

Asia-Pacific Summer School on Bio-Inspired System and Prosthetic Device

Aug 24 - Aug 31, 2015

Asia-Pacific Summer School on Bio-Inspired Systems and Prosthetic Devices

亞太區仿生系統與醫療輔具夏季研習營

活動時間: 8/24(一)~8/31(一), 活動網址: <http://biopro2015.ee.nthu.edu.tw/>

本研討會主要目的為促進仿生系統與醫療輔具的研發與學術交流。在生醫工程研究中, 仿生概念可以提供創新的思維、使系統具人性化的設計、並促進醫療輔具的研發等。台灣於半導體製程與積體電路技術於世界具領導地位, 為促進製程與電路技術應用於仿生系統與醫療輔具研發, 本研習營將邀請 12 位亞太區國際學者, 以及 4 位以上台灣學者, 針對仿生系統及元件、仿神經感測系統、神經生理與模型、神經信息學、腦機介面與神經醫療輔具、認知科學與復健六大主題演講並提供實作學習的平台。透過本研習營的舉辦, 希望許多國內的學者及年輕學子能對於仿生系統以及醫療輔具的跨領域研究與知識有更深入了解, 並與國際學者交流, 進而從事相關研究。

	24 Aug (Mon.)	25 Aug (Tue.)	26 Aug (Wed.)	27 Aug (Thu.)	29 Aug (Sat.)	30 Aug (Sun.)	31 Aug (Mon.)
9:00 10:00		Prof. Shih-Chii Liu (ETH, Switzerland) Event-based sensors, processing algorithms, and networks	Prof. Jonathan Tapson (UWS, Australia) Order from chaos: engineered systems based on stochastic processes	Dr. Hari Subramanian (UQ, Australia) Neuromodulation of the midbrain periaqueductal gray: Opportunities and Challenges	Prof. Yagi Tetsuya (Osaka, Japan) A neuromorphic retina model and its applications in physiology and engineering	Prof. Leanne Chan (CUH, Hong Kong) Spatial Processing in Primary Visual Cortex Under Multi-Site Electrical Stimulation on Retina	Prof. Tong Boon Tang (UTP, Malaysia) Introduction to function Near Infrared Spectroscopy and its applications
	Coffee break						
10:30 11:30		Prof. Arindam Basu (NTU, Singapore) How can Dendritic Computation be useful in Neuromorphic Systems?	Prof. Hiro Okuno (Osaka, Japan) A wearable phosphene vision simulator for cortical visual prosthesis	Prof. Jeehyun Kwag (KU, Korea) Computational Models and Applications of Grid Cells and Place Cells	Dr. Garrick Orchard (NUS, Singapore) Spike-based Visual Processing	Prof. Guoxing Wang (SJTU, China) How Integrated Circuits Can Restore Vision for Blind People	Prof. Lee Wei Lim (SU, Malaysia) Deep Brain Stimulation of the Prefrontal Cortex: from Depression to Memory Enhancement
12:00 13:30	Lunch						Closing Remarks
13:30 14:20	Registration & Opening Ceremony	Prof. Shuenn-Yuh Lee (NCKU, Taiwan) Low Power Wireless ECG Acquisition and Cardiac Stimulation SOCs for Body Sensor Networks	Prof. Chung-Yu Wu (NCTU, Taiwan) Circuit and System Design in Implantable Closed-Loop Neuro-Prosthetic Systems for Epilepsy	Prof. Yen-Chung Chang (NTHU, Taiwan) Altered neural circuits in the primary motor cortex of hemi-Parkinsonian rats	Prof. Chung-Chuan Lo (NTHU, Taiwan) The virtual fruit fly brain – from bench-top to cyberspace	Project Presentation	
14:20 15:10		Discussion Hsin Chen, Sheng-Yu Peng	Discussion Kea-Tiong, Tang Hiro Okuno	Discussion Yee-Chung Chang, Shih-Rung Yeh	Discussion Chung-Chuan Lo, Yi-Wen Liu		
15:10 19:00		Hands-On Projects					
19:00 21:00	Dinner						

*Aug. 28th is the brainstorming day

報名日期: 即日起(6/15 日前有早鳥報名優惠, 限名額 100 人, 詳情請見活動網址)

活動費用: 學生:6000 元整/老師與業界人士:8000 元整 (以上為早鳥價, 不含住宿, 含每日午晚餐與 Brainstorming tour)

活動地點: 國立東華大學

主辦單位: 國立清華大學積體電路設計技術研發中心

協辦單位: 國立東華大學、Neuroinformatics Institute, ETH/Zurich university, Switzerland

聯絡人: 國立清華大學積體電路設計技術研發中心助理 何鈺美小姐

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