

## **Short Bio**

Salima Hassas is Professor at University of Lyon (Claude Bernard- Lyon 1 University). She leads the Multi-Agents Systems research group at the LIRIS-CNRS Laboratory. Her research interests include bio-Inspired multiagents systems and self-\* (self-organizing and self-adaptive systems), constructivist approaches for autonomous and cognitive agents, developmental artificial intelligence... Her research is applied to several application domains like Smart Environments (Smart Home, Smart Grid, Smart traffic Road, ...) and Ambient Intelligence, Intelligent Mobility, Virtual Assistants and Recommendation Systems and Social Robotics. Pr. Salima Hassas, is also strongly involved in FAS\* (Fundamentals and Application of Self-\* Systems) community where she served several times at chairing positions for the IEEE SASO conference (Steering Committee, General Chair, PC Chair, etc.) she also serves in the PC of major conferences in AI (AAAI, AAMAS, IJCAI, ECAI, ALIFE, ECAL, ...) and as Associate Editor for ACM TAAS (Transactions on Autonomous and Adaptive Systems) Journal. Pr. Salima Hassas is regularly invited as an Expert for European (H2020, FP7), National (ANR) and International (Germany, Canada, Norway, ..) research projects evaluation.

**Keynote Title**: Cognitive (Self-)Development of Smart Environments

## **Summary**

With the revolution of the Internet of things (IoT), the digital convergence, and the recent developments in research areas such as Artificial Intelligence, Cloud Computing, Service Oriented and Mobile Computing, innovative applications and services emerge, making traditional environments (home, vehicle, road, city, ..) more and more smart, enhancing the user digital experience and facilitating daily life. However, the more connected are these different environments, the more complex they become, dealing with a tremendous amount of data, high dynamics and complexity. Taking control over such environments becomes a more and more arduous task because of their decentralized, massive and interconnected character. Artificial Intelligence field is a fascinating area, that helps the development of artificial cognitive capabilities of smart environments, allowing them to develop their own mechanisms of control and operate helpfully to users. An illustration of these mechanisms will be presented through applications in Ambient Intelligence and Smart Home, Smart grid, Intelligent Transportation Systems and Social Robotics.