

Personal Data

Jean-Bernard Hayet
13, avenue Albert Bedouce
Appt. 5
31400 Toulouse, France
Tel: +33 534 31 61 96
e-mail: Jean-Bernard.Hayet@ensta.org
<http://www.laas.fr/~jbhayet/>

Born 12.23.1976 in Bayonne, France

Profile I'm strongly interested in *computer vision and robotics*.

Education

- 2003 **PhD degree** in computer science and robotics, from Paul Sabatier University, Toulouse. I did my PhD in the [Robotics and Artificial Intelligence Group](#) of [LAAS-CNRS](#), Toulouse, France. My thesis was about the use of planar, visual landmarks by mobile robots to perform the navigation task. One of its realizations was a robust remotely teleoperated demonstration of the abilities of our robot (see <http://www.laas.fr/jbhayet/thesis/results.php> for some results and videos). Such a work implied the definition of pattern recognition, classification, image processing and computer vision methods in order to manage landmarks detection, recognition, learning, localization.
- 1999 **DEA degree** (French equivalent of Master Degree) in Artificial Intelligence and Pattern Recognition in Pierre and Marie Curie University (Paris VI)
- 1999 **Engineer degree** from École Nationale Supérieure de Techniques Avancées ([ENSTA](#)), top-ranked French “Grande école”. My specialization was mainly centered on image processing, automatics and robotics.
- 1995 Baccalauréat (Scientific section, “very good” mention)

Studentships

- 1999-2003 BDI Ph.D. studentship from *CNRS*.

Foreign Languages

- | | |
|---------|---------------|
| French | mother tongue |
| English | fluent |
| Spanish | fluent |
| German | beginner |

Computing Skills

- | | |
|--------------|---|
| Platforms | Windows 32s, UNIX (Solaris, Linux, OpenBSD), VxWorks |
| Programming | C (advanced), C++, Tcl/Tk, Java, HTML, PHP (beginner). |
| Applications | Matlab, $\text{\LaTeX}$, emacs, Word, PowerPoint, Image processing softwares (Khoros, Aphelion)... |
| Areas | Artificial Intelligence, Robotics, Automatics, Computer Vision, Image Processing. |

Work experience and realizations

- 2003 Postdoctoral stay at LAAS-CNRS : development and integration of functions to handle the fusion of uncertain localization estimators ; development of face detection procedures.
- 1999-2003 Development of visual-based localization functions for a mobile robot at LAAS-CNRS. [Integration](#) onboard of the LAAS XR4000 robot.
- 2000-2001 Short stay at University of Illinois at Urbana-Champaign (Beckman Institute). Development of strategies to use visual landmarks in qualitative navigation.

1998 Development of a MS Access database and interface for Peugeot SA to improve the recycling process of used cars.

Other experience with computer vision

1999-2001 I managed the [SIGVISION](#) discussion group at LAAS-CNRS

2000 French-mexican [summer school](#) on image and robotics (Univ. Jpseph Fournier, Grenoble).

Teaching

2000 Image Processing Practical Works at Paul Sabatier University

Publications

National conferences

Jean-Bernard Hayet, Frédéric Lerasle & Michel Devy. *De l'utilisation d'amers plans pour la navigation d'un robot mobile en milieu intérieur*. In Actes du Congrès ORASIS, Cahors, 2001.

Jean-Bernard Hayet. *De l'utilisation d'amers visuels plans pour la navigation d'un robot mobile en environnement structuré*. In Actes du Congrès des Doctorants de l'Ecole Doctorale Systèmes, Toulouse, Toulouse, 2001.

International conferences

N. Arana, F. Lerasle, M. Briot, C. Lemaire & J.B. Hayet. *A Smart Sensor based Visual Landmarks Detection for Indoor Robot Navigation*. In Proc. Int. Conf. on Pattern Recognition (ICPR'02), Quebec, 2002.

V. Ayala, J.B. Hayet, F. Lerasle & M.Devy. *Visual Localization of a Mobile Robot in Indoor Environments using Planar Landmarks*. In Proc. Int. Conf. on Intelligent Robots and Systems (IROS'00), Tokyo, 2000.

J. Carbajo, F. Lerasle, M. Devy & J.B. Hayet. *Environment Modeling for Topological Navigation using Visual Landmarks and Range Data*. In Proc. Int. Conf. on Robotics and Automation (ICRA'03), 2003.

J.B. Hayet, F. Lerasle & M. Devy. *Planar Landmarks to Localize a Mobile Robot*. In Proc. Int. Symp. on Intelligent Robotic Systems (SIRS'00), 2000.

J.B. Hayet, C. Esteves, M. Devy & F. Lerasle. *Qualitative environment modeling with cooperating visual and range sensors*. In Proc. Int. Conf. on Intelligent Robots and Systems (IROS'02), Lausanne, 2002.

J.B. Hayet, F. Lerasle & M. Devy. *A Visual Landmark Framework for Indoor Mobile Robot Navigation*. In Proc. Int. Conf. on Robotics and Automation (ICRA'02), Washington, 2002.

J.B. Hayet, F. Lerasle & M. Devy. *Visual Landmarks Detection and Recognition for Mobile Robot Navigation*. In Proc. Int. Conf. on Computer Vision and Pattern Recognition (CVPR'03), 2003.

P. Ranganathan, J.B. Hayet, M. Devy & F. Lerasle. *Topological navigation and Qualitative localization for indoor environment using Multisensory perception*. In Proc. Int. Symp. on Intelligent Robotic Systems (SIRS'01), Toulouse, 2001.

Journals

P. Ranganathan, J.B. Hayet, M. Devy & F. Lerasle. *Topological navigation and Qualitative localization for indoor environment using Multisensory perception*. Robotics and Autonomous Systems, vol. 41, no. 3, pages 137–144, 2002.

Others

J.B. Hayet. *Navigation d'un robot mobile par amers visuels*. Master's thesis, DEA IARFA ENSTA/Paris VI, September 1999.

J.B. Hayet. *Contribution à la navigation d'un robot mobile sur amers visuels texturés dans un environnement structuré*. PhD thesis, Université Paul Sabatier, Toulouse, 1 2003.

Interests Music, Movies, Cycling, Hiking, Soccer.
History and Archeology.

Toulouse, 10th September 2003