

## TEOH, Eu Jin

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### BIOGRAPHICAL DETAILS

*First name:* Eu Jin                      *Last name:* Teoh  
*Date of birth:* 14th April 1980        *Gender:* Male  
*Race:* Chinese                              *Religion:* Christian  
*Nationality:* Malaysian

### CONTACT INFORMATION (GENERAL)

Department of Electrical & Computer Engineering        *Voice:* (+65) 6515-1615  
Control & Simulation Laboratory                      *E-mail:* eujin.teoh@ieee.org  
Block E4, Level 5, Room 48                              *E-mail:* eujinteoh@nus.edu.sg  
4 Engineering Drive 3  
National University of Singapore  
Singapore 117576

### CONTACT INFORMATION (PERSONAL)

11 Toh Tuck Road                                      *Voice:* (+65) 9472-8732  
#03-49 High Oak Condominiums                      *E-mail:* eujin.teoh@gmail.com  
Singapore 596290                                      *E-mail:* eujinteoh@yahoo.com

### CONTACT INFORMATION (PERMANENT)

20 Jalan Payamunis                                      *Voice:* (+60) 07-236-4743  
Taman Johor  
81200 Johor Bahru  
Johor, Malaysia

### RESEARCH INTERESTS

Neural networks, computational neuroscience, nonlinear dynamics, recurrent neural networks, reinforcement learning, neural computation

### EDUCATION

**National University of Singapore**, Singapore  
*Department of Electrical & Computer Engineering*

Ph.D. Candidate, August 2004 (expected graduation date: July 2007/08)  
Modules read:  
EE5105 Computer-Controlled Systems (A)  
EE5204 Servo engineering (A+)  
EE5902 Multiprocessor systems (A)  
EE5904 Neural networks (A+)  
EE5912 High-speed networks (A)  
EE6701 Evolutionary computation (A+)  
Grade Point Average (GPA)/Cumulative Average Point (CAP): 5.0/5.0

- Dissertation Topic: *to be decided*
- Advisor: Dr. TAN, Kay Chen and Dr. XIANG, Cheng

**National University of Singapore**, Singapore  
*Department of Electrical & Computer Engineering*

B.Eng.(Electrical) *First Class Honours (Summa Cum Laude)*, July 2004  
Minor in Management of Information Technology  
Grade Point Average (GPA)/Cumulative Average Point (CAP): 4.78/5.0

**National Junior College**, Singapore  
*Science stream, under the ASEAN Pre-University Scholarship Programme*

Cambridge GCE Advanced ('A') -Levels, Nov 1999  
*Mathematics (with 'Special' Paper), Physics (with Special Paper), Chemistry, Computer Science, General Paper, Malay Language – 4 A's, 2 Merits (for 'Special' papers)*

Scholastic Aptitude Test (SAT) results:  
*SAT I: Verbal (670/800) Math (790/800)*  
*SAT II: Writing (740/800) Math II C (800/800) Physics (800/800)*

## HONORS AND AWARDS

### **President's Graduate Fellowship (2004-05)**

This fellowship is awarded by the Board of Graduate Studies at the National University of Singapore to recognize students with outstanding performance and great promise.

### **NUS Research Scholarship (2004-07)**

This scholarship is awarded by the National University of Singapore to outstanding graduates for research leading to a higher degree at the university.

### **Vice-Chancellor's List (2004)**

The Vice-Chancellor's List recognizes undergraduate students, particularly Honours and Talent Development Programme students who excel academically throughout their undergraduate candidature in the university. I was one of two students from the Electrical and Computer Engineering (ECE) department awarded for the 2004 commencement proceedings.

### **IEEE Control Chapter Prize (2004)**

The IEEE Control Chapter Prize is awarded to the final year student in the Department of Electrical & Computer Engineering with the best Control Engineering project. Donated by the IEEE Control Chapter of Singapore, the prize is awarded by the Board of Undergraduate Studies on the recommendation of the Selection Committee. My undergraduate senior thesis focused on the theoretical and practical applications of symmetrical recurrent neural networks with linear threshold activation functions.

### **Dean's List (2000-2004)**

Placed on the Dean's List for 3 years. A Dean's List student needs to obtain at least a semestral average point (SAP) of 4.5 as well as be in the top 5% of the cohort.

### **Talent Development Programme (2000-04)**

The Talent Development Programme (TDP, now known as the University Scholars Programme or USP) is a premier programme which encourages undergraduate students to seek breadth and excellence in their undergraduate studies. It is directed at students who have the potential to become leaders in their chosen fields. I was one of about 20 undergraduates from the Faculty of Engineering (of about 1600 students per year then) selected for this programme.

### **NUS ASEAN Undergraduate Scholarship (2000-04)**

This scholarship which covers all tuition fees and provides for an annual living allowance, is awarded to freshmen (from ASEAN countries) based on academic merit. The scholarship is offered by the university.

### **ASEAN Pre-University Scholarship (1998-99)**

The ASEAN Pre-University Scholarships are offered to outstanding students from the ASEAN region. They provide an opportunity for studies in top junior colleges in Singapore, leading to the General Certificate of Education (Advanced) Level Examination. The scholarship is offered

by the Ministry of Education, Singapore.

WORKING  
EXPERIENCE

**CNC Architects**, Johor Bahru, Johor, Malaysia *Intern*      **December, 1999 - January, 2000**  
Internship programme.

**Network for Electronic Fund Transfers (NETS)**, Singapore

*Java programmer/developer*

**May, 2002 - July, 2002**

Carried out several programming projects, including the development of an online registration system, database management, and design of overall layout.

**National University of Singapore**, Singapore

*Research/Teaching Assistant*

**Present**

Assist in carrying out laboratory demonstrations and sessions, grading homework and examinations. Modules which I have been involved in were EE4306 (Distributed Autonomous Robotic Systems, a senior course) and EG1108 (Electrical engineering, a freshmen course). I have also been involved in supervising research work of 5 final (honours) year students for their senior thesis.

RESEARCH  
PUBLICATIONS

- Tang, H. J., Tan, K. C. and Teoh, E. J., '*Dynamics analysis and analog associative memory of networks with LT neurons*', IEEE Transactions on Neural Networks, *accepted (to be published in March 2006)*.
- Teoh, E. J., Chiam, S. C., Goh, C. K. and Tan, K. C. (2005). '*Adapting evolutionary dynamics of variation for multi-objective optimization*', IEEE Congress on Evolutionary Computation 2005, Edinburgh, UK, 2-5 September, vol. 2, pp. 1290-1297.
- Goh, C. K., Quek, H. Y., Teoh, E. J. and Tan, K. C. (2005). '*Evolution and incremental learning in the iterative prisoner's dilemma*', IEEE Congress on Evolutionary Computation 2005, Edinburgh, UK, 2-5 September, vol. 3, pp. 2629-2636.
- Teoh, E. J., Xiang, C. and Tan, K. C. '*Estimating the Number of Hidden Neurons in a Feedforward Network Using the Singular Value Decomposition*', International Symposium on Neural Networks 2006, Chengdu, China, May 28-June 1, accepted.
- Teoh, E. J., Xiang, C. and Tan, K. C. '*A Fast Learning Algorithm Based on Layered Hessian Approximations and the Pseudoinverse*', International Symposium on Neural Networks 2006, Chengdu, China, May 28-June 1, accepted.

OTHER ACTIVITIES

- Stanford-VIA American Society and Business programme, Stanford University, Palo Alto, California, USA (2001).
- Selected to represent the faculty for the visit of the International Academic Advisory Panel (IAAP) biennial visit to Singapore (2005).
- Singapore Tourism Board (STB)-NUS Student Ambassador for Singapore Education (2005).
- Presenter at the First Singapore IEEE Control Chapter Postgraduate Student Workshop (2005).
- 19th International Joint Conference on Artificial Intelligence (IJCAI), Edinburgh, Scotland, reviewer (2005).
- IEEE Congress on Evolutionary Computation (CEC) 2005, Edinburgh, Scotland, presenter (recipient of the IEEE Student Travel Grant award).

EXTRA-CURRICULAR  
ACTIVITIES

- Captain: Tennis Team (Kent Ridge Hall) - Inter-Hall level
- Member: Table Tennis Team (Kent Ridge Hall) - Inter-Hall level
- Member: Hockey Team (Kent Ridge Hall) - Inter-Hall level
- Member: Fencing Team (Kent Ridge Hall) - Hall level
- Member: Wushu Team (Kent Ridge Hall) - Hall level
- Member: International Relations Committee (Kent Ridge Hall) - Hall level
- Leader: Hewlett-Packard Tech Quiz (National Junior College) - Regional (ASEAN) level
- Leader: NTU Materials Science Quiz (National Junior College) - National level
- Royal Commonwealth Essay Writing Competition (National Junior College) - International level

- COMPUTER SKILLS
- Mathematical Packages: MATLAB, Mathematica, Maple
  - Languages: C/C++, Java, Perl, Pascal
  - Applications: L<sup>A</sup>T<sub>E</sub>X, common Windows database, spreadsheet, and presentation software
  - Operating Systems: Unix/Linux, Windows
- LANGUAGE SKILLS
- English: Native fluency
  - Bahasa: Native fluency
- INTERESTS
- *Tennis*: I was captain of the tennis team in my residence at university, having played the sport for more than 14 years. Presently I have a National Tennis Rating Program (NTRP) rating of 5.5/7.0.
  - *Music*: I play the classical guitar (for about 6 years) and the electric organ (for about 16 years, grade 7).
  - *Reading and Writing*:
  - *Paragliding*: I recently took up paragliding, which admittedly is an expensive and dangerous hobby, with few paragliding sites in South East Asia. I flew to Kamshet (about 200km west of Mumbai) in India in May-June 2004 for lessons and flying experience.
  - *Volunteering*: During weekends, I volunteer in a tuition ministry for disadvantaged students in church, as well as organize activities within the church.
  - *Photography*: I enjoy backpacking and traveling to less well-known places, documenting the whole experience through the lens of my camera and the written word.
- REFEREES
- A/P Dr. Kay Chen, TAN  
*Professor, Department of Electrical and Computer Engineering, National University of Singapore*
  - Dr. Cheng, XIANG  
*Professor, Department of Electrical and Computer Engineering, National University of Singapore*
  - Dwight, CLARK  
*President, Haas Center for Public Service, Stanford University*

*Last updated: January 17, 2006*