Séverin Lemaignan

Senior Researcher
Cognition for Social Robotics

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35 years old

Scientific Focus	**Robot cognition and decision making for social interaction**: human-robot multi-modal interaction; theory of mind for robots; symbolic and sub-symbolic knowledge representation.
Keywords	**Robotic Cognition**, **Human-Robot Interaction**, **Cognitive Architectures**

Education and Research Activities

Apr. 2018– **Senior Research Fellow in Robotics and Artificial Intelligence**, *Bristol Robotics Lab, United Kingdom*.

2017–2018 **Lecturer in Robotics**, *Plymouth University, Plymouth, United Kingdom*.

2015–2017 **EU Marie Skłodowska-Curie Post-doctoral fellow**, *Centre for Neural Systems and Robotics, Plymouth University, Plymouth, United Kingdom*.
Development and Implementation of a Theory of Mind for robots.

2013–2015 **Post-doctoral fellow**, *CHILI, EPFL, Lausanne, Switzerland*.
Interaction with Robots in Learning Environments – Supervision of the robotic group.

2012–2013 **Post-doctoral fellow**, *LAAS-CNRS, Toulouse, France*.
Spatial and Temporal Reasoning for Cognitive Robotic Architectures.

2008–2012 **Joint German-French PhD in Cognitive Robotics**, *LAAS-CNRS, Toulouse, France / IAS-TUM, Munich, Germany*.
with High Distinction "Summa Cum Laude" – awarded CNRS' **Best PhD in Robotics 2012**
Supervisors: Pr. Rachid Alami, CNRS Senior Researcher, Pr. Michael Beetz, TUM Senior Researcher.

2006–2007 **Research Engineer**, *INRIA, Paris, France*.
Development of semantic-aware control architectures for autonomous vehicles.

2002–2006 **Joint German-French MSc of Engineering**, *Karlsruhe Institute of Technology / ENSAM ParisTech*.

2004–2005 **MSc Artificial Intelligence for Learning Technologies**, *University Paris V, College of Mathematics and Computer Sciences*, With Honours.

Awards and Honours

- **Best Paper Award 'Design'**, HRI'2017
- **Best Paper Award 'Methods and Theory'**, HRI'2016
- **Best Video Award in Artificial Intelligence**, AAAI'2015
- **Best Late Breaking Report Award**, HRI'2014
- **Best PhD in Robotics**, CNRS 2012
- **PhD with High Distinction** ("Summa Cum Laude"), TU Munich 2012
- **Best Paper Award**, ROMAN'2010
- **Gold Medal** (top ten students), ENSAM ParisTech 2006

Fellowships & Grants

2015–2017 **EU H2020 Marie Skłodowska-Curie Individual Fellowship**,
Principal Investigator, € 195 000.

Selected Publications

As of Oct 2018, 1500+ citations, h-index = 20 *(Google Scholar)*.
See *my website* for the complete list of publications, workshops and seminars.

International peer-reviewed journals

○ Lemaignan S., Edmunds C., Senft E., Belpaeme T., **The PInSoRo dataset: Supporting the data-driven study of child-child and child-robot social dynamics**, *PLOS One*, 2018.

○ Lemaignan S., Warnier M., Sisbot E. A., Clodic A., Alami R., **Artificial Cognition for Social Human-Robot Interaction: An Implementation**, *Artificial Intelligence*, 2017.

○ Lemaignan S., Jacq A. and Hood D., Garcia F., Dillenbourg P., **Learning by Teaching a Robot: The Case of Handwriting**, *IEEE Robotics and Automation Magazine*, 2016.

○ Lemaignan S., Ros R., Sisbot E. A., Alami R., Beetz M., **Grounding the Interaction: Anchoring Situated Discourse in Everyday Human-Robot Interaction**, *International Journal of Social Robotics*, 2011.

International peer-reviewed conference articles

○ Lemaignan S., Garcia F., Jacq A., Dillenbourg P., **From Real-time Attention Assessment to "With-me-ness" in Human-Robot Interaction**, *HRI*, 2016. **Best Paper Award**

○ Lemaignan S., Ros R., Alami R., Beetz M., **What are you talking about? Grounding dialogue in a perspective-aware robotic architecture**, *ROMAN*, 2011.

○ Lemaignan S., Ros R., Mösenlechner L., Alami R., Beetz M., **ORO, a knowledge management module for cognitive architectures in robotics**, *IROS* 2010.

Supervision & Teaching Experience

Students supervision, (click here for full list).

○ C. Wallbridge (PhD, 2016-): *Spatial reasoning for Child-Robot Interaction*
○ E. Senft (PhD, 2015-): *Machine learning approaches to social human-robot shared control*
○ A. Jacq (PhD, 2014-2015): *Mutual modeling and repair strategies in HRI*
○ A. Özgür (PhD, 2014-2015): *Cellulo: haptic robotics for learning*
○ D. Hood (MSc, 2014): *CoWriter project: Getting Nao to write on a tactile tablet*

2016–2018 **Lecturer**, *Plymouth University*.
teaching at BSc & MSc level robotics, including HRI, ROS, Kalman filtering, localisation and planning, control architectures

2013–2016 **Guest lectures**, *Plymouth University, EPFL*.
RGB-D cameras for HRI, Introduction to computer graphics & 3D modelling.

2008–2016 **Support lectures in robotics**, *Plymouth University, EPFL, LAAS-CNRS, Université de Toulouse*.
ROS, robotic simulation, ontologies, Python, software engineering.

2008–2011 **Teaching assistant**, *INSA Toulouse, Écoles des Mines de Paris*.
Prolog, Ontology Modeling, Java, ADA, SQL, Mechatronics.

Scientific Engagement & Dissemination Activities

2016–	**Program Committee**, *HRI 2016, 2017, 2018, 2019*.
2016–	**Associate Editor**, *IROS 2016, 2017, 2018*.
2018	**Program Committee**, *IJCAI 2018*.
2017	**alt.HRI chair**, *HRI 2017*.
2016	**Program Chair, Workshop on Cognitive Architectures for Social HRI**, *HRI 2016*.
2013	**Steering Committee, Intl. Workshop on MORSE for HRI**, *HRI 2014*.
2013	**Program Committee, Workshop on Developmental Social Robotics**, *IROS 2013*.
2012	**Steering Committee, Intl. Workshop on MORSE and its Applications**.

Recent keynotes and invited talks

2018	**From Children Free-play to Robot AI**, *keynote @ AAAI Fall Symposium'18*.
2017	**Of Cognition and Social Robots**, *University of Edinburgh*.

Selected outreach activities

2011	**'Roboscopie' Human-Robot public theater performance**, *Science Day'11*. `http://bit.ly/1LQpNWA`
2008–2011	**Toulouse's Cognitive Sciences Students Association**, *Co-chair*.
2008–2009	**South African SciFest festival**, *Science facilitator*.
1997–2012	**Executive Committee & Head of Educational Robotics, Planète Sciences**, *including coordination of the EUROBOT Robotic Competition* .

Technical Skills and Spoken Languages

Robotics		Programming	
	○ Expert in cognitive robotics and human-robot interaction		○ Python, modern C++, Prolog, SmallTalk
	○ Expert in symbolic knowledge representation		○ Open-source enthusiast GitHub: `github.com/severin-lemaignan`
	○ Expert PR2, Pepper, Nao developer		
	○ Contributor to ROS, OpenCV		
	○ Lead dev. MORSE simulator		

Languages

French	Native	
English	Fluent	*TOEIC score 925/990*
German	Advanced	*DSH*