臺大機械系

108 學年度第12 次系務會議紀錄

時間:中華民國 109 年 3 月 30 日(星期一)下午 12 時 30 分

- 地點:工綜館734室
- 出席:詳見線上會議名單紀錄表
- 主席: 黃主任美嬌

記錄:林玉燕

壹、確認上次會議紀錄

貳、系務報告

◆報告事項:

◆近期活動:

◆2020年3月5日工學院綜合新館上樑典禮。

◆2020年3月12日 丁詩同教務長到系辦訪查防疫措施。

◆誌謝:

◆感謝各位老師、助教配合採用遠距教學及其他校園防疫措施;感謝系辦同仁、工場師傳協助執行各項防疫手段。

◆榮譽事蹟:無。

◆請各委員會報告:課程委員會(楊馥菱)、招生委員會(主任)、安全衛生委員會(蕭浩明)、空間規劃委員會(主任)、 國際事務委員會(主任)、獎學金委員(黃信富)、圖書委員(蘇偉儁)

◆請各中心負責人報告:創新實作中心(莊嘉揚)、實習工場(蔡曜陽)、計算機中心(陳湘鳳)

參、 提案討論

- 一、 案由:博士班資格考修訂。(設計組提)
 - 決議:通過修訂設計組博士班資格考的科目為高等機動學、機器動力學、最佳設計、機械 元件設計,學生須於此四科中選三科應考,考試方式採筆試及(或)口試,並同步 修訂「本系博士班學位授予及資格考核辦法」,修正條文草案對照表如附件一。
- 二、 案由:[智慧製造研究導向型課程模組] 新增一門專業課程-精密量測。(蔡孟勳教授提)
 - 決議:通過[智慧製造研究導向型課程模組]之專業課程由四選三改為五選三(至少9學分): 電腦輔助製造、虛實製造系統、微處理器控制系統、智慧製造聯網與數據分析技術、 精密量測。
- 三、 案由: 109 學年度兼任教師續聘案。(課程委員會提)
 - **說明**:依本校兼任教師聘任要點第五條第二項「年滿六十五歲以上兼任教師之新(續)聘應 另提經系務會議通過。」辦理。擬續聘之兼任教師資料如下:

提案單位	課程委員會提
姓名	鍾添東
	兼任副教授
最高學歷	臺灣大學機械博士

經歷	臺灣大學
	機械工程學系副教授
授課名稱	計算機程式(下學期)
及	機械系
授課對象	

決議:通過續聘鍾添東老師為109-2 學期之兼任副教授,協助開授必修課「計算機程式」課 程。

四、 案由:各組教師員額分配問題。(學術委員會提)

決議:同意控制組為因應教學及研究所需,將原8個員額調整為10個員額,新增的2個員額分別由系及熱流組各提供1個,熱流組將調整為14.5個員額,系調整為3個員額。

五、 案由:本系與筑波大學雙碩士學程。(系主任提)

決議:

 通過同意簽署「筑波大學科學技術研究所及台灣大學工學院碩士雙聯學位計畫協議 書」,如附件二。

Compulsory Courses for the M.S. Program				
Field	Common	AdditionalCompulsoryCourses @ NTU	For UT students Substitute courses @ UT	
Solid Mechanics		Linear Elasticity [3]	Advanced Solid Mechanics(2)	
Mechanical Design		None	-	
Manufacturing		None	-	
Thermal and Fluids Science	Academic Ethics [0] Thesis (M.S.) [0] Seminar [1+1]	Advanced Thermodynamics (I) [3] (English lecture/off-line vedio course) Viscous Flow [3]	- Advanced Fluid Mechanics I & II [2+2]	
System Control		Complete at least two courses from: System Dynamics [3] Linear Control Systems [3] Digital Control System [3] (English lecture)	Any two control-related courses from NTU or UT, including *Digital Control System [3] and *Automatic Control [3] offered by NTU-ME.	

2. 該雙碩士學程中,涉及各組碩士班必修科目,同意其課程替代方案如下:

「國立臺灣大學工學院機械工程學系博士班學位授予及資格考核辦法」修正草案對照表

	修正條文		現行條文	說明
	本點未修正。		本系博士班研究生(以下簡稱學	本點未修正。
`		•	生)學位授予及資格考核,須遵	
			循教育部及本校有關規定,並依	
			本辦法辦理。	
	本點未修正。		學生入學一年內應選定指導教	本點未修正。
•		`	授。	
			學生應滿足以下所有條件方得授	
			予博士學位:	
			(一)至遲須於入學(或轉入)起4	
			個學期內通過資格考核。	
			(二)至少須修滿18學分;逕行修	
			讀博士學位研究生至少須修	
			滿 30 學分(含碩士班期間所	
			修學分數)。	
			(三) 畢業前符合本校進階英語課	
			程實施辦法第七條各項之任	
			一條件或修畢「研究生線上	
			英文三」(AdvEng7003)。	
			(四) 須於 EI 或 SCI 收錄之期刊發	
			表(含接受)論文至少兩篇,	
			其中至少一篇發表於 SCI 收	
			錄之期刊。論文內容須為學	
			生在學階段所完成者,並為	
			第一或第二作者,且期刊品	
			質經系主任認可者。	
			(五) 通過教育部所規定之學位考	
	十人口的世代中地理实物书材		武。	
\equiv	本系每學期公告辦理資格考核筆	<u> </u>	本系每學期公告辦理資格考核筆	一、 修改文字敘
Ì	試考試一次 ,筆試考試分五主修 閉眼,閉步須於其中避空,閉眼		試一次,筆試分五主修學門,學生	述,將「筆 計, 77五「老
	學門,學生須於其中選定一學門 應老,並須經生道教授答夕同音,		須於其中選定一學門應考,並須 經生道教授答夕回音,日避空後	試」改為「考
	應考,並須經指導教授簽名同意, 日骤完後即不得更始。		經指導教授簽名同意,且選定後 即不得更強。	武」。
	且選定後即不得更換。 五主修學門及其考試科目條列如		即不得更换。 五主修學門及其考試科目條列如	二、「機械設計
	五土修学门及共考試科日條列如 下:		五土修学门及共考試科日條列如 下:	學」學門調整 考科及考試方
	、 (一)「熱流學」:黏性流體力學、		∩・ (六)「熱流學」:黏性流體力學、高	考科及考武力 式。
	() 熱加学」· 和住加股力学· 高等熱力學、高等熱傳學		等熱力學、高等熱傳學	
	(二)「控制學」:系統動態學、線		(七)「控制學」:系統動態學、線性	
	(一/ 江阳子」 · 尔凯到怨子 · 绿		(し) 江明子」・尔凯凯忠子、冢住	

	修正條文		現行條文	說明
	性控制系統、數位控制系統 (三)「固體力學」:線性彈性力學、 有限元素法、振動學 (四)「機械設計學」:高等機動學、 機器動力學、最佳設計、機械 元件設計,此四科中選三科, 採筆試及(或)口試。 (五)「機械製造學」:材料之機械 性質、切削原理、製造原理 各科目之命題範圍、評分原則另 以辦法訂定之。		控制系統、數位控制系統 (八)「固體力學」:線性彈性力學、 有限元素法、振動學 (九)「機械設計學」:高等機動學、 機器動力學、最佳設計 (十)「機械製造學」:材料之機械 性質、切削原理、製造原理 各科目之命題範圍、評分原則另 以辦法訂定之。	
四 、 一	前條各學門之各科目 筆試考 試採 百分制,以70分為及格,所有科 目皆及格為通過資格考核。 首次應考者必須申請學門內所有 科目之 筆試考試 ,不及格者以重 考一次為限。 學生入學前五年內或在學期間曾 於本系修習與 筆試考試 科目同名 之課程,且成績達 B 以上者,視 同該科目 筆試考試 及格,得以免 試。 學生未於規定期限內通過資格考 核或參加兩次資格考核 筆試 考試 後仍有不及格科目者,以退學處 理。	四 、	前條各學門之各科目筆試採百分 制,以70分為及格,所有科目皆 及格為通過資格考核。 首次應考者必須申請學門內所有 科目之筆試,不及格者以重考一 次為限。 學生入學前五年內或在學期間曾 於本系修習與筆試科目同名之課 程,且成績達 B 以上者,視同該 科目筆試及格,得以免試。 學生未於規定期限內通過資格考 核或參加兩次資格考核筆試後仍 有不及格科目者,以退學處理。	修改文字敘述,將 「筆試」改為「考 試」。
五、	本點未修正。	五、	學生申請學位考試,須組織學位 考試委員會,其成員除指導教授 本人外,悉由系主任認可或選定。 學位考試日期、地點、學位論文題 目、摘要及考試委員等資訊,須於 考試日期至少一週前公告;學位 考試口頭報告時應對外公開,允 許旁聽。	本點未修正。

	修正條文		現行條文	說明
六、	本點未修正。	六、	學生在未選定指導教授前,其選 課及學業相關事宜由系主任或其 授權之副系主任負責。	本點未修正。
セ 、	本點未修正。	七、	本辦法經系務會議通過報校核備 後,自發布日施行。	本點未修正。





AGREEMENT ON DOUBLE DEGREE PROGRAM

BETWEEN

GRADUATE SCHOOL OF SCIENCE AND TECHNOLOGY, UNIVERSITY OF TSUKUBA, JAPAN

AND

COLLEGE OF ENGINEERING,

NATIONAL TAIWAN UNIVERSITY, TAIWAN

This Agreement is entered into by the Degree Programs in Systems and Information Engineering (as DPSIE), Graduate School of Science and Technology, University of Tsukuba (as UT) and College of Engineering (as CE), National Taiwan University (as NTU) for the purpose of establishing an effective partnership to advance academic cooperation to foster students who will play important roles in globalization in years to come.

Both Institutions agree to implement "Double Degree Program" that offers students to receive two Master's degree diplomas (from UT and from NTU) to be bound by the following terms and conditions.

Article 1. Aims

This Agreement is aiming at offering global academic and industrial education for the students of both institutions to encourage them to adapt to a variety of aspects in international society. Both universities agree to approve Master's candidates for diplomas of the UT and NTU for the full formulation and implementation of scientific and technical collaboration between Japan and Taiwan.

Article 2. Objective of the Double Degree Program

The objective of the Double Degree Program is to provide UT and NTU students the opportunity to obtain Master's degrees from both UT and NTU by spending at least two semesters at each institution and by developing a substantive research collaboration with a faculty member at the partner institution. The main topics of the double degree program are Mechanics, Energy, Risk, and Intelligent Interaction Technologies for UT and Mechanical Engineering and Civil Engineering for NTU. This double degree program is naturally embedded in the general program between the two universities.

Article 3. Degrees of the Double Degree Program

The qualified graduates who have followed the two-years study program with success under the proposed double degree program will be conferred the two Master's diplomas from UT and NTU recognized by the two countries. The diplomas awarded by UT and NTU will be for the degrees appropriate to the programs in which the student was enrolled.

The name of the diplomas currently conferred by UT and NTU is listed in Annex 1. Further amendments on the name of the diplomas may be made and shall be agreed by both institutions. Additional departments may be added to this list with the approval of the UT and NTU. The UT and NTU student pathways are described in Annex 2.

3.1 UT recognizes the semesters of the Master performed at NTU. This only applies to the students of NTU recruited according to the terms and conditions of this agreement.

3.2 NTU recognizes the semesters of Master performed at UT. This only applies to the students of UT

recruited according to the terms and conditions of this agreement.

3.3 For UT students entering the Double Degree Program: the rules and procedures of UT apply in order to validate the first semester study at UT; the rules and procedures of NTU apply in order to validate the semesters study at NTU.

3.4 For NTU students entering the Double Degree Program: the rules and procedures of NTU apply in order to validate the first semester study at NTU; the rules and procedures of UT apply in order to validate the semesters study at UT.

Article 4. Participants and the Number

The participants in the Double Degree Program shall be full-time graduate students of either institution. In principle, during the valid period of this statement of intent, a maximum of five students from each institution would be allowed to participate in this program each year. The students who apply for this program must be one of following:

- 4.1 The enrolled master students of DPSIE-UT.
- 4.2 The enrolled master students of CE-NTU.

Article 5. Recruitment and Admission of Participants

Both institutions can recruit students for the Double Degree Program. The candidates for this program should be master students from one of both institutions. The students of each institution must be enrolled in their home institution at least for the first 3 months, and enrolled in the other institution for at least 8 months.

5.1 Recruitment of UT students is under the responsibility of UT. The normal terms and conditions for application and acceptance to UT apply.

5.2 Recruitment of NTU students is under the responsibility of NTU. The normal terms and conditions for application and acceptance to NTU apply.

5.3 Final validation and selection of students will be decided by a joint committee composed of faculty members from each institution, which include a principal supervisor in the home institution investigator and a co-supervisor in the partner institution. The final decision will be taken upon the application file and face-to-face or videoconference interviews.

5.4 Students from either UT or NTU should be enrolled in both institutions, despite that the students start their study first at their own home institutions.

Article 6. Registration, Withdrawal, and Reinstatement waived

Participating students shall comply with the regulations of both institutions, to complete the process of registration, withdrawal and resumption. Transferred credits shall be approved in compliance with the regulations of both institutions and the terms of this agreement.

All students will pay fees and tuition at their home institution. Students will register for courses at the institution at which they take the courses.

6.1 For the 1st semester of the Master, students will register at their home university and pay tuition and fees to the home university only.

6.2 For the period during which the student is at the partner institution, the students will register at their home university and pay tuition and fees to the home university only. Each university will fully recognize the

tuition and fees paid to the other university and will not charge extra regular tuition or fees. However, additional fees will be necessary to cover necessary social insurance as defined by each country's laws.

6.3 The tuition or fees paid by UT and NTU students does not cover the costs of the stay in Japan and Taiwan. Students will be responsible for paying all other costs related to their participation in the program, which include but not limited to:

- 6.3.1 Accommodation, food and travel expenses
- 6.3.2 Medical insurance, civil liability including any mandatory requirements
- from the host institution or country, unless paid by their home institution.
- 6.3.3 Textbooks, clothing, and personal expenses
- 6.3.4 Costs for passports, visas, visa extensions, or residency permits
- 6.3.5 All other debts and incidental expenses incurred during the training stay
- 6.3.6 Transportation expenses to and from the host institution

Article 7. Insurance

Participating students shall purchase the insurance, complying with the regulations of both institutions.

Article 8. Research Work

Each student in the Double Degree Program must have a supervisory committee that consists of two faculty members from the UT and two faculty members from NTU. One faculty member from the home institution will serve as the principal supervisor and one faculty member from the partner institution will serve as a co-supervisor. The supervisor of each institution has the primary responsibility for the student while the student is studying at that institution (e.g., provide research & study space, access to research materials and equipment). Each student's supervisory committee must be approved by the UT Dean of Degree Programs in Systems and Information Engineering and by the NTU Dean of College of Engineering.

The student's supervisory committee will review and approve the Program of Study, which will include the coursework, including seminars and co-taught courses, and research credits that comprise the student's degree program. The Program of Study should be approved by the end of the first semester after the student is enrolled in the Double Degree Program.

Under normal circumstances, study and research work is expected to last 2 years for master's students. Under exceptional circumstances, this period may be extended subject to a specific agreement between both institutions signing this agreement, following a joint proposal by both thesis supervisors.

The thesis topic must be approved by the student's supervisory committee. Master students participating in this program must spend no less than 12 months in each of the two institutions.

8.1 UT students will perform the first and fourth semesters of the Double Degree Program at UT and the second and third semesters at NTU. For UT students the Double Degree Program of the first semester is UT oriented. Then the students move to NTU for one year. Finally, students return to UT for the final semester (Annex 2). Master thesis work will be performed at UT or at NTU or in any other laboratory or company accredited by UT and NTU. The thesis master program will be defined in collaboration between the principal supervisor and the co supervisor of the master student selected and laboratory where the thesis will be performed. The master thesis defense at the end of the final, fourth semester will be done at UT under the conditions of UT. If successful, the students will obtain the NTU master degree at the end of the final, fourth semester.

8.2 NTU students will perform first and fourth semesters of the Double Degree Program at NTU and the second and third semesters at UT. For NTU students, the Double Degree Program of the first semester is NTU oriented. Then students move to UT for one year of the UT Double Degree Program. Finally, students

return to NTU for the final semester (Annex 2). Students will be selected at the end of the first semester of the master at NTU by a mixed commission composed in the NTU side. Description of teaching units at UT is provided in annex 2. Master thesis work will be performed at UT or at NTU or in any other laboratory or company accredited by UT and NTU. Master thesis work will be defined in collaboration between NTU and UT. The master thesis defense at the end of the final, fourth semester will be performed at NTU under the conditions of NTU. If successful, the students will obtain the Japanese master degree at the end of the final, fourth semester.

8.1 The thesis master program will be defined in collaboration between the principal supervisor and the co-supervisor of the student. The master thesis defense at the end of the Double Degree Program will be done at the home institution of the student under the conditions of the home university. If successful, the students will obtain two master degrees, one from UT and the other from NTU.

PS7: The original Articles 8.1 and 8.2 are replaced by the new Article 8.1. Please confirm if this is OK.

Article 9. Curriculum and Credits

Depending on the educational requirements of each university and considering the specialties of the curriculum on each side, a curriculum for the Double Degree Program will contain required modules and meet the required credits of both universities. Each university recognizes the credits offered by the other university in accordance with its own regulations.

Each party should offer at least 12 credit hours of courses taught in English as part of the Double Degree Program.

Article 10. Thesis and Languages

10.1 The oral defense will be expressed in English.

- 10.2 The thesis will be written in English.
- 10.3 The abstract will be written in English, Japanese and Chinese.

Article 11. Thesis defense

An oral defense of the thesis shall be required and conducted in English at UT or NTU. This defense must be participated by the full supervisory committee, consisting of at least 2 faculty members from each institution. Personnel from outside the two establishments may be invited to take part in the jury. The composition of the committee will comply with the rules of both universities and will be approved by the President of National Taiwan University and the President of University of Tsukuba. Spokespersons will be approved by a majority of committee members.

Article 12. Exchange of Faculty Members

Faculty members from each side are mainly responsible for the teaching on each side. However, the exchange of faculty members to cover some courses is encouraged.

Article 13. Publication and Property

The subject of the thesis must be protected, and results of the joint research carried out by both laboratories must be published, used and protected in compliance with the specific procedures applicable in each university and country involved in joint supervision. A specific agreement shall be drawn up for questions of industrial property.

Article 14. Regulations

Participating students enrolled in the Double Degree Program will be subject to the rules and regulations of both institutions and to the laws of the countries. Any breach of these rules and laws will be dealt with in accordance with the disciplinary policy of both institutions and the laws of the respective countries.

Article 15. Contact

Each Institution shall appoint an administrative representative as a coordinator of the Double Degree Program.

Article 16. Term of Agreement

16.1 This Agreement shall remain in force from the date of the last signatures of representatives of both Institutions and shall be effective for five years. It shall be renewed by mutual written agreement.

16.2 Either Institution may terminate this Agreement by giving a 12-month written notice of termination to the other Institution. Termination will not affect the current Double Degree Program participants from completing their activities at the host institution.

Article 17. Amendment to the Agreement

This Agreement may be amended by mutual written agreement of both institutions.

Article 18. Settlement of Disputes

This Agreement has been made in English in two equally authentic copies. All disputes will be resolved in accordance with the laws of each country.

University of Tsukuba

National Taiwan University

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Executive Dean Graduate School of Science and Technology University of Tsukuba Wen-Chang Chen Dean College of Engineering National Taiwan University

Date:

Date:

Annex 1. Participating Departments and Master's Degrees in UT and NTU

University of Tsukuba

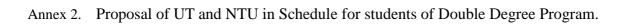
Master of Engineering

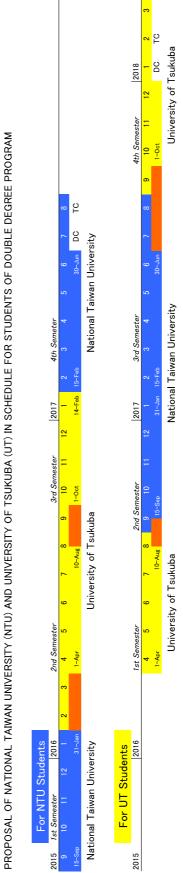
Master's Program in Engineering Mechanics and Energy Master's Program in Intelligent and Mechanical Interaction Systems Master's Program in Risk and Resilience Engineering

National Taiwan University

Master of Science Department of Mechanical Engineering Department of Civil Engineering

Note: This list of participating Departments / Institutes and Master's Degrees is subject to change, however changes will require a letter that has been signed by the appropriate individuals at both University of Tsukuba and National Taiwan University.





■: NTU, ■: UT, DC: Defense Completion, TC: Thesis Completion, ■: no classes due to vacation

Compulsory Courses for the M.S. Program			
Field	Common	Additional Compulsory Courses @ NTU	For UT students Substitute courses @ UT
Solid Mechanics		Linear Elasticity [3]	Advanced Solid Mechanics [2]
Mechanical Design		None	-
Manufacturing	Academic Ethics [0] Thesis (M.S.) [0] Seminar [1+1]	None	-
Thermal and Fluids Science		Advanced Thermodynamics (I) [3] (English lecture/off-line video course) Viscous Flow [3]	- Advanced Fluid Mechanics I & II [2+2]
System Control		Complete at least two courses from: System Dynamics [3] Linear Control Systems [3] Digital Control System [3] (English lecture)	Any two control-related courses From NTU or UT, including *Digital Control System [3] and *Automatic Control [3] offered by NTU-ME.

合約提案中文說明

一、合約內容簡介

合約名稱	筑波大學科學技術研究所及台灣大學工學院碩士雙聯學位計畫協議書
(中文)	AGREEMENT ON DOUBLE DEGREE PROGRAM BETWEEN
	GRADUATE SCHOOL OF SCIENCE AND TECHNOLOGY,
	UNIVERSITY OF TSUKUBA, JAPAN AND COLLEGE OF
	ENGINEERING, NATIONAL TAIWAN UNIVERSITY, TAIWAN
合約種類	□ 一般綜合性合約(如 Memorandum of
	Understanding Letter of Intent)
(可複選)	□ 交換學生計畫
	□ 交換教授計畫
	■ 雙聯學位計畫 (碩士)
	□ 暑期課程計畫
	□ 合作研究
	□ 其他:請註明(如獎學金、實習計畫等)
合作對象	□ 教授(每年交換 / 訪問人數:)
	■ 學生(每年交換/訪問人數:5)
	□ 其他:請註明
重點摘要	1. 本合約為碩士雙聯學位院級母約。
1 10 10 1	2. 雙聯學位學生於接待學校期間須負擔所有
	個人費用,包括(但不在此限)交通、食宿、
	書籍、健康保險及生活用品。
	3. 其學位證書上須註記
	University of Tsukuba

	Master of Engineering
	Master's Program in Engineering Mechanics and Energy Master's Program in Intelligent and Mechanical Interaction Systems
	Master's Program in Risk and Resilience Engineering
	National Taiwan University
	Master of Science
	Department of Mechanical Engineering
	Department of Civil Engineering
其他必要	雙聯學位學生僅需負擔原屬學校學費。
之說明	

二、合作機構簡介

機構名稱	國家:日本
	中文名稱:筑波大學
	原文名稱:UNIVERSITY OF TSUKUBA
機構歷史	筑波大學前身為師範體系的東京教育大學,建
	立於1929年。1970年代日本國內進行一連串
	的大學改革,1973 年將東京教育大學改制為
	新型國立綜合大學,並改名為筑波大學。
機構規模	筑波校區佔地 258 公頃,是日本面積第二大的
	單一大學校園。學士與碩博士課程由九大學群
	提供:人文文化學群、社會國際學群、人類學
	群、生命環境學群、理工學群、圖書館信息專
	門學群、醫學群、體育學群、藝術學群,目前
	該校教員人數約 2,548 人,職員人數約 2,170
	人,學生人數約為18,000人。
國際合作	筑波大學目前已簽訂超過230 個姊妹校合約,
	來自全球 54 個國家,包括美國康乃爾大學、
	韓國首爾大學等,該校的國際學生人數僅次於
	東京大學。日本政府於 2009 年推動全球 30
	政策,鼓勵國內大學的國際化發展,並指定13
	所大學為定點校,筑波大學的北非暨地中海事
	務處被選為全球 30 的海外大學共同事務處,
	同時也有日本大學非洲地區基地的功能,加速
	接收來自非洲地區的留學生。
聲譽特色	筑波大學致力於全方位打造「開放型大學」,
	不拘泥於固有觀念,以率先實現「靈活教育研
	究組織」和「新型大學機構」為基本理念,引

	領著日本的大學改革。該校目前已培育3名諾 貝爾獎得主。
歷年交流 概況	筑波大學與本校合作歷史悠久,教師連結緊 密,曾兩次辦理臺大-筑波雙邊會議,且為本 校重點姊妹校。目前,多系所與該校有雙聯學 位合約。
其他必要	
之說明	

備註:表格文字請以正體中文扼要填述,兩頁以內。