Building a World-Class University

Zhang Wenjun
VP, SJ TU
Prof. of Electrical Engineering
Building a Team of Top Talent
### Faculty

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-time Faculty</td>
<td>3,373</td>
</tr>
<tr>
<td>With doctoral degree</td>
<td>2335</td>
</tr>
<tr>
<td>Doctoral degree conferred by overseas universities</td>
<td>398</td>
</tr>
<tr>
<td>Full professors</td>
<td>763</td>
</tr>
<tr>
<td>Associate Professors</td>
<td>1,178</td>
</tr>
</tbody>
</table>

### High Talent

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Academicians of Chinese Academy of Sciences</td>
<td>15</td>
</tr>
<tr>
<td>Academicians of Chinese Academy of Engineering</td>
<td>18</td>
</tr>
<tr>
<td>National “Changjiang” Chair Professors</td>
<td>88</td>
</tr>
<tr>
<td>Project Leaders of the National 973 Programs</td>
<td>16</td>
</tr>
<tr>
<td>Recipients of National Science Funds for Outstanding Youth</td>
<td>61</td>
</tr>
</tbody>
</table>
Building a Team of Top Talent

A series of plans for introducing and nurturing high-level talents

- **2013**
  - "Morning Star" Young Scholars: 1000
  - Special Research Fellows: 300
  - Distinguished Professor (Chang Jiang Scholars, Outstanding Youth): 120

- **2020**
  - Academicians: 100
  - "Endowed Chair Professors": 200
  - "Morning Star Program", "Candle Light Program": 800
  - "Morning Star" Young Scholars: 2000
  - Special Research Fellows: 400
Since 2007, the university has made significant progress in nurturing greater high-level talent and in honing its faculty structure.
Speeding up the cultivation of talent at all levels, especially those 35 years old and younger.

697 excellent faculty members have been supported by the “Morning Star” and “Candlelight” incentive programs.
III Cultivating Innovative Leaders
SJTU aims to cultivate future leaders with comprehensive capabilities.

Inheriting fine traditions
“A high starting point, solid foundation, and strict requirements and emphasis on practice and innovation.”

Teaching plus scientific research
Science plus humanities
Courses plus extracurricular activities

Centered on Students
Capability
Personality

Knowledge

General Education  Practice  Individualized Methods
Complementary Reform Measures
Cultivating Top Talent
— Zhiyuan Institute

Cultivation of innovative leaders

Nurturing students with physics knowledge and mathematical logic

Life philosophy:
Devoted to scientific research

• Ability to uncover problems
• Ability to find solutions
• Ability to integrate knowledge
• Ability to collaborate and communicate

Math & Physics Classes
(36 students in 2008
32 new in 2009)
Life Science Classes
Computer Science Classes

Math
Physics

Life Sciences
Computer Science

First-class faculty
First-class facilities
First-class environment
First-class management

A special zone for cultivating top talents in fundamental sciences
Cultivating Top Talent

— Excellent Engineer Cultivation Program

Nurturing future leaders for industries
Cultivating future design masters in the area of engineering

Internship in enterprises during vacations

Engineering fundamental courses and general courses

During graduate study
- Dedicated to engineering careers
- Well-educated in math, physics and chemistry
- With broad international vision
- With profound cultural connotation
- With potential in engineering management
- With potential in the commercialization of research findings
- With high-tech R & D ability
- With collaborative spirit

Throughout undergraduate and graduate study

During specialized study

School of Naval Architecture, Ocean & Civil Engineering
School of Mechanical Engineering
School of Electronic, Information and Electric Engineering
School of Materials Science and Engineering

Select 200 students for the Excellent Engineer Cultivation Program
International Cooperation & Exchange
In June 2005, SJTU signed an agreement with the University of Michigan (UM) to establish the Joint Institute and conferred UM President Mary Sue Coleman Honorary Doctorate Degree.

In April 2006, the nameplate of “UM-SJTU Joint Institute” was formally unveiled.
International Collaboration
— UM-SJTU Joint Institute

**Autonomous Management System**
- Board-based governing structure;
- Jointly supported Academic Program Group and Executive Committee;
- Unique Academic Calendar and Credit System;
- Independent faculty hiring and promotion system;
- Operate as an independent financial entity;
- New principles regarding Ph.D. student supervision established for tenured-track faculty of the JI.

**Faculty Hiring and Development System**
- All new hires are open to candidates worldwide;
- Faculty recruitment according to UM standards;
- A number of international faculty and staff;
- Clear tenure review requirements and flexible yearly evaluation.

**Education Model**
- Output-focused education objectives;
- Major technical courses are closely related or rooted in similar UM courses;
- First two years of education can be seamlessly integrated into 13 programs at UM’s CoE;
- 50% of courses are directly conducted by international faculty;
- Emphasis on communication skills;
- Significant global experience for every student.

- International Programs
- Student Capabilities
- Successfully building a strong team of core faculty. There are 12 tenured or tenure-track faculty in total.
International Collaboration
—SJTU – GT Initiative

A win-win partnership for both SJTU and GT

Faculty are provided by GT

The close partnership between SJTU and GT

SJTU – GT Initiative

SJTU - GT is fully integrated into SEIEE of SJTU
2005
- Shanghai Summer Program
- Undergraduate Exchange Program
- Sino-US Global Logistics Institute

2006
- Electrical & Computer Engineering (ECE) Dual-MS Degree Program

2007
- Chinese Language for Business and Technology (LBAT) Program
- Industrial & Systems Engineering (ISYE) Dual-MS Degree Program

2008
- Atlanta Summer Program

Others
- Distance learning and professional education
- Funded research: 111 projects
- over 500 faculty and students have participated in SJTU - GT programs for at least one term
With a Glorious Past and Dynamic Present

SJ TU has embarked on its journey to become a World-Class University!
Many Thanks!