INNS-WC 2012 Technical Program (tentative – as of 17/09/2012)

Tuesday, October 2, 2012 – Pre-Conference Workshops at Thailand Science Park (for those who pre-registered and prepaid for these workshops) – in conjunction with InCoB2012

07:30 – 8:30 Transfer from Centara Grand at Central Plaza Ladprao Bangkok to Sirindhorn Science Home, Thailand Science Park, Pathumthani
08:30 – 9:00 Registration [Foyer, Sirindhorn Science Home]
09:00 – 12:00 Workshop I [Lecture 1, Sirindhorn Science Home]
              Bairong Shen (Director, Center for Systems Biology, Soochow University, China), Systems biology with R
09:00 – 12:00 Workshop II [Lecture 2, Sirindhorn Science Home]
              Hon Wai Leong (Department of Computer Science, National University of Singapore, Singapore), Sriganesh Srijhari (Department of Computer Science, National University of Singapore, Singapore), Computational methods for detecting protein complexes from whole-genome PPI networks
09:00 – 12:00 Workshop III [Auditorium, Sirindhorn Science Home]
             Gaurav Chopra (Department of Microbiology, University of Washington, USA), Atomic modeling of complex biological systems
12:00 – 13:00 Lunch at canteen
13:00 – 14:00 Transfer to Centara Grand at Central Plaza Ladprao Bangkok (for those not attending the afternoon session)
13:00 – 16:00 Workshop IV [Auditorium, Sirindhorn Science Home]
             Yang Cheng (Roche Diagnostics, China), Whole genome sequencing data analysis (using Roche 454 GS data analysis software)
16:00 – 17:00 Transfer to Centara Grand at Central Plaza Ladprao Bangkok

Wednesday, October 3, 2012

08:15 – 15:30 Registration [Ballroom Foyer, Centara Grand]
09:00 – 9:30 Opening Ceremony and Welcome Speeches [Ballroom B, Centara Grand]
             Dr. Sakarind Bhumiratana/ Dr. Shoba Ranganathan/ Dr. Thaweesak Koanantakool
09:30 – 10:15 Keynote Talk 1 [Ballroom B, Centara Grand]
             Jurg Ott (Professor Emeritus, Rockefeller University, New York, USA), Statistical approaches to testing and estimating the number of functional variants in complex disease Chair by Prasit Palittapongarnpim
10:15 – 10:45 Coffee Break
10:45 – 11:30 Keynote Talk 2 [Ballroom B, Centara Grand]
             Tatsuhiko Tsunoda (Director, Research Group for Medical Informatics, RIKEN Center for Genomic Medicine, Japan), Genomic medicine’s milestones and future Chair by Sissades Tongsima
11:30 – 12:00 Asia Pacific Bioinformatics Network (APBioNet) 2012 report [Ballroom B, Centara Grand]
12:00 – 12:15 Corporate presentation 1 [Ballroom B, Centara Grand]
             Yang Cheng, Roche Whole genome sequencing data analysis
13:15 – 14:00 INNS Keynote Talk 1 [Rungsit 1, Centara Grand]
             Fredric Ham (Professor, Florida Institute of Technology, USA), A neurocomputing approach for monitoring plinian volcanic eruptions and other natural phenomena using infrasound Chair by Irwin King
14:00 – 14:45 INNS Keynote Talk 2 [Rungsit 1, Centara Grand]
             Irwin King (Professor, Chinese University of Hong Kong, China), Social computing in the e-era Chair by Fredric Ham
14:45 – 15:45 Technical Session: INNS-WC1
INNS-WC1: Trends in Natural and Machine Intelligence [Rungsit 1, Centara Grand]
Chair by Fredric Ham
14:45 – 15:05 Stimuli Localization: An Integration Methodology Inspired by the Superior Colliculus for Audio and Visual Attention Kiran Ravulakollu, Jindong Liu and Kevin Burn
15:05 – 15:25 Self-Regulating Action Exploration in Reinforcement Learning
  Teck-Hou Teng, Ah-Hwee Tan and Yuan-Sin Tan
15:25 – 15:45 Controlling Generative Processes of Generative Art
  Somrukk Phuk-Amnuaisuk and Jirapat Panjapornpon
15:45 – 16:00 Coffee Break
16:00 – 17:00 Technical Session: INNS-WC2
  INNS Symposium on Data Analytics and Competitions [Rungsit 1, Centara Grand]
  Chair by Irwin King
  16:00 – 16:20 Temporal data mining and visualization for treatment outcome prediction in HIV patients
    Wipada Chanthaweethip and Sumanta Guha
  16:20 – 16:40 Post-Modern Portfolio Theory for Information Retrieval
    Ming-Feng Tsai and Chuan-Ju Wang
  16:40 – 17:00 Factors affecting students intention to choose IT program
    Sunisa Sathapornvajana and Banthit Watanapa
17:00 – 18:15 Technical Session: INNS-WC3
  INNS Symposium on Vision and Image Processing [Rungsit 1, Centara Grand]
  Chair by Irwin King
  Technical Session: INNS-WC3
  Posters Session [Ballroom Foyer, Centara Grand]
  - A Framework of Multi-Stage Classifier for Identifying Criminal Law Sentences
    Sotarat Thammaboosadee, Banthit Watanapa and Nipon Chareonkitkarn
  - Robustness Test of Genetic Algorithm on Generating Rules for Currency Trading
    Shangkun Deng, Yizhou Sun and Akito Sakurai
  - Source Identification of Traffic-Related Ultrafine Particles Data Mining Contest
    Kelly Sabaliauska, Greg Evans and Cheol-Heon Jeong
  - A set of criteria for face detection preprocessing
    Hossein Ziaei Nafchi and Seyed Morteza Ayatollahi
  - A Hybrid Approach to Localize Farsi Text in Natural Scene Images
    Maryam Darab and Mohamad Rahmati
  - Upper body tracking using KLT and Kalman filter
    Pouya Bagherpour, Seyed Ali Cheraghi and Musa Bin Mohd Mokji

Thursday, October 4, 2012

08:15 – 15:30 Registration [Ballroom Foyer, Centara Grand]
09:00 – 09:45 Keynote Talk 3 [Ballroom B, Centara Grand]
  Yongyuth Yuthavong (Professor Emeritus, Mahidol University, Thailand), Bioinformatics within
  and beyond biology
  Chair by Suthat Fucharoen
09:45 – 10:15 Plenary Talk 1 [Ballroom B, Centara Grand]
  Ram Samudrala (Professor, University of Washington, Seattle, USA), Computational analysis of
  novel drug opportunities (CANDO)
  Chair by Wasun Chantratita
10:15 – 10:45 Coffee Break
10:45 – 11:15 Plenary Talk 2 [Ballroom B, Centara Grand]
  Yutaka Yasui (University of Alberta, Canada), Epistasis exploration as a key element in GWAS
  data analysis
  Chair by Wasun Chantratita
11:15 – 11:45 Plenary Talk 3 [Ballroom B, Centara Grand]
  Richard Wintle (Assistant Director, The Centre for Applied Genomics, Sick Children Hospital,
  Canada), Old disorders, new approaches: genomic variability in autism spectrum disorder
  Chair by Jonathan Chan
11:45 – 12:15 Corporate presentation 2 [Ballroom B, Centara Grand]
  Robert Fassett, Oracle
  Addressing big data challenges to accelerate personalized medicine initiatives
13:30 – 15:40 Technical Session: INNS-WC4
  INNS Symposium on Vision and Image Processing [Rungsit 1, Centara Grand]
  Chair by Chee Seng Chan
13:30 – 13:50 Bounding Box Object Localization Based On Image Superpixelization
  Mostafa Ibrahim, Amr Badr, Mostafa Reda and Ibrahim Farag
13:50 – 14:10 A Novel Shape Descriptor for Rectangle-like Classification
  Rungkarn Siricharoenchai, Wasin Sinthupinyo and Teepop Sunpetchniyom
14:10 – 14:30  3D motion trajectory analysis approach to improve Sign Language 3D-based content recognition  
Mehrez Boulares and Mohamed Jemni
14:30 – 14:50  Firearm Classification Based on Numerical Features of the Firing Pin Impression  
Choong-Yeon Liong, Nor Azura Md Ghani, Saadi Bin Ahmad Kamaruddin and Abdul Aziz Jemain
14:50 – 15:10  Irregular Rotation Deformation from Paper Scanning: An investigation  
Mohammad Faidziul Nasrudin, Omar Wahdan and Khairuddin Omar
15:10 – 15:30  A Folded Neural Network Autoencoder for Dimensionality Reduction  
Jing Wang, Haibo He and Daniil Prokhorov
15:40 – 16:00  Coffee Break
16:00 – 17:00  **Technical Session: INNS-WC5**  
**INNS-WC5:** INNS Symposium on Women in Science and Engineering [Rungsit 1, Centara Grand]  
Chair by TBA
TBA
17:00 – 18:00  **Technical Session: INNS-WC6 & CSBio6**  
**INNS-WC6:** Demonstrations and Competitions [Rungsit 1, Centara Grand]  
Chair by Jonathan Chua
17:10 – 17:55  Gustavo Stolovitzky – via videoconferencing  
(Manager, Functional Genomics and Systems Biology, IBM Computational Biology Center)  
**IMPROVER diagnostic signature challenge and results + DREAM**
18:00 – 20:30  Conference dinner [Ballroom A, Centara Grand]

**Friday, October 5, 2012 – venue at School of Information Technology (SIT), King Mongkut’s University of Technology Thonburi (KMUTT)**

07:30 – 08:30  Transfer from Centara Grand to SIT, KMUTT
08:30 – 09:00  Registration [Foyer, 1st Fl. SIT Building]
09:00 – 12:00  **Technical Session: INNS-WC6 – (via video conferencing)**  
**INNS-WC6:** INNS Symposium on Autonomous Learning 1 [4th Fl. SIT Building]  
Chair by Asim Roy
09:00 – 09:30  Detecting and Preventing Error Propagation via Competitive Learning  
Thiago Silva and Liang Zhao
09:30 – 10:00  Autonomous learning is facilitated by knowing when to quit  
Thomas Schultz and Eric Doty
10:00 – 10:30  Autonomous learning in cognitive architectures  
Sebastien Helie and Ron Sun
10:30 – 11:00  An Autonomous Distal Reward Learning Architecture for Embodied Agents  
Shawn Taylor, Michael Healy and Thomas Caudell
11:00 – 11:30  An overview of what NSF wants for autonomous learning  
Asim Roy
11:30 – 12:30  Lunch [4th Fl. SIT Building] + tour of SIT/KMUTT
12:30 – 16:00  **Technical Session: INNS-WC7 – (via video conferencing)**  
**INNS-WC7:** INNS Symposium on Autonomous Learning 2 [4th Fl. SIT Building]  
Chair by Bruno Apolloni
12:30 – 13:00  On-line Spatio- and Spectro-Temporal Pattern Recognition with Evolving Spiking Neural Networks utilising Integrated Rank Order- and Spike-Time Learning  
Nikola Kasabov, Kshitij Dhoble, Nuttapod Nuntalid and Giacomo Indiveri
13:00 – 13:30  Autonomous Reinforcement Learning with Experience Replay for Humanoid Gait Optimization  
Pawel Wawrzyński
13:30 – 14:00  How a population-based representation of binocular visual signal can intrinsically mediate autonomous learning of vergence control  
Agostino Gibaldi, Andrea Canessa, Manuela Chessa, Fabio Solari and Silvio Paolo Sabatini
14:00 – 14:30  Autonomous exploration for navigating in MDPs  
Shiau Hong Lim and Peter Auer
14:30 – 15:00  A network of walking neurons  
Bruno Apolloni
15:00 – 15:30  Developmental mechanisms for autonomous life-long learning in robots
Pierre-Yves Oudeyer
15:30 – 16:00  Embodied learning with the humanoid robot iCub
Angelo Cangelosi
16:10 – 17:30  Transfer from SIT, KMUTT to Centara Grand