IFMA & Blaise Pascal University
Clermont-Ferrand

Curriculum vitae

presented by

Philippe Martinet

Full Professor at IFMA

Researcher at LASMEA

Contents

1 Personal data

Philippe Martinet
Born february 3rd, 1962 in Clermont-Ferrand (Puy-de-Dôme)
French Citizen
Single

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2 Educational and professional records

Educational Record

Year	Diploma	University	Place
1982	DEUG A1 Mathematics/Physics	Blaise Pascal University	Clermont-Fd
1985	Engineer : Electronics	CUST - Blaise Pascal University	Clermont-Fd
1985	MASTER : Electronics and System	Blaise Pascal University	Clermont-Fd
1987	Phd : Electronics and System	Blaise Pascal University	Clermont-Fd
1999	Habilitation	Blaise Pascal University	Clermont-Fd

Professional Record

Year	Position	Site	Place
1987	Head of Test group	CSEE	Riom (63)
1990	Sales engineer	GST-Alcatel Centre	Clermont-Fd
1990	Assistant professor	CUST - Blaise Pascal University	Clermont-Fd
1995	Assistant professor 1st class	CUST - Blaise Pascal University	Clermont-Fd
1999	Habilitation january 20th	Blaise Pascal University	Clermont-Fd
2000	Full professor	IFMA	Clermont-Fd
2005	Full professor : 1st class	IFMA - Blaise Pascal University	Clermont-Fd
99-06	Head of Robotic System Control Team	LASMEA - Blaise Pascal University	Clermont-Fd
01-06	Head of GRAVIR	LASMEA - Blaise Pascal University	Clermont-Fd

After my Phd Thesis, I decided to take a position in industry. From september 1987 until 1990, I was the head of the Test Group (total staff 11 persons) at CSEE. The main goals of the group were : software development for electronic board testing, design of automatic and manual test-bench, software development for cable continuity testing. During these three years, I discovered the main aspects of a group leader. Since I entered the engineering educational system, this experience helps me everyday.

From 1990 until 2000, I was assistant professor at CUST, in the Electrical Engineering Departement. I took in charge the International Exchange Program and one of the main specialization in Industrial Computer Sciences. I participated in several committees at local and national level, and I developed a set of new courses including labs.

From 1990 until 1999, I prepared my Habilitation inside the research group GRAVIR at LASMEA driven by Professor Jean Gallice. My main research activity was "Visual Servoing". I defended it on january 20th, 1999 in Clermont-Ferrand. The jury was composed as follow:

Name	Function	Title
Bernard Espiau	President Examinator	Director of research at INRIA
François Chaumette	Reviewer	Researcher (HdR) at IRISA
Philippe Coiffet	Reviewer	Director of Research at CNRS
Jean Gallice	Examinator	Full Professor
Giulio Sandini	Reviewer	Full Professor at Genova University
Michel Dhome	Examinator	Director of Research at CNRS
Michel Berducat	Invited	Research Engineer at Cemagref

3   Current position : main facts

Since september 2000, I am professor at IFMA (French Institute for Advanced Mechanical Engineering). I set up a Mechatronics orientation in the cursus, and I initiated research collaboration between LAMI (**LA**boratoire de **M**écanique **I**ngénierie) and LASMEA (**LA**boratoire des **S**ciences et **M**atériaux pour l'**E**lectronique, et d'**A**utomatique).

Since 2001, I am elected as the head of the Automatic, Vision and Robotic Research Group - *GRAVIR* - at LASMEA. This group is currently composed of 26 permanent people, 32 phd students, 4 post-doc students, and 4 technical staff. Adding Master and staying period students, the size of the group is over 70 persons. The main research themes are : *Perception System*, *Artificial Vision* and *Robotic System Control*.

Since my habilitation in 1999, I lead the *Robotic System Control* team inside the research group GRAVIR. In 2006, we are 4 permanent people (one professor *P. Martinet*, three assistant professors *N. Andreff, Y. Mezouar, B. Thuilot*), 8 Ph.d students (*G. Blanc, C. Cariou, J. Bom, T. Dallej, P.O. Gustave, H. Hadj Abdelkader, F. Paccot, T. Virin*) and 2 post-doc (*G. Recatalla Ballester, O. Ait Aider*). I have to say that the result of scientific work is mainly due to the whole team. The main research topics are :

- **VISIR** : Visual servoing of robot (*Omnidirectional visual servoing, Topological navigation through sensory memory, Multi-sensor-based control*)

- **AGV** : Automatic Guided Vehicles (*Control design under uncertain dynamics, Multi-robot system control*)

- **MICMAC** : Modeling, Identification and Control of Complex Machines (*Vision-Based Identification of Parallel Robots, Vision-Based Control of Parallel Robots, Control of High Dynamics System*)

We were and we are engaged in a set of local, national and international projects.

At the local level, we are working in common in a CNRS Research Federation gathering 3 laboratories (LAMI, LIMOS and LASMEA) from the Blaise Pascal University and one research team from Cemagref (Agricultural and environmental engineering Research Institute). We are engaged in two main projects : **V2I** *Innovating Infrastructure and Vehicle* and **M2I** *Innovating Mecanism and Machine.*

At the national level, we are involved in 5 ROBEA-CNRS projects (**MAX** and **MP2** (Complex and parallel machines), **OMNIBOT** (Autonomous navigation with omnidirectional vision sensors), **R2M** (All terrain rover with high mobility capabilities) and **BODEGA** (Autonomous Urban vehicles)), in the **MOBIVIP** (Autonomous Urban vehicles) project founded by the PREDIT research program (dealing with experimentation and innovation in land transport), in **WACIF** (Autonomous navigation in home environment) project founded by the National Network in Software Technologies.

At the international level, we have a collaboration with Jaume I University in Castellon (Spain) and a collaboration with Korea, we are involved in the **EURON** Robotic Network (labelled as a Network of Excellence in the 6th PRCDT European Program) and in an integrated project **NEXT** (with 25 partners) dealing with Next generation Production system (Complex and parallel machines). We have collaboration with a set of national laboratories (IRISA-LAGADIC, INRIA-ICARE, LIRMM, LAAS, LRP, IRCCYN, CREA, HEUDYASIC), French Institutes (CEA, CEMAGREF), French industrial partners (WanyRobotics, FT R&D, ROBOSOFT) and European Indutrial partner (CLAAS).

Further details concerning our team can be found on our web site *http://wwwlasmea.univ-bpclermont.fr/Control.*

I also contributed to the international research community as conference reviewer (ICRA, IROS, ICINCO, IV, CIFA, AISTA, CDC...), conference session chairman (ICRA, IROS, AISTA, ...), program committee member (IROS, ICRA, AISTA, ICINCO, IV, ...), International Journals reviewer (ITRO, TRO, IJRR, IJCV, IJM, JESA, IJOSS,...), National Journal reviewer (TS), Editorial board member (Associate Editor of IEEE-Robotic And Automation Society Conference (ICRA), AE of Journal of Intelligent Service Robotics), IEEE Technical Committee (Algorithms for Planning And Control of Robot Motion) and organizer of international events (summer school, tutorial, workshop) and national event (JNRR03 : National Journeys of Robotics Research).

Since I was recruted in 1990, I have driven **one habilitation**, **9 past Ph.d students, plus 6 in progress** (3 over 6 to be finished in 2006), **9 Master students** and **2 Post-doc**. The result is a set of publications: **15 International Journals, 2 National Journals, 90 International Conferences, 12 International Workshops, 13 National conferences, 1 National Workshop, 2 book chapters**. I have participated in 19 external phd juries (17 as a reviewer), and in one Habilitation jury as reviewer. One of the recent paper was honoured as one of the best paper at the last ECCV.

4 Past research activities

4.1 Ph.D thesis: 1985-1987

My phd was done in collaboration with CEA (Atomic Energy Center) in the field of Digital 64 bit Floating Point Accelerator used in simulation of analog electronic design. Three main aspects were addressed during this Ph.d. The first one was the approximation of classical functions used in description of analog electronic design (log, exp, sin, cos, ...). The second one was dedicated to bit-

slice processor architecture, and the third one was to optimize the implementation of such algorithm in a dedicated 32 bit slice architecture using floating point electronic devices coming from WEITEK.

4.2 Habilitation : 1990-1999

In 1990, I joined the LASMEA in GRAVIR under the responsability of Professor Jean Gallice. My research interest mainly concerned the control aspect (mobile robot control using vision, and visual sevoing for manipulator robot), and the necessary tools to develop in order to implement visual servoing in a real time closed loop control.

My first action (90-94) was to develop a parallel vision architecture dedicated to visual servoing applications. The name of this parallel system was : **Windis** (like Window Distributor). The main characteristics of this system were : windowing, DSP parallel computation, real-time... A collaboration with the INRIA project ICARE was established in this goal, and two prototypes of this parallel system were developed (one for each partners). A set of visual servoing applications were developed in both research centers. In Clermont-Ferrand, this architecture was used with a 6 d.o.f AFMA Cartesian robot. I set up the whole platform.

My second action (90-99) was to contribute to the visual servoing community. We evaluated classical 2D visual servoing approaches (particularly concerning the coupling between laser strip and camera (G. Motyl)) and developed new position-based visual servoing schemes. In addition, we addressed the problem of visual servoing with unknown objects (F. Berry).

My third action (93-99) was to use vision based control techniques in order to guide autonomously mobile robots. We investigated linearized methods and applied classical image based visual servoing (C. Debain). In parallel, we started to study robust controller (H_∞)in order to prevent from variation of camera tilt and camera height (D. Khadraoui). The application fields were robotic in agriculture and autonomous vehicle on highways.

Finally in 98, we just started our first application of autonomous guided vehicle in agriculture using a unique RTK-GPS (L. Cordesses).

5   Bibliography

Accepted journals

Codes	References
ITRA96	Visual Servoing in Robotics Scheme Using a Camera/Laser-Stripe Sensor *D. Khadraoui, G. Motyl, P. Martinet, J. Gallice, F. Chaumette* **IEEE Transactions on Robotics and Automation** volume 12, n° 5, pp. 743-750, USA, October 1996
IJRR98	Vision Based Control in Driving Assistance of Agricultural Vehicles *D. Khadraoui, R. Rouveure, C. Debain, P. Martinet, P. Bonton, J. Gallice* **International Journal of Robotics Research** volume 17, n° 10, pp. 1040-1054, October 1998
AR00	Automatic Guided Vehicles: Robust Controller Design in Image Space *P. Martinet, C. Thibaud* **Autonomous Robots** volume 8, n° 1, pp. 25-42, January 2000
CEA00	A guidance-assistance system for agricultural vehicles *C. Debain, T. Chateau, M. Berducat, P. Martinet, P. Bonton* **Computers and Electronics in Agriculture (ELSEVIER)** volume 25, n° 1-2, pp. 29-51, January 2000
IEICE00	Real Time Visual Servoing Around a Complex Object *F. Berry, P. Martinet, J. Gallice* **IEICE Transaction on Information and Systems,** **Special issue on Machine Vision Application** pp 1358-1368, volume E83, number 7 , July 2000
AR02	Automatic guidance of a farm tractor relying on a RTK GPS *B. Thuilot, C. Cariou, P. Martinet, M. Berducat* **Autonomous Robots** volume , n° 13, pp. 53-71, July 2002
RMP02	Robotic manipulation with stereo visual servoing *B. E. Cervera, P. Martinet, F. Berry* **Robotics and Machine Perception, SPIE International Group Newsletter** vol. 11, n° 1, pp. 3, July, 2002
IJRR03	Improving Image-Based Visual Servoing with 3D Features *E. Cervera, F. Berry, P. Martinet, A. Del Pobil* **International Journal of Robotics Research** volume 22, n. 10-11, pp. 821-839, October-November 2003
JESA03	Guidage automatique d'un engin agricole par GPS cinématique *C. Cariou, B. Thuilot, P. Martinet, M. Berducat,* **Journal Européen des Systèmes Automatisés, RS série JESA** volume 37, n. 3, pp. 405-433, July, 2003
IJIR04	Vision-based kinematic calibration of a H4 parallel mechanism: Practical accuracies *N. Andreff, P. Renaud, P. Martinet, F. Pierrot* **International Journal of Industrial Robot** volume 31, n° 3, pp. 273-283, 2004
ITRO05	Kinematic calibration of parallel mechanisms: a novel approach using legs observation *P. Renaud, N. Andreff, P. Martinet, G. Gogu* **IEEE Transactions on Robotics and Automation** volume 21, n° 4, pp. 529-538, USA, August 2005

Accepted journals (Continued)

Codes	References
TS05	Asservissement visuel en vision omnidirectionnelle à partir de droites *H. Hadj Abdelkader, Y. Mezouar, P. Martinet, F. Chaumette* **Traitement du Signal, numéro spécial "Vision omnidirectionnelle** volume 22, n° 5, pp. , France, October 2005
CEP06	Kinematic and Dynamic Identification of Parallel Mechanisms *P. Renaud, A. Vivas, N. Andreff, P. Poignet, P. Martinet, F. Pierrot, O. Company* **Control Engineering Practice** volume 14, n^o9, pp. 1099-1109, 2006
AR06	High accuracy path tracking for vehicles in presence of sliding: Application to farm vehicle automatic guidance for agricultural tasks *R. Lenain, B. Thuilot, C. Cariou, P. Martinet,* **To appear in Autonomous Robots, Kluwer Academic Publishers**
TRO06	Unifying Kinematic Modeling, Identification and Control of a Gough-Stewart Parallel Robot into a Vision-based Framework *N. Andreff, P. Martinet,* **To appear in IEEE Transactions on Robotics and Automation**
JRAS06	Trajectory Tracking Control of Farm Vehicles in Presence of Sliding *H. Fang, B. Thuilot, P. Martinet,* **To appear in Journal of Robotics and Autonomous Systems**
IJRR06 IJCV06	Image-based Visual Servoing of Gough-Stewart Manipulators using Legs Observation *N. Andreff, T. Dallej, P. Martinet,* **To appear in Joint Issue of IJCV and IJRR on Vision and Robotics**
RA06	Commande de vhicules en prsence de glissement. Application au suivi de trajectoire pour les engins agricoles *R. Lenain, B. Thuilot, M. Berducat, P. Martinet,* **To appear in Revue d'auvergne, Alliance universitaire d'auvergne**

Book chapters

Codes	References
HERMES00	Aide au guidage de véhicules agricoles *C. Debain, M. Berducat, P. Martinet, P. Bonton* **Applications non manufactutières de la robotique, Systèmes automatisés,** **Information - Commande - Communications, Hermes Sciences** ISBN 2-7462-0165-8, sous la direction de Pierre Dauchez, pp. 64-75, 2000
NOVA06	Accurate gps-based guidance of agricultural vehicles operating on slippery grounds *B. Thuilot, R. Lenain, P. Martinet, C. Cariou* **to appear In F. Colombus editor, editor, Focus on Robotics** **and Intelligent Systems Research. Nova Science publisher, 2006**

Internal reports

Codes	References
RR898	Visual Servoing in Robotics Scheme Using a Camera/Laser-Stripe Sensor *D. Khadraoui, G. Motyl, P. Martinet, J. Gallice, F. Chaumette* **IRISA, Internal Research Report, n° 898** *(26 pages)*
HDR99	Asservissement visuel *P. Martinet* **Habilitation à diriger des Recherches** January the 20th, 1999
ISR00	Stereovision in Visual Servoing Applications *P. Martinet, E. Cervera* **Robotic Intelligence Laboratory, Internal Scientific Report** ISR2000-01, University of Jaume I, Castelló, SPAIN, 2000, *(68 pages)*

International Conferences

Codes	References
ICAR93	Visual Servoing with respect to a Target Using a Camera/Laser-Stripe Sensor *G. Motyl, P. Martinet, J. Gallice* **International Conference on Advanced Robotics** ICAR'93 pp 591-596, Tokyo, Japon, 1-2 November 1993
STS94	Real Time 3D Location of a Car from Three Characteristic Points observed in a Video Image Sequence *E. Montagne, J. Alizon, P. Martinet, J. Gallice* 7th **IFAC/IFORS Symposium on Transportation Systems** STS94, pp 385-390, Tianjin, China, August 1994
QCAV95	Asservissement Visuel d'Engins Agricoles par Commande Référencée Vision *C. Debain, M. Derras, D. Khadraoui, P. Martinet, P. Bonton* **International Conference on Quality Control by Artifical Vision** QCAV'95, pp 250-260, Le Ceusot, France, 17-19 May 1995
IAV95	A Global Road Scene Analysis System for Autonomous Vehicles *F. Jurie, P. Martinet, J. Gallice* n^{nd} **IFAC Conference on Intelligent Autonomous Vehicles** IAV'95, pp 19-24, Helsinki, Finland, 12-14 June 1995
ICIA95	Linear Control of High Speed Vehicle in Image Space *D. Khadraoui, P. Martinet, J. Gallice* 2nd **International Conference on Industrial Automation** ICIA'95, vol. 2, pp 517-522, Nancy, France, 7-9 June 1995
ICRA96	Use of the First Derivative of Geometric Features in Visual Servoing *P. Martinet, F. Berry, J. Gallice* **IEEE International Conference on Robotics and Automation** ICRA'96, vol. 4, pp 3413-3419, Minneapolis, Minnesota, USA, 22-28 April 1996
WAC96	Vision Based Control Law using 3D Visual Features *P. Martinet, J. Gallice, D. Khadraoui* **World Automation Congress - Robotics and Manufacturing Systems** WAC'96, vol. 3, pp 497-502, Montpellier, France, 28-30 May 1996
SYROCO97	Controller Synthesis Applied to Automatic Guided Vehicles *P. Martinet, D. Khadraoui, C. Thibaud, J. Gallice* 5th **IFAC Symposium on Robot Control** SYROCO'97, Vol. 3, pp 735-742, Nantes, France, 3-5 September 1997
IROS97	Trajectory Generation by Visual Servoing *F. Berry, P. Martinet, J. Gallice* **IEEE/RSJ International Conference on Intelligent Robots and Systems** IROS'97, Vol. 3, pp 1066-1072, Grenoble , France, 7-11 September 1997
IAV98	First results using robust controller synthesis in automatic guided vehicles applications *P. Martinet, C. Thibaud, D. Khadraoui, J. Gallice* 3rd **IFAC Symposium on Intelligent Autonomous Vehicles** IAV'98, Vol. 1, pp 204-209, Madrid, Spain, 25-27 March 1998
AVCS98	Robust controller synthesis in automatic guided vehicles applications *P. Martinet, C. Thibaud, B. Thuilot, J. Gallice* **International Conference on Advances in Vehicle Control and Safety** AVCS'98, pp 395-401, Amiens , France , 1-3 July 1998

International Conferences (Continued)

Codes	References
AVCS98	A real time car tracker *F. Marmoiton, F. Collange, P. Martinet, J.P. Derutin* **International Conference on Advances in Vehicle Control and Safety** AVCS'98, pp 282-287, Amiens , France , 1-3 July 1998
FIR98	Automatic Guided Vehicles in Agricultural and Green Space Fields *P. Martinet, P. Bonton, J. Gallice, M. Berducat, C. Debain, R. Rouveure* 4th **French - Isralei Symposium on Robotics** FIR'98, pp. 87-92, Besançon, France, 13-14 May 1998
ISARC99	GPS-based control of a land vehicle *L. Cordesses, P. Martinet, B. Thuilot, M. Berducat* 16th **IAARC/IFAC/IEEE International Symposium on** **Automation and Robotics in Construction** ISARC'99, pp 41-46, Madrid, Spain, 22-24 September 1999
ION-GPS99	CP-DGPS based combine harvester control without orientation sensor *L. Cordesses, C. Cariou, P. Martinet, C. Thibaud* **ION-GPS Meeting** ION-GPS'99, CDROM, pp 2041-2046, Nashville, Tennessee, USA, 14-17 September 1999
ECC99	Comparison of Visual servoing Techniques: Experimental Results *P. Martinet* **European Control Conference** ECC'99, CDROM, papier 1059-4, Karlsruhe, Germany, 31 August - 3 September 1999
IROS99	Position based visual servoing using a nonlinear approach *P. Martinet, J. Gallice* **IEEE/RSJ International Conference on Intelligent Robots and Systems** IROS'99, Vol. 1, pp 531-536, Kyongju, Korea, 17-21 October 1999
IROS99	Visual feedback in camera motion generation: Experimental results *F. Berry, P. Martinet, J. Gallice* **IEEE/RSJ International Conference on Intelligent Robots and Systems** IROS'99, Vol. 1, pp 513-518, Kyongju, Korea, 17-21 October 1999
IROS99	Visual Servoing with Indirect Image Control and a Predictable Camera Trajectory *E. Cervera, P. Martinet* **IEEE/RSJ International Conference on Intelligent Robots and Systems** IROS'99, Vol. 1, pp 381-386, Kyongju, Korea, 17-21 October 1999
ICAR99	Combining Pixel and Depth Information in Image-Based Visual Servoing *E. Cervera, P. Martinet* 9th **International Conference on Advanced Robotics** ICAR'99, pp 445-450, Tokyo, Japan, 25-27 October 1999
IROS00	Turning around an unknown object using visual servoing *F. Berry, P. Martinet, J. Gallice* **IEEE/RSJ International Conference on Intelligent Robots and Systems** IROS'2000, pp 257-262, vol. 1, Takamatsu, Japan, 1-4 November 2000
AGENG00	Vehicle guidance using CP-DGPS : comparison of two heading estimators *L. Cordesses, C. Cariou, P. Martinet, M. Berducat* **Agricultural Engineering Conference** Silsoe Research Institute, University of Warwick, England, 2-7 July 2000

International Conferences (Continued)

Codes	References
SYROCO00	Curved path following of a farm tractor using a CP-DGPS *L. Cordesses, B. Thuilot, P. Martinet, C. Cariou* **6th IFAC Symposium on Robot Control** SYROCO'2000, pp 13-18, vol. 1, Vienne, Autriche, 21-23 September 2000
ICRA01	Stacking Jacobians Properly in Stereo Visual Servoing *P. Martinet, E. Cervera* **IEEE International Conference on Robotics and Automation** ICRA'01, pp 717 -722, vol.1, Seoul, Korea, 23-25 May 2001
ICRA01	Object Tracking with a Pan Tilt Zoom Camera application to car driving assistance *X. Clady, F. Collange, F. Jurie, P. Martinet* **IEEE International Conference on Robotics and Automation** ICRA'01, pp 1653 -1658, vol.2, Seoul, Korea, 23-25 May 2001
ISCCV01	Tracking with a pan-tilt-zoom camera for an ACC system *X. Clady, F. Collange, F. Jurie, P. Martinet* **12th IAPR Scandinavian Conference on Computer Vision** ISCCV'01, pp 561-566, Bergen, Norway, June 2001.
ECPA01	CP-DGPS farm tractor control along curved path *C. Cariou, L. Cordesses, B. Thuilot, P. Martinet* **3^{rd}European Conference on Precision Agriculture** ECPA'2001, Montpellier, France, 18-21 june 2001
IROS01	Automatic guidance of a farm tractor along curved paths, using a unique CP-DGPS *B. Thuilot, C. Cariou, L. Cordesses, P. Martinet* **IEEE/RSJ International conference on Intelligent Robots and Systems** pp 674 -679, vol.2 , Maui , Hawai, 29 october - 3 november 2001
ICRA02	Is 3D useful in stereo visual servoing? *P. Martinet, F. Berry, E. Cervera* **IEEE International Conference on Robotics and Automation** ICRA'02, pp 1630-1635, Washington DC, USA, 13-18 May 2002
ICRA02	Position based visual servoing : keeping the object in the field of vision *B. Thuilot, P. Martinet, L. Cordesses, J. Gallice* **IEEE International Conference on Robotics and Automation** ICRA'02, pp 1624-1629, Washington DC, USA, 13-18 May 2002
IDMME02	Dynamic Identification of Mechanisms using a Robust Design of Experiments *P. Renaud, N. Andreff, G. Gogu, P. Martinet* **International Conference on Integrated Design and Manufacturing in Mechanical Engineering** IDMME'02, ISBN 2-9518169-0-1, Clermont-Fd, France, 14-16 May 2002
IFAC02	Image Based stereo visual servoing : 2D vs 3D visual features *E. Cervera, F. Berry, P. Martinet* **International IFAC Conference** IFAC'02, pp , Barcelona, Spain, 22-26 July 2002
IROS02	Experimental Evaluation of a Vision-Based Measuring Device for Parallel Machine-Tool Calibration *P. Renaud, N.Andreff, M. Dhome, P. Martinet* **IEEE/RSJ International conference on Intelligent Robots and Systems** IROS'02, pp 1868-1873, Lausanne, Switzerland, October, 2002, ISBN 0-7803-7399-5

Codes	References
ISR02	Active vision based on CMOS camera : an active detector approach *P. Chalimbaud , F. Berry , P. Martinet* **International Symposium on Robots** ISR'02, CDROM , Stockholm, Sweden, October 7-11th, 2002
ICRA03	Adaptive control for car like vehicles guidance relying on RTK GPS: rejection of sliding effects in agricultural applications *R. Lenain, B. Thuilot, C. Cariou, P. Martinet* **IEEE International Conference on Robotics and Automation** ICRA'03, pp 115-120, Taipei, Taiwan, September 14-19th, 2003, ISBN 0-7803-7737-0
ICRA03	Vision-based Kinematic Calibration of a H4 parallel mechanism *P. Renaud, N. Andreff, F. Marquet, P. Martinet* **IEEE International Conference on Robotics and Automation** ICRA'03, pp 1191-1196, Taipei, Taiwan, September 14-19th, 2003, ISBN 0-7803-7737-0
IROS03	Rejection of sliding effects on car like robot control: application to farm vehicle guidance using a single RTK-GPS sensor *R. Lenain, B. Thuilot, C. Cariou, P. Martinet* **IEEE/RSJ International conference on Intelligent Robots and Systems** IROS'03, pp 3811-3816, Las Vegas, Nevada, USA, October 27-31th, 2003
SYSID03	On Vision-based Kinematic Calibration of n-leg parallel mechanisms *P. Renaud, N. Andreff, G. Gogu , P. Martinet* **13th IFAC Symposium on System Identification** SYSID'03, Rotterdam, Pays-Bas, August 2003
ICAR03	Stereo Visual Servoing with Oriented Blobs *E. Cervera, F. Berry, P. Martinet* 11th **IEEE International Conference on Advanced Robotics** ICAR'03, pp 977-982, Coimbra, Portugal, June 30th-July 4th, 2003
IV03	Cars detection and tracking with a vision sensor *X. Clady, F. Collange, F. Jurie, P. Martinet* **IEEE Intelligent Vehicles Symposium** IV'03, pp 593-598, Colombus, Ohaio, USA, June 9-11th, 2003
IFTOMM03	On Vision-based Kinematic Calibration of a Stewart-Gough Platform *P. Renaud, N. Andreff, G. Gogu, P. Martinet* **IFTOMM World Congress in Mechanism and Machine Science** IFTOMM'03, pp , Tianjin, Chine, delayed in April 2004
ISR04	Paracatadioptric visual servoing from lines *H. Hadj Abdelkader, Y. Mezouar, P. Martinet* 35th **International Symposium on Robotics** ISR'04, paper 117, Paris, France, March 23-26th, 2004
ISR04	Non-Linear control for car like mobile robots in presence of sliding : Application to guidance of farm vehicles using a single RTK-GPS *P. Lenain, B. Thuilot, C. Cariou, P. Martinet* 35th **International Symposium on Robotics** ISR'04, paper 033, Paris, France, March 23-26th, 2004
ISR04	Indoor Navigation of Mobile Robot: An Image Based Approach *G. Blanc, Y. Mezouar, T. Chateau, P. Martinet* 35th **International Symposium on Robotics** ISR'04, paper 010, Paris, France, March 23-26th, 2004

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Codes	References
ICRA04	A new nonlinear control for vehicle in sliding conditions *R. Lenain, B. Thuilot, C. Cariou, P. Martinet* **IEEE International Conference on Robotics and Automation** ICRA'04, pp 4381-4386, New-Orleans, USA, April 26th-May 1st, 2004
ICRA04	Combining end-effector and legs observation for kinematic calibration of parallel mechanisms *P. Renaud, N. Andreff, F. Pierrot, P. Martinet* **IEEE International Conference on Robotics and Automation** ICRA'04, pp 4116-4121, New-Orleans, USA, April 26th-May 1st, 2004
OMNIVIS04	Visual Servoing from 3D Straight Lines with Central Catadioptric Cameras *Y. Mezouar, H. Hadj Abdelkader, P. Martinet, F. Chaumette* **The fifth Workshop on Omnidirectional Vision, Camera Networks** **and Non-classical cameras** OMNIVIS'04, pp , Prague, Czech Republic, May 16th, 2004
IAV04	Autonomous image based navigation in indoor environment *G. Blanc, O. Ait Ader, Y. Mezouar, T. Chateau, P. Martinet* **The fifth IFAC Symposium on Intelligent Autonomous Vehicles** IAV'04, pp , Instituto Superior Técnico, Lisbon, Portugal, July 5-7th, 2004
IAV04	Accurate automatic guidance of an urban electric vehicle relying on a kinematic GPS sensor *B. Thuilot, J. Bom, F. Marmoiton, P. Martinet* **The fifth IFAC Symposium on Intelligent Autonomous Vehicles** IAV'04, pp , Instituto Superior Técnico, Lisbon, Portugal, July 5-7th, 2004
ISRA04	An image driven vision based control framework for wheeled mobile robots *G. Blanc, Y. Mezouar, P. Martinet* **The International Symposium on Robotics and Automation** ISRA'04, pp 507-512, Queretaro, Mexico, August 25-27th, 2004
ISRA04	Sliding mode control of automatic guidance farm vehicles in the presence of sliding *F. Hao, R. Lenain, B. Thuilot, P. Martinet* **The International Symposium on Robotics and Automation** ISRA'04, pp 582-587, Queretaro, Mexico, August 25-27th, 2004
IROS04	Adaptive and predictive nonlinear control for sliding vehicle guidance : Application to trajectory tracking of farm vehicles relying on a single RTK GPS *R. Lenain, B. Thuilot, C. Cariou, P. Martinet* **IEEE/RSJ International Conference on Intelligent Robots and Systems** IROS'04, pp 455-460, Sendai, Japan, September 28 October 2, 2004
IROS04	Adaptive Towards a reliable vision-based mobile robot formation control *P. Renaud, E. Cervera, P. Martinet* **IEEE/RSJ International Conference on Intelligent Robots and Systems** IROS'04, pp 3176-3181, Sendai, Japan, September 28 October 2, 2004
IROS04	Central Catadioptric Visual Servoing From 3D Straight Lines *Y. Mezouar, H. Hadj Abdelkader, P. Martinet, F. Chaumette* **IEEE/RSJ International Conference on Intelligent Robots and Systems** IROS'04, pp 343-348, Sendai, Japan, September 28 October 2, 2004
AISTA04	Implementation of a vision based navigation framework on a house mobile robot prototype *G. Blanc, T. Chateau, Y. Mezouar, O. Ait-Ader, P. Martinet,* *L. Eck, V. Moreau, A. Nadim,* **International Conference on Advances in Intelligent Systems** **Theory and Applications** AISTA'04, ISBN 2-9599776-8-8 , Kirchberg, Luxembourg, November 15-18th, 2004

Codes	References
ICRA05	Image-based Control of Mobile Robot with Central Catadioptric Cameras *H. Hadj Abdelkader, Y. Mezouar, N. Andreff, P. Martinet* **accepted in IEEE International Conference on Robotics and Automation** ICRA'05, pp. 3533-3538, Barcelona, Spain, April 18-22th, 2005
ICRA05	Nonlinear control for urban vehicles platooning, relying upon a unique kinematic GPS *J. Bom, B. Thuilot, F. Marmoiton, P. Martinet* **IEEE International Conference on Robotics and Automation** ICRA'05, pp. 4149-4154, Barcelona, Spain, April 18-22th, 2005
ICRA05	Robust Adaptive Control of Automatic Guidance of Farm Vehicles in the Presence of Sliding *R. F. Hao, R. Lenain, B. Thuilot, P. Martinet* **IEEE International Conference on Robotics and Automation** ICRA'05, pp. 3113-3118, Barcelona, Spain, April 18-22th, 2005
ICRA05	Model Predictive Control of vehicle in presence of sliding : Application to farm vehicles path tracking *R. Lenain, B. Thuilot, C. Cariou, P. Martinet* **IEEE International Conference on Robotics and Automation** ICRA'05, pp. 897-902, Barcelona, Spain, April 18-22th, 2005
ICRA05	Vision-based control of a Gough-Stewart parallel mechanism using legs observation *N. Andreff, A. Marchadier , P. Martinet* **IEEE International Conference on Robotics and Automation** ICRA'05, pp. 2546-2551, Barcelona, Spain, April 18-22th, 2005
ICRA05	Indoor navigation of a wheeled mobile robot along visual routes *G. Blanc, Y. Mezouar, P. Martinet* **IEEE International Conference on Robotics and Automation** ICRA'05, pp. 3365-3370, Barcelona, Spain, April 18-22th, 2005
IROS05	2 1/2 D Visual Servoing with Central Catadioptric Cameras *H. Hadj Abdelkader, Y. Mezouar, N. Andreff, P. Martinet* **IEEE/RSJ International Conference on Intelligent Robots and Systems** IROS'05, pp. 2342-2347, Edmonton, Canada, August 2-6th, 2005
IROS05	Trajectory Tracking Control of Farm Vehicles in Presence of Sliding *H. Fang, R. Lenain, B. Thuilot, P. Martinet* **IEEE/RSJ International Conference on Intelligent Robots and Systems** IROS'05, pp. 1720-1725, Edmonton, Canada, August 2-6th, 2005
IROS05	A Global Control Strategy for Urban Vehicles Platooning relying on Nonlinear Decoupling Laws *J. Bom, B. Thuilot, F. Marmoiton, P. Martinet* **IEEE/RSJ International Conference on Intelligent Robots and Systems** IROS'05, pp. 1995-2000, Edmonton, Canada, August 2-6th, 2005
ICINCO05	Visually Servoing a Gough-Stewart Parallel Robot Allows for Reduced and Linear Kinematic Calibration *N. Andreff, P. Martinet* **2nd International Conference on Informatics in Control, Automation and Robotics** ICINCO'05, vol. 3, pp. 119-124, Barcelona, Spain, September 14-17th, 2005
ISCFS05	Spatial Optimization of Fertilizer Application by Centrifugal Spreading *T. Virin, E. Piron, J. Koko, P. Martinet, M. Berducat* **1st International Symposium on Centrifugal Fertiliser Spreading** ISCFS'05, pp. 3-5, Leuven, Belgium, 15-16 September, 2005

International Conferences (Continued)

Codes	References
ISMCR05	Control Assistance of a Mobile Robot Navigating into an Encumbered Environment *G. Blanc, J. Roblet, Y. Mezouar, P. Martinet* **15th International Symposium on Measurement and Control in Robotics** ISMCR'05, pp. , Brussels, Belgium, Royal Military Academy, November 8-10th, 2005
ICVS06	Pose and velocity computing of fast moving object using a single view from rolling shutter camera *O. Ait Aider, N. Andreff, J.M. Lavest, P. Martinet* **4th IEEE International Conference on Computer Vision Systems** ICVS'06, pp., New-York City, New-york, USA, January 5-7th, 2006
BIOROB06	3D Grasp Synthesis Based on a Visual Cortex Model *G. Recatala Ballester, Eris Chinellato, A. Del Pobil, Y. Mezouar, P. Martinet* **1st IEEE / RAS-EMBS International Conference** **Biomedical Robotics and Biomechatronics** BioRob'06, pp. , Pisa, Italy, February 20-22th, 2006
EUCOMES06	Projective Kinematic Modelling of Some Parallel Manipulators for Vision-based Control Purposes *N. Andreff, P. Martinet* **1st European Conference on Mechanism Science** EUCOMES'06, pp., Obergurgl, Austria February 2126th, 2006
ICRA06	Simultaneous Pose and Velocity Measurement by Vision for High-Speed Robots *O. Ait Aider, N. Andreff, P. Martinet, J.M. Lavest* **IEEE International Conference on Robotics and Automation** ICRA'06, pp. 3742-3747, Orlando, Florida, USA, Mai 15-19th, 2006
ICRA06	Sideslip angles observer for vehicle guidance in sliding conditions *R. Lenain, B. Thuilot, C. Cariou, P. Martinet* **IEEE International Conference on Robotics and Automation** ICRA'06, pp. 3183-3188, Orlando, Florida, USA, Mai 15-19th, 2006
ICRA06	Omnidirectional visual servoing from polar lines *H. Hadj Abdelkader, Y. Mezouar, N. Andreff, P. Martinet* **IEEE International Conference on Robotics and Automation** ICRA'06, pp. 2385-2390, Orlando, Florida, USA, Mai 15-19th, 2006
ECCV06	Simultaneous Object Pose and Velocity Computation Using a Single View from a Rolling Shutter Camera *O. Ait Aider, N. Andreff, J.M. Lavest, P. Martinet* **9th European Conference on Computer Vision** ECCV'06, pp. 56-68, Graz, Austria May 7-13th, 2006
ICINCO06	On the use of optimization methods for the minimization of fertilizer application error with centrifugal spreaders *T. Virin, J. Koko, E. Piron, P. Martinet* **3rd International Conference on Informatics in Control,** **Automation and Robotics** ICINCO'06, pp. , Setubal, Portugal, 1-5 August, 2006
ICINCO06	Pattern tracking and visual servoing for indoor mobile environment mapping and autonomous navigation *O. Ait Aider, G. Blanc, Y. Mezouar, P. Martinet* **3rd International Conference on Informatics in Control,** **Automation and Robotics** ICINCO'06, pp. , Setubal, Portugal, 1-5 August, 2006

International Conferences (Continued)

Codes	References
ICINCO06	A path planning strategy for obstacle avoidance *G. Blanc, Y. Mezouar, P. Martinet* **3rd International Conference on Informatics in Control,** **Automation and Robotics** ICINCO'06, pp. , Setubal, Portugal, 1-5 August, 2006
MMAR06	A Novel Approach to Vision-Based Computed Torque Control of Parallel Robots *O. Ait Aider, F. Paccot, N. Andreff, P. Martinet* **12th IEEE International Conference on Methods and** **Models in Automation and Robotics** MMAR'06, pp. , Miedzyzdroje, Poland, August 28 - 31, 2006
MMAR06	Homography based visual servoing with omnidirectional cameras: the cases of points and lines *H. Hadj Abdelkader, Y. Mezouar, N. Andreff, P. Martinet* **12th IEEE International Conference on Methods and** **Models in Automation and Robotics** MMAR'06, pp. , Miedzyzdroje, Poland, August 28 - 31, 2006
AGENG06	Minimization of Fertilizer Application Error due to Centrifugal Spreading *T. Virin, J. Koko, E. Piron, P. Martinet* **Proceedings of the Agricultural Engineering for a Better World** AGENG'06, pp. , Bonn, Germany, 3-7 September, 2006
SYROCO06	Image-based Visual Servoing of Gough-Stewart Parallel Manipulators using Legs Observation *N. Andreff, T. Dallej, P. Martinet* **8th International IFAC Symposium on Robot Control** SYROCO'06, pp. , University of Bologna, Italy, September 6 - 8, 2006
CONTROLO06	Image-based Visual Servoing of Gough-Stewart Parallel Manipulators using Legs Observation *T. Virin, J. Koko, E. Piron, P. Martinet, M. Berducat* **7th Portuguese Conference On Automatic Control** CONTROLO'06, pp. , Lisbon, Portugal, 11-13 September, 2006
IROS06	Application Of Optimization Techniques For An Optimal Fertilization By Centrifugal Spreading *T. Virin, J. Koko, E. Piron, P. Martinet, M. Berducat* **IEEE/RSJ International Conference on Intelligent Robots and Systems** IROS'06, pp. , Beijing, China, 9-14 October, 2006
IROS06	3D pose visual servoing relieves parallel robot control from joint sensing *T. Dallej, N. Andreff, Y. Mezouar, P. Martinet* **IEEE/RSJ International Conference on Intelligent Robots and Systems** IROS'06, pp. , Beijing, China, 9-14 October, 2006

International Conferences (Continued)

Codes	References
IROS06	Kinematic Calibration of a Gouf-stewart Platform using and omnidirectional camera *T. Dallej, H. Hadj Abdelkader, N. Andreff, P. Martinet* **IEEE/RSJ International Conference on Intelligent Robots and Systems** IROS'06, pp. , Beijing, China, 9-14 October, 2006
IROS06	Decoupled Homography based visual servoing with omnidirectional camera *H. Hadj Abdelkader, Y. Mezouar, N. Andreff, P. Martinet* **IEEE/RSJ International Conference on Intelligent Robots and Systems** IROS'06, pp. , Beijing, China, 9-14 October, 2006
IECON06	Visual Servoing of Par4 using Leg Observation *T. Dallej , N. Andreff, P. Martinet* **32nd Annual Conference of the IEEE Industrial Electronics Society** IECON'06, pp. , Paris, France, 7-10 november, 2006
IECON06	Vision-based Computed Torque Control for parallel robots *F. Paccot, N. Andreff, P. Martinet, W. Khalil* **32nd Annual Conference of the IEEE Industrial Electronics Society** IECON'06, pp. , Paris, France, 7-10 november, 2006
CDC06	Path planning for image based control with omnidirectional cameras *H. Hadj Abdelkader, Y. Mezouar, P. Martinet* **45th IEEE Conference on Decision and Control** CDC'06, pp. , San Diego, California, USA, 13-15 December, 2006
CDC06	Mobile robots control in presence of sliding : Application to agricultural vehicle path tracking *R. Lenain, B. Thuilot, C. Cariou, P. Martinet* **45th IEEE Conference on Decision and Control** CDC'06, pp. , San Diego, California, USA, 13-15 December, 2006

International Workshops

Codes	References
CAMP91	Parallel Architecture for Visual Servoing Applications *P. Martinet, P. Rives, P. Fickinger, J.J. Borrelly* **Workshop on Computer Architecture for Machine Perception** CAMP'91, pp 407-418, Paris, France, 16-18 December 1991
CAMP93	A Versatile Parallel Architecture for Visual Servoing Applications *P. Rives, J.J. Borrelly, J. Gallice, P. Martinet* **Workshop on Computer Architecture for Machine Perception** CAMP'93, pp 400-409, News Orleans, Louisiana, USA, 15-17 December 1993
IARP95	Vision Based Control Law for Agricultural Mobile Machine *D. Khadraoui, C. Debain, P. Martinet, M. Berducat, J. Gallice* 4th **Workshop on Robotics in Agriculture and the Food Industry** IARP95, pp 109-116, Toulouse, France, 30-31 October 1995
IARP95	A Visual Servoing Approach to Control Agricultural Mobile Machines *C. Debain, D. Khadraoui, M. Berducat, P. Martinet, P. Bonton* 4th **Workshop on Robotics in Agriculture and the Food Industry** IARP95, pp 117-124, Toulouse, France, 30-31 October 1995
IROS97	Robot Control Using 3D Monocular Pose Estimation *P. Martinet, N. Daucher, J. Gallice, M. Dhome* **Workshop on New Trends in Image Based Robot Servoing** IEEE/RSJ International Conference on Intelligent Robots and Systems IROS'97, pp 1-12, Grenoble, France, 7-11 September 1997
MVA98	Real Time Visual Servoing around a complex object *F. Berry, P. Martinet, J. Gallice* **IAPR Workshop on Machine vision Application** MVA'98, pp 254-257, Chiba, Japan, 17-19 November 1998
CAMP03	The task "template tracking" in a sensor dedicated to active vision *P. Chalimbaud , F. Berry , P. Martinet* **Workshop on Computer Architecture for Machine Perception** CAMP'03, pp , News Orleans, Louisiana, USA, 2003
SAFEMOVE04	Accurate automatic guidance of urban electric vehicles *P. Martinet, J. Bom, B. Thuilot, F. Marmoiton* 1st **French-Korean Workshop on Workshop on Dependable Robotic Navigation** SAFEMOVE'04, Suwon, Korea, October 4-5th, 2004
ROMOCO05	Visual Servoing of a Gough-Stewart Parallel Robot without Proprioceptive Sensors *N. Andreff, P. Martinet* **Fifth International Workshop on Robot Motion and Control** ROMOCO'05, pp 225-230, Dymaczewo-Poznan, Poland, June 23-25th, 2005
SWAR05	Adaptive and Predictive Control for Off-road Mobile Robots Path Tracking *R. Lenain, B. Thuilot, M. Berducat, P. Martinet* **3rd Swedish Workshop on Autonomous Robotics** SWAR'05, pp., Stockholm, Sweden, September 1-2th, 2005
SAFEMOVE05	Nonlinear Control strategies for Urban Vehicles Platooning *P. Martinet, J. Bom, B. Thuilot, F. Marmoiton* 2nd **French-Korean Workshop on Dependable Robotic Navigation** SAFEMOVE'05, Suwon, Korea, October 27-28th, 2005

International Workshops (Continued)

Codes	References
IARP05	From autonomous navigation to platooning in urban context *P. Martinet, B. Thuilot* **2nd IARP International Workshop on Adaptive and Intelligent Robots: Present and Future** IARP'05, Moscou, Russia, November 24-26th, 2005

National conferences

Codes	References
AP00	Guidage d'un engin agricole par CP-DGPS : comparaison de deux estimateurs d'orientation *L. Cordesses, C. Cariou, P. Martinet, M. Berducat* **Conférence nationale : La recherche technologique et industrielle** **au service de l'agriculture de précision** AP'2000, Enesad et Cemagref, 6p, Dijon, France, 29-30 mai 2000
GRETSI01	Détection et suivi de véhicules par vision *X. Clady, F. Collange, F. Jurie, B. Thuilot, P. Martinet* **Colloque GRETSI sur le Traitement du Signal et de l'Image** GRETSI'01, CD-ROM, Toulouse, France, 10-13 Septembre 2001
UGV02	Utilisation d'un outils de métrologie par vision pour l'étalonnage de machine outils *P. Renaud, N. Andreff, M. Dhome, P. Martinet* **Conférénce Nationale : Assises 2002 sur l'Usinage Grande Vitesse** UGV'02, pp. 151-160, Lille, France, march 13-14th, 2002
JJCR02	Identification géométrique d'un robot parallèle H4 à l'aide d'un outil de métrologie par vision *P. Renaud, N. Andreff, F. Marquet, M. Dhome, G. Gogu, P. Martinet, F. Pierrot* 16^{mes} **Journées des Jeunes Chercheurs en Robotique** JJCR'02, Villeurbanne, France, September 2002
PRIMECA03	Etalonnage géométrique de mécanismes parallèles par vision *P. Renaud, N. Andreff, G. Gogu, P. Martinet, F. Marquet* **Colloque national AIP Priméca** PRIMECA'03, La Plagne, France, march 2003
RFIA04	Identification géométrique de mécanismes parallèles par vision *P. Renaud, N. Andreff, P. Martinet, G. Gogu, M. Dhome* **Conférence Nationale : Reconnaissance des Formes et Intelligence Artificielle** RFIA'04, pp 341-350, Toulouse, France, January 28-30th, 2004
RFIA04	Utilisation des droites en asservissement visuel omnidirectionnel *Y. Mezouar, H. Hadj Abdelkader, P. Martinet* **Conférence Nationale : Reconnaissance des Formes et Intelligence Artificielle** RFIA'04, pp 1435-1442, Toulouse, France, January 28-30th, 2004
EDSPI05	Une Stratégie de Commande Globale pour le Convoi de Véhicules Urbains basée sur des Lois de Commande Découplées Non-Linéaires *J. Bom, B. Thuilot, F. Marmoiton, P. Martinet* **Journées scientifique de l'Ecole doctorale SPI** EDSPI05, pp., Clermont-Ferrand, France, June 27th, 2005
EDSPI05	Suivi de trajectoire haute précision pour les véhicules tout-terrains *R. Lenain, B. Thuilot, C. Cariou, P. Martinet* **Journées scientifique de l'Ecole doctorale SPI** EDSPI05, pp., Clermont-Ferrand, France, June 27th, 2005
ORASIS05	Commande référencée vision d'une plateforme de Gough-Stewart par observation des éléments cinématiques *T. Dallej, N. Andreff, P. Martinet* **Neuvièmes Journées des Jeunes Chercheurs en Vision par Ordinateur** ORASIS'05, 8 pages, Fournols, France, May 24-27th, 2005
JNRR05	Méthodes de l'automatique pour l'assistance et l'automatisation de la conduite automobile *S. Mammar, P. Martinet, S. Glaser, M. Netto, L. Nouvelière, B. Thuilot* **Journées Nationales de la Recherche en Robotique** JNRR05, pp., Guidel, Morbihan, France, October 5-7th, 2005

National conferences (Continued)

Codes	References
RFIA06	Utilisation des droites polaires en asservissement visuel omnidirectionnel *H. Hadj Abdelkader, Y. Mezouar, N. Andreff, P. Martinet* **Conférence Nationale : Reconnaissance des Formes et Intelligence Artificielle** RFIA'06, paper , Tours, France, January 25-27th, 2006
STIC06	Spatial Optimization of Fertilizer Application by Centrifugal Spreading *T. Virin, J. Koko, E. Piron, P. Martinet, M. Berducat* **4ème Conférence STIC et Environnement** STIC'06, pp. 8C-8D, Narbonne, France, 5-7 Avril, 2006

National Workshops

Codes	References
RFIA06	De la navigation autonome la navigation en convoi *B. Thuilot, P. Martinet, M. Dhome, J.M. Lavest* **Workshop on "Navigation autonome de vhicules en milieu urbain - ROBEA-BODEGA / CNRS-INRIA"** RFIA'06, Tours, France, January 24th, 2006

Research Journey - Tutorials - Summer Schools

Codes	References
SARTA91	Modélisation d'informations visuelles à partir d'un capteur caméra/laser(1) Windis: Architecture parallèle pour les applications d'asservissement visuel(2) *P. Martinet* **Journées du Pôle SARTA** LRP, Paris, 2-3 octobre 1991
SARTA95	Asservissement visuel sur des paramètres 2D ou 3D - Comparaison des 2 approches *P. Martinet* **Journées du Pôle SARTA** LASMEA, Clermont-Ferrand, 3-4 octobre 1995
SYROCO97	AGV for Agricultural and Green Space fields *P. Martinet* **Tutorial on Modelling and Control of Wheeled Mobile Robots:** **Theorethical results and Applications** SYROCO'97, Nantes, France, 2 September 1997.
JAAA97	Asservissement visuel pour le guidage d'engins agricoles *P. Martinet, C. Debain, M. Berducat, P. Bonton, J. Gallice* **Journées Automatique, Agriculture et Agro-Alimentaire** **Club EEA, MENESR, PRC-GdR Automatique et ISIS** J3A'97, pp 213-223, Clermont-Ferrand, France, 28-29 Octobre 1997
GRAVIR98	Commande latérale de robot mobile dans l'espace image *P. Martinet, C. Thibaud, D. Khadraoui, J. Gallice* **Séminaire scientifique du groupe de recherche GRAVIR** **LASMEA, UMR 6602** GRAVIR'98, Clermont-Ferrand, France, 16 Avril 1998
CHMAC99	Commande latérale et longitudinale de véhicule automobile *P. Martinet* **Journées du PRC-GdR CHMAC** CHMAC'99, Cluny , France, 7-8 Septembre 1999
ISIS00	Utilisation de la Stéréovision en asservissement visuel : Cas de la primitive point - Comparaison d'approches *P. Martinet, E. Cervera* **Journées du PRC-GdR ISIS** ISIS'00, Rennes , France, 12 Décembre 2000
EURON01	Visual-Servoing in Robotics *P. Martinet* **EURON Summer School on Robotic and Biologically-Inspired** **Manipulation - Lecture in english** EURON'01, Benicassim , Spain, 10-14 September 2001
EURON02	Visual-Servoing - Introduction to Robotics *P. Martinet* **EURON Summer School on Visual Servoing : Lecture in english** EURON'02, Benicassim , Spain, 16-20 September 2002
EURON04 IROS04	A tutorial on Advanced Visual Servoing *P. Martinet* **IEEE/RSJ International Conference on Intelligent Robots and Systems** **Introduction to Visual servoing - Lecture in english** EURON-IROS'04, Sendai, Japan, September 26th, web-site http://www.robot.uji.es/EURON/visualservoing/tutorial/

Research Journey - Tutorials - Summer Schools

Codes	References
SSIR06	Visual-Servoing *P. Martinet* **Summer School on Image and Robotics : Lecture in english** SSIR'06, Montpellier, France, 3-14 July 2006

6 Supervisory staff

MASTER

Year	Name	Subject
1992	Khadraoui Djamel	Commande Référencée Vision - Application à la robotique Mobile
1993	Perez Nuria	Etude et Implantation d'algorithmes d'extraction de primitives sur la machine parallèle Windis
1994	Borel Isabelle	Stratégie de gestion multi-fenêtrage en vision active (1.5 mois)
1994	Berry François	Développement et intégration sur une plateforme robotique de suivi de primitives à partir de la mesure du flot optique
1995	Cariou Christophe	Modélisation de primitives dynamiques en vision active
1996	Mars Jean-Pierre	Etude et réalisation d'un modèle dynamique d'un robot cartésien
1997	Leperon Christophe	Etude et implantation d'une loi de commande dynamique sur robot cartésien
1998	Mezouar Youcef	Comparaison de lois de commande 2D et 3D
2002	Guillaume Blanc	Saisie d'objets par vision : couplage vision/force

Post-Doct

Year	Name	Subject
98-99	Enric Cervera From 01/09/98 to 31/02/99	Comparaison de lois de commande 2D et 3D *Supervisor : P. Martinet*
03-04	Fang Hao From 01/12/03 to 31/11/04	Modélisation et commande d'engins mobiles sur terrains à surface variable et accidentés *Supervisor : P. Martinet*

PhD Thesis

Year	Name	Subject	Jury
92-96	Khadraoui Djamel 13/12/96	La commande référencée vision pour le guidage de véhicules *PhD supervisor : J. Gallice*	*President* B. Espiau *Rev.* B. Espiau - W. Khalil *Ex.* J. Gallice - C. Thibaud *Ex.* P. Martinet - F. Chaumette
93-96	Debain Christophe 13/09/96	Lois de commande pour le contrôle et la mobilité de Machines agricoles *PhD supervisor : P. Bonton*	*President* J. Gallice *Rev.* A. Fournier - P. Rives *Ex.* P. Bonton - M. Berducat *Ex.* P. Martinet *Inv.* J.P. Catros
95-98	Berry François 02/02/99	Contournement d'objets complexes par asservissement visuel *PhD supervisor : J. Gallice*	*President* M. Dhome *Rev.* F. Chaumette - D. Meizel *Ex.* J. Gallice - P. Martinet
97-01	Cordesses Lionel 18/07/01	Guidage de robots mobiles par GPS cinématique *PhD supervisor : J. Gallice*	*President* J. Gallice *Rev.* W. Khalil - D. Meizel *Ex.* B. Thuilot - P. Martinet *Ex.* F. Peyret *Inv.* M. Berducat - C. Cariou
99-03	Clady Xavier 06/01/03	Contribution à la navigation autonome de véhicule automobile par vision *PhD supervisor : P. Martinet*	*President* J. M. Blosseville *Rev.* C. Laurgeau - M. Devy *Ex.* F. Collange - F. Jurie *Ex.* P. Martinet
00-03	Renaud Pierre 25/09/03	Apport de la vision pour l'identification des machines complexes et des robots *PhD supervisor :* *G. Gogu, P. Martinet*	*President* J.P. Merlet *Rev.* W. Khalil - F. Pierrot *Ex.* G. Gogu - P. Martinet *Ex.* J.M. Lavest
01-04	Chalimbaud Pierre 17/12/04	Conception d'une plateforme d'implémen- tation matérielle dédiée aux systèmes de vision active basés sur un imageur CMOS *PhD supervisor : P. Martinet*	*President* Y. Ni *Rev.* R. Zapata - D. Demigny *Ex.* F. Berry - J. Serot *Ex.* P. Martinet
02-05	Lenain Roland 14/11/05	Contrôle de la mobilité de véhicule en présence de glissements par RTK-GPS *PhD supervisor : P. Martinet*	*President* W. Khalil *Rev.* B. D'Andrea Novel - N. M'sirdi *Rev.* R. Johansson *Ex.* B. Thuilot *Ex.* M. Berducat - M. Richetin
02-06	Bom Jonathan 20/07/06	Etude et mise en convoi d'un véhicule urbain avec accrochage immatériel *PhD supervisor : P. Martinet*	*President* R. Chapuis *Rev.* B. Jouvencel, N. Lefort-Piat *Ex.* P. Martinet, B. Thuilot *Ex.* D. Salle
02-06	Blanc Guillaume	Navigation autonome d'un robot mobile d'intérieur par vision artificielle *PhD supervisor : P. Martinet*	In progress : last year
03-06	Hadj Abedlkader Hicham	Utilisation de la vision omnidirectionnelle pour la commande de robot *PhD supervisor : P. Martinet*	In progress : last year
03-06	Virin Teddy	Commande optimale de l'épandage centrifuge *PhD supervisor : P. Martinet*	In progress : last year

PhD Thesis

Year	Name	Subject	Jury
04-07	Pierre-Olivier Gustave	Modélisation objet et commande d'un système distribué temps réel, adapté à un dispositif de vente automatique robotisé *PhD supervisors* *J.L. Imbert, P. Martinet*	In progress : *3rd* year
04-07	Tej Dallej	Asservissement visuel des robots parallèles par observation des jambes *PhD supervisor : P. Martinet*	In progress : *3rd* year
05-08	Flavien Paccot	Asservissement visuel dynamique des robots parallèles *PhD supervisor : P. Martinet*	In progress : *2nd* year
06-09	Christophe Cariou	Commande d'un véhicule non holonome en environnement naturel *PhD supervisor : P. Martinet*	In progress : *2nd* year

Participation in internal Habilitation jurys

Year	Name	Subject	Jury
2006	Nicolas Andreff	Des droites et des robots	*President* M. Richetin *Rev.* W. Khalil, J.P. Merlet *Rev.* B. Siciliano *Ex.* F. Chaumette, G. Gogu,
	13/07/2006	Habilitation supervisor : P. Martinet	*Ex.* P. Martinet

Participation in external PhD jurys

Year	Name	Subject	Func.	Laboratory
1999	Armel Cretual	Asservissement visuel à partir d'informations de mouvement dans l'image	Ex.	IRISA Vista Project
2001	Jean-Michel Gaudin	Conception d'un système hybride GPS-Estime pour la localisation en condition de visibilité satellitaire réduite	*Rev.*	LIRMM Cemagref
2001	Youcef Mezouar	Planification de trajectoires pour l'asservissement visuel	*Rev.*	IRISA Vista Project
2001	Cyril Cauchois	Modélisation et calibration du capteur Omnidirectionnel SYCLOP : Application à la localisation absolue en milieu structuré	*Rev.*	CREA Amiens
2001	Erwann Lavarec	Estimation de mouvements 3D à l'aide d'une caméra et de capteurs proprioceptifs	*Rev.*	LIRMM Montpellier
2002	Patrice Wira	Réseaux neuromimétiques, modularité et statistiques : estimation du mouvement pour l'asservissement visuel	*Rev.*	MIPS-TROP Mulhouse
2002	Delphine Bellot	Contribution à l'analyse et à la synthèse de schémas de commande référencée vision	*Ex.*	LAAS Toulouse
2002	Jérome Albaric	Commande d'une plate-forme multi manipulateurs mobiles non-holonomes par actions réflexes	*Rev.*	LIRMM Montpellier
2002	Vincent Creuze	Navigation référencée terrain pour véhicule autonome sous-marin	*Rev.*	LIRMM Montpellier
2002	Frédéric Marquet	Contribution à l'étude de l'apport de la redondance en robotique parallèle	*Rev.*	LIRMM Montpellier
2002	Raul Marin	The UJI Online robot : a distributed architecture for pattern recognition, autonomous grasping and augmented reality	*Rev.*	Jaume I university Robotic Intelligence Laboratory, Castellon, Spain
2003	Gabriel Recatalla Ballester	Visual determination, tracking and execution of 2D grasps using a behavior-inspired approach	*Rev.*	Jaume I university Robotic Intelligence Laboratory, Castellon, Spain
2003	Christophe Coue	Modéle bayèsien pour l'analyse multimodale d'environnements dynamiques et encombrés : Application à l'assistance à la conduite en milieu urbain	*Rev.*	INRIA Rhone-Alpes Emotion Grenoble
2003	Alexandre Krupa	Commande par vision d'un robot de chirurgie laparoscopique	*Rev.*	LSIIT Strasbourg
2003	Karima Rochdi	Etude, commande et applications du translateur piézo-electrique en basse tension	*Rev.*	LAB Besançon
2004	Omar Tahri	Application des moments à l'asservissement visuel et au calcul de pose	*Rev.*	IRISA Vista Project
2004	François Guerin	Commande conjuguée d'un robot mobile Modélisation dynamique et vision artificielle	*Rev.*	GREAH Le Havre

Participation in external PhD jurys

Year	Name	Subject	Func.	Laboratory
2004	Andres Vivas	Contribution à l'identification et à la commande des robots parallèles	*Rev.*	LIRMM Montpellier
2006	Radu Orghidan	Catadioptric Stereo based on Structured Light Projection	*Rev.*	Girona University

Participation in external Habilitation jurys

Year	Name	Subject	Func.	Laboratory
2005	François Peyret	Robotique de chantier : la localisation appliquée à la construction des routes intégrées par ordinateur	*Rev.*	IRCCyN Nantes