## Charles Tijus, Short Curriculum

Charles Tijus Ph.D was on the « *visual span memory of 3D objects* ». He has worked for two years on visual perception with Adam Reeves (*Vision Lab, Northeastern University, Boston, USA*) as a research assistant.

Charles Tijus is the Director of the *Cognitions Humaine et Artificielle Laboratory,* founded with M. Bui and F. Jouen *the*, CHArt, a Cognitive Science laboratory (Problem Solving, Understanding, Robotics and Cognitive Ergonomics) and with D. Boullier a new cognitive ergonomics Living LAB laboratory, "*Laboratoire des Usages des Techniques d'Information Numériques" (LUTIN),* which is an "USERLAB" (*something like the Audience Research Facility, Boston*), located at the "*Cité des Sciences et de l'Industrie*", La villette. LUTIN is a platform for usability observations and experimentations. The LUTIN hosts most of the analytical equipment required for its work. It provides access to various shared equipments such as eye-tracking systems, evoked potentials systems, physiological recording systems, video recording and analysis…. Advantages are participants for observations, technologies for observation and experimentation, cognitive simulation, interface between disciplines, and links with industries. LUTIN has close relations to hospitals, industries, and professional teams and users. It offers services and advices for the adequate conception and use of information technologies.

Charles Tijus develops a contextual categorization based approach in order to study the cognitive processes of understanding: Thinking, Reasoning, Decision-making and Learning in early child development and adults. This concern on adaptive behavior is very much with how people develop abilities and competencies. The methods comprehend empirical research, eyes-tracking, event-related potentials (ERPs): N400, and computer models for cognitive simulations. The current interdisciplinary and collaborative research (*cognitive psychology, neuroscience and computer science*) is on problem solving, on operative language as well as figurative language understanding, and on Cognitive Robotics and other Smart Cognitive technologies.

Charles Tijus was one of the 2014 IBM' Faculty Award Recipient. Main publications of Charles Tijus are in *Enfance (2015), Smart Learning Environment (2015), Revue de l'Association Française des Acteurs de l'Éducation (AFAE), Information Processing and Management of Uncertainty in Knowledge-Based Systems (2016, 2014), Musicae Scientiae (2014, 2009), Cognition (2013), Infant Behavior and Development (2013), Thinking & Reasoning (2004, 2005, 2012), Work (2012), MediaEval (2012), Enfance (2011), Journal of the European Society for the Cognitive Sciences of Music (2009), Safety Science (2009), Social Neuroscience (2009), Journal of Experimental Child Psychology (2007), Spatial Vision (2004, 2006), Cognitive Science (1993), Cognitive Science Meeting (1998, 2003, 2004), Leonardo (2002), Foundations of Science (2003), Mind and Society (2002), Journal of Sensories Studies (14, 79-96), L'Année Psychologique (2003, 2005), Le Travail Humain (200, 2006), Archives de Psychologie (2001), Revue Internationale de Systémique (1997)*, *The International Journal Of Early Years Education* (1, 5-20), *Psychologie Française (2002, 2004)*, *Modeling and Using Context (2005)*. He has published « *introduction à la psychologie cognitive* » (2001, Nathan), and « *Métaphore et Analogie* » (2003, Hermès).

Recent papers are on Internet Of Objects, Smart Things, Smart Clothes, Prospective Ergonomics, Problem Solving, Cognitive Development, attention, Creativity, Executive Functions, Living Lab Methodology and Computer Science Techniques (Knowledge representation, Data mining, Brain Computer Interaction).