

Séverin Lemaignan

Research Associate
Cognition for Social Robotics

+44 7907986893
✉ severin.lemaignan@plymouth.ac.uk
<https://academia.skadge.org>
33 years old



Scientific Focus

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.

PhD Title Grounding the Interaction: Knowledge Representation for Interactive Robots

Keywords **Robotic Cognition, Human-Robot Interaction, Cognitive Architectures**

Education and Research Activities

- 2015– **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 Educational 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 **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 **German-French MSc of Engineering**, Karlsruhe Institute of Technology / ENSAM ParisTech.
Final project: Ontologies and distributed systems for industrial processes.
- 2004–2005 **MSc Artificial Intelligence for Learning Technologies**, University Paris V, College of Mathematics and Computer Sciences, With Honours.

Awards and Honors

- **Best Paper 'Methods and Theory' Award**, HRI'2016
- Awarded the prestigious **European Marie Skłodowska-Curie Fellowship** to conduct research on Theory of Mind applied to robots
- **AAAI 2015 Best Video Award in Artificial Intelligence**
- **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

Selected Publications

See my website for the complete list of publications, workshops and seminars.

International peer-reviewed journals

- Lemaignan S., Warnier M., Sisbot E. A., Clodic A., Alami R., **Artificial Cognition for Social Human-Robot Interaction: An Implementation**, Artificial Intelligence, 2016.
- 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 (6-8 pages)

- 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.

- C. Wallbridge (PhD, 2016-): Spatial Reasoning for Child-Robot Interaction
- E. Senft (PhD, 2015-): Machine learning approaches to social human-robot shared control
- F. Garcia (Master, 2015): Real-time attention assessment
- A. Jacq (PhD, 2014-2015): Mutual modeling and repair strategies in HRI
- A. Özgür (PhD, 2014-2015): Cellulo: paper robots for large-scale robotic deployments in schools
- D. Hood (Master, 2014): CoWriter project: Getting Nao to write on a tactile tablet
- S. Chandra (PhD, 2013-2014): CoWriter project: learning by teaching handwriting to a robot
- J. Fink (PhD, 2013-2014): Long-term acceptance of robots in daily life, Anthropomorphism
- P. Tsemengue, M. Chouayakh (Master, 2010): The Dialogs natural language processor

2016 **Lecturer**, Plymouth University.

Humanoid & Mobile Robots (Kalman filtering, bipedal walking, 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 development.

2008–2011 **Teaching assistant**, INSA Toulouse, Écoles des Mines de Paris.

Prolog, Ontology Modeling, Java, ADA, SQL, Mechatronics.

Scientific Engagement & Dissemination Activities

2017 **Theme chair & Programme Committee**, HRI 2017.

2016 **Associate Editor**, IROS 2016.

2016 **Programme Committee**, HRI 2016.

2016 **Programme Chair, Workshop on Cognitive Architectures for Social HRI**, HRI 2016, <https://sites.google.com/site/cogarch4socialhri2016/>.

2013 **Steering Committee, Intl. Workshop on MORSE for HRI**, HRI 2014.

2013 **Programme Committee, Workshop on Developmental Social Robotics**, IROS 2013, <http://devsor2013.sciencesconf.org>.

- 2012 **Steering Committee, Intl. Workshop on MORSE and its Applications.**
- 2008–2009 **Steering Committee, Cognitive Sciences' Young Researchers Conference 2009,**
<http://fresco.risc.cnrs.fr/cjcsc2009/>.

Main Outreach Actions

- 2011 **'Roboscopia' Human-Robot public theater performance,** Science Day'11.
<http://bit.ly/1LQpNWA>
- 2008–2012 **Robotics Science Day Coordinator,** LAAS-CNRS.
- 2008–2011 **Vice President of Toulouse's Cognitive Science Student Association .**
www.incognu.fr
- 2008–2009 **Science communicator at South African SciFest festival.**
- 1997–2012 **Leading role at 'Planète Sciences' non-profit,** Head of the Robotics Department 2006–2007 – Executive Committee 2008–2011 – Science Camps leader (with BAFA certification) – Coordinator on the EUROBOT Robotic Competition .
<http://www.planete-sciences.org/>

Technical Skills and Spoken Languages

- | | |
|---|--|
| <p>Robotics</p> <ul style="list-style-type: none"> ◦ Expert in cognitive robotics and human-robot interaction ◦ Expert in symbolic knowledge representation ◦ Expert PR2, Pepper, Nao developer ◦ Contributor to ROS, OpenCV ◦ Lead dev. MORSE simulator | <p>Programming</p> <ul style="list-style-type: none"> ◦ Python, C++, Haskell, Prolog, SmallTalk ◦ Open-source enthusiast <p>GitHub:
 github.com/severin-lemaignan</p> |
|---|--|

Languages

- | |
|---|
| <p>French Native</p> <p>English Fluent</p> <p>German Advanced</p> |
|---|

TOEIC score 925/990

DSH