

# 依托东南大学的学科优势,大力加强 官产学研及国际合作,以联合求发展

Achieving Development Through Cooperation in Accordance with Disciplinary Advantages of Southeast University

# 中国·东南大学副校长 王保平教授

Prof. Wang Baoping

Vice President of Southeast University, China



Abstract

本文根据东南大学的学科特色及学术研究实力,介绍了东南大学如何在现今 的激烈竞争时代,发挥自身的学科优势,大力加强官产学研合作,大力加强国 际合作,努力为地方经济建设服务,以服务促联合,在联合中寻求发展。

In accordance with disciplinary features and academic research strength of Southeast University, the paper introduces how the University gives play to its disciplinary advantages, conducts international cooperation and cooperation between government, industry, research institutes and the university, with the aim to serve regional economic construction and achieve self development through collaboration by offering services in the modern competitive world.



东南大学坐落于中国大陆东部的历史文化名城南 京,创建于1902年,是中国大陆最早建立的高等学府之 一。东南大学于1902年建校以来,几经风雨,几番离 合,从三江、两江师范学堂、南京高等师范学校,到 20年代的国立东南大学、第四中山大学、江苏大学、 国立中央大学。再到1949年后的南京工学院,1988年 再度更名为东南大学。后又于2000年4校合并组建新的 东南大学。



Situated in the famous historical and cultural city of Nanjing in eastern China, Southeast University was founded in 1902 and is one of the oldest institutions of higher learning in China. The University has gone through many hardships and changes during its development. It started from Sanjiang Normal College in 1902 to National Southeast University in 1921, National Central University in 1928 and Nanjing Institute of Technology in 1952. It was renamed Southeast University in 1988.



东南大学是中国大陆重点大学之一,是国家"985工程"和"211工程"重点建设的大学。学校占地面积480多公顷,建有四牌楼、九龙湖、丁家桥、浦口等校区。

Southeast University is one of national key universities under the strong support of national "985" Project and "211" Project.

The university has 4 major campuses, namely, Si Pailou Campus, Jiulonghu Campus, Dingjiaqiao Campus and Pukou Campus, covering a total area of 480 hectares.



丁家桥校区 Dingjiaqiao Campus



浦口校区 Pukou Campus



四牌楼校区 Si Pailou Campus



<u>九龙湖校区</u> Jiulonghu Campus

4



经过一百多年的创业发展,如今的东南大学 已成为一所以工科为主要特色,理学、工学、医 学、文学、法学、哲学、教育学、经济学、管理学 等多学科协调发展的综合性大学。

As the result of development for more than a century, Southeast University has become a comprehensive university comprising science, engineering, medicine, arts, law, philosophy, education, economy and management, with engineering as its focus.



东南大学全日制在校生28000多人,其中研究生1万多人。专任教师2185人,其中正、 副教授1300多人,博士生导师500多人,两院院士11人。

In Southeast University, there are 28,000 full-time students, including over 10,000 graduates, and 2185 full-time faculty members, including 1300 full and associate professors and 11 academicians.



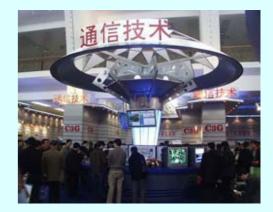
学校设有建筑学院、机械工程学院、能源与环境学院、信息科学与 工程学院、土木工程学院等34个院系。学校拥有64个本科专业,208个硕 士项目,96个博士项目,3个国家实验室,2个国家工程研究中心等。

The university has 34 schools and departments, offering 64 undergraduate majors, 208 master programs and 96 PhD programs. The university has 3 national laboratories and 2 national engineering research centers.





东南大学以"科教兴国"为己任,从国民经济和社 会发展的需要出发,积极开展应用基础研究和重大战略 高技术研究,已成为在国内外具有较大社会影响的高新 技术研究和辐射的重要基地。2009年,科研经费达到 9.00亿元;申请专利918项,授权477项,其中发明专利 申请533项,授权184项,均位居全国高校前列。



Based on the needs of national economic and social development, Southeast University carries forward and practices the spirit of "national rejuvenation through science and education" by actively conducting applied basic research and strategic high technologic research. As a result, Southeast University has become an influential high-tech research base both at home and abroad. In 2009, its research fund reached 900 million RMB; it applied for 918 patents, with 477 authorized, among which there were 533 invention patent applications with 184 authorized. These figures stood in the forefront of all the universities in China.



东南大学是中国大陆具有较大国际影响的大学之一。改革 开放以来,国际交流活跃,已与美国、德国、日本、瑞士、澳 大利亚、英国、法国、意大利、加拿大、韩国等30多个国家及 地区的100多所大学和研究机构签订了合作交流协议;邀请包括 丁肇中、杨振宁、吴健雄、坦诺奇、莱恩、沙巴克等诺贝尔奖 获得者在内的一大批国际著名专家学者来校讲学并聘为学校的 名誉教授或客座教授。

As one of the universities that enjoy rather high world reputation in mainland China, Southeast University has conducted frequent international cooperation since China carried out reform and opening policy.



诺贝尔奖获得者,西澳大学 Barry Marshall教授 受聘为我校名誉教授 Nobel Laureate, Barry Marshall was invited as Honorary Professor of Southeast University

Today, it has signed cooperative agreements with over 100 world famous universities and research institutes from over 30 countries and regions, including USA, Germany, Japan, Switzerland, Australia, Britain, France, Italy, Canada and South Korea. Besides, The University has also invited many world-renowned experts and scholars to give lectures or invited them as honorary professors and guest professors, including Nobel Laureates Prof. Samuel CC Ting, Prof. Chen Ning Yang, Prof. Barry Marshall, and Prof. Cohen Tannoudji, Prof. Jean Marie Lehn etc.



东南大学九龙湖校区位于江宁经济技术开发区南部,总面积 250公顷,总建 筑面积约57.4万平方米,总投资约17亿元,2006年夏季起,学校主教学区迁至九 龙湖校区,掀开东南大学发展史上崭新的一页。

Jiulonghu Campus of Southeast University is located in the south of Jiangning Economic and Technological Development Zone. It boasts a total area of 250 hectares and an overall construction area of 574,000 square meters with the total investment of 1.7 billion RMB. In the summer of 2006, Jiulonghu Campus became one of the main campus of Southeast University. Thus a brand-new page was opened in the development history of the University.

9



# 依托学校学科优势,大力加强官产学研合作

To Enhance Cooperation Between Government, Industry, Research Institutes and the University in Accordance with Disciplinary Advantages of Southeast University

东南大学始终坚持贯彻"三个坚定不移"的办学方针,即坚定不移地走以创新 为主导的研究型大学的发展道路,坚定不移地走与国家、区域经济建设和社会发 展相结合的建设道路,坚定不移地走国际化发展道路。

东南大学积极开展应用基础研究和重大高技术研究,并广泛与地方政府和企业开展官产学研合作。学校科研经费2009年达到9亿多元人民币,多年稳居中国大陆高校前6名,其中近60%是来自于企业的科研经费。

Southeast University persistently carries out three guiding principles of running the University. The first principle is to persist in innovation-orientated development way of a research university; the second principle is to persist in the construction way by connecting with social development, national and regional economic construction; the last principle is to persist in internationalization-orientated way of development.

Southeast University actively conducts applied basic research and key high-tech research as well as cooperation between government, industry, research institutes and the university. For many years, the research fund of Southeast University ranks No. 6 of all Universities in mainland China and around 60 percent of its research fund comes from enterprises. In 2009 alone, its research fund amounted to over 900 million RMB.

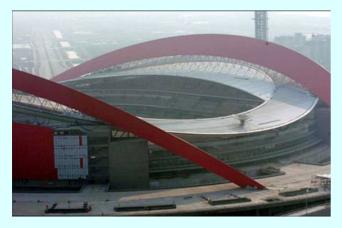


# 依托学校学科优势,大力加强官产学研合作

To Enhance Cooperation Between Government, Industry, Research Institutes and the University in Accordance with Disciplinary Advantages of Southeast University

近五年来,共承担江苏省科研项目涉及的直接投资达30亿元,产生的直接经济效益达300亿元;参与重大建设工程项目70多项。

In the past 5 years, Southeast University has undertaken many Jiangsu provincial research projects with a direct investment of 3 billion RMB and turned out a direct economic benefit of 30 billion RMB. In addition, Southeast University has participated in more than 70 major construction projects.



南京奥体中心 Nanjing Olympic Sports Center



南京长江二桥 The Second Yangtze River Bridge, Nanjing



# 依托学校学科优势,大力加强官产学研合作

To Enhance Cooperation Between Government, Industry, Research Institutes and the University in Accordance with Disciplinary Advantages of Southeast University

近年来,江苏省内高校科技工作为江苏服务情况统计结果显示,东南大学在 全部7项指标中均名列前茅,其中科技项目及团队、科技经费、专利、"四技"经 费等4项指标位列全省第一。

Statistics of universities and colleges in Jiangsu Province serving the region indicates that Southeast University ranks No. 1 in terms of all 7 indexes, that is;

number of projects,

research funds,

number of patent applications

number of patents authorized

fund for "4 technologies (technology development, transfer, service and consultation)"

science base construction

technology transfer

awarding of research findings.



东南大学汇聚了一大批优秀的教授、科研人员和优秀学生,每年都有许多成 果产出。而大学科技园作为高校科技创新的上中下游衔接的重要平台,是科技成 果转化为现实生产力的重要载体。因此,东南大学十分重视大学科技园建设。

Southeast University turns out lots of research findings due to its excellent teams of professors, researchers and students. As a significant platform for university scientific and technological innovation, the university science park is a crucial carrier to transfer research findings into practical productive forces. Therefore, Southeast University attaches great importance to the construction of the science park.



东南大学国家大学科技园是1999年国家科技部、 教育部15家试点及2001年22家首批授牌的国家级大学 科技园之一。已形成南京长江后街创业园、南京新城 科技园、南京东鼎创业园、大学科技园南通分园等四 个园区,孵化场地面积10万平方米。

National University Science and Technology Park of Southeast University (the Science Park) is one of 15 pilot parks appointed by Chinese Ministry of Science and Technology and Chinese Ministry of Education in 1999, and one of the first 22 Science Parks in 2001. Presently, the Science Park of Southeast University consists of four branch parks and a 100,000-square-meter hatchery.



南京东鼎创业园 Dongding Incubator



南京新城科技园 Xincheng Sci-Tech Park



东南大学已在苏州建立了研究院、在无锡建立了分校,正在两市筹建大学科 技园分园以实现东南大学科技成果向当地的顺畅流动,提升当地的自主创新能力 。

Southeast University has set up a research institute in Suzhou and a branch campus in Wuxi. In addition, Southeast University is planning to establish branch parks in the two cities, with the aim to transfer the research findings of Southeast University directly into local productive forces and boost the regional self innovation capability.

截至目前,按照现代企业制度以学校重大科技成果作价入股组建了24家科技型公司,转化国家"863"计划、"十五"科技攻关等重大技术成果46项,转让价值达1.1亿元,吸引社会资金形成注册资本近8亿元,培育了一批以江苏金智科技股份有限公司为代表的高科技企业。其中:

So far, Southeast University has set up 24 technology-based ventures according to modern corporate system with the university' major scientific and technological achievements to buy shares, converted 46 major scientific and technological achievements under National 863 Program and The Tenth Five-Year Plan with a transfer worth of 110 million RMB, absorbed the social investment of 800 million RMB, and nurtured a group of high-tech enterprises represented by Wiscom Co. Ltd, among which,



江苏东大通信技术有限责任公司成功研制出了国 内首颗符合CDMA2000和WCDMA两种移动通信国际标准 的超大规模手机核心芯片产品,成为国际上为数不多 掌握移动通信终端核心芯片的产品提供商之一。

Jiangsu Southeast University Communication Technology Co. Ltd has successfully developed VLS core chip for mobile phone use up to CDMA2000 and WCDMA standards, which helps the corporation become one of the few product suppliers that master the technology to manufacture the terminal core chips for mobile communication purpose.



江苏东大通信技术 有限责任公司 Jiangsu Southeast University Communication Technology Co. Ltd



南京华显高科有限公司拥有"高清晰度、 大屏幕彩色等离子平板显示器(PDP)"完全 自主知识产权,开辟了一条低成本生产PDP的 技术道路。

Nanjing Huaxian High-tech Co. Ltd owns the complete intellectual property right of highdefinition and large-screen flat colour PDP, blazing a trail to produce PDP at a low cost.



南京华显高科有限公司 Nanjing Huaxian High-tech Co. Ltd



南京东大移动互联技术有限公司作为我国的"家庭网络标准产业联盟"的核 心成员,通过与海尔集团等大型企业集团的合作,使其研究成果得到国家层面 的推广应用。

As a core member of Chinese Alliance of Home Networking Standard Industry, Nanjing Southeast University Mobile Internet Technology Co. Ltd has promoted its research achievements at national level through collaboration with large enterprises such as Haier.



经过多年来的不懈努力,我校大学科技园在推动学校科技成果产业化、促进学科发展、激活师生创新创业潜能方面的作用已逐步显现出来,也得到地方 政府与企业的欢迎,对校内高科技成果转化发挥了重要作用。

After unremitting efforts in the past years, the Science Park has greatly promoted commercialization of the University's research findings and development of disciplines, as well as stimulated the innovation and undertaking potential of the students and teachers, which are acclaimed by local government and enterprises.



#### 依托学校学科优势,大力加强国际科研合作 To Strengthen International Scientific Research Cooperation in Accordance with Disciplinary Advantages of Southeast University

东南大学的学科优势集中体现在信息电子技术群,建筑、土木、交通群, 机械、能源、环境群及生命科学群。学校鼓励这些优势学科的教授和科研人员 积极参与国际合作,特别是与国际著名跨国企业、国外知名高等学校和科研机 构开展合作。

Disciplinary advantages of Southeast University mainly lie in its information and electronic engineering, architecture, civil engineering, transportation engineering, mechanical engineering, energy and environment, material science and engineering, and life science. Professors and researchers of these majors are encouraged to actively participate in international cooperation, especially with well-known multinational corporations, foreign universities and scientific research institutes.



#### 依托学校学科优势,大力加强国际科研合作 To Strengthen International Scientific Research Cooperation in Accordance with Disciplinary Advantages of Southeast University

学校已经与国际上许多著名跨国企业建立了联合实验室,开展了多项科研合作,学校已经与荷兰飞利浦公司、美国波音公司、安捷伦科技公司、德州仪器、日本三菱重工、德国罗德施瓦茨公司、芬兰诺基亚公司等一批跨国公司建立了长期的合作关系并建立了联合实验室,开展了一系列的科研合作。

The university has established several joint laboratories with the famous multinational enterprises and has carried out a lot of cooperation in scientific research. Currently, SEU has set up joint laboratories and conducted a series of long-term research cooperation with many multinational corporations such as Philips, Boeing, Agilent Technologies, Texas Instrument, Mitsubishi Heavy Industries, Rohde & Schwarz, Nokia etc.



波音公司副总裁Don Winter 先生在东南大学讲演 Speech at Southeast University by Mr. Don Winter, Vice President of Boeing

东南大学代表团访问 爱茵霍温Philips研究实验室 Delegation of Southeast University at Philips' research laboratory, Eindhoven, Holland.





#### 依托学校学科优势,大力加强国际科研合作 To Strengthen International Scientific Research Cooperation in Accordance with Disciplinary Advantages of Southeast University

学校还与美国哈佛大学、法国雷恩一大等国外 许多高等学校在建立联合实验室、联合教学、联合 培养研究生、合作办学、教师和学生交流等方面进 行了合作。通过这些联合实验室,我校积极鼓励教 师和学生参与国际合作科研,对学校科研实力的提 升和创新人才的培养起到了积极的作用。

We have also conducted cooperation with many overseas institutions of higher learning by establishing joint laboratories, joint teaching, combined training of postgraduates, cooperative education, exchanges of teachers and students, etc. All these efforts have played a positive role in improving our scientific research capability and cultivation of innovative talents.



2009年9月,东南大学与荷兰Philips 消费电子公司在其荷兰总部续约 SEU signed the new contract with Philips Consumer Electronics in Netherlands in Dec. 2009



以服务促联合,以联合求发展 To Promote Development by Offering Service

研究型大学拥有强大的科研实力,应当主动面向国家和社会需求,致力于 服务社会,推动社会进步,提升企业自主创新能力,同时通过服务,促进学校 与企业的合作,促进学校的国际合作与交流,在合作中不断提高自身科研水 平、促进学科发展,培养优秀人才。以联合求学校的更大发展。

As a research-orientated university with its scientific research strength, the university should devote itself to serving society, promoting social development, boosting self innovative capability of enterprises. Meanwhile, by serving society and enterprises, the university is aimed to boosting cooperation with enterprise as well as its international cooperation and exchanges, which in turn helps upgrade the university's research level, promote disciplinary development and cultivate talents.



# Thanks!