LI Jian

Professional Address:
Department of Electrical and Computer
Engineering
University of Toronto
10 King's College Road,
Toronto, Ontario, Canada, M5S 3G4

Personal Address:
104 Oxford St, Toronto,
Ontario, Canada, M5T 1P3

Telephone: (1) 416 820 0487 (cell) (1) 416 946 8669 (office)
Email: lijian_tju@hotmail.com; lijian@eecg.toronto.edu

CURRENT SITUATION :

I am currently a Postdoctoral Fellow in the Department of Electrical and Computer Engineering at the University of Toronto.

EDUCATION:

- **University of Toronto,**   (June, 2007—now)
  - Postdoc Fellow
  - **Subject:** Real time Publish/Subscribe architecture for Complex Event Processing system
- **National Polytechnic Institute of Lorraine (INPL), France**   (2003---2007)
  - PhD study in Computer Science
  - **Laboratory** : LORIA (INRIA-Lorraine), Team TRIO
  - **Subject :** Guarantee the real-time Quality of Service according to (m,k)-firm constraint
  - **Advisor:**   Prof. SONG Ye-Qiong
                      NAVET Nicola (Co-supervisor)
  - Defence: February 14, 2007

- **University of Henri Poincaré (UHP-Nancy 1), France**   (2002---2003)
  - Master: Computer Science, Sep 2002--- July 2003
  - Laboratory: LORIA (INRIA-Lorraine), Team TRIO
  - Major: Telecommunication Networks and Service.

- **TianJin University, China**   (1997—2001)
  - Bachelor: Electronic and Information Engineering,
  - Graduation Project: Filtering characteristic of the parallel transmission line with determined length. (Best score in our grade: 97/100)

RESEARCH INTEREST:

- Middleware
- Information dissemination in large-scale distributed environment
- Distributed content-based Publish/Subscribe systems
- Real-time scheduling, real-time embedded system
- Real-time communication and networks
- Quality of service management, admission control, resources allocation, etc.
- Performance evaluation (Network Calculus, Queuing theory, Simulation)

PROFESSIONAL EXPERIENCES:

- ➢ **IC Design Engineer**: BeiJing Huahong NEC IC design Company, LTD, IP core section, 2001---2002, carried out the design of power management unit (PMU), participated digital camera design and KOTO project.

ACADAMIC EXPERIENCE:

- ➢ **Teaching Assistance**: Java programming at National Polytechnic Institute of Lorraine (INPL).

SKILLS:

- ➢ Publish/Subscribe system
- ➢ Networking protocols and architectures, TCP/IP, UDP, RTP, RTCP, RMI, etc.
- ➢ Distributed system.
- ➢ Real-time Embedded System design
- ➢ Hardware design Experience (Verilog Hardware Description Language, Synopsis EDA System, SoC design)
- ➢ Programming with C, C++, Java, XML, HTML

LANGUAGE:

- ➢ Chinese mandarin: mother tongue
- ➢ English: good working knowledge
- ➢ French: good working knowledge

REFERENCES:

Ye-Qiong SONG, Prof. at INPL-ENSEM
2, Avenue de la foret de Haye - 54516 VANDOEUVRE, France
Song@loria.fr
Tel: +(33) 3 83 59 55 80,   Fax: +(33) 3 83 59 56 62

Nicolas Navet, Permanent research scientist
French National Institute for Research in Computer Science and Control (INRIA / LORIA)
nicolas.navet@loria.fr
Campus Scientifique - B.P. 239 54506 Vandoeuvre-lès-Nancy France
Tel: +(33) 3 54 95 84 63,   Fax: +(33) 3 54 95 84 01

Françoise Simonot-Lion, Prof. at INPL - ENSMN
Parc de Saurupt France 54042 Nancy, France
Francoise.Simonot@loria.fr
Tel: +(33) 3 54 95 84 62   Fax: +(33) 3 83 57 97 94

SELECTIVE PUBLICATIONS:

[1]   Li, J.; Song, Y.; Simonot-Lion, F. "Providing Real-Time Applications with Graceful Degradation of QoS and Fault Tolerance According to (m, k)-Firm Model" *IEEE Transactions on Industrial Informatics*, Publication Date: May 2006 Volume: 2, Issue: 2 P.112- 119.

[2]   Jian Li, YeQiong Song, "Relaxed (m,k)-firm Constraint to Improve Real-time Streams Admission Rate under Non Pre-emptive Fixed Priority Scheduling" *11th IEEE International Conference on Emerging Technologies and Factory Automation, ETFA'06*, , Prague, Czech Republic, September 20-22, 2006.

[3]   Jian Li, YeQiong Song, "DLB: A Novel Real-time QoS Control Mechanism for Multimedia Transmission", Special Issue on Performance Evaluation of Web and Grid Based Computing of IJHPCN, accepted and to be appeared.

COMPLETE PUBLICATIONS:

Journal and book chapter:

[1]   Li, J.; Song, Y.; Simonot-Lion, F. "Providing Real-Time Applications with Graceful Degradation of QoS and Fault Tolerance According to (m, k)-Firm Model" *IEEE Transactions on Industrial Informatics*, Publication Date: May 2006 Volume: 2, Issue: 2 P.112- 119.

[2]   Ye-Qiong Song, A. Koubaa, J. Li. "Qualité de service temps réel selon le modèle (m,k)-firm", Systèmes temps réel 2: Ordonnancement, réseaux et qualité de service (Traité IC2, série Informatique et systèmes d'information), ISBN : 2-7462-1304-4, June 2006.

[3]   Jian Li, YeQiong Song, "DLB: A Novel Real-time QoS Control Mechanism for Multimedia Transmission", Special Issue on Performance Evaluation of Web and Grid Based Computing of IJHPCN, accepted and to be appeared.

International Conference:

 [4]   Li, Jian and Song, YeQiong and Simonot-Lion, Françoise "Schedulability analysis for system under (m,k)-firm constraints". In *5th IEEE International Workshop on Factory Communication System - WFCS'2004*, Vienna (Austria), Sep. 2004.

 [5]   Jian Li, YeQiong Song, "DLB: A Novel Real-time QoS Control Mechanism for Multimedia Transmission", *20th International Conference on Advanced Information Networking and Applications* (*AINA'06*) - Volume 1, pp. 185-190, 18-20 April 2006, Vienna, 2006.

[6]   Jian Li, YeQiong Song, "R-(m,k) firm: A novel QoS scheme for real-time flow guarantee in Networks" *14TH International Conference on Real-Time and Network Systems, RTNS'06*, Poitiers, France May 30-31, *2006.* Also selected for the special issue in International Journal of Embedded Systems.

[7]   Jian Li, YeQiong Song, "Relaxed (m,k)-firm Constraint to Improve Real-time Streams Admission Rate under Non Pre-emptive Fixed Priority Scheduling" *11th IEEE International Conference on Emerging Technologies and Factory Automation, ETFA'06*, , Prague, Czech Republic, September 20-22, 2006.

Colloquia:

[8]   LI Jian, Song YeQiong "DLB: A novel real-time QoS control mechanism for multimedia transmission", *7eme Journées Doctorales en Informatique et Reseaux*, *JDIR'06*, Dec. 13-15, 2005.

[9]   Li Jian, Song YeQiong, "A Graceful QoS Degradation Scheme for Loss Tolerant Real-time Applications", *Third Taiwanese-French Conference on Information Technology*, Nancy, France, March 28-30, 2006

Report:

[10]   Li, Jian and Song , YeQiong and Simonot-Lion, Françoise. "Providing real-time applications with graceful degradation of QoS and fault tolerance according to (m,k)-firm model. INRIA Technical Rapport, A05-R-406. 2005.

Memory:

[11]   Jian Li, "Filtering Characteristic of the parallel transmission lines with determined lengths", Bachelor graduation project.

[12]   Jian. Li. "Sufficient Condition for Guaranteeing (m,k)-firm Real-Time Requirement Under NP-DBP-EDF Scheduling." Technical report No. A03-R-452, MSc. thesis, LORIA, June, 2003.