Dr. Élise Vareilles

Tenured Faculty, HDR , 6e échelon
IMT Mines Albi-Carmaux

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Born on the 20th of November 1978
Last update: Wednesday 16th October, 2019

Education

2016 **Qualification to the duties of professor - CNU 61^{rst} section**, *Computer Engineering, Automatic and Signal Processing* .

2015 **Accreditation to supervise research or Habilitation à Diriger les Recherches (HDR), Institut National Polytechnique de Toulouse (INPT)**, *Defended on the 24th of November 2015, Entitled: "Interactive Configuration and Constraints: Knowledge, Filtering Methods and Extensions"*, Scientific Topic : Industrial Engineering.

in front of the panel composed of :
- Reviewers : Prof. E. CAILLAUD, Prof. B. PENZ et Prof. G. TROMBETTONI
- Examiners : Dr. H. FARGIER, Prof. M. ALDANONDO, Ing. J-M. ASTESANA, Prof. N. JUSSIEN and Prof. L. GENESTE (Advisor INPT)

2005 **Ph.D, Institut National Polytechnique de Toulouse (INPT)**, *Defended on the 24th of June 2005, Entitled: "Constraint-based Design: Development of an Interactive Decision Support System"*, Scientific Topic: Industrial Engineering, Work distinguished by the Léopold Escande Prize 2005.

in front of the panel composed of :
- Reviewers : Prof. F. BENHAMOU et Prof. A. BERNARD
- Examiners : Prof. L. GENESTE, Prof. J-P NADEAU, Dr. P. LAMESLE, Ing. Ph. DAVID
- Supervising Team : Prof. M. ALDANONDO, Dr. K. HADJ HAMOU and Dr. P. GABORIT

Work Experience

Nov. 2017 **Affiliated Professor**, Department of Mechanical Engineering, ETS Montréal, Canada.

Jan. 2016 **Tenured Faculty**, *ORKID Team leader*, Industrial Engineering Lab, IMT Mines Albi-Carmaux.

Sept. 2005 **Tenured Faculty**, *Associate Professor*, Industrial Engineering Lab, IMT Mines Albi-Carmaux.

Publications List

15 International Journal *Web of Science*.
ICAE(1), AIEDAM(1), CII(3), JIIS(1) IJPR (4), EAAI (2), JIM(1), IJCIM(2), JCP(1)

> 25 International Conferences *Web of Science* ou LNCS.
IEEM(8), CP(1), AIAI(3), PLM(3), INCOM(3), CSDM(3), SKIMA(3) . . .

> 10 International Conferences with proceedings.
MOSIM (6), IESM (2) . . .

> 15 Configuration Workshop or JFPC.
Workshop Configuration(8), JFPC (10)

Doctoral Surpervision

1 PhD student still in progress, *Supervision cumulative rate: 30%.*
R. Ayachi (2020).

7 former PhD students, *Supervision cumulative rate: 260%.*
L. I. Garcés Monge (2019), D. Guillon (2019), A. Sylla (2018), A.-F. Barco Santa (2016), A. Codet de Boisse (2013), J. Abeille (2011), M. Djefel (2010).

2 Post-doctorate students, *Supervision cumulative rate: 60%.*
P. Pitiot (2010), C. Béler (2009).

3 Masters students, *Supervision cumulative rate: 200%.*
É. Villeneuve (2009), G. Goris (2008), D. Ghilés (2007).

Scientific Outreach

GdR MACS, *C2EI ⇒ INCAS work group co-chair (since January 2018)*, INCAS: INgénierie des Connaissances et Apprentissage pour les Systèmes de production de bien et de service.

SAGIP, *Scientific association board member (since June 2019)*, SAGIP: Société d'Automatique, de Génie Industriel et de Productique.

Program Committee, *4 Special Tracks.*
MIM(2019), APMS(2014), INCOM(2012), MOSIM(2010).

Scientific Committee, *29 Conferences.*
Design (2020), CP (2019), SPL (2019), AAAI (2018), IEOM (2018), FOMI (2018), IJCAI (2017), IEEM (2017-2019), Pro-Ve (2016), PLM(2015), Pro-Ve(2015), Configuration Workshop(2010, 2012, [2014, 2019]), JFPC([2009, 2013], [2017-2019])

Steering Committee, *11 Events.*
JFPC (2019), PFIA (2019), MOSIM (2018), IEOM (2018), ISCRAM (2017), CP(2016), CWS(2016), Pro-Ve(2015), I-ESA(2014), JFPC(2012), GDR MACS(2012).

International Collaboration, *8 Universities.*
Greece (2016, 2018, 2019), Canada(2010, 2017-2018), Finland (2016), Denmark(2015, 2013, 2018), Costa Rica (2017), Vietnam(2014), Colombia(2013), Netherland(2011).
Visitings : 3 weeks Costa Rica (2017), 1 week Greece (2016, 2017, 2019), 2 weeks Finland (2016), 2 months Danemark (2015), 1-2 weeks Québec (2010, 2017, 2018)

PhD Examiner, *7 Thesis.*
Walid Es Soufi (2018), Pierre-François Gimenez (2018), Sara Shafie (2017), Abderrazak Daoudi (2016), Nicolas Schmidt (2015), Aurélien Reysset (2015), Juan Camilo Romero Bejarano (2013).

WoS **Journal Reviewer**, *5 articles / year.*
IJPR, CII, AIEDAM, DSS, EAAI

Research Projects

2017-2020 **OPERA Project**, *Outils logiciels et ProcEssus pour la Réponse à Appel d'offres*, Softwares and Processes for bidding solicitation.
- Funding : ANR PCRE, Budget : 1.3 M€
- PhD students : A. Sylla (2018), D. Guillon(2019), R. Ayachi (2020).

2013-2016 **CRIBA Project**, *Construction et Rénovation Industrialisées Bois Acier*, Industrialized building and retrofit with wood and steel.
- Funding : ADEME, Budget : 8.7 M€
- PhD student : A. F. Barco Santa (2016)

2013-2015 **2Π-MCO Project**, *Amélioration de la Productivité des PME en Ingénierie Électrique dans le domaine du Maintien en Condition Opérationnelle*, Improvement of the productivity of SMEs in electrical engineering in the field of maintenance in operational condition.
- Funding : sub-contractor of École Nationale d'Ingénieur de Tarbes, Budget : 2.9 M€
- PhD student : ∅

2008-2011 **Hélimaintenance Project**, *Plate-forme intégrée de maintenance Hélicoptère*, Integrated Helicopter Maintenance Platform.
- Funding : FUI, Budget : 10.5 M€
- Role : Assistant in setting up the project, Operational Work
- PhD student : A. Codet de Boisse (2013)

2007-2011 **ATLAS Project**, *Aides et assisTances pour la conception, la conduite et leur coupLage par les connAissanceS*, Knowledge-based system for design process, management process and their interactions.
- Funding : ANR RNTL, Budget : 1.7 M€
- PhD students : M. Djefel (2010), J. Abeille (2011)

2002-2005 **VHT Project**, *Virtual Heat Treatment*.
- Funding : IMS, Budget : 1.7 M€
- PhD student : É. Vareilles (2005)

Software Development

CoFiADe, *Constraint Filtering for Aiding Design*.
`http://cofiade.mines-albi.fr/newcofiade/`
- Language : Perl
- Research Projects : OPERA, CRIBA, 2Π-MCO, Hélimaintenance, ATLAS, VHT

OPERA Platform, *Élaboration d'offres et Gestion des risques en RAO*, Offer Elaboration and Risk Management in Call for Tenders.
`https://research-gi.mines-albi.fr/display/OPERA/Opera+Home`
- Language : Ruby, Perl
- Research Project : OPERA

CRIBA Platform, *Configuration de calepinage de façades*, Façade Layout Synthesis.
`http://gind.mines-albi.fr/fr/projet/criba`
- Language : Java, Perl
- Research Project : CRIBA

ATLAS Platform, *Conception simultanée produit - projet*, Concurrent Product-Process Design.
`http://193.51.2.246/atlas`
- Language : Ruby, Perl
- Research Project : ATLAS

Educational Activities

Teaching Activities, *École des mines d'Albi-Carmaux.*
around 200 hours per year.

Student Supervision, *École des mines d'Albi-Carmaux.*
- Master Student Internship: 6 to 8 students/ year,
- Student Coaching : 10 students or apprentices / year,

Doctoral Teaching Activities, *GDR MACS, EdSys.*
Design and Artificial Intelligence: Design and Constraints
- GDR MACS, 2013 (4h30),
- EdSys, 2014 (7h).

Educational Innovation, *IMT Mines Albi.*
- System Design, Master students, Industrial Engineering Option: use of Lego®Mindstorms and PTC Windchill
- Introduction to product configuration, researcher night 2015-2017 and Pint of Sciences 2018, novice public : use of Lego®

Course Management, *5 Modules.*
- Perl programming, 0.3 ECTS, Master students, IMT Mines Albi, Industrial Engineering Option,
- Functional Specification & System Design, 1.5 ECTS, Master students, IMT Mines Albi, Industrial Engineering Option,
- Manufactured Product, 1 ECTS, Undergraduate students, IMT Mines Albi, Students and apprentices, common core,
- Algorithm and Programming, 1.7 ECTS, Undergraduate students, IMT Mines Albi, Students and apprentices, common core.
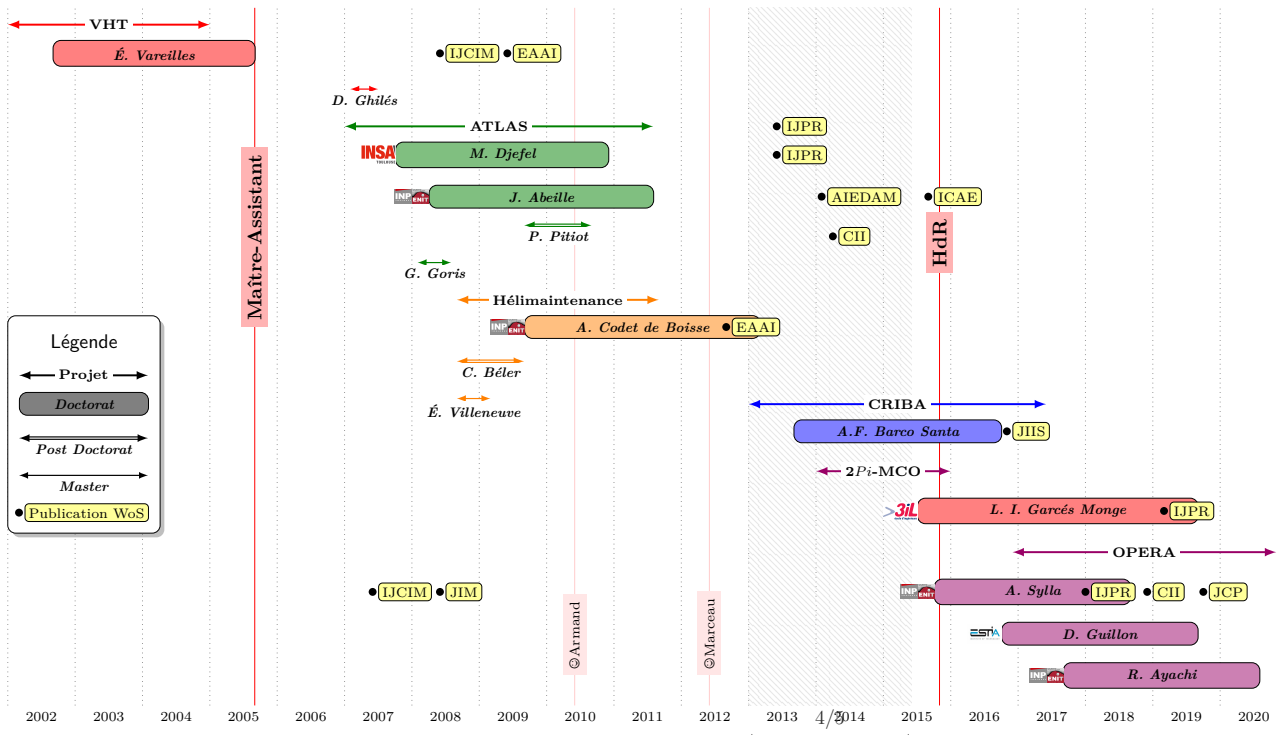
Additional Activities

Women in Science - IMT Mines Albi Ambassador, *since 2015.*
- Conferences and Testimonial for Elles Bougent and Women in Aerospace Associations,
- #ImindTheLiberty project co-leader,
- Lapony Trophy 2020 project leader and team member.

Administrative Activities - IMT Mines Albi.
- EdSys, CoGeFoDo : surrogate since 2018
- School Board Member & Technical Representative since 2009
- Communication Representative for the CGI lab since 2014
- First-aid Rescue Workers, since 2008

Research Activities

VHT — *É. Vareilles*

Maître-Assistant

D. Ghilés

ATLAS — *M. Djefel*

J. Abeille

P. Pitiot

G. Goris

Hélimaintenance

A. Codet de Boisse • EAAI

C. Béler

É. Villeneuve

CRIBA — *A.F. Barco Santa* • JIIS

2π-MCO

L. I. Garcés Monge • IJPR

OPERA

A. Sylla • IJPR • CII • JCP

D. Guillon

R. Ayachi

• IJCIM • EAAI

• IJPR
• IJPR
• AIEDAM • ICAE
• CII

HdR

• IJCIM • JIM

@Armand

@Marceau

Légende
← Projet →
Doctorat
Post Doctorat
Master
• Publication WoS

2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 4/2014 2015 2016 2017 2018 2019 2020

International Journal *WoS*

15 journal articles *Web of Science*.

2019 [**Pitiot+2019**], *P. Pitiot, L. I. Garces Monge, M. Aldanondo, **É. Vareilles**, P. Gaborit*, Optimisation of the concurrent product and process configuration: an approach to reduce computation time with an experimental evaluation, International Journal of Production Research, IJPR, 2019.
Impact Factor : 2.691 (2018)

2018 [**Stanitsas+2018**], *M. Stanitsas, K. Kirytopoulos, **É. Vareilles***, Facilitating sustainability transition through serious games: A systematic literature review, Journal of Cleaner Production, JCP, 2018.
Impact Factor : 2.691 (2018)

2018 [**Sylla+2018**], *A. Sylla, D. Guillon, **É. Vareilles**, M. Aldanondo, T. Coudert, L. Geneste*, Configuration knowledge modeling: How to extend configuration from assemble/make to order towards engineer to order for the bidding process, Computers in Industry, CII, DOI: https://doi.org/10.1016/j.compind.2018.03.019, 2018.
Impact Factor : 2.691 (2018)

2017 [**Sylla+2017**], *A. Sylla, **É. Vareilles**, T. Coudert, K. Kirytopoulos, M. Aldanondo, L. Geneste*, Readiness, feasibility and confidence: how to help bidders to better develop and assess their offers, International Journal of Production Research, IJPR, vol. 55 (23), pp. 7204-7222, 2017.
Impact Factor : 2.325 (2016)

2017 [**Barco+2017**], *A. F. Barco Santa, **É. Vareilles**, P. Gaborit, M. Aldanondo*, Building Renovation Adopts Mass Customization - Configuring Insulating Envelopes, Journal of Intelligent Information Systems, JIIS, vol. 49(1), pp. 119-146, 2017.
Impact Factor : 1.000 (2015)

2015 **[Vareilles+2015]**, *E. Vareilles, T. Coudert, M. Aldanondo, L. Geneste, <u>J. Abeille</u>*, System Design and Project Planning: model and rules to manage their interactions, Integrated Computer-aided Engineering, ICAE, 2015, DOI: 10.3233/ICA-150494, vol. 22, no. 4, pp. 327-342, 2015.
Impact Factor : 4.667 (2013)

2014 **[Romero Bejarano+2014]**, *J-C. Romero Bejarano, T. Coudert, **É. Vareilles**, L. Geneste, M. Aldanondo and <u>J. Abeille</u>*, Case-based reasoning and system design: An integrated approach based on ontology and preference modeling, Artificial Intelligence for Engineering Design, Analysis and Manufacturing, AIEDAM, vol. 28(1), pp. 49-69, 2014.
Impact Factor : 0.407 (2012)

2014 **[Pitiot+2014]**, *P. Pitiot, M. Aldanondo and **É. Vareilles***, Concurrent product configuration and process planning: Some optimization experimental results, Computers in Industry, CII, vol. 65(4), pp. 610-621, 2014.
Impact Factor : 1.709 (2012)

2013 **[Pitiot+2013]**, *P. Pitiot, M. Aldanondo, **É. Vareilles**, P. Gaborit, <u>M. Djefel</u> and S. Carbonnel*, Concurrent product configuration and process planning, towards an approach combining interactivity and optimality, International Journal of Production Research, IJPR, vol. 51(2), pp. 524-541, 2013.
Impact Factor : 1.460 (2012)

2013 **[Zhang+2013]**, *L. Zhang, **É. Vareilles** and M. Aldanondo*, Generic bill of functions, materials, and operations for SAP(2) configuration, International Journal of Production Research, IJPR, vol. 51(2), pp. 465-478, 2013.
Impact Factor : 1.460 (2012)

2012 **[Vareilles+2012]**, ***É. Vareilles**, M. Aldanondo, <u>A. Codet de Boisse</u>, T. Coudert, P. Gaborit and L. Geneste*, How to take into account general and contextual knowledge for interactive aiding design: Towards the coupling of CSP and CBR approaches, Engineering Applications of Artificial Intelligence, EAAI, vol. 25(1), pp. 31-47, 2012.
Impact Factor : 1.625 (2012)

2009 **[Vareilles+2009]**, ***É. Vareilles**, M. Aldanondo, and P. Gaborit*, How to take into account piecewise constraints in constraint satisfaction problems, Engineering Applications of Artificial Intelligence, EAAI, vol. 22(4-5), pp. 778-785, 2009.
Impact Factor : 1.444 (2009)

2008 **[Aldanondo+2008a]**, *M. Aldanondo and **É. Vareilles***, Configuration for mass customization: how to extend product configuration towards requirements and process configuration, Journal of Intelligent Manufacturing, JIM, vol. 19(5), pp. 521-535, 2008.
Impact Factor : 1.018 (2008)

2008 **[Aldanondo+2008b]**, *M. Aldanondo, **É. Vareilles**, K. Hadj-Hamou and P. Gaborit*, Aiding design with constraints: an extension of quad trees in order to deal with piecewise functions, International Journal of Computer Integrated Manufacturing, IJCIM, vol. 21(4), pp. 353-365, 2008.
Impact Factor : 0.722 (2008)

2007 **[Vareilles+2007]**, ***É. Vareilles**, M. Aldanondo and P. Gaborit*, Evaluation and design: a knowledge-based approach, International Journal of Computer Integrated Manufacturing, IJCIM, vol. 20(7), pp. 639-653, 2007.
Impact Factor : 0.722 (2008)