825.

A. Mokhtari, A. Benallegue, Y. Orlov and B. Daachi " Nonlinear H Control of a Quadrotor Unmanned Aerial Vehicle" in 13th International Conference on Applied Mechanics and mechanical Engineering, Cairo, Egypt, 27-29 May, 2008.

O. Bruneau, F. Gravez , F.B. Ouezdou, "Homogeneous Matric Approach for the Operational Space Control of Bipedal Robots with Flexible Feet", IEEE Proc.Of Int. Conf.

On Robotics and Automation, ICRA 2008, pp. 2691-2696, Pasadena, California, May 19-23, 2008.

2007

T. Madani and A. Benallegue “Sliding Mode Observer and Backstepping Control for a Quadrotor Unmanned Aerial Vehicles” in American Control Conference (ACC’2007), New York, July 11-13, 2007.

T. Madani and A. Benallegue “Backstepping Control with Exact 2-Sliding Mode Estimation for a Quadrotor Unmanned Aerial Vehicles” in IEEE Int. Conf. on Intelligent Robots and Systems (IROS’2007), New Orleans, USA, 2007.

C. Zaoui, O. Bruneau, F.B. Ouezdou, A. Maalej, “Dynamic balance of a bipedal robot with trunk and arms subjected to 3D external disturbances”, Intelligent Robots and Systems, 2007, IROS 2007, pp. 4053-4058, IEEE/RSJ International Conference, San Diego, CA, USA, Oct. 29 - Nov. 2, 2007.

Conférences internationales avec comité de lecture et actes 2006

2006

Victor Nunez, Nelly Nadjar-Gauthier, Kazuhito Yokoi, Pierre Blazevic and Olivier Stasse (2006), Whole body posture controller based on inertial forces, Humanoids 2006, Déc. 2006, Genova, Italie.

U. Zaldivar-Colado, S. Garbaya and P. Blazevic. Spring-damper Model for Parts Mating in Virtual Assembly Environment. International Symposium on Robotics and Automation ISRA 2006.

Y. Tsumaki, S. Kawai, P. Blazevic, V. Hugel, and P. Bonnin. An Operational Interface Based on the Active Window for Rescue Robot (in Japanese). SICE System Integration Division Annual Conference (SI2006), Sapporo, Japan, 14-17 December 2006.

T. Madani and A. Benallegue “Control of a Quadrotor Mini-Helicopter via Full State Backstepping Technique” in IEEE Conference on Decision and Control (CDC’2006), San Diego, California, USA, December 13-15, 2006.

L. Derafa, T. Madani and A. Benallegue “Dynamic Modelling and Experimental Identification of Four Rotors Helicopter Parameters” in IEEE Conf. on Industrial Technology (ICIT’06), Mumbai, India, December 15-17, 2006.

Hayssam Serhan, Chaiban Nasr and Patrick Henaff, Designing An Artificial Muscle Based on PID Controller and Tuned by Neural Network with NN Identification of the Plant," Proceedings of the Eleventh International Conference on Artificial Neural Networks In Engineering (ANNIE 2006)”, novembre 2006, St. Louis, Missouri.

T. Madani and A. Benallegue “Backstepping Sliding Mode Control Applied to a Miniature Quadrotor Flying Robot” in IEEE Conference on Industrial Electronics (IECON’2006), Paris, France, November 7-10, 2006.

Thomas Costis, Vincent Hugel, Patrick Bonnin. A new fast multi-layer line detection for embedded robotic application. 32nd Annual Conference of the IEEE Industrial Electronics Society (IECON-2006). Paris (France). November 7-10. sur CD ROM.

T. Madani and A. Benallegue “Backstepping control for quadrotor helicopter” in the Int. Conf. on Intelligent Robots and Systems (IROS’2006), China, 9-15 oct. 2006.

O. Bruneau, A. David, "Analytical Approach for the Generation of Highly Dynamic Gaits for Walking Robots, IEEE International Conf. on Intelligent Robots and Systems", Pékin, Chine, 9-15 octobre, IROS 2006.

David, O. Bruneau, "Dynamic stabilization of an under-actuated robot using dynamic effects of the legs and the trunk, IEEE International Conf. on Intelligent Robots and Systems", Pékin, Chine, 9-15 octobre, IROS 2006.

Sho Yokota, Kuniaki Kawabata, Pierre Blazevic, Hiroshi Hashimoto, Yasuhiro Ohyama. The development of crawler type robot that can move in all over the house. SICE-ICASE International Joint Conference 2006. 18-21 October, Bexco, Busan, Korea.

Sho Yokota, Kuniaki Kawabata, Pierre Blazevic, Hisato Kobayashi, Hiroshi Hashimoto, Jin-Hua She, Yasuhiro Ohyama. Development of Rough Terrain Mobile Robot with Leg-type Crawler. Proc. of the Fifth Japan-China International Workshop on Internet Technology and Control Applications, pp.65-69, 2006.

Vincent Scesa, Patrick Henaff, Fathi Ben Ouezdou, Faycal Namoun, Time Window Width Influence On Dynamic BPTT(h) Learning Algorithm Performances: Experimental Study, Proceedings of IEEE International Conference on Artificial Neural Networks S. Kollias et al. (Eds.), Part I, LNCS 4131, pp. 93 - 102, 2006, Springer-Verlag Berlin Heidelberg, Septembre 2006, Athènes.

Thomas Costis, V. Hugel. Probabilistic Localization Using Fast Line Detection in a Quadruped Autonomous Robot. 9th International Conference on Climbing and Walking Robots (CLAWAR 2006). 12-14 September 2006, Brussels, BELGIUM.

Sho Yokota, Kuniaki Kawabata, Pierre Blazevic, Hisato Kobayashi, Hiroshi Hashimoto, Yasuhiro Ohyama. Development of connected crawler robot - Proposal mechanism and motion planning for climbing a step autonomously. 9th International Conference on Climbing and Walking Robots (CLAWAR 2006). 12-14 September 2006, Brussels, BELGIUM.

C. Sabourin, K. Madani, O. Bruneau. "Autonomous gait pattern fora dynamic biped walking. International Conference on Informatics in Control, Automation and Robotics" (ICINCO). Setubal (Portugal), 2006, pp. 26-33, August 1-5 2006.

Vincent Scesa, Patrick Henaff, Fathi Ben Ouezdou and Faycal Namoun, On The Analysis Of Sigmoid Time Parameters For Dynamic Truncated BPTT Algorithm, Proceedings of IEEE International Joint Conference on Neural Networks, pp 8931-8938, juillet 2006, Vancouver.

Hayssam Serhan, Chaiban Nasr and Patrick Henaff, Designing a Muscle like System based on PID Controller and Tuned by Neural Network, Proceedings of IEEE International Joint Conference on Neural Networks, pp 10090-10097, juillet 2006, Vancouver.

Victor Nunez, Nelly Nadjar-Gauthier, Pierre Blazevic, Inertial Force Position control for jumping of humanoid robots, ISRA 2006, Août 2006, Mexique.

Yokota, S.; Kawabata, K.; Blazevic, P.; Kobayashi, H.; Control Law for Rough Terrain Robot with Leg-type Crawler. Proceedings of the 2006 IEEE International Conference on Mechatronics and Automation, June 2006 Page(s):417 - 422.

A.Benallegue, A. Mokhtari and L. Fridman “Robust Linearization and High Order Sliding

Mode Observer for Quadrotor UAV" in the 9th IEEE International Workshop on Variable Structure Systems (VSS'2006), June 5–7, 2006, Alghero, Sardinia, Italy.

C. Sabourin, K. Madani, O. Bruneau. "A Fuzzy-CMAC Based Hybrid Intuitive Approach for Biped Robot's Adaptive Dynamic Walking", International Conference on Neural Networks and Artificial Intelligence (ICNNAI 2006) , Brest (Biélorussie), pp 78-83, May 31- June 2, 2006.

T. Madani et A. Benallegue "Commande adaptative décentralisée à structure variable d' une classe de systèmes non-linéaires interconnectés: application à un robot volant" in Conférence Internationale Francophone d'Automatique (CIFA'2006), Bordeaux, France, 30, 31 mai et 1er juin 2006.

R. Aubin, P. Blazevic, J. P. Guyvarch. Simulation of a novel snake-like robot. Pages 875-883. Climbing and Walking Robots : Proceedings of the 8th International Conference on Climbing and Walking Robots. Springer Verlag Published 2006/03.

Aubin, R. Blazevic, P. Clement, B. Guyvarch, J.-P. Simulation and Design of a Snake-Like Robot Based on a Bio-Inspired Mechanism. The First IEEE/RAS-EMBS International Conference on Biomedical Robotics and Biomechatronics, BioRob 2006. February 20-22, 2006 Page(s):220- 225.

Bayraktaroglu, Z.Y.; Kilicarslan, A.; Kuzucu, A.; Hugel, V.; Blazevic, P.; Design and Control of Biologically Inspired Wheel-less Snake-like Robot. The First IEEE/RAS-EMBS International Conference on Biomedical Robotics and Biomechatronics, BioRob 2006. February 20-22, 2006 Page(s):1001 - 1006.

Conférences internationales avec comité de lecture et actes 2005

2005

Sho Yokota, Kuniaki Kawabata, Pierre Blazevic, Hisato Kobayashi. Deriving of climbing ability of n-links crawler robot. 8th international conference on Climbing and Walking Robots 2005. pp.123-130, 2005.

Kobayashi, H.; Yokota, S.; Blazevic, P.; Gene creation for a mobile robot by virtual training. 2005. IEEE Workshop on Advanced Robotics and its Social

Impacts, 12-15 June 2005 Page(s):202 - 205.

L. Mederreg, V. Hugel, A.Abourachid, P. Blazevic, R. Hackert, Finding the adequate optimisation criteria to solve the reverse kinematics model of the redundant bird leg mechanism, Proceedings of the 8th International Conference on Climbing and Walking Robots CLAWAR 2005, pages 319-362. London-UK, septembre 2005.

L. Mederreg, V. Hugel, A.Abourachid, P. Blazevic, R. Hackert, The ROBOCOQ project: Bird Leg Kinematics Analysis and Modelling, Proceedings of International Computer Systems and Information Technology, IEEE ICSIT'05, pages 123-127, Algiers, July 19-21, 2005.

Yoshida, E.; Guan, Y.; Neo Ee Sian; Hugel, V.; Blazevic, P.; Kheddar, A.; Yokoi, K.; Motion planning for whole body tasks by humanoid robot. 2005 IEEE International Conference on Mechatronics and Automation. Volume 4, 29 July-1 Aug. 2005 Page(s):1784 - 1789 Vol. 4

Yoshida, E.; Blazevic, P.; Hugel, V.; Pivoting Manipulation of a Large Object: A Study of Application using Humanoid Platform. Proceedings of the 2005 IEEE International Conference on Robotics and Automation, 2005. ICRA 2005. 18-22 April 2005 Page(s):1040 - 1045.

De Cabrol, A.; Bonnin, P.; Silly-Chetto, M.; Hugel, V.; Blazevic, P. Clear box evaluation of vision algorithms application to the design of a new color region growing segmentation for robotics. Proceedings of the Eighth International Symposium on Signal Processing and Its Applications, 2005. Volume 2, August 28-31, 2005 Page(s):787 - 790

O. Stasse, N. Sian, K. Yokoi, G. Dauphin, P. Bonnin. "Fast quality measurement of a H263+ video stream for teleoperating a HRP-2 humanoid robot". Machine Vision and its Applications, Tsukuba, MVA , May 16-18, pp 522--525.

De Cabrol, Aymeric; Bonnin, Patrick J.; Hugel, Vincent; Bouchefra, Kamel; Blazevic, Pierre. Temporally optimized edge segmentation for mobile robotics applications SPIE Optics Photonics, Application of Digital Image Processing XXVIII, July 31st- August 4th , San Diego, California, USA.

Aymeric de Cabrol, Patrick J. Bonnin, Vincent Hugel, Pierre Blazevic and Maryline Silly-Chetto. Video Rate Color Region Segmentation for Mobile Robotic Applications. SPIE Optics Photonics, Application of Digital Image Processing XXVIII, July 31st- August 4th , San Diego, California, USA.

K.Bouchefra, P.Bonnin, A.de Cabrol. Data image fusion using combinatory maps. SPIE Optics Photonics, Application of Digital Image Processing XXVIII, July 31st- August 4th , San Diego, California, USA

V. Scesa, B. Mohamed, P. Henaff, F.B. Ouezdou, Dynamic recurrent neural network for biped robot equilibrium control: preliminary results, Proceedings of IEEE International Conference on Robotics and Automation, pp 4125-4130, Avril 2005, Barcelone, Espagne.

A. David, O. Bruneau, J.-G. Fontaine, "Measure of the propulsion dynamic capability of a walking system", 8th International Conf. on Climbing and Walking Robots, Londres, CLAWAR 2005.

C. Zaoui, O.Bruneau, F.b. Ouezdou, A. Maalej, "Simulations of the dynamic behavior of a bipedal robot with torso subjected to external disturbances", 8th International Conf. on Climbing and Walking Robots, Londres, CLAWAR 2005.

C. Sabourin, O. Bruneau, G. Buche. "Experimental validation of a robust control strategy for the robot RABBIT", IEEE International Conference on Robotics and Automation Barcelona, Spain, April18-22, ICRA 2005.

V. Nunez, S. Drakunov, N. Nadjar-Gauthier, J.C. Cadiou (2005), Control strategy for planar vertical jump, ICAR’05, August 2005, Seattle, USA.

V. Nunez, N. Nadjar-Gauthier (2005), Control strategy for vertical jump of humanoids robots, IEEE/RSJ International Conference on Intelligent Robots and Systems, August 2005, Edmonton, Alberta, Canada.

V. Nunez, N. Nadjar-Gauthier (2005), Humanoid vertical jump with compliant contact, Clawar’05, Sept. 2005, London; England.