

# Curriculum Vitæ

Gang Zheng

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## 1 Civil State

Last name: ZHENG  
First name: Gang  
Birthday: Jan 03, 1979 at Wuhan  
Nationality: Chinese  
Family situation: Married, without children  
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## 2 Positions

*Jan 2008 - Oct 2008*

**Postdoc**  
*Advisor:* Antoine Girard, MCF, CASYS/LJK, UJF  
*Subject:* High confidence validation of Analog and Mixed Signal circuits  
(<http://www-verimag.imag.fr/~tdang/VAL-AMS/>)  
*Fund:* Project of ANR

*Dec 2006 - Dec 2007*

**Postdoc**  
*Advisor:* Arnaud Tonnelier, CR1, BiPop/LJK, INRIA  
*Subject:* Irregular dynamical network  
(<http://www.inrialpes.fr/bipop/people/tonnelier/>)  
*Fund:* Project of ARC

## 3 Educations

*Oct 2004 - Nov 2006*

*Sep 2001 - Jul 2004*

*Sep 1997 - Jul 2001*

**Doctor** of Automatic from ENSEA, France  
**Master** of Electronic and Information from Wuhan University, China  
**Bachelor** of Electric and automatic from Wuhan University, China

## Thesis

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<i>Title</i>	Observability normal forms parameterized by outputs: Applications to cryptography by synchronization of chaotic systems
<i>Laboratory</i>	Équipe Commande de Systèmes, EA 3649, ENSEA
<i>Advisor of thesis</i> <i>Co-advisor of thesis</i>	<b>Jean-Pierre BARBOT</b> , Professor, ENSEA <b>Driss BOUTAT</b> , Associate professor, ENSI de Bourges
<i>President</i>	<b>Michel FLIESS</b> , Director of research at CNRS, Ecole Polytechnique
<i>Rapporteurs</i>	<b>Wilfrid PERRUQUETTI</b> , Professor, Ecole Centrale de Lille <b>Gildas BESANÇON</b> , Associate professor, INP Greno- ble
<i>Examineurs</i>	<b>Witold RESPONDEK</b> , Professor, INSA de Rouen <b>Jesus DE LEON</b> , Professor, Nuevo Leon University, Mexico (invited) <b>Thierry FLOQUET</b> , Junior scientist at CNRS, Ecole Centrale de Lille (invited)
<i>Start date</i>	October 1, 2004
<i>Defence date</i>	November 24, 2006 at ENSEA
<i>Fund:</i>	Bourse Eiffel Doctorat

## Internships

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<i>Oct 2001 - Mar 2002</i>	Software engineer at Xirui Company at Wuhan, China
<i>Dec 2000 - Mai 2001</i>	Software engineer at TaTong Company at Wuhan, China

## 4 Academic Collaborations

- ◆ Academic collaboration with **Pr. Wei KANG** (Naval Postgraduate School, Monterey, USA), **Dr. Driss BOUTAT** (HDR of ENSI at Bourges), about the research direction of **Normal form**.
- ◆ Academic collaboration with **Pr. Jean-Pierre BARBOT** of ENSEA and **Dr. Thierry FLOQUET** associate scientist of CNRS at LAGIS about the research direction of **Synchronization of chaotic system**
- ◆ Academic collaboration with **Pr. Jesus DE LEON** from University of Nuevo Leon, Mexico and **Dr. Malek GHANES**, assistant professor of ENSEA about the research direction of **Nonlinear observer design and control of chaotic system**
- ◆ Academic collaboration with **Dr. Arnaud TONNELIER** scientist of INRIA at BiPop, and **Dr. Dominique MARTINEZ** scientist of CNRS at LORIA, about the research direction of **dynamical network**
- ◆ Academic collaboration with **Dr. Antoine GIRARD**, assistant professor of University of Grenoble 1, about the research direction of **Verification of hybrid system**

## 5 Responsibilities

### 5.1 Reviewer of articles

- Reviewer of international journals
  - ✓ *Automatica*, 2006, 2007.
  - ✓ *IEEE Transactions on Circuits and Systems II*, 2006, 2007
- Reviewer of international conferences
  - ✓ *IEEE Conférence Internationale Francophone d'Automatique*, 2005
  - ✓ *IEEE Conference on Decision and Control*, 2005, 2006
- Reviewer of national conferences
  - ✓ *Journées Doctorales Modélisation, Analyse et Conduite des Systèmes dynamiques*, 2005

### 5.2 Conferences - Seminars - Workshop

- ◇ *Seminar BiPop-CASYS*, Jan, 2008, LJK, Grenoble, France. Analysis and simulation of complex system.
- ◇ *Seminar NeCS*, Jan, 2008, ENSIEG, Grenoble, France. Remotely safe control of complex system.
- ◇ *Seminar BiPop*, Jun, 2007, INRIA Rhône-Alpes, Grenoble, France. Simulation of spiking neural network.
- ◇ *Seminar BiPop*, Feb, 2007, INRIA Rhône-Alpes, Grenoble, France. Normal form and chaotic system.
- ◇ *Seminar ECS*, Jun, 2006, ENSEA, Cergy, France. Observability normal form dependant of its output.
- ◇ *International conference*, IFAC CHAOS06, 2006, Reims, France.
- ◇ *International conference*, CIFA06, 2006, Bordeaux, France.
- ◇ *International conference*, JDMACS, 2005, Lyon, France.
- ◇ *International conference*, SIAM conference, 2005, new Orleans, USA.
- ◇ *Workshop*, May, 2005, NanChang, Chine.
- ◇ *Seminar ECS*, Mar, 2005, ENSEA, Cergy, France. Bifurcation of nonlinear system.
- ◇ *Seminar ECS*, Nov, 2004, ENSEA, Cergy, France. Normal form.

### 5.3 Miscellaneous

One of the **presidents** of the session '*Bifurcations in control systems II*' of the international conference: **IFAC CHAOS06**, 2006, Reims, France.

## 6 Teaching

Year	University	Level	Course	Time
2006-2007	ENSEA	1st year	Linear system	24h TP
			Sampled and discrete system	24h TP
	IUT, University of Paris 13	1st year	Industrial local network	12h TP
			Language C	48h TP
2005-2006	IUT, University of Paris 13	1st year	Language C	30h TP
2004-2005	ENSEA	2nd year	Project	30h TP
			Project	20h TP

## 7 Scientific skills

Automatic:	Dynamic systems (chaotic, hybrid, impulsive), Cryptography via chaotic synchronization, dynamic network, Nonlinear Observer, Normal form, Bifurcation, Synchronization
Information:	Algorithm and data structure, Programming Languages (C/C++, VB/VC, Perl, Java, Matlab, Scilab), Design of ASIC, Multi-objective algorithm, Network protocol (TCP/IP), Windows/Linux
Mathematic:	ODE/PDE, Numerical methods, Geometric, Probability and statistic, Fourier analysis, signal process

## 8 Awards and Honors

*2005*

Bourse Eiffel doctorat

*2002*

Third-Class Group-Award of the Fourth National Graduate student's EDA Contest

*2001 - 2004*

Prize for Master of academic excellency

*2001 - 2004*

Chinese rank certificate Software Engineer

*1997 - 2001*

Prize for Bachelor of academic excellency

## 9 Languages

*Chinese*

Maternal

*English*

Fluent

*French*

Fluent

## 10 Miscellaneous

### 10.1 Characteristics

Confident, Perseverant, Optimistic, Creative and Cooperative

### 10.2 Hobbies

Travel, Classic music, Military history, Sport