Curriculum Vitae – Romain Pinquié

Assistant Professor
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RESEARCH INTERESTS

- Engineering design
- Modelling & Simulation for Product Design
- Data science
- Virtual and augmented reality

EDUCATION

- **Toulouse 3 Paul Sabatier University, France – 2006**
  B.Sc. in Mechanical Engineering specialising in Aerospace Technology
- **ESTIA Institute of Technology , France – 2012**
  M.Eng in Computer Aided Engineering
- **Cranfield University, School of Engineering, Applied Mathematics & Computing Group, UK – 2012**
  M.Sc.in Computational & Software Techniques in Engineering - Computer Aided Engineering
  Thesis title: Prognostics and Health Management design technology: research on application of functional modelling to structural integrity problems.
- **Arts & Métiers ParisTech, LSIS UMR CNRS 7296, France – 2016**
  Ph.D in Product Design
  Thesis title: A collaborative requirement mining framework.

POSITIONS HELD

- **Assistant professor, Grenoble Institute of Technology, Fall 2018-present**
  Teaching courses on systems engineering, product modelling and simulation, virtual and augmented reality, and product lifecycle management.
  Research on:
  - *ANR-18-CE10-0009 Collaboration 4.0, Modélisation et évaluation des collaborations capacitantes Homme-Machine pour l'industrie du futur – @Link*
  - *Virtual and augmented reality for model- and simulation-based systems engineering.*
  - *Context-aware design assistant.*

- **Assistant professor, Arts & Métiers ParisTech – LSIS UMR CNRS, Winter 2018-Fall 2018**
  Teaching Computer Aided Engineering (CAD, PDM, multibody modelling and simulation).
  Research on:
  - *a new method and tool to collect, validate, recommend, check, and manage engineering design rules in an extended CAx (CAD, CAM, CAE, …) environment.*
  - *a tool for supervising systems engineering activities, such as interfaces management, tradespace exploration, and traceability.*
  - *the methodological integration of data science techniques to gain insight from hundreds or thousands of requirements before making informed decisions early on.*

- **Post-doctoral research fellow, Airbus Helicopters, Fall 2016-Fall2017**
  R&T on a simulation-based systems engineering method to specify, validate, design, and verify engineered systems. Experimentation with the MathWorks suite on the landing gear systems.

- **Research engineer, Supméca – LISMMA, Winter 2013-Fall 2013**
  R&T on model- and simulation based systems engineering with the Dassault Systèmes 3D experience RFLP framework.

STUDENTS

- **Ph.D. students:**
  - Simon Debord
    Thesis: Research on a design rules framework. (2018-2019)
  - Simon Debord
    Thesis: Research on a design rules framework. (2017-2018)

- **M.Sc. students:**
  - Victor Romero
    Thesis: R&T on the integration of virtual reality and multi-physical systems simulation for immersive- and simulation-based systems engineering. (2018)
  - Nicolas Pawlowsky
    Thesis: R&T on a virtual Obeya for supervising systems engineering activities. (2018)
  - Sarra Hogma
    Thesis: R&T on a simulation method to validate model-based product specifications. (2017)

- **B.Sc. students:**
  - Vincent Ducasse
    Thesis: R&T on a recommendation system for requirements engineering. (2016)
  - Nicolas Martel
    Thesis: Machine learning-based classification of textual requirements. (2015)
  - Karim Badr
    Thesis: Multiple criteria analysis for value-driven requirements engineering. (2015)
  - Alexy Torres
    Thesis: Prototyping of Web application for requirement mining. (2015)

PUBLICATIONS

- **Theses**

[1] A requirement mining framework. Roman Pinquié. Ph.D. Thesis. Arts & Métiers ParisTech. LSIS UMR CNRS 7296 Laboratory. Aix-en-Provence. 2016

[2] Prognostics and Health Management design technology: research on application of functional modelling to structural integrity problems. Romain Pinquié. M.Sc. Thesis. Cranfield University. School of Engineering. Applied Mathematics & Computing Group. Cranfield. 2012

- **Refereed Journal Articles**

[1] Requirement mining for model-based product design. Romain Pinquié, Philippe Véron, Frédéric Segonds and Nicolas Croué. In *International Journal of Product Lifecycle Management,* 9(4), p. 305-332, 2016.

[2] An illustrated glossary of ambiguous terms used in discrete manufacturing. Romain Pinquié, Louis Rivest, Frédéric Segonds and Philippe Véron. In *International Journal of Product Lifecycle Management*, 8(2), p. 142-171, 2015.

- **Refereed Conference Papers**

[1] A property graph data model for a context-aware design assistant. Romain Pinquié, Philippe Véron, Frédéric Segonds and Thomas Zynda. In *Proceedings of the 16th IFIP International Conference on Product Lifecycle Management (PLM)*, Moscow, Russia, July 8-12 2019, p. xxx-xxx (*In press*).

[2] Proposition of design rules framework. Debord Simon, Frédéric Segonds, Romain Pinquié, Philippe Véron, and Nicolas Croué. In *CONFERE*, Budapest, Hungary, July 5-7 2018.

[3] A requirement mining framework to support sub-systems suppliers. Romain Pinquié, Philippe Véron, Frédéric Segonds and Nicolas Croué. In *Proceedings of the 28th CIRP Design Conference*, Nantes, France, May 23-25 2018, p. 410-415 (Nominated for the best paper award).

[4] Property Model Methodology: a case study with Modelica. Romain Pinquié, Patrice Micouin, Philippe Véron and Frédéric Segonds. In *Proceedings of the 11th International Conference on Tools and Methods of Competitive Engineering (TMCE)*, Aix-en-Provence, France, May 9-13 2016, p. 79-91, (Selected for Engineering with Computers)

[5] Natural language processing of requirements for model-based product design with Enovia-Catia V6. Romain Pinquié, Philippe Véron, Frédéric Segonds and Nicolas Croué. In *Proceedings of the 12th IFIP International Conference on Product Lifecycle Management (PLM)*, Doha, Qatar, October 19-21 2015, p. 205-215 (Nominated for the best paper award and selected for the International Journal of Product Lifecycle Management).

[6] A collaborative requirement mining framework to support OEMs. Romain Pinquié, Philippe Véron, Frédéric Segonds and Nicolas Croué. In *Proceedings of the 12th International Conference on Cooperative Design, Visualisation and Engineering (CDVE)*, Mallorca, Spain, September 20-23 2015, p. 105-114.

COURSES TAUGHT

- 2018-2019. Introduction to Systems Design at *Grenoble INP – School of Industrial Engineering*, post-graduate students, 55 hours.
- 2018-2019. Product Modelling and Product Lifecycle Management at *Grenoble INP – School of Industrial Engineering*, post-graduate students, 56 hours.
- 2018-2019. Modelling and Optimisation for Product Development at *Grenoble INP – School of Industrial Engineering*, post-graduate students, 60 hours.
- 2017-2018. Computer Aided Design Product Data Management at *Arts & Métiers ParisTech* Engineering School, post-graduate students, 58 hours.
- 2017-2018. Kinematics and dynamics of multibody systems at *Arts & Métiers ParisTech* Engineering School, post-graduate students, 20 hours.
- 2015-2016. Computer Aided Design and Product Data Management at *Arts & Métiers ParisTech* Engineering School, post-graduate students, 35 hours.
- 2015-2016. Equation-based physical systems modelling and simulation at *Ecole Polytechnique Féminine* Engineering School, post-graduate students, 24 hours.
- 2014-2015. Equation-based physical systems modelling and simulation at *Ecole Polytechnique Féminine* Engineering School, post-graduate students, 16 hours.

SERVICE

- Reviewer for the 22nd International Conference on Engineering Design, August 5-8 2019, Delft, The Netherlands.
- Reviewer for the 16th IFIP International Conference on Product Lifecycle Management, July 8-12 2019, Moscow, Russia.
- Reviewer for the 87th INCOSE Great Lake Regional Conference, October 17-20 2018, Indianapolis, USA.
- Reviewer for the 15th annual International CAD Conference, July 9-11 2018, Paris, France.
- Reviewer for the 28th annual INCOSE International Symposium, July 7-12 2018, Washington, USA.

- Reviewer for the 13th International Conference on Cooperative Design, Visualization and Engineering, October 17-20 2017, Mallorca, Spain.