

BICA 2012 – Third Annual Meeting of the BICA Society

Grand Hotel Piazza Borsa, Palermo

Wednesday, October 31st

13:00 – 15:00	Registration
15:00 – 16:30	WORKSHOP: Constructivist AI (Chairs Thorisson & Dindo) Room Borremans
	Kristinn R. Thorisson - Introduction to Constructivist AI & The HUMANOBS project.
	Ricardo Sanz - Engineering Self-engineering Systems.
	Eric Nivel - Introduction to AERA: Auto-catalytic, Endogenous, Reflective Architecture.
16:30 – 17:00	Coffee Break
17:00 – 18:30	Eric Nivel – Programming in AERA: the Replicode Programming Language.
	Haris Dindo - Learning in AERA.
	Wrap-up and discussion.
19:00-21:00	Welcome Party Cloister

Thursday, November 1st

8:00	Registration
8:15	Welcome and Open
8:30 – 10:30	Invited Talks (Plenary) Chair Haikonen Room Ducrot
	Karlheinz Meier - How To Simulate The Brain Without a Computer.
	Igor Aleksander - Back to Basics and Forward to Novelty in Machine Consciousness.
	Ricardo Sanz - Towards Architectural Foundations for Cognitive Self-aware Systems.
	Giulio Sandini - Babies and baby-humanoids to study cognition.

10:30 – 11:00	Coffee Break	
11:00 – 11:15	I Session (Chair Aleksander) Room Ducrot	II Session (Chair Sanz) Room Borremans
	Multimodal people engagement with iCub. S. M. Anzalone, S. Ivaldi, O. Sigaud, and M. Chetouani	Human action recognition from RGB-D frames based on real-time 3D optical flow estimation. G. Ballin, M. Munaro, and E. Menegatti
11:15 – 11:30	Modality in the MGLAIR Architecture. J. P. Bona and S.C. Shapiro	Robotics and Virtual Worlds: An Experiential Learning Lab. B. Caci, A. D'Amico, and G. Chiazzese
11:30 – 11:45	A Parsimonious Cognitive Architecture for Human-Computer Interactive Musical Free Improvisation. A. Linson, C. Dobbyn, and R. Laney	A New Humanoid Architecture for Social Interaction between Human and a Robot Expressing Human-like Emotions using an Android Mobile Device as Interface. A. Chella, R. Sorbello, G. Pilato, G.Vassallo, and M. Giardina
11:45 – 12:00	Simulation and anticipation as tools for coordinating with the future. H. Dindo, G. La Tona, E. Nivel, G. Pezzulo, A. Chella, and K. R. Thorisson	Do humanoid robots need a body schema? D. De Santis, V. Mohan, P. Morasso, and J. Zenzeri
12:00 – 12:10		
12:10 – 12:20	The concepts of intuition and logic within the frame of cognitive process modelling. O. Chernavskaya, A. Nikitin and J. Rozhilo	Solutions for a Robot Brain. W. Fritz
12:20 – 12:30	Development of a Framework for Measuring Cognitive Process Technical Performance. W. Hafez	The Small Loop Problem: A Challenge for Artificial Emergent Cognition. O. Georgeon and J.Marshall
	Internal Simulation of an Agent's Intentions. M. Johansson and M. Buonamente.	How to Engineer Biologically Inspired Cognitive Architectures. V. Seidita, M. Cossentino and A. Chella
12:30 – 14:00	Lunch	
12:30 – 14:00	Editorial Board Meeting of the International Journal of Machine Consciousness	
14:00 – 16:30	Invited Talks (Plenary) Chair Sandini Room Ducrot	
	Ignazio Licata - Turing and de Finetti Ganes: Machines making us think.	
	Michele Migliore - Odor perception through network self-organization: large scale realistic simulations of the olfactory bulb.	
	Kristinn R. Thorisson - Achieving AGI Within My Lifetime: Some Progress and Some Observations.	
	Pentti O. A. Haikonen - Consciousness and the Quest for Sentient Robots.	
	Soo-Young Lee - Active learning by selecting new training samples from unlabelled data.	

16:30 – 17:00	Coffee Break	
17:00 – 19:00	Special Event Preview (reserved to BICA 2012 Sponsors) <i>Sayonara Drama</i> at Teatro Massimo	
	I Session (Chair Licata) Room Ducrot	II Session (Chair Migliore) Room Borremans
17:00 – 17:15	A model of primitive consciousness based on system-level learning activity in autonomous adaptation. Y. Kinouchi and Y. Kato	Decision-Making and Action Selection in Two Minds. M. Kitajima and M. Toyota
17:15 – 17:30	Emotional emergence in a symbolic dynamical architecture. O. Larue, P. Poirier, and R. Nkambou	Cognitive Chrono-Ethnography: A Methodology for Understanding Users for Designing Interactions Based on User Simulation with Cognitive Architectures. M. Kitajima and M. Toyota
17:30 – 17:45	An Integrated, Modular Framework for Computer Vision and Cognitive Robotics Research (icVision). J. Leitner, S. Harding, M. Frank, A. Forster, and J. Schmidhuber	Insertion cognitive architecture. A. Letichevsky
17:45 – 18:00	Comprehensive uncertainty management in MDPs. V. Cannella, R. Pirrone, and A. Chella	Cognitive integration through goal-generation in a robotic setup. R. Manzotti, F. Mutti, G. Gini, and S.-Y. Lee
18:00 – 18:15	A review of cognitive architectures for visual memory. M. Mukawa and J.-H. Lim	A model of the visual dorsal pathway for computing coordinate transformations: an unsupervised approach. F. Mutti, H. G. Marques, and G. Gini
18:15– 18:30	Exemplars, Prototypes and Conceptual Spaces. M. Frixione and A. Lieto	Coherence Fields for 3D Saliency Prediction F. Pirri, M. Pizzoli, and A. Sinha
18:30 – 18:45	Principles of Functioning of Autonomous Agent-Physicist. V. G. Red'ko	An Approach Toward Self-Organization of Artificial Visual Sensorimotor Structures. J. Ruesch, R. Ferreira, and A. Bernardino
18:45 – 19:00	Biologically Inspired Methods for Automatic Speech Understanding. G. Salvi	Modeling Structure and Dynamics of Selective Attention. H. Schrobsdorff, M. Ihrke, and J. M. Herrmann
19:00 – 19:30	Open Discussion – Leader Sweitze Roffel Room Ducrot	

Friday, November 2 nd		
8:00	Registration	
8:00 – 10:30	Invited Talks (Plenary) Chair Meier Room Ducrot	
	Hiroshi Ishiguro - Biological fluctuation “Yuragi” as the principle of bio-inspired robots.	
	Alexei Samsonovich - Extending Cognitive Architectures.	
	Geraint A. Wiggins - Learning and Creativity in the Global Workspace.	
	Giorgio Ascoli - Architects or Botanists? The relevance of (neuronal) trees to model Cognition.	
10:30 – 11:00	Coffee Break	
11:00 – 11:15	I Session Chair Lo Re Room Ducrot	II Session Chair Manzotti Room Borremans
	Affect-Inspired Resource Management in Dynamic, Real-time Environment. W. Scott Neal Reilly, G. Fry, and M. Reposa	Crowd detection based on co-occurrence matrix. S. Ghidoni, A. Guizzo, and E. Menegatti
11:15 – 11:30	An Adaptive Affective Social Decision Making Model. A. Sharpanskykh and J. Treur	Investigating Perceptual Features for a Natural Human – Humanoid Robot Interaction Inside a Spontaneous Setting. H. Ishiguro, S. Nishio, A. Chella, R. Sorbello, G. Balistreri, M. Giardina, and C. Cali
11:30 – 11:45	Intertemporal Decision Making: a Mental Load Perspective. J. Treur	I feel blue: robots and humans sharing color representation for emotional cognitive interaction. I. Infantino, G. Pilato, R. Rizzo, and F. Vella
11:45 – 12:00	Safely Crowd-Sourcing Critical Mass for a Self-Improving Human-Level Learner “Seed AI”. M. R. Waser	A robot uses an evaluation based on internal time to become self-aware and discriminate itself from others. T. Takiguchi and J. Takeno
12:00 – 12:10	A non-von-Neumann computational architecture based on in situ representations: Integrating cognitive grounding, productivity and dynamics. F. Van der Velde	A biologically-inspired perspective on commonsense knowledge. P. Perconti
12:10 – 12:20	Unconscious Guidance of Pedestrians Using Vection and Body Sway. N. Watanabe and T. Omori	Multiagent recursive cognitive architecture. Z. Nagoev
12:20 – 12:30	Why Neurons are Not the Right Level of Abstraction for Implementing Cognition. C. Touzet	
12:30 – 14:00	Lunch	

14:00 – 15:00	Extended Abstracts Presentations (Chair Seidita) Room Ducrot
	The Analysis of Amodal Completion for Modeling Visual Perception. L. Albertazzi, J. Dadam, L. Canal and R. Micciolo
	Naturally Biased Associations between Colour and Shape: A Brentanian Approach. L. Albertazzi and M. Malfatti
	Architecture to Serve Disabled and Elderly. M. Buonamente and M. Johnsson
	Bio-inspired Sensory Data Aggregation. A. De Paola and M. Morana
	Clifford Rotors for Conceptual Representation in Chatbots. A. Augello, S. Gaglio, G. Pilato and G. Vassallo
	Neurogenesis in a High Resolution Dentate Gyrus Model. C.M. Vineyard, J.B. Aimone and G.R. Emmanuel
	A Game Theoretic Model of Neurocomputation. C.M. Vineyard, G.R. Emmanuel, S.J. Verzi and G.L. Heileman
15:00 – 16:00	BICA Funding Open Discussion – Oliver Da Costa Room Ducrot
16:00 – 17:00	BICA Society Meeting (Chair Samsonovich) Room Ducrot
17:00 – 19:00	Special Event <i>Sayonara Drama</i> at Teatro Massimo
20:30	Social Dinner Main Restaurant

Saturday, November 3rd

10:00-17:30	Excursion with lunch to Planeta ULMO Winery (Sambuca di Sicilia)
-------------	--