



## DEPT. CODE: 1203

ADDRESS: DOMITORY 31 ROOM 801 YUQUAN  
CAMPUS ZHEJIANG UNIVERSITY  
HANGZHOU, 31002-7  
CHINA

SUBJECT TEST					
TEST DATE MMYY	TEST NAME	SCORE	% BELOW	SUBSCORE NAME	SCORE % BELOW

This report of scores is valid only if received directly from Educational Testing Service® (ETS®). GRE scores are confidential and should not be released by the recipient without the explicit permission of the examinee. All staff with access to score records should be explicitly advised of their confidential nature.

Each percentile rank (%) in this score report shows the percentage of examinees who took that test and scored lower than the reported score. Regardless of when the reported scores were earned, the percentile ranks for the General Test and for the Subject Tests are based on the scores of all examinees who tested within the most recent three-year period.

## GUIDELINES FOR THE USE OF GRE SCORES

The potential misuse of GRE scores is a central concern of the GRE Board. The *GRE Guide to the Use of Scores* contains guidelines describing both the appropriate uses of GRE scores and the limitations to their use. Critical guidelines include the following:

- Use multiple criteria
- Consider Verbal, Quantitative, and Analytical Writing scores as three separate and independent measures
- Avoid decisions based on small score differences
- Maintain confidentiality of GRE scores

You are urged to carefully evaluate your program's uses of GRE scores in light of these guidelines. To obtain a copy of the *Guide*, download it from the GRE website at [www.ets.org/gre/edupubs.html](http://www.ets.org/gre/edupubs.html) or contact the GRE Program at [gretests@ets.org](mailto:gretests@ets.org) or 1-609-683-2002.

## STANDARD ERROR OF MEASUREMENT (SEM)

The SEM of individual scores is a useful statistic for interpreting the accuracy of GRE scores. The SEM of score differences is a useful statistic for understanding whether differences between individual scores are meaningful. Refer to the *Guide* for an explanation of these terms and their importance in proper evaluation of GRE scores.

## SCORE LEVEL DESCRIPTIONS FOR THE ANALYTICAL WRITING MEASURE\*

Although the GRE Analytical Writing section contains two discrete analytical writing tasks, a single combined score is reported because it is more reliable than is a score for either task alone. The reported score, the average of the scores for the two tasks, ranges from 0 to 6, in half-point increments.

The statements that follow describe, for each score level, the overall quality of analytical writing demonstrated across both the Issue and Argument tasks. Because the test assesses critical thinking and analytical writing skills,

the ability to reason, assemble evidence to develop a position, and communicate complex ideas weigh more heavily than the writer's control of fine points of grammar or the mechanics of writing (e.g., spelling).

**SCORES 6 and 5.5** – Sustains insightful, in-depth analysis of complex ideas; develops and supports main points with logically compelling reasons and/or highly persuasive examples; is well focused and well organized; skillfully uses sentence variety and precise vocabulary to convey meaning effectively; demonstrates superior facility with sentence structure and language usage but may have minor errors that do not interfere with meaning.

**SCORES 5 and 4.5** – Provides generally thoughtful analysis of complex ideas; develops and supports main points with logically sound reasons and/or well-chosen examples; is generally focused and well organized; uses sentence variety and vocabulary to convey meaning clearly; demonstrates good control of sentence structure and language usage but may have minor errors that do not interfere with meaning.

**SCORES 4 and 3.5** – Provides competent analysis of complex ideas; develops and supports main points with relevant reasons and/or examples; is adequately organized; conveys meaning with reasonable clarity; demonstrates satisfactory control of sentence structure and language usage but may have some errors that affect clarity.

**SCORES 3 and 2.5** – Displays some competence in analytical writing, although the writing is flawed in at least one of the following ways: limited analysis or development; weak organization; weak control of sentence structure or language usage, with errors that often result in vagueness or lack of clarity.

**SCORES 2 and 1.5** – Displays serious weaknesses in analytical writing. The writing is seriously flawed in at least one of the following ways: serious lack of analysis or development; lack of organization; serious and frequent problems in sentence structure or language usage, with errors that obscure meaning.

**SCORES 1 and .5** – Displays fundamental deficiencies in analytical writing. The writing is fundamentally flawed in at least one of the following ways: content that is extremely confusing or mostly irrelevant to the assigned tasks; little or no development; severe and pervasive errors that result in incoherence.

**SCORE 0** – The examinee's analytical writing skills cannot be evaluated because the responses do not address any part of the assigned tasks, are merely attempts to copy the assignments, are in a foreign language, or display only indecipherable text.

**SCORE NS** – The examinee produced no text whatsoever.

\*These score level descriptions are also for the Writing Assessment that was discontinued in December 2003.

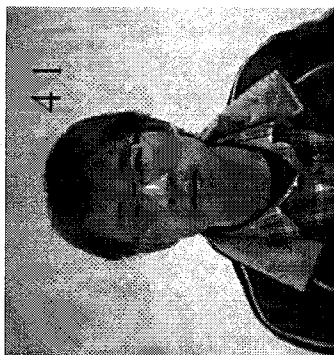
**TOEFL**

Internet-Based Test Official Score Report  
for the Test of English as a Foreign Language

Test Date: 21 Oct 2007	
Inst. Code: 2074	Dept. Code: '66
Dept. Description	
Engineering, Electrical	
Registration Number: 0000 0000 0403 8505	
Name: YE, CAN	
Gender: M	Native Country: China
Date of Birth: 26 NOV 1986	Native Language: CHINESE

YE, CAN  
LANTIAN 1-6015  
ZIJINGANG  
ZJU

HANGZHOU  
HANGZHOU, Zhejiang 310027  
China



TOEFL SCALED SCORES	
Reading	29
Listening	26
Speaking	19
Writing	24
Total Score	98

The face of this document has a multicolored background — not a white background.

# CAN YE

Address: P.O.Box 1007, Yuquan Campus, Zhejiang University,  
Hangzhou, 310027, P.R.China

---

## PERSONAL INFORMATION

- **Name:** Can Ye
- **Gender:** Male
- **Date of Birth:** November 26th, 1986
- **E-mail:** superyecan@gmail.com
- **TEL:** (86-571) 87999124
- **Mobile:** (86) 13858084614

## EDUCATIONAL BACKGROUND

- **September 2004-Present**  
→B.Eng.(in progress), Information Engineering, Zhejiang University, China  
→GPA: 90.8/100(overall)    95.4/100(major relevant courses)    rank: top 3%

- **Major Relevant Courses:**

**Mathematic courses:**

Calculus I	(95)	Calculus II	(100)
Calculus III	(93)	Linear Algebra	(99)
Probability Theory	(100)	Stochastic Process	(97)
Ordinary Differential Equation	(100)	Partial Differential Equation	(94)
Discrete Mathematics	(94)	Complex Variable Functions	(96)

**Engineering basic courses:**

C language & Its Lab	(98)	Physics I	(96)
Physics II	(100)	Electric Circuit Theory	(95)

**Major core courses:**

Signal & Systems	(96)	Analogue Electronic Circuits	(94)
Electromagnetic Fields	(95)	High-Freq Electronic Circuits	(90)
Digital Signal Processing	(95)	Digital Circuits	(96)
Communication & Networks	(90)	Computer Architecture	(95)
Information Theory	(93)	Application of DSP	(94)
Digital Image Processing	(95)	ASIC Design	(90)

## RESEARCH INTERESTS

- Signal & Image Processing, Object Detection and Recognition, Biomedical Image Processing, Computer Vision, Wireless Communication & Network

## RESEARCH & WORK EXPERIENCE

- Oct.2007-Present    *Participating in the program, titled "Real-time Moving Object Detection and Tracking"*  
Video & Image Processing Laboratory    Supervisor: A. Pro. Huiming Tang  
◆ Designing a background model that handles the illumination variation problem
- Aug.2007-Sep.2007    *Participating in the program, titled "Design of Sequence in CDMA Hopping Frequency"*  
Lab of Wireless Communication & Networks    Supervisor: Pro. Aiping Huang  
◆ Built stationary & dynamic models for wireless channels using SIMULINK

- Feb.2007-Jun.2007** ♦ Compared different channel models and accomplished report study  
**Participating in the project, titled "Design of a digital communication system based on FPGA"**  
Digital Circuit Laboratory. Supervisor: A. Pro. Li Xie
- ♦ Completed the design of FIR Digital Filter
- ♦ Completed the design of Digital Phase-Locked Loop
- ♦ Completed simulation of the project with Modelsim and ISE
- July.2006-May.2007** **Leader of project, "Design of the wireless presenter using Bluetooth technique"**  
Department of I.S.E.E, Zhejiang Univ. Supervisor: Pro. Dongxiao Yang
- ♦ Built sending and receiving items using Bluetooth technique
- ♦ Completed the whole design with Bluetooth chip BCM2048
- Oct.2006-May.2007** **Student Research Training Program "Realize the function of Text File to Speech in C++ language"**  
College of Info Science& Engineering, Zhejiang Univ. Advisor: A. Pro. Xinhao Chen
- ♦ Using Microsoft Speech SDK to link text and speech
- ♦ Implementing the tool of MFC to edit GUI(Graphical User Interface)
- May.2006-Jun.2006** **Leader of project, "Design of an energy- saving system for CPU"**  
Math contest in Modeling, Zhejiang Univ. Advisor: Pro. Qifan Yang
- ♦ Built a complex nonlinear model of an energy-saving system for CPU
- ♦ Solved the model using both MATLAB and heuristic algorithm in C language

## AWARDS & HONORS

- 2006-2007 Second-Place Scholarship for Outstanding Academic Performance
- 2006-2007 Outstanding Student Award
- 2005-2006 First-Place Scholarship for Outstanding Academic Performance
- 2005-2006 Outstanding Student Award
- 2004-2005 Second-Place Scholarship for Outstanding Academic Performance
- 2005-2006 Outstanding Student Award
- 2006 Third Prize, Mathematical Contest in Modeling, Zhejiang Univ.

## MEMBERSHIP

- 2005-2007 Assistant coordinator of Student Union, College of Information Science & Engineering, Zhejiang University

## VOLUNTEER SERVICE

- Sep.2006-Oct.2007 Volunteer interpreter in 2007 Hangzhou World Leisure Exposition, Hangzhou
- May.2005 Blood donation volunteer, Zhejiang Univ.

## COMPUTER SKILLS

- Proficient with Verilog & VHDL Programming, C/C++ Programming, MATLAB, MAXPLUS II, MODELSIM, CCS, ISE, PROTEL

## PERSONALITY

- Internal habit to be diligent, creative, cooperative and independent in research .
- Leadership and interpersonal communication skill

## PERSONAL INTERESTS

- Calligraphy, photography, programming, football



---

## Statement of Purpose

### *Why Ph.D.?*

“Are you willing to lead the life of a researcher, which is characterized by many hours a day in the lab?” This was the first question I asked myself when I made the decision of applying for a Ph.D. degree. The smile on my face told the story, “Definitely. To work on research means I could discover things that no other human has ever discovered before.” My career goal is to become a technical leader in IT and make contributions to help shape the future of mankind. I believe a Ph.D. degree is the standard path to my chosen career.

### *What's done?*

#### **Feb.2007-Jun.2007**

In the Digital Circuits Lab, I participated in the project of “Designing a digital communication system based on FPGA”. I was responsible for the design of several parts. I utilized the method of machine station to complete the design of digital voltage oscillator and double edge triggered counter. Besides, I realized multiplier and adder in Verilog based on modified Booth algorithm and the method of Wallace tree. Finally, I completed simulation of the project with Modelsim and ISE.

#### **Aug.2007-Sep.2007**

To explore something new, I applied to join the Wireless Communication & Network Lab presided over by Prof. Huang. I studied completely the principles, backgrounds, applications of CDMA, GSM and other mobile communication systems. Also, I learned certain important wireless communication protocols like IEEE802, and completed simulation of some important models of wireless communication using MATLAB SIMULINK. Based upon the work done and after delving relevant papers, I accomplished two successful research reports.

#### **Oct.2007-Present**

I entered Video & Image Processing Laboratory and concentrate my research on the topic of “Real-time Moving Object Detection and Tracking”. In these two months, I studied some papers in related fields concerning several keen problems and methods, such as consecutive frames subtraction, background subtraction, Gaussian model and edge detection. For the time being, I focus on designing a background model that handles the illumination variation problem in the object detection. What I intend to do is to propose a real-time algorithm, which aims to detect and track a moving object in a motionless background. The algorithm could utilize background model and background subtraction to enhance efficiency and performance of object extraction.

Though the work and research are to some extent fragmentary and fundamental, I gained beneficial experience in programming and simulation, reports and paper study, which laid a solid foundation for my future study and research. Moreover, from these projects I cultivated my ability to research independently and work in a team environment.



浙江大学  
ZHEJIANG UNIVERSITY

CanYe  
Birthday: Nov 26<sup>th</sup>, 1986  
Proposed to ECE of CMU

### ***Why the ECE graduate program of CMU?***

I have long admired Carnegie Mellon University famous for its demanding work ethic and nurturing academic atmosphere. The ECE graduate program of your esteemed university has a world-wide prestige, having many internationally renowned faculty members, world-class experimental and computational facilities, and the best students from around the world. All of these will set a good platform for me to exercise my keen intelligence and diligence.

If I am given the opportunity to be accepted into your honored graduate program, I would like to focus my study and research on one or a combination of the following areas: Digital Signal & Image Processing, Biomedical Image Processing, Computer Vision, Object Detection and Recognition, Wireless Communication & Network, which share many common characteristics and important principles.

### ***What unique characteristics make me eligible?***

When taking a retrospective view of my growth, I find that every time I entered a new period of study, at first I might be common; however by the end I would prove to be one of the best. What made me stand out from others is my character, “aggressive work ethic” and “tenacity”.

To be aggressive means “the desire to stand out”. A student or prospective researcher must be aggressive if he/she wants to succeed. He/she should never stop to make any further progress and bigger success spurred by his/her ambitions or dreams. Upon enrollment into the E.E department of Zhejiang University, a highly selective department of exceptional students, I ranked near the bottom of the entire enrolling list. However, as a result of hardworking upon my potential and intelligence, I entered the top twenty percent of about 230 students by the end of the first semester. In fact at the end of second semester in my first year, I was ranked number one in the whole grade.

My characteristic of tenacity refers to a determination to stand out. A prospective researcher should always hold faith and confidence in his/her heart. As to me, I might be frustrated by setbacks for a moment, but I could never be beaten down forever. It makes me recall the most difficult and tough time in my college life. In the second semester of my third year, I was knocked down by an acute appendicitis which required hospitalization treatment for nearly two weeks. When I was able to return to school before the semester final, I found that I had only one week to prepare and finish my course project and examinations. I felt despaired at the time. However, I held on and tried my best. Finally, surprisingly even to myself, I completed the course project and finished examinations on time. Although I did not perform some of them as successfully as before, accomplishing them was another kind of “success” for me.

I am confident that the characteristics of “aggressiveness” and “tenacity” will still play an important role in contributing to my graduate study. I believe I will succeed in my further academic pursuits since I have the “desire” and “determination” to stand out!



浙江大学

中国·杭州

ZHEJIANG UNIVERSITY HANGZHOU CHINA

Department of I.S.E.E  
Hang Zhou, 310027, China  
Dec.8th 2007

Dear Sir or Madam:

I strongly recommend Mr. Ye, one top undergraduate from the Department of Information Science and Electronics Engineering for his admission and financial aid into your esteemed graduate program.

I got to know Mr. Ye personally when he was taking my course of Plan & Design of Electronic Products. It is a privilege only access to the most outstanding students in our department and aims to develop practical research experience. In the project of this course, Mr. Ye along with his teammates designed a wireless presenter. He was responsible for sending and receiving items and utilized Bluetooth technique to complete the design. His work was meticulous and he far exceeded my expectations for an undergraduate student. I believe that what he gained from the course and relevant projects should be of great help to his oversea study.

Besides, I am also impressed by his academic performance since he performed excellently in almost every major relevant course. Overall, his academic record is outstanding as evidenced by his overall GPA of 90.8 and major GPA of 95.4. He also ranks about 3% in our department constituted of almost 330 students. Given his solid academic background, I am confident that he has the ability and potential to undertake future graduate study.

I am sure that Mr. Ye will be an outstanding student in your honored doctoral program and succeed in his future academic pursuits. Therefore, I strongly recommend his admission without any reservation.

Sincerely yours,

A handwritten signature in black ink, appearing to be 'Dongxiao Yang', written in a cursive style.

Dongxiao Yang, Professor

Director of Department of Information Science and Electronics Engineering

Email: [yangdx@zju.edu.cn](mailto:yangdx@zju.edu.cn)





# ZHEJIANG UNIVERSITY

## Student's Academic Records

Registration No: A10376

Name: Ye Can		College / Dept.: College of Information Science & Engineering		Specialty: Information Engineering		Student ID: 3041100198	
Sex: Male	Birthday: 11/26/86	Birth Place: Zhejiang		Entrance Date: 09/01/04		Graduation Date: 06/30/08	
Years of Program: 4. Years							
1st Academic Year		2nd Academic Year		3rd Academic Year		4th Academic Year	
Courses (1st Term)	*Cr	*Sc	Courses (1st Term)	*Cr	*Sc	Courses (1st Term)	*Cr
Basic Theory of Computer	2.50	85	Physics	4.00	100	Circuit Installing	1.50
Writing	2.00	83	English (Band 4)	3.00	91	High Frequency Electronic Circuits	3.50
English (Band 2)	3.00	85	Deng Xiaoping's Theory & Ideas of Three Represents	3.00	83	Industrial Training	1.50
Engineering Chemistry	2.00	85	Electric Circuit Theory	3.00	95	Computer Architecture	2.00
Engineering Graphics	2.50	92	Lab. of Electrical Circuits	1.00	A	Discrete Mathematics	2.50
Lab. of Chemistry	0.50	B	Complex Variable Functions & Integral Transformation	1.50	96	Digital Circuit	3.50
An Introduction to Mao Zedong's Thoughts	1.50	85	Probability Theory	1.50	100	Lab. of Digital Circuit	1.00
Physical Education	1.00	81	Physical Education	1.00	75	Digital Signal Processing	3.50
Mental & Moral Accomplishment	2.00	82	History of World Civilization	1.50	90	Fundamental Knowledge of Law	1.50
Calculus I	4.50	95	Stochastic Process	1.50	97		
Linear Algebra	2.50	99	Modern Etiquette	1.50	95		
Courses (2nd Term)	*Cr	*Sc	Courses (2nd Term)	*Cr	*Sc	Courses (2nd Term)	*Cr
Fundamentals of Programming in C-Language & Its Lab.	3.00	98	Lab. of Physics	1.50	A	Computer Aided Communication & Networks	2.50
Ordinary Differential Equations	1.50	100	Electromagnetic Fields	2.00	95	Lab. of Modern Wireless Communications & Networks	1.00
Physics	4.00	96	Plan & Design of Electronic Products	1.00	90	Information Theory	2.00
English (Band 3)	3.00	94	Analogue Electronic Circuits	4.00	94	ASIC Design	2.00
Partial Differential Equations	1.50	94	Lab. of Analogue Electronic Circuits	1.00	A	DSP Lab.	2.00
Technology of Digital Photography	2.00	93	Signals & Systems	4.50	96	Application of DSP	2.00
Investment & Financing	1.50	91	Philosophy	2.50	91	Advanced Information System Design & Practice	4.00
Calculus II	1.50	100	Political Economics	1.50	85	Lab. of Communication Technique	1.00
Calculus III	2.00	93	Physical Education	1.00	84	Principles of Communications	3.00
Physical Education	1.00	69	Modern Economics	2.00	76	Lab. of Principles of Communications	0.50
						Lab. of High Frequency Electronic Circuits	1.00
							93
Credits Required for Graduation: 166.00		Credits Obtained: 134.00		Degree Granted:			

\*Cr—Credits; \*Sc—Score;  
Three grade systems are used simultaneously in Zhejiang University, specifically as follows:  
1. The percentage system: Above 60 is passing, 100 is full mark;  
2. Five degree grading: Excellent(A), Good(B), Fair(C), Passing(D), Failed(E);  
3. Two degree grading: Passing(P), Failed(F).

Dean of Academic Affairs:  Date Issued: 09/06/07  
Registrar:   
This style transcript has been formally in use since September 1, 1999.

登记号: A10376

# 浙江大学学生成绩一览表

姓名: 叶臻		院/系: 信息科学与工程学院		专业: 信息工程		学号: 3041100198								
性别: 男	生日: 1986年11月26日	出生地点: 浙江		入学日期: 2004年09月01日	毕业日期: 2008年06月30日	学制: 4. 年								
第一学年			第二学年			第三学年			第四学年			第五学年		
第一学期课程名称	学分	成绩	第一学期课程名称	学分	成绩	第一学期课程名称	学分	成绩	第一学期课程名称	学分	成绩	第一学期课程名称	学分	成绩
计算机基础	2.50	85	物理学	4.00	100	电路安装	1.50	94	第二课堂	4.00	优			
写作	2.00	83	英语四级	3.00	91	高频电子线路	3.50	90						
英语二级	3.00	85	邓小平理论和“三个代表”	3.00	83	工程训练	1.50	84						
工程化学	2.00	85	电路原理	3.00	95	计算机系统结构	2.00	95						
工程图学	2.50	92	电路原理实验	1.00	优	离散数学	2.50	94						
化学实验	0.50	良	复变函数与积分变换	1.50	96	数字电路	3.50	96						
毛泽东思想概论	1.50	85	概率论	1.50	100	数字电路实验	1.00	86						
体育	1.00	81	体育	1.00	75	数字信号处理	3.50	95						
思想道德修养	2.00	82	世界文明史	1.50	90	法律基础	1.50	89						
微积分 I	4.50	95	随机过程	1.50	97									
线性代数	2.50	99	现代礼仪	1.50	95									
第二学期课程名称	学分	成绩	第二学期课程名称	学分	成绩	第二学期课程名称	学分	成绩	第二学期课程名称	学分	成绩	第二学期课程名称	学分	成绩
C语言程序设计基础及实验	3.00	98	物理学实验	1.50	优	计算机通信与网络	2.50	90						
常微分方程	1.50	100	电磁场理论	2.00	95	现代无线通信与无线网络实验	1.00	优						
物理学	4.00	96	电子产品策划与设计	1.00	90	信息论基础	2.00	93						
英语三级	3.00	94	模拟电子线路	4.00	94	专用集成电路设计技术基础	2.00	90						
偏微分方程	1.50	94	模拟电子线路实验	1.00	优	DSP实验	2.00	81						
数码摄影技术	2.00	93	信号与系统	4.50	96	DSP芯片应用技术	2.00	94						
投资与理财	1.50	91	哲学	2.50	91	高级信息系统设计与实践	4.00	64						
微积分 II	1.50	100	政治经济学	1.50	85	通信技术实验	1.00	良						
微积分 III	2.00	93	体育	1.00	84	通信原理	3.00	89						
体育	1.00	69	现代经济学	2.00	76	通信原理实验	0.50	良						
						高频电子线路实验	1.00	93						
毕业应获最低学分: 166.00						已获得学分: 134.00						授予学位:		

记载成绩说明:

- 1. 百分制: 60分及60分以上为及格、100分为满分;
- 2. 五级计分制: 优秀、良好、中等、及格、不及格;
- 3. 二级计分制: 合格、不合格。

教务处长:

注册主任:

签发时间: 2007年09月06日

RECOGNITION INSTRUCTION: 1. "ZHEJIANG UNIVERSITY" is microprinted on the lower right corner as a line, they can be seen under the magnifying glass. 2. The fluorescent school badge of ZHEJIANG University on the higher left corner will appear under the UV light. 3. The words "ZJU" on the center of the report will turn purple under the sunlight. 4. This style transcript has been formally in use since September 1, 1999.

# CERTIFICATION

This is to certify that Mr.Ye Can, born in November 1986, is studying in the College of Information Science & Engineering, Zhejiang University with a specialty of Information Engineering now. He will be granted graduation and be awarded the Bachelor's Degree in Engineering in June 2008.

Academic Affairs

Zhejiang University

Oct. 23, 2007



# CERTIFICATE

This is to certify that Overall GPA of Mr.Ye Can is  
3.87/4.0(90.8/100).

Registrar:

Zhejiang University

