

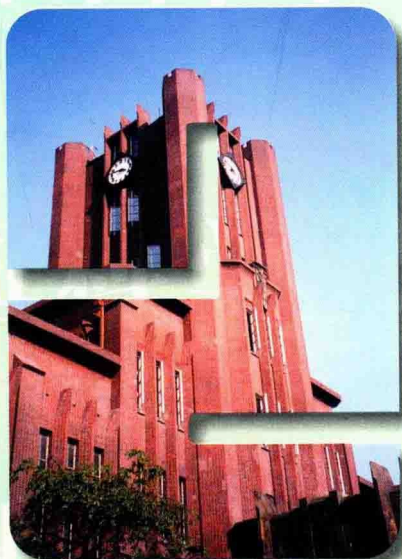


中国科学技术大学—东京大学 暨
中日重点大学群交流20周年

1982年 — 2002年

中国科学技术大学—东京大学
暨 中日重点大学群交流20周年

THE UNIVERSITY OF SCIENCE AND TECHNOLOGY OF CHINA
THE UNIVERSITY OF TOKYO
THE SINO-JAPANESE CORE UNIVERSITIES PROGRAM





東京大學



九州大學



清華大學



上海交通大學



大阪大學



東京工業大學



浙江大學



東北大學



中國科學技術大學

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序

—— 中国科学技术大学 — 东京大学 暨
中日重点大学群交流二十周年



促進 進進 友誼 合作

賀
東京大學
中國科大

合作
廿周年

路甬祥

二〇二二年四月

路甬祥院長為中國科學技術大學—東京大學 暨 中日重點大學群交流20周年題詞

开创先河 彪炳史册

——祝贺中国科学技术大学与日本东京大学开展学术合作与交流二十周年

路甬祥

中国科学院院长 中国科学院院士 中国工程院院士



有史以来，人类文明之所以能够不断发展、进步、直至达到现今的高度发达和繁荣昌盛，一是依靠物质财富的日积月累，二是有赖科学文化的世代传承与发展。而其中尤以不断进步和丰富的科学文化等精神文明的作用为甚。当然，人类的科学文化要取得更大的进步和更快的发展，各国、各民族间必须不断进行交流合作。在这方面世界上有很多成功的范例，中国科学技术大学和日本东京大学之间的合作与交流就是其中很富有成效的一个。值此双方开展合作与交流二十周年之际，我谨代表中国科学院向中国科学技术大学和日本东京大学致以热烈的祝贺，向为双方的合作与交流做出努力和贡献的

全体同仁表示诚挚的问候，并祝愿双方的合作与友谊进一步发扬光大。

20多年前，封闭已久的中国国门向世界敞开，改革开放的春风解放了人们禁锢的思想，也唤醒了国民的科学意识。在中日两国政府1979年签署《中华人民共和国政府和日本政府为促进文化交流的协定》的大背景下，中国科学院和日本原文部省作为两国科学与教育的重要部门，分别指定中国科学技术大学和东京大学为合作单位，开展学术合作与交流。双方于1982年签署《中国科学技术大学与日本东京大学工学院间学术合作的规定》，明确“以东京大学作为据点大学，承担帮助中国科技大学建立和加强工科的任务”，并确定在物理、化学、精密机械、信息、科学管理5个学科领域开展15个合作研究项目。这在当时是具有开创意义和远见卓识的，是史无前例的壮举。20年来，双方的合作与交流无论在学科建设方面，还是在师资队伍建设和人才培养方面都取得了显著的成果。中国科技大学在东京大学的帮助和支援下，部分工科建设得到迅速发展，与世界先进水平间的距离大大缩短，不少学科已在国内占有重要地位；同时也培养了一批在国内崭露头角的年富力强的教授和学者，有力地推动了学校的师资队伍建设和人才培养工作。与此同时。这项合作对于东京大学的学科建设和教学科研队伍建设也起到了积极的促进作用。

令我们感到欣慰的是，这一具有开创中日科教交流历史先河意义的学术合作与交流项目已被两国的许多大学充分认识和广泛接受，并在1993年将合作范围成功地拓展到包括清华大学、大阪大学等两国近十所著名理工科大学，成为新的中日重点大学群合作交流项目，为两国科学家提供更为广阔的合作空间和施展才华的舞台，取得了丰硕的合作成果，涌现出一批在国内外的学术舞台上十分活跃的科学家，获得了一批在国际上有较大影响的学术成果。这一大学群的合作方式如今又发展到高能物理、凝聚态物理领域。我们有理由相信，在中日两国大学20年合作取得丰富成功经验的基础上，这些著名大学在未来的知识经济时代一定会取得更加丰硕的合作成果；它们的合作一定会成为世界上国与国之间、大学与大学之间学术交流与合作的成功典范，必将在人类的文明进步史和社会发展史上写下浓墨重彩的一笔！

再次祝愿中日两国的学术合作与文化交流、两国大学间的友好合作取得更加辉煌的成就！

Ushering in a New Epoch and Enlightening the History of Sino-Japanese Cooperation in Science and Education

---- Congratulatory Speech on the 20th Anniversary of the Academic Cooperation & Exchange Program
between the University of Science and Technology of China and the University of Tokyo

Lu Yongxiang

Academician of the Chinese Academy of Sciences and
the Chinese Academy of Engineering; Chairman of the Chinese Academy of Sciences

The development of human civilization up to the current prosperity mainly depends on two factors: the constant accumulation of material wealth and especially the development & heritage of scientific knowledge. To achieve more progress and development in scientific knowledge, continuous cooperation and exchanges between different countries are necessary. In this regard, the cooperation and exchanges between the University of Science and Technology of China and the University of Tokyo are undoubtedly one of the many successful examples. The year 2002 marks the 30th anniversary of resuming the foreign diplomatic relations with Japan and the 20th anniversary of the academic cooperation and exchanges between the University of Science and Technology of China and the University of Tokyo. On behalf of the Chinese Academy of Sciences, I would like to extend my warmest congratulations to the two famous universities, express my sincere thanks to my colleagues who have contributed to the cooperation and at the same time state my hope that the friendly academic cooperative relationship between the two universities will be further extended.

With the implementation of the open-to-the-outside policy 20 years ago, more and more Chinese people's ideological bondage has been broken down and their scientific consciousness has been gradually awoken. With the background of the Sino-Japanese cultural exchange agreement concluded in 1979, the Chinese Academy of Sciences and the former Ministry of Education of Japan appointed the University of Science and Technology of China and the University of Tokyo as two universities to participate in the cooperation and exchange program. The agreement between the University of Science and Technology of China and the University of Tokyo' Faculty of Engineering was signed in 1982, which clarified that the University of Tokyo, as the core university of the program, was held responsible for helping the University of Science and Technology of China with its construction and improvement work in the fields of engineering science, and the two sides agreed that 15 collaborative research projects be launched in the fields of physics, chemistry, precision machinery and instrumentation, information science and management science. Set in the early 1980s, the cooperation program was unprecedented and with far-reaching intension. During the past 20 years, remarkable achievements of the program have been made in disciplinary construction, staff elevation and talent cultivation at USTC. With the help of the University of Tokyo, rapid progress has been made in some of the engineering disciplines, narrowing the gap between USTC and top-level universities in the world. Some of the engineering disciplines at USTC are now thought of as holding a key position in China. Through the exchange program, some young and promising professors and scholars have been cultivated, which has greatly elevated the overall quality of the teaching staff and promoted the education of young talents at USTC.

We are happy to see that the significance of the unprecedented academic exchange program at that time has now been recognized by more and more universities both in China and Japan. In 1993, the program has been successfully extended to almost ten universities, including Tsinghua University and the University of Osaka, and developed into a new Sino-Japanese Core Universities Program. The new Core Universities Program has provided space for collaborative research on a wider basis between scientists from the two countries and brought about many world-level influential academic achievements. Some new research fields like high-energy physics and condensed physics have been added to the collaborative research domain of the Core Universities Program. We believe that, based upon the experience drawn from the 20 years' Sino-Japanese cooperation, the academic cooperation between the well-known universities both in China and Japan will bear more fruits in the age of knowledge economy and will serve as a model of successful cooperation between universities in two countries.

Once again, I sincerely hope that the academic exchanges between China and Japan and the friendly cooperation between universities in the two countries will enjoy an even brighter future.

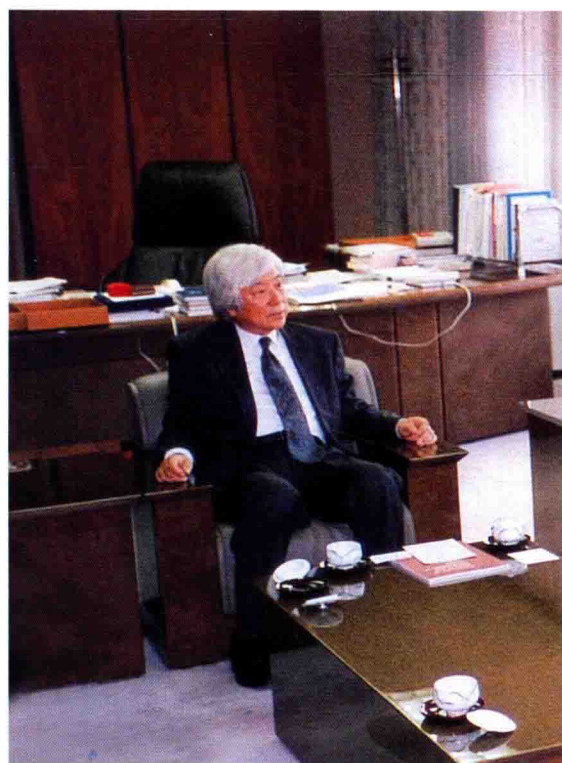
東京大学と中国科学技術大学との学術交流 20周年記念式典に向けての祝辞

吉川 弘之
日本学術振興会会長

東京大学工学部・工学系研究科と中国科学技術大学との学術交流20周年を心よりお祝い申し上げます。

両校間の学術交流は、1979年に日中文化交流の締結がなされたことを受けて、日中政府間交渉を経て1982年から開始されております。この間、初期の目標の一つであった中国科学院所管の中国科学技術大学工学系学科の強化が大きく進展したばかりでなく、両校の研究者相互の盛んな往来により、相互理解の促進と研究協力体制の確立が工学の多数の分野で進行いたしました。私自身、東京大学工学部の一教官として交流に参加したほか、工学部・工学系研究科長さらには東京大学総長として在任したことを振り返って、今日両校間の学術交流20周年を迎えることにひとしおの感慨があります。両校間の学術交流は、当初の5カ年計画に基づく2期11年の交流以後は、1993年より中国科学院と日本学術振興会との協定に基づく拠点大学方式による交流計画として今日に至っておりますが、前半期の交流の成果がさらにその後の交流の発展を促すことになったことは間違いありません。また本交流を契機として多くの留学生を東京大学その他に迎えらるることになったことも成果として見逃すわけにはまいりません。本交流に尽力されてこられた中国科学院および両校の多数の先生方、また協力校の先生方に心より敬意を表します。

さて学術交流が20周年を経た今日、さらに私達は、地球的な規模での様々な工学的課題に協力して対処していかななくてはならないことを感じます。環境保全の問題や高度情報化技術による地域格差の解消などはそれらの一例です。今後も様々なチャネルを通じた学術交流・学術協力が一層進展することを願ってやみません。



Greetings for
20 Years of Academic
Exchange
of Science and Technology

Greetings for the Celebration Commemorating 20 Years of Academic Exchanges between the University of Tokyo and the University of Science and Technology of China

Hiroyuki Yoshikawa

President of the Japan Society for the Promotion of Science

I wish to express sincere congratulations to this anniversary of 20 years of academic exchanges between the University of Tokyo's Faculty of Engineering and Graduate School of Engineering and the University of Science and Technology of China.

In the wake of a cultural exchange agreement concluded between Japan and China in 1979 and negotiations carried out between the governments of both nations, academic exchanges were launched between the two universities in 1982. During this time, not only was great progress seen in one of the initial goals—that of strengthening the Faculty of Engineering at the University of Science and Technology of China under the jurisdiction of the Chinese Academy of Sciences, but also the promotion of mutual understanding and the establishment of a research cooperation system advanced in several fields of engineering through the thriving mutual comings and goings of scholars at both universities. I myself participated in these exchanges, as a teacher in the University of Tokyo's Faculty of Engineering. And since I later became dean of the Faculty of Engineering and Graduate School of Engineering and then President of the University of Tokyo, I have particularly deep emotions about the fact that the two universities are able to celebrate their 20th anniversary of academic exchanges today.

After going through two contract periods, based on the initial five-year plan, the academic exchanges between the University of Science and Technology of China and the University of Tokyo since 1993 have been carried out under exchange plans in core university programs, based on an agreement concluded between the Chinese Academy of Sciences and the Japan Society for the Promotion of Science. Undoubtedly, the fruits of the first phase of exchanges will encourage the development of even more exchanges hereon. Moreover, we must not overlook the fact that, as a fruit of these exchanges, many Chinese students have come to the University of Tokyo and other Japanese universities. I wish to pay my deepest respect to the many scholars and teachers at the Chinese Academy of Sciences, at both universities, and other cooperating institutions, who have endeavored hard on behalf of this exchange.

Anyway, now that this academic exchange has reached its 20th anniversary, I feel that we must further cooperate and deal with various engineering-related tasks on a global scale. Issues related to environmental preservation and solutions for regional gaps resulting from the spread of advanced information technology are just a few examples of these. My most fervent wish is that academic exchanges and cooperation will advance all the further through various channels from now on.

前言

中国科学技术大学与东京大学间的学术合作与交流，是1979年12月中日两国政府签署的《中华人民共和国政府和日本国政府为促进文化交流的协定》中的拟定合作项目之一。分别由两国教育科技主管部门指定为合作单位的中国科学技术大学和东京大学工学部，经过互访、洽谈等的充分调研和友好协商，双方于1982年6月在北京正式签署了《关于中国科学技术大学和东京大学工学院间学术合作的规定》，由此拉开了中日两国在科技与教育领域内具有开创意义的合作与交流的序幕；1993年以后，这一合作与交流项目拓展到两国的近十所著名理工科大学，发展成为新的中日据点式重点大学群合作交流项目。这一凝结着两国人民友好心愿并得到两国政府高度重视和大力支持的合作交流项目，无疑是一桩相得益彰的科教文化姻缘。

经过两国科学家的共同努力和精诚合作，中国科学技术大学与东京大学等执行合作计划20年来，取得了丰硕的合作成果。双方先后在信息科学、环境科学、材料科学等众多领域开展了广泛的合作研究，中国科学技术大学在东京大学的帮助和支援下，部分工科建设得到迅速发展，与世界先进水平的距离大大缩短，不少学科已在国内占有重要地位，培养了一批杰出的年富力强的教授和学者，有力地推动了学校的师资队伍建设和人才培养工作。

中日两国大学间20年不间断的合作与交流是一个不平凡的创举。20年来，这些卓有成效的合作为中日两国科技与教育事业的进步与发展做出了不可磨灭的贡献。同时，作为中日两国人民世代友好事业的一部分，中国科学技术大学和东京大学乃至中日重点大学群之间的学术合作与交流，积极地推动了中日两国的文化交流，增进了中日两国人民的友谊。

回顾过去，我们硕果累累；展望未来，我们信心百倍。在新的世纪，科技和经济建设、社会发展的结合将更加紧密，科技创新将成为经济建设和社会发展的主导力量，国际间的科教合作与交流将是长期的战略行为，我们期待中日两国之间开展更加广泛、深入的学术合作与交流，为世界科技和教育事业的繁荣，为人类的进步和发展做出更大的贡献！

值此双方举行合作交流20周年庆典之际，编辑这本画册是一件很有意义的事情，它不仅可以记载历史、展示成就，而且可以总结经验得失、促进面向未来的进一步合作。我们希望大家能通过这本画册，充分认识到中国科技大学和东京大学间合作交流的开创意义和重要价值，也希望更多的大学能参与到这一合作交流活动中来。

中国科学技术大学校长、中国科学院院士

朱清时



PREFACE

The academic cooperation and exchanges between the University of Science and Technology of China (USTC) and the University of Tokyo (UT) are one of the items in the Sino-Japanese cultural exchange agreement signed by the two governments in December, 1979. The Ministry of Education of both sides nominated USTC and the University of Tokyo's Faculty of Engineering for the cooperation. The two universities accordingly signed an agreement on academic cooperation & exchanges in Beijing in June, 1982, drawing up the curtain of meaningful cooperation and exchanges between China and Japan in the field of education. Since 1993, the project has extended to almost ten famous universities and has become the Sino-Japanese Core Universities Program which has received special attention and tremendous support from the two governments.

The past twenty years has witnessed fruitful cooperation and plentiful achievements as a result of joint efforts and hard work of scientists from both countries. Extensive cooperation and exchanges have been carried out in 15 programs in the fields of information science, environmental science and material science. Under this agreement, USTC has benefited a lot with the help and support from UT: some of the disciplines in engineering developed very fast and the gap between the disciplines at USTC and the advanced ones in the world has been greatly shortened, some of the subjects have boasted of important positions, and many young and promising professors and scholars have been cultivated.

Twenty years' continuous cooperation and exchanges between the universities in China and Japan are a remarkable work. The efficient cooperation and exchanges have made great contributions to the development of science and education in the two countries. At the same time, the USTC-UT academic cooperation and exchange program and the Core Universities Program, as part of the friendly relationship between Chinese and Japanese peoples, have proactively enhanced the cultural exchange and promoted the friendship between the two countries.

In retrospect, we find fruitful achievements; looking into the near future, we are full of confidence. In the new century, science and technology will be more closely connected with economy and the development of society. Scientific innovation will play a leading role in the development of society; international scientific cooperation and exchanges will be a long-term strategy. We look forward to a further and wider academic cooperation and exchange program between the two countries to facilitate the prosperity of world science, technology and education and the progress of human race.

It is a very meaningful event to compile this album on the occasion of the 20th anniversary of cooperation and exchanges. It not only records the history and exhibits the achievements, but summarizes the gains and losses and promotes further cooperation. It is my sincerest hope that people can realize the innovative importance and significance of the USTC-UT cooperation and exchanges with this album, and that more universities may join in this project.

ZHU Qingshi

President of USTC and Academician of the CAS



東京大学と中国科学技術大学との交流

20周年を祝して

佐々木 毅
東京大学 総長

21世紀はアジアの時代と称せられています。共にアジアに属する東京大学と中国科学技術大学が1982年に両大学の交流を開始し、20周年の記念すべき年をこの21世紀初頭に迎えたことは、両大学の関係、ひいては日中両国関係の今後の進展を占うものとして極めて象徴的であり、誠に慶賀の至りであります。このように両大学の交流が飛躍的に発展・成功した陰には、両大学の関係者の並々ならぬ努力もさることながら、日中両国政府、特に日本学術振興会及び中国科学院の協力・支援がありました。ここに衷心から感謝申し上げる次第であります。

東京大学は、1979年に日中文化交流協定が締結されたことを契機として、他の中国の大学・研究機関等との交流に先駆け、中国科学技術大学との間に工学部を中心とする学術交流協定を締結し、II期10年間にわたり両大学間の交流を実施してきました。この間、本学工学部の教官約300名が中国科学技術大学を訪問し、中国科学技術大学の教官約100名が本学を訪れましたが、それは単なる研究者の交流にとどまらず、日中両国の研究者の相互理解を深めると共に研究協力体制の確立にも多大な成果が挙げることができました。

両大学は、このような成果を踏まえ、規模を大学間に拡大した学術交流協定を1993年に締結し、理学・工学を中心とした研究者及び学生の交流等を積極的に推進し、今日に至っております。特に、交流実績のある工学分野では、新たに日本学術振興会の支援を得て拠点大学方式による交流事業として、1993年から「材料・物性工学」、「先端生産工学」、「新エネルギー・輸送工学」、「環境安全工学」及び「知的情報システム工学」等の共同研究を実施し、これら共同研究の成果として学術論文が多数発表されると共に、共同シンポジウムでも注目すべき成果が発表されております。更にこれらの研究者交流に付随して東京大学を中心とする日本の大学等への中国からの留学生が増加しております。

また、最近では、このような二大学間の交流だけではなく、両大学は、東アジア大学協会(AEARU)及び環太平洋大学協会(APRU)の主要な加盟メンバーとして、東アジア及び環太平洋地域の学術研究のネットワーク作りに共に積極的に協力しております。

現在、我々の周囲には、地球温暖化、大気汚染等の環境問題、資源枯渇など早急に解決しなければならない地球規模の問題が山積しております。アジアに位置し、理工学分野での先端的研究型大学である東京大学と中国科学技術大学がともに手を携え 相互互惠の精神に基づく学術研究の絆を強化していくことは、地球的規模の問題解決に貢献するだけでなく、日中両国の友好の更なる進展並びに世界の平和と安寧に寄与するものと大いに期待しております。



Celebrating 20 Years of Exchanges between the University of Tokyo and the University of Science and Technology of China

Takeshi Sasaki
President of the University of Tokyo

The twenty-first century has been deemed the "Asian era." The University of Tokyo and the University of Science and Technology of China, which are both located in Asia, began exchanges with each other in 1982. That we are commemorating the twentieth anniversary of such exchanges at the beginning of the twenty-first century is quite symbolic and truly auspicious in forecasting the future development of relations between our two universities and perhaps even of Sino-Japanese relations. In this way, in the backdrop of rapid development and success of exchanges between our two universities lie the extraordinary efforts not only of people at both universities but also the cooperation and support from the governments of Japan and China and especially from the Chinese Academy of Sciences and the Japan Society for the Promotion of Science. Here I wish to express my most sincere gratitude for that.

Inspired by the cultural exchange agreement concluded between Japan and China in 1979, the University of Tokyo took the initiative to begin exchange relationships with other universities and research institutions in China. It also concluded an academic exchange agreement with the University of Science and Technology of China centered on the Faculty of Engineering and carried out exchanges between the two universities for two contract periods, covering 10 years. During this time, about 300 teachers from the University of Tokyo's Faculty of Engineering visited the University of Science and Technology of China, and approximately 100 faculty members of the University of Science and Technology of China came to the University of Tokyo. Those visits were not confined to mere exchanges among scholars, for they also bore considerable fruits in deepening mutual understanding between academics in both China and Japan and also in establishing a system of research cooperation.

Based on such results, our two universities in 1993 concluded an academic exchange agreement that was expanded to a university-wide scale. Ever since then, our two universities have been very actively promoting exchanges between both scholars and students centered on the but not limited to the Faculties of Science and Engineering. Since 1993, the engineering field, which particularly has a solid record of exchanges, has carried out, with support received anew from the Japan Society for the Promotion of Science, various joint research projects such as advanced materials, advanced production technology, new energy and transportation, green science and technology, and intellectual information systems as exchange activities in core university programs. Several academic essays have been published, and noteworthy results have been presented, too, at joint symposia, as the fruits of such joint research. Furthermore, a collateral result of such exchanges has been the increasing number of students from China attending universities in Japan especially the University of Tokyo.

In addition, in more recent years, the exchanges have not been just between our two universities, for both the University of Tokyo and the University of Science and Technology of China, as key members of the Association of East Asian Research Universities (AEARU) and the Association of Pacific Rim Universities (APRU), are together actively engaged in creating an academic research network in East Asia and the Pacific Rim region.

At present, we are surrounded by heaps of world-scale problems that must be solved promptly, including environmental matters like global warming and air pollution, as well as the exhaustion of resources. The University of Tokyo and the University of Science and Technology of China, which are both located in Asia and conduct frontier research in fields of science and engineering, have together been lending their hands to strengthen the bonds of scholarly research based on the spirit of mutual benefit. And I have great expectations that all this will contribute not only to solving global-scale problems but also serve both towards further development of the friendship between Japan and China as well as to world peace and stability.





历史回顾

中国科学技术大学 — 东京大学 暨
中日重点大学群交流二十周年



历史的创举 时代的潮流

——中国科学技术大学—东京大学 暨 中日重点大学群交流二十周年

自上世纪80年代初开始的中国科学技术大学和东京大学的合作交流已走过了20年的历程。20年来，合作交流不断向纵深发展，共涉及到近10所知名高校，15个学科领域，46个大项目，上百个课题。双方来往讲学，交流和做研究工作的达1200人次，召开各类学术研讨会20多个，发表论文800多篇，仅中国方面合作研究取得的成果获国家科技进步二等奖两项，省部级奖50多项。可以说，这一合作交流规模之大，参与人数之多，涉及学科领域之广，持续时间之长，效果之好，影响之大，是历史上所少有的。它不仅为推动中国科技大学和东京大学走向世界创造了重要的基础和条件，而且为强化当代国际上高校之间的友好合作，共同推进科学事业的发展开拓了新路，创造了新模式，树立了新典范。



1982年6月，中國科學技術大學與東京大學工學部在北京簽訂學術交流合作協議