

Indira Thouvenin

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Contact Information

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French nationality

Educational Qualifications

- Master in Engineering (M.E). – EPF school of engineering (Sceaux, France), 1984.
- Master in Biophysics at Paris University UPMC, 1985. Neuro-biology at ‘Ecole Normale Supérieure’
- Ph.D. (Biophysics) at Paris University UPMC, 1989. INSERM 256 - (Broussais Hospital - Paris) and at the CNRS Signals & Systems Lab of SUPELEC / with a patent related to Doppler echocardiography.

Current professional activities (summary)

University Professor with research programme focused on Virtual Environments

- Professor managing scientific PhD thesis related to Informed Virtual Environment
- ANR (National French Research Agency) expert (SIMI2, ASTRID, COSINUS, ...)
- Running projects with international industrial partners
- Active member of several international bodies active in Virtual Reality.
- Virtual Reality and 3D Interaction curses at UTC with several awards from Laval Virtual (2010 to 2016)
- Virtual mock up, and Intelligent Virtual Environment curses

Professional Career

Enseignant chercheur HDR rang A at UTC (University of Technology Compiègne – France) since 2001

HDR (Habilitation à Diriger des Recherches) with a Research Programme on Virtual Environments focussed on informed Interaction.

The main focus of my research works are on:

- **How to enhance 3D interaction in virtual/ augmented informed environments**
- **How to characterize cognitive or sensorimotor users’ activities to design adaptive interactions**

Current PhD students (2)

- Romain Grosse (encadrement 50%, CIFRE Sagem Defense / sep t. 2014 à sept 2017), « Interaction au regard sur interface de réalité augmentée».
- Florian Jeanne (encadrement 100%, Bourse région Picardie / sept. 2014 à sept 2017), « Annotations gestuelle pour la formation à la fabrication en environnement virtuel ».

Past PhD students (8)

- Stéphane Aubry (encadrement 50%), bourse MESR sept.2003 à sept.2006 « Gestion des annotations pour la conception collaborative en environnement virtuel ».
- Atman Kendira (encadrement 50%), CIFRE Orange Labs, sept.2004 à sept.2008 « L'animation comportementale d'avatars comme support à la communication dans les environnements virtuels Informés ».
- Jérôme Olive (encadrement 100%), CIFRE Continental – sept.2005 à sept.2009, « Annotations gestuelles pour capitaliser les interactions en environnement virtuel informé : application à la maintenance industrielle »,.
- Loïc Fricoteaux (encadrement 100%), Projet OSE financé par la région Picardie – sept. 2009 à sept 2012), « Guidage Auto-Adaptatif par des Métaphores de Visualisation pour l'Apprentissage à la Navigation Fluviale en Environnement Virtuel Informé », soutenue à l'UTC le 28 septembre 2012
- Emmanuel Bernier (encadrement 50%, co tutelle avec Ryad Chellali, Italian Institute of Technology), financement IIT- sept. 2009 à sept. 2012), «Segmentation and recognition of natural human gesture for interaction with artificial entities », soutenue le 28 avril 2013 à l'Italian Institute of Technology, Genes.
- Paul George (encadrement 25%, CIFRE Renault –Arts et Metiers ENSAM / Institut Image sept. 2012 à sept 2015), « Interactions en environnements immersifs pour des applications de revue de projet numérique ».
- Minh Tien (encadrement 50%, Projet RAMIAC Bourse ministère– sept. 2012 à sept 2015), Mobile and Interactive Augmented Reality for Driving Assistance »
- Remy Frenoy (encadrement 50%, Bourse collégium CNRS / sept. 2013 à sept 2016), « Assistance au geste d'écriture par guidage adaptatif et retours sensoriels en environnement mixte ».

Post doc

- Yann Soullard (sept. 2014 à sept 2016 - projet KIVA) « Apprentissage statistique pour le geste de formation en environnement virtuel ».
- Ali Oker (déc. 2016 à déc. 2018 – projet Cool) « Evaluation des interactions informées en environnement virtuel immersif ».

HDR reviewer and defense committee member de Ronan Querec (CERV) 2009 and D. Lourdeaux (Heudiasyc) 2013. Member of **22 juries of thesis (reviewer, examiner, president)**.

Comité de sélection ENIB Brest poste de professeur en réalité virtuelle Mai 2017

I initiated and/or participated to several projects with the Industry and Public bodies

- CONTINENTAL: a European leader in manufacturing tyres for the Car Industry.
 - The RVPI project consists in developing a virtual reality system in order to train operators on a complex machine for tire production. Physical benches are used to train the user on specific gestures, while a real control panel and a virtual environment provide a tire manufacturing interactive visualization
 - The RVPI project received the IMAGINA award in 2008
 - This platform, initially developed with the CONTINENTAL French industrial management, is being diploid industrially in Eastern Europe, Asia, and the Americas.
- Other industrial projects I participate to include partners such as SAINT GOBAIN Recherche, EADS, ORANGE Labs, etc.
- Compiègne city: St Corneille Abbey and augmented reality: developing a project allowing a time –space navigation in the city of Compiègne in 1791.

I run University courses for the University Master students:

- Virtual Reality– Responsible for UV RV01 for engineer at UTC
- Interaction– Responsible for UE ICX06 for the UXD Master at UTC
- Virtual mock up - teaching for UV TN20 at UTC
- Intelligent virtual environments at UPMC –EViJV course for the Android Master

I initiated and participated to several international bodies related to Virtual reality

Program committee member of international conferences

- ISMAR (IEEE/ACM International Symposium on Mixed and Augmented Reality) 2017 (A*)
- IEEE Computer Supported Cooperative Work in Design (CSCWD) since 2003 (B)
- International Conference on Research into Design (ICoRD) since 2010
- ACM International Conference on Web 3D Technology (Web 3D) - 2011
- Workshop CVE (collaborative virtual environments) in the international conference IEEE VR since 2014
- International conférence DPPI 2009 at Compiègne UTC (France)
- Virtual Concept before 2008
- Serious game workshop, VRIC (Virtual Reality International Conference) 2008, Laval.
- Enactive Conference on Enactive Interfaces, in 2006.
- VP program chair and organizer of the VIA international conference (Virtual Reality for Industrial Applications) 2004, Compiègne

Other

- member of the ITEN Chaire (UNESCO Chaire « Innovation, Transmission, Digital Editions ») (FMSH / Université Paris 8, Agefa PME)
- visiting professor City University Hong Kong on January 2017

Management

- Chairwoman of the french society for VR (AFRV) from 2011 to 2015, and AFRV steering committee member
- Steering committee member of the CNRS group GDR IG-RV and co chair of the research group Metaphors and Interfaces
- Member of CESER: Socio Economic Council of Picardie, french region
- Member of Industrielab Board - Picardie Council, french region

International collaborations

- Co supervision of a PhD student with the Italian Institute of Technology (IIT) Genova (2009-2012)
- Member of the European Network of Excellence Enactive 2006-2008 (6th PCRD) from January 2006 to January 2009
- Initiated cooperation with several Indian Institutes of Technology (IIT) in India (Mumbai, Delhi) and the National Institute of Advanced Studies (NIAS) in Bangalore on 2005 and 2006
- Invited professor at Chiba Institute of Technology (Japan) January 2005

Co-founder of REVIATECH since 2008

- REVIATECH is a start-up I co-founded in 2008 with two of my former master students
- This start-up is developing innovative training platform, using virtual reality environments for the Industry.
- It received an OSEO-ANVAR national Ministry award in 2009 and concluded its first industrial contracts in 2010.

Research Fellow at ENSAM Image Institute from 1998 to 2001

- ENSAM (Ecole National des Arts et Metiers) is a leading graduate school in engineering for Master and Ph.D students, with Research activities in Mechanics, Materials, Processes, Fluids and Energy Systems (FISE) and Design & Industrialization
- I ran a Research activity in the “Image Institute” (Chalon sur Saone) on:
 - Real time visualization of scientific data (real images)
 - Virtual heritage and computer graphics

Awards

- “Revell”, T. Delalande, A. Delval, F. Jeanne, Virtual Fantasy – Demos - Laval Virtual 2016
- “Wonderland Builder” , C.Barot & al, 2nd prize, 3DUI IEEE Contest, Orlando, USA 2013
- « OSE » , L. Fricoteaux, J. Olive, I. Thouvenin., Automotive, Aeronautics and Transport award, Laval Virtual 2012
- « Daidalos », A. Cavenel et O. Larroque, Creativity award, Laval Virtual 2012
- « Light’n Gadget », P. George. Special jury award Laval Virtual 2011 and IVRC award (International collegiate Virtual Reality Contest) Japon (invitation toTokyo)
- « Immersive Music Painter », C. Barot et K . Carpentier, 3D game and entertainment award Laval Virtual 2010

Publications

Journal articles

- 1) Loup-Escande, E., Frenoy, R., Poplimont, G., Thouvenin, I., Gapenne, O., & Megalakaki, O. Contributions of mixed reality in a calligraphy learning task: effects of supplementary visual feedback and expertise on cognitive load, user experience and gestural performance. *Computers in Human Behavior* (2017).
- 2) Loïc Fricoteaux, Indira Thouvenin, “Adaptation de retours immersifs en environnement virtuel informé basée sur une observation incertaine de l'utilisateur. Application à la formation au transport fluvial”. *Revue d'Intelligence Artificielle* 29(1): 113-141 (2015).
- 3) Loïc Fricoteaux, Indira Thouvenin, Daniel Mestre, “GULLIVER: A decision-making system based on user observation for an adaptive training in informed virtual environments”, *Eng. Appl. of AI* 33: 47-57 (2014)
- 4) Lenne D., Thouvenin I., Aubry S., "Supporting design with 3D-annotations in a collaborative virtual environment", *Research in Engineering Design*, Springer Eds, 20 (3), Page 149, 2009.
- 5) Rousseaux F., Thouvenin I., “Exploring informed virtual sites through Michel Foucault’s heterotopias”, *International Journal of Humanities and Arts Computing* 3 (1–2), 175–191, 2009.
- 6) Aubry S., Thouvenin I., Lenne D., Okawa S., "Knowledge integration for annotating in virtual environments", *International Journal of Product Development*, Inderscience eds, Vol.4, n°6 (2007), pp. 533 - 546.
- 7) Thouvenin I., Abel M.H, Ramond B., Qamiyah A. Environment improvements for a better cooperation in international collaborative mechanical design. In *Journal of integrated design & process science*, 7(2):131-142, 2002.
- 8) Guénand A., Thouvenin I., Lenne D., Aubry S., "Vers l'Integration des Connaissances en Amont de la Conception: de Nouvelles Perspectives", *Revue Française de Gestion Industrielle*, 24(3), 2005.
- 9) Roger J., Sanchez J.M., Thouvenin I., " Visualisation scientifique d’images de microscopie par navigation interactive", *Revue de CFAO et d'informatique graphique*, numéro spécial AFIG’, pp.25-39, 2000.

Keynote

- 10) Thouvenin I., Keynote « Lessons learnt from the invisible part of virtual reality”, Conference ICAT-EGVE et EuroVR 2014, Bremen, Allemagne, Decembre 2014.

Conference papers

- 11) Jeanne F., Thouvenin I., "EBAGG: Error-Based Assistance for Gesture Guidance in Virtual Environments.", ICALT 2017, *In Advanced Learning Technologies, Timisoara, Romania, August 2017*.
- 12) Phan M. T., Thouvenin I., Frémont V.: Enhancing the Driver Awareness of Pedestrian using Augmented Reality Cues. *2016 IEEE 19th International Conference on Intelligent Transportation Systems (ITSC 2016)*, Rio de Janeiro, Brazil. Nov 2016.
- 13) Frenoy, R., Soullard, Y., Thouvenin, I., & Gapenne, O. (2016, July). Adaptive Training Environment without Prior Knowledge: Modeling Feedback Selection as a Multi-armed Bandit Problem. In *Proceedings of the 2016 Conference on User Modeling Adaptation and Personalization* (pp. 131-139). ACM.
- 14) Yann Soullard, Sébastien Destercke, Indira Thouvenin, "Co-training with Credal Models", *7th IAPR TC3 Workshop on Artificial Neural Networks in Pattern Recognition (ANNPR)*, Ulm, Germany, September 28-30, 2016.
- 15) Rémy Frenoy, Indira Thouvenin, Yann Soullard and Olivier Gapenne, "CalliSmart: an adaptive informed environment for intelligent calligraphy training", *The Ninth International Conference on Advances in Computer-Human Interactions (ACHI)*, Venice, Italy, 2016
- 16) Florian Jeanne, Yann Soullard, Indira Thouvenin, "What is wrong with your gesture? An error-based assistance for gesture training in virtual environments", *IEEE symposium on 3D user interfaces (3DUI)*, Greenville, South Carolina, U.S.A., 2016.
- 17) Phan, M-T. and Fremont, V. and Thouvenin, I. and Sallak, M. and Cherfaoui, V., "Estimation of Driver Awareness of Pedestrian based on Hidden Markov Model", *IEEE Intelligent Vehicles Symposium 2015 (IV 2015)*, Seoul, Korea, June 28-July 01, 2015.
- 18) Phan, M-T. and Fremont, V. and Thouvenin, I. and Sallak, M. and Cherfaoui, V., "Recognizing Driver Awareness of Pedestrian", *17th International IEEE Conference on Intelligent Transportation Systems (ITSC)*, Qingdao, China, October 8-11, 2014
- 19) Phan, M-T. and Thouvenin, I. and Fremont, V. and Cherfaoui, V., "Estimating Driver Unawareness of Pedestrian Based On Visual Behaviors and Driving Behaviors", *International Joint Conference on Computer Vision, Imaging and Computer Graphics Theory and Applications (VISIGRAPP)*, Doctoral Consortium, January 5-8, Lisbon, Portugal, 2014
- 20) Emmanuel Bernier, Ryad Chellali, Indira Mouttapa Thouvenin, "Gestures vs. Gesticulations: Change Point Models Based Segmentation for Natural Interactions", *CISIS 2013*: 605-610
- 21) Kevin Carpentier, Domitile Lourdeaux, Indira Mouttapa Thouvenin, "Dynamic Selection of Learning Situations in Virtual Environment", *ICAART (2) 2013*: 101-110
- 22) Emmanuel Bernier, Ryad Chellali, Indira Mouttapa Thouvenin, "Human gesture segmentation based on change point model for efficient gesture interface", *IEEE RO-MAN 2013*: 258-263
- 23) Fricoteaux L., Thouvenin I., "OSE: an Adaptive User Interface for Fluvial Navigation Training", *Proceedings of IEEE VR 2013*, Orlando, Florida, USA, March 2013.
- 24) Wagrez, K. Carpentier, K., Lourdeaux, D., Thouvenin, I., Andriot, C., "Semantic modelling as a support for natural interaction within a virtual environment", *5th Joint Virtual Reality Conference – JVRC 2013*, Orsay 2013.
- 25) Ciger, J. and Lelong, R. and Thouvenin, I. "Active feedback for training in virtual environments", *5th Joint Virtual Reality Conference*, Orsay, France, pp. 12-14, Nov, 2013.
- 26) George P., Kemeny A., Merienne F., Chardonnet J-R., Thouvenin I., Posselt J., Icart E. "Nomad Devices for Interactions in Immersive Virtual Environments", *IS&T/SPIE Electronic Imaging, États-Unis*, vol. 8649-18, pp. 1-7, publisher: Spie the International Society for Optical Engineering, Mar, 2013.
- 27) Bernier E., Chellali R. and Thouvenin I. *11th Biennial Conference on Engineering Systems Design and Analysis ESDA 2012* IN PRESS, Nantes, France, July 2-4 2012.

- 28) George P., Thouvenin I., et al. (2012). DAARIA: Driver Assistance by Augmented Reality, IEEE Intelligent Vehicles Symposium, Espagne, 2012.
- 29) Fricoteaux, L. Mouttapa Thouvenin I. and Olive J., "Heterogeneous Data Fusion for an Adaptive Training in Informed Virtual Environment", IEEE International Conference on Virtual Environments, Human-Computer Interfaces and Measurement Systems (VECIMS), Ottawa, Canada, 2011.
- 30) Olive J. and Thouvenin I., « Virtual tyre production: learning industrial process through an informed virtual environment », IEEE International Conference on Multimedia & Expo (ICME), Barcelona, Spain, 2011.
- 31) Bernier, E. and Chellali, R. and Mouttapa Thouvenin, I. and Blom, K., "The ICEA plug-in for Virtual Reality, Immersive Creation and Edition of Animation", IEEE VR 2011 workshop "SEARIS - Software Engineering and Architectures for Interactive Systems, Singapore, 2011.
- 32) Bernier, E. and Chellali, R. and Mouttapa Thouvenin, I. and Blom, K., "The ICED-T system: Iterative Creation and Edition of Displacement for Telerobotics", Joint Virtual Reality Conference JVRC2010, Stuttgart, Germany, 2010.
- 33) Mouttapa Thouvenin, I. and Olive, J. and Bernier, E. "What do you mean by knowing an object in an IVE " COGnitive systems with Interactive Sensors, Information Fusion, CoGis'09, 2009.
- 34) Fricoteaux L., Mouttapa Thouvenin I., Voillequin T. QUIVER: an Informed Virtual Environment for Thermal Data Perception for Housing, Joint Virtual Reality Conference (EGVE - ICAT - EuroVR), Lyon, 2009.
- 35) Thouvenin I., Rousseaux F., Choreographies and digital inscriptions of technical gesture, SDHS 2008, "Looking Back/Moving Forward" 12-15 June 2008, Skidmore College, Saratoga Springs, New York.
- 36) Lenay C., Thouvenin I., Guenand A., Gapenne O., Stewart J., Maillet B. "Designing the ground for pleasurable experience", DPPI 2007 proceedings, August 22-25, 2007, Helsinki, Finland, pp. 35-58.
- 37) Aubry S., Thouvenin I., Lenne D., Olive J., "A knowledge model to read 3D annotations on a virtual mock-up for collaborative design", CSCWD 2007 proceedings, April, 26-28, 2007, Melbourne, Australia, pp. 669 - 674.
- 38) Olive J., Thouvenin I., Lenne D., Aubry S., "A new knowledge visualization and manipulation metaphor for collaborative and immersive environment", Proceedings of Enactive 2005, nov 2005, Genoa- Italia (Electronic publication).
- 39) Lenay C., Auvray M., Thouvenin I., Sebbah F. (2005) Perception of Avatars in a Space of Tactile Interaction, Proceedings of the 2nd Intuition International Workshop "VR/VE and Industry: Challenges and Opportunities" (ISBN 960-254-658-1)
- 40) Aubry S., Lenne D., Thouvenin I., Guénand A., "VR Annotations for collaborative design", HCII 2005 proceedings, 22-27 July 2005, Las Vegas, USA, to be published.
- 41) Thouvenin I., Guenand A., Lenne D., Aubry S.. "Knowledge Integration in Early Design Stages for Collaboration on a Virtual Mock Up". In CSCWD 2005, 24-26 May 2005, Coventry –UK, pp 1141-1145.
- 42) Aubry S., Okawa S., Lenne D., Thouvenin I., "Knowledge Integration in Annotation-Based Collaborative Virtual Environments", in Interaction 2005, Tôkyô, 2005 - February 28 – March 1st
- 43) Miyamoto, H., Hayashi, H., Aubry, S., Lenne, D., Thouvenin, I., Morizet-Mahoudeaux, P. ,Comparative study of emotional motions of a person by a cultural background. In WWCS 2004, Work With Computer Systems, 29 June - 2 July, 2004 . Kuala Lumpur, Malaysia
- 44) Enembreck F., Thouvenin I., Abel M.H., Barthes J.P. An Ontology-Based Multi-Agent Environment to Improve Collaborative Design, In Coop'04, Giens- France .
- 45) Thouvenin I., Lenay C., Cottureau C., Aubert D. Design of a tactile prosthesis for blind users with a virtual reality system. In Virtual Concept 2003, Biarritz – France..
- 46) Aubry S., Thouvenin I., Lenne D., "A Virtual Training Studio for Collaborative Mechanical Design. In Virtual Concept 2003, Biarritz – France.
- 47) Thouvenin I., Abel M.H, Ramond B., Qamiyah A. "Environment improvements for a better cooperation in international collaborative mechanical design", in Proc. CSCWD, 2002, pp.166-172.

- 48) Roger Julien, Sanchez Jean-Michel, Thouvenin Indira, « Interactive Navigation for Scientific Visualization of Microscopy Images », proceedings of the 6th international conference on virtual systems and multimedia, VSMM 2000, Softopia Gifu, Japan, October 2000, pp 591-600.
- 49) Guenand A., Thouvenin I., Lenne D., Aubry S., " Vers l'Intégration des Connaissances en Amont de la Conception : de Nouvelles Perspectives", 2ème colloque du groupe de travail C2EI, Nancy, les 1er et 2 Décembre 2004.
- 50) Olive J., Thouvenin I., Lourdeaux D., Sbaouni M., "Formation aux techniques industrielles à l'aide des environnements virtuels", 10ème Colloque National AIP-PRIMECA : "Les Innovations en Conception des Produits et des Systèmes de Production", La Plagne - France, 18-20 avril 2007.

Edited volumes and book chapters

- 51) Thouvenin, I. and Richir, S. VRIC 2009 Special Issue Ed.: Journal of Virtual Reality and Broadcasting, open access E-journal, 2009.
- 52) Thouvenin, I. and Richir, S. VRIC 2008 Special Issue Ed.: Journal of Virtual Reality and Broadcasting, open access E-journal, 2008.
- 53) Bourdot P., Jessel J.P., Thouvenin I., « Industries manufacturières », chapitre 8 du volume 4 « Les applications de la réalité virtuelle » du traité de la réalité virtuelle, P. Fuchs, G. Moreau et 72 auteurs, 4 volumes, Les Presses de l'École des Mines de Paris, www.esnmp.fr/Presses, mars 2006.
- 54) Proceedings of Virtual Concept 2003 Editors : D. Coutellier, X. Fischer, D. Marquis, I. Thouvenin.

Other publications

- 55) Jeanne F., Thouvenin I., "KIVA : environnement virtuel informé pour la formation au geste technique", 10èmes journées de l'AFRV, Aérocampus Aquitaine, Latresne, France, 2015
- 56) Frenoy R., Thouvenin I., Gapenne O., "Handwriting learning systems: which challenges for mixed reality", 9èmes journées de l'AFRV, Reims, France, 2014.
- 57) Fricoteaux, L. and Mouttapa Thouvenin, I. and Lourdeaux, D. and Pourplanche, A. and Hissel, F., "Guidage Auto-Adaptatif par des Métaphores de Visualisation pour l'Apprentissage à la Navigation Fluviale en Environnement Virtuel Informé", 8èmes journées de l'AFRV, Laval, France, 2013.
- 58) Kevin Carpentier, Domitile Lourdeaux, Indira Thouvenin: Dynamic selection of learning situations in virtual environments, 7èmes journées de l'AFRV, Association Française de Réalité Virtuelle, Strasbourg France, 2012.
- 59) Kevin Wagrez, Jean Sreng, Indira Mouttapa Thouvenin: Pilotage interactif et multimodal d'humains virtuels en environnement physique, 7èmes journées de l'AFRV, Association Française de Réalité Virtuelle, Strasbourg, France, 2012.
- 60) George, P., Thouvenin, I., Fremont, V., Cherfaoui, V. Réalité augmentée pour l'aide à la conduite intégrant l'observation du conducteur », 6e journées de l'AFRV, Association Française de Réalité Virtuelle, Biarritz, 2011.
- 61) Fricoteaux, L. and Mouttapa Thouvenin, I. and Lourdeaux, D. and Pourplanche, A. and Hissel, F., « Guidage Auto-Adaptatif par des Métaphores de Visualisation pour l'Apprentissage à la Navigation Fluviale en Environnement Virtuel Informé », 5èmes journées de l'AFRV, Association Française de Réalité Virtuelle, Orsay, France, 2010.
- 62) Rousseaux F., Thouvenin I., « Expérience, connaissance et rébellion », 15èmes Journées de Rochebrune, Rencontres interdisciplinaires sur les systèmes complexes naturels et artificiels, Rochebrune, Megève, France, 20 au 26 janvier 2008.
- 63) Thouvenin I., Rousseaux F., " Escaping Dante's hell with an informed virtual environment for interactive bodies in movement", International Conference of the European SKILLS Project (SKILLS), Montpellier, 15-16 décembre 2011.

Invited presentations

- 1) Thouvenin I. « Informed virtual environments what is the future ? », City University of Hong Kong (City U.), Hong Kong, January 25th 2017.
- 2) Thouvenin I. « Artificial intelligence and Informed virtual environments », University of Science and Technology Hanoi (USTH), Hanoi, January 20th 2017.
- 3) Thouvenin I. « Trends in VR », Semaine de la recherche et de l'innovation, Region Hauts de France, Amiens, 22 Novembre 2016.
- 4) Thouvenin I. et Olive J., « Réalité virtuelle », Semaine de la recherche et de l'innovation, Region Picardie, Industrielab, 24 Novembre 2015.
- 5) Thouvenin I., "Environnements virtuels informés", Serre numérique de Valenciennes, 5 novembre 2015.
- 6) Thouvenin I. "Virtual and augmented design, manufacturing, and maintenance", Espace Communes, Paris, November 2015.
- 7) Thouvenin I., "Interaction informée en environnement virtuel", Apprendre le concret – Chaire ITEN, Paris-France, Novembre 2012.
- 8) Thouvenin I., "A Web3D Interface for Manufacturing through an Informed Virtual Environment", ACM Web3D conference, June 20-22, Paris-France, 2012.
- 9) Thouvenin I., "Informed Virtual Environments: interaction and knowledge", Indian Institute of Technology Mumbai (IIT Mumbai), Mumbai - Inde, Decembre 2009.
- 10) Thouvenin I., "Believe me", Workshop National Institute of Advanced Studies; Bangalore - Inde, Aout 2006.
- 11) Thouvenin I., "An introduction to virtual reality", Chiba Institute of Technology, Chiba – Japon, Janvier 2005.
- 12) Thouvenin I., "Believability of virtual worlds through emotion and perception", In Virtual Concept 2005, Biarritz – France
- 13) Thouvenin I., "Recipes of virtual reality versus mature evolution in virtual environments", In Virtual Concept 2003, Biarritz – France.

Internal seminars

- 14) Thouvenin I, Lenay C., Olive J, Believe in virtual worlds, Séminaire Phiteco, Interaction et cognition, Compiègne, France, 22-26 janvier 2008,.
- 15) Thouvenin I., Caractérisation des interactions en environnement virtuel collaboratif pour la pertinence de la communication, Séminaire Phiteco, Le virtuel et le tangible: ce qui résiste, Compiègne, France, 25-28 janvier 2005,.
- 16) Thouvenin I., Olive J., Interactions en environnement 3D, Séminaire Phiteco, Interaction et cognition, Compiègne, France, 22-26 janvier 2007.

Science magazines

- 17) « Réalité virtuelle, une révolution scientifique », La méthode scientifique, France Culture, octobre 2016, Paris (<https://www.franceculture.fr/emissions/la-methode-scientifique/realite-virtuelle-une-revolution-scientifique>)
- 18) « Quels freins à la transformation numérique de l'économie ? », Printemps du numérique, Juin 2014, Compiègne.
- 19) « Simulateurs de péniche », Présentation sur France 2 - Telematin, Juin 2013.
- 20) « Transformer la réalité virtuelle en argent sonnante et trébuchant », La Tribune, N° 18, 21 septembre 2012.
- 21) « Un simulateur pour apprentis marins ». L'Usine Nouvelle – Fluvial, Juillet 2012, N° 3293.
- 22) Se former dans arrêter la production, Dossier Réalité virtuelle, applications industrielles, CAD Magazine, Mars-Avril 2012, N°154.
- 23) « Indira Thouvenin, la recherche au féminin », Dossier recherche et innovation, Agir en Picardie, N°140, Novembre 2010.

- 24) « Continental simule la production », rubrique « La vie des usines ». L'usine nouvelle, 22 février 2007, N°3044.
- 25) « Un simulateur pour maîtriser les machines complexes ». Industries et technologies, décembre 2005, OJD 8862.
- 26) « Continental parie ». Le journal de l'automobile, 2 décembre 2005, ODJ 5423.
- 27) « Réalité virtuelle, formation concrète ». L'argus de l'automobile et des locomotions, 24 Novembre 2005, OJD 7701.

Laval Virtual awards

- 28) « Revell », Virtual Fantasy award, prix demo mention speciale interactivité, T. Delalande et A. Delval, Laval virtual 2016, <http://www.theodela.fr/projects/revell-fr.html>
- 29) « OSE » projet région, L. Fricoteaux, J. Olive, I. Thouvenin. Prix Automobile, Aéronautique et Transport Laval Virtual 2012
- 30) « Daidalos », A. Cavenel et O. Larroque. Prix de la Créativité Laval Virtual 2012
- 31) « Light'n Gadget », P. George. Prix special du jury Laval Virtual 2011
- 32) « Light'n Gadget », P. George. Prix IVRC (International collegiate Virtual Reality Contest) Japon (invitation à Tokyo pour ce salon)
- 33) « Immersive Music Painter », C. Barot et K. Carpentier. Trophée catégorie 3D game and entertainment Laval Virtual 2010

Patent related to my PhD

- 34) Demoment G., Herment A., Arcile C., Mouttapa I., Houacine A., & Peronneau P., " Procédé et dispositif d'analyse spectrale en temps réel de signaux instationnaires complexes", Brevet N° 8903761, 1989.

Papers related to my PhD

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