

臺大機械系

108 學年度第 10 次系務會議紀錄

時間：中華民國 109 年 2 月 24 日(星期一) 下午 12 時 30 分

地點：工綜館 734 室

出席：詳見簽到表

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：

1. 歡迎 108 學年度第 2 學期新到任老師：固力組王建凱助理教授。
2. 恭喜英語授課基礎力學課程模組(靜力學動力學機動學材料力學流體力學)每門課獲得獎勵補助十點。歡迎更多老師英語授課設立主題組成課程模組向校申請獎勵補助。
3. 學校將推動逕碩試辦計畫，鼓勵同學於大三下申請，可節省 1~2 學期取得學士及碩士學位。暫定名額上限 25%，不得保留學籍。
4. 臺大核心研究群團隊型計畫核定原則有變更，請老師們留意。
5. 工學院設立學術勵進獎，鼓勵現職專任教師精進學術生涯成就，歡迎老師們踴躍申請。
6. 工學院將設置研究生院長獎，以提昇工學院研究生學習水準為目的(依其研究成果進行評選)。獲獎人數以不超過該學年度碩博士班畢業生名額之百分之五為原則，由系所薦送名單，院長核定。請鼓勵同學們多加申請。
7. 因應疫情可能發展，請多留意教務處近期發布之配套措施。

◆近期活動：

- ☆ 2020 年 1 月 8 日 舉辦邱文祥教授退休惜別會。
- ☆ 2020 年 1 月 17 日 於新竹北埔麻布山林舉辦 2020 本系教學精進研討會議。
- ☆ 2020 年 1 月 21 日 雄中、雄女、家齊及鳳山高中師生共 79 人到訪本系。
- ☆ 2020 年 2 月 10 日 本年度 1970 五十重聚改期，委由該屆代表葉陽初系友轉贈紀念品 50 份。
- ☆ 2020 年 2 月 20 日 舉辦張啓政先生退休惜別會。

◆誌謝(108.12.30~109.2.19)：

- ☆ 感謝李綱老師及智慧型載具與機電整合實驗室團隊、莊嘉揚老師及多尺度系統實驗室團隊、楊鏡堂老師及熱流光束實驗室團隊、蕭浩明老師及高階醫療器材實驗室團隊協助接待 1 月 21 日高雄地區四校師生參訪。

◆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(蘇偉儒)

◆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：將工綜新館國際演講廳命名為成志廳。(系主任提)

決議：同意，送校核定。

二、案由：本系「知識領域課程」新制相關措施。(課程委員會提)

決議：通過本系「知識領域課程」新制相關措施如下，

1. 最低畢業學分總數由 140 學分改為 134 學分，適用於 109 學年度起入學學生。
2. 本系大學部「知識領域課程」修業辦法經 108 年第 7 次系務會議通過，系訂選修學分調降為 15 學分且不分領域別。適用於 109 學年度起所有在校學生；舊生得選擇最有利之校課程規劃(新制或舊制)合計畢業學分數。
3. 完成本系所認可之「研究導向型課程模組」的學生，應提交學生報告書，經系所審查確認後，其中 15 學分可充抵系訂選修(知識領域課程)的 15 學分。
4. 開課辦法也同步修正為第 1~5 類知識領域課程每年必開 3 門課，且可並列其他非必開之課程。經各組討論後第 1~5 類知識領域之課程表如下：

領 域	必 開	非 必 開
1. 應用力學	振動學、高等材料力學、有限元素法導論	有限元素法
2. 機器設計	機械元件設計、機構設計、電腦輔助製圖	
3. 製造科技	製造原理、熱處理與表面改質、工具機、	電腦輔助製造、精密量測
4. 熱流與能源工程	高等熱力學、黏性流體力學、能源工程	流體機械、冷凍空調、計算流體力學、高等熱傳學、數值分析、燃燒學、流體力學二
5. 系統控制	系統動態學、線性控制系統、數位控制系統	

5. 授權課程委員會訂定專業課程模組標準及審查程序。

三、案由：提案本系「微積分甲上、下」改成「微積分 1、2、3、4」課程模組，與相關辦法變革。(課程委員會提)

說明：

1. 數學系自 107 學年度開辦微積分模組課程，將原本的「微積分甲上」與「微積分甲下」各 4 學分課程，轉換成微積分「微積分 1、2、3、4」各 2 學分課程模組。
2. 開課時間維持原機械系微甲時間，目前開課內容也與微甲相同，只改變內容課順序。
3. 學生在上學期選課時選「微積分 1、2」，上半學期完成「微積分 1」通過後得到 2 學分；可繼續修習下半學期之「微積分 2」或辦理停修。依此類推下學期之「微積分 3、4」。

4. 未來若本系有老師有意願合開，「微積分4」課可調整成與機械系專業更貼切之內容。
5. 配套措施變革：針對本校外系轉系生，原辦法規定須修過「微積分甲上、下」使得申請，搭配此改變，提案將轉系規定改成須修過「微積分1、2、3、4」始得申請。

決議：通過「微積分甲上」與「微積分甲下」各4學分課程，轉換成「微積分1、2、3、4」各2學分。同步修訂本校外系轉本系生須修過「微積分1、2、3、4」始得申請。

四、案由：本系擬與德國伊爾梅瑙工業大學機械工程學系簽署學術交流合作協議書，提請討論。
(系主任提)

說明：通過如附件一。

Agreement

on the cooperation between the

**Department of Mechanical Engineering
Technische Universität Ilmenau, Germany**

and the

**Department of Mechanical Engineering
National Taiwan University**

1. Objective

In continuity of the cooperation lasting since 2011 and in the continuous effort of promoting mutual understanding and academic cooperation between the Department of Mechanical Engineering of Technische Universität Ilmenau (hereinafter referred to as TU IL) and the Department of Mechanical Engineering, National Taiwan University (hereinafter referred to as ME NTU) agree on

- co-operation in all faculty/departmental related fields of science of common interest
- exchanging undergraduate, graduate and post-graduate students, professors, scientific co-partners, academic and non-academic staff as well as carrying out common research projects and scientific events
- intensifying scientific cooperation by exchanging publications, teaching material etc.

The collaboration between the two universities will focus in the first instance majorly, but not exclusively, on the exchange of graduate students and academic staff of the respective departments for mechanical engineering.

2. Student Exchange

The Student exchange shall be organized as follows:

2.1 Subject Area

Both universities agree to exchange students throughout all subjects related to mechanical engineering and on undergraduate, graduate and post-graduate (doctoral) level research related to the respective departments. All exchange students are entitled to the same rights and are subject to the duties and responsibilities of all other students at the respective institutions.

2.2 Number of Exchange Students

The number of students to be exchanged will be limited to five (5) for graduate and post-graduate students from each institution per academic period (semester/term). This number can be increased by mutual agreement if capacities permit. Each university commits itself to make the necessary efforts to maintain parity in the number of exchange students per institution. The application process and duration as well as related issues will be determined in individual written form separately.

2.3 Admission Criteria and Procedure

Each institution will be responsible for selecting its participating students for the student exchange. Participants must be qualified as full-time students, enrolled in a degree-seeking program at their respective home universities. The selection of students for the exchange program is within the responsibility of the sending institution. Candidates will be selected on the basis of academic merit, language skills and/or professional qualifications. However, the host institute retains the rights of final decision.

The host institution informs the respective home institution about admitted candidates in a timely manner, and confirms or declines the selection.

2.4 Duration of Exchange

The duration of stay for each participating student will be one (1) semester/term or two (2) semesters/terms (an entire academic year).

2.5 Period of Instruction

Winter semester at TU IL, including lectures and exams, typically runs from October to March. Summer semester at TU IL, including lectures and exams, typically runs from April to September. German language classes can be taken during the semester. Preparatory additional German language classes are available before the beginning of the winter semester in August and/or September each year.

Fall semester/term at ME NTU, including lectures and exams, typically runs from September to January. Spring semester/term, including lectures and exams, typically runs from February to June. Chinese language classes take place during the two semesters in each year.

2.6 Tuition and Fees

Students will pay academic tuition and fees to their home institution and will receive tuition waivers from the host institution. They will not be charged for admission fees, tuition or any other charges related to the host institution. Extracurricular course fee, e.g. sport and language course fees can be charged by both universities and are subject to the legal requirements of the respective Universities.

Exchange students admitted to TU IL will enroll at TU IL and pay a “Semester Contribution” (“Semesterbeitrag”) of about 115 €. This is not a university fee, but a charge destined for a national student organization that includes a train pass, the use of the sport complex, access to meals and housing discounts, and other social and cultural services. Exchange students admitted to ME NTU will enroll at ME NTU and pay a “NTU Wireless Network” of about 600 TWD per semester.

2.7 Recognition of Academic Credits and Official Transcripts

Prior to their studies abroad, students under the exchange program shall obtain a Learning Agreement signed both by the advisory professor at their home institute and by the host professor at the host institute. Students participating in this exchange program can enroll in a full academic schedule in each institute and should take at least 2 courses or 4 credits per semester during the winter and summer semester. More courses can be suggested to or taken by the student and added inside the Learning Agreement to promote student’s research capability at the host institution.

Academic credits and grades received by the students will be recognized by each institution. Each partner will provide all the necessary academic information in order to comply with this. An academic transcript will be transferred to the home institution upon completion of the students’ period of study at the host institution.

The home institution may convert grades in accordance to the home institution’s grading system. Each university recognizes the credits offered by the other university in accordance with its own regulations.

2.8 Financial Agreements and Responsibilities

The students will be responsible for all expenses that result from the exchange, including travel expenses, study materials, room, board etc. The host institution will

not be responsible for providing financial support to exchange students. The students will be responsible in general for the organization of their exchange and travels, including obtaining the required visas and other necessary documents.

Each university will endeavor to support the students from the partner university in preparing their exchange and during their stay abroad. The host institution will be assisting by providing the for the necessary visa required information. Students will be assigned an advisor for academic, social and practical matters by the host institution. Academic and/or attendance problems will be dealt with by the host institution for the duration of the exchange.

2.9 Student Accommodation

During the length of the program, TU IL will assist ME NTU students in finding accommodation in dormitory/residence halls at the price normally charged to students at TU IL.

During the length of the program, ME NTU will assist TU IL students in finding either accommodation in dormitory/residence halls at the price normally charged to students at NTU, or other suitable housing in the private market, for which students will pay the landlord directly.

2.10 Student Health Insurance

Each exchange student will be responsible for purchasing health insurance with the coverage in accordance to national or institutional regulations of the host institution.

2.11 Student Status

In addition to the enrollment at the home university, students participating in the student exchange will enroll at the host university during their studies abroad.

Exchange students will have the same rights and privileges as students at the host university and will be subject to the same rules and regulations, including disciplinary proceedings at the host university during their stay.

3. Exchange of Academic and Non-academic Personnel

Both parties will encourage the exchange of academic and non-academic personnel, for participation in, but not limited to, seminars, workshops, exhibitions, meetings and short-term special courses in areas of common interest for both institutions. Approval of both institutions will be required for all exchanges.

Exchange of personnel may take place on a one-for-one basis for either a semester or an academic year or a portion thereof set by the nature of the exchange agreement.

Visiting personnel will usually be paid by their home institution and will be financially responsible for all living expenses in the host country (including rent, food, transportation, health insurance and art supplies) unless other arrangements have been made and have been specifically agreed upon in writing by the participating institutions.

The host institution will assist visiting personnel in securing housing and will offer work space. Exchange personnel will be responsible for obtaining any necessary visas and otherwise complying with all residence acts and regulations of their host country. The host institution will assist in these efforts, but cannot take any responsibility for the granting of visas, work or residence permits or approval.

Social Security coverage will be ensured prior to the exchange under the statutory provisions of the home and host institutions in cooperation with the exchange personnel.

4. Research and Scientific Projects

Both partners will cooperate in the development of joint research and scientific projects in disciplines and fields of mutual interest. For any scientific publication and articles the visiting student or visiting staff contributed significantly, the rules of academic fairness apply so, that the visiting student or staff shall be granted at least co-authorship. In analogue manner this applies to students or staff at the home university who contributed to the contents of the publication. Intellectual property rights will be respected. If through the actual cooperation activities of this agreement further regulations are necessary, both parties will act to specify such regulations. Details and conditions will be captured in written text.

5. Program and Institutional Coordinators

For the purposes of the execution and implementation of this agreement, both parties agree to designate their respective Program Coordinators in accordance to their institutional mechanisms.

5.1 Technische Universität Ilmenau

Program Coordinator 1

Name: Prof. Eberhard Manske
Position: Professor
Department: Mechanical Engineering
Address: PF 10 05 65, 98684 Ilmenau, Germany
Telephone / Fax: +49 3677 69 / +49 3677 69
E-mail: Eberhard.Manske@tu-ilmenau.de
Homepage: NA

Institutional Coordinator 1

Name: Sophia Siegfried
Position: Head of the International Office
Division: TU Ilmenau International School
Address: PF 10 05 65, 98684 Ilmenau, Germany
Telephone / Fax: +49 3677 69 2510 / +49 3677 69 1771
E-mail: sophia.siegfried@tu-ilmenau.de
Homepage: www.tu-ilmenau.de/international

5.2 National Taiwan University

Program Coordinator

Name: Liang-Chia Chen
Position: Distinguished Professor
Faculty: Mechanical Engineering
Address: 1 Sec. 4, Roosevelt Rd, Taipei, Taiwan, 106
Telephone / Fax: +886-2-3366-2721
Email: lchen@ntu.edu.tw
Homepage: <http://140.112.14.7/~aoi/members.html>

Institutional Coordinator 1

Name: Hsiao-Wei Yuan
Position: Vice President for International Affairs
Faculty: Office of International Affairs, NTU
Address: 1 Sec. 4, Roosevelt Rd, Taipei, Taiwan, 106
Telephone / Fax: +886-2-3366-2007
Email: oia@ntu.edu.tw
Homepage: <https://oia.ntu.edu.tw/members#a-1>

6. Amendments and Modifications

This agreement might be extended or modified with prior agreement between both parties. No modification or amendment to this agreement shall be valid unless the same is made in writing jointly by the institutions and their authorized representatives and specifically stating the same to be a modification of or respectively an amendment to this agreement. To simplify administration, amendments specifying the collaboration in specific subject areas will be attached to this agreement with the specification of "appendix No. x" and will be signed of each partner by the specific program coordinator of the new collaboration area and the rector/president of both partner universities. Modifications and any appendices have to be signed by the legal representatives of each partner, e.g. the deans and rectors/presidents.

7. Duration, Extension and Termination

This agreement will be valid on the date of signing. Either institution may terminate the agreement by providing six (6) months' prior notice to the other in writing. However, care must be taken so that no on-going and agreed actions are affected.

8. Intellectual Property

Both universities agree that, in the event of research collaboration leading to patent rights, copyrights or other intellectual property rights, a further written agreement shall be negotiated in each case in accordance with the intellectual property policies of the two universities.

9. Governing Laws and Conflict Resolution

The parties will mutually assist and cooperate to ensure that the activities within this agreement program comply with the respective applicable laws. TU IL and ME NTU expressly agree that any disputes arising will be settled in an amicable way.

10. Additional Clause

This document has been printed in two (2) identical copies; each party retains one copy of this agreement. In witness of the terms of the agreement, and intending to be legally bound, signatures of the following authorized representatives of the parties are affixed.

Date:

Place:

Date:

Place:

Prof. Dr.-Ing. Habil. E. Manske
Coordinator
Department of Mechanical Engineering
Technische Universität Ilmenau

Distinguished Prof. Dr. L.-C. Chen
Coordinator
Department of Mechanical Engineering
National Taiwan University

Date:

Place:

Date:

Place:

Prof. Dr.-Ing. Habil. Thomas Fröhlich
Dean
Department of Mechanical Engineering
Technische Universität Ilmenau

Distinguished Prof. Dr. Mei-Jiau Huang
Chair
Department of Mechanical Engineering
National Taiwan University

Date:

Place:

Univ.-Prof. Dr. rer. nat. habil. Dr. h. c.
mult. Prof. h. c. mult. Peter Scharff
President
Technische Universität Ilmenau

合約提案中文說明

一、合約內容簡介

合約名稱 (中文)	伊爾默瑙工業大學 (Technische Universität Ilmenau)機械系與國立台灣大學機械系之交換生合約
合約種類 (可複選)	<input type="checkbox"/> 一般綜合性合約 (如 Memorandum of Understanding、Letter of Intent) <input checked="" type="checkbox"/> 交換學生計畫 <input type="checkbox"/> 交換教授計畫 <input type="checkbox"/> 雙聯學位計畫 <input type="checkbox"/> 暑期課程計畫 <input type="checkbox"/> 合作研究 <input type="checkbox"/> 其他：請註明 (如獎學金、實習計畫等)
合作對象	<input type="checkbox"/> 教授 (每年交換 / 訪問人數：) <input checked="" type="checkbox"/> 學生 (每年交換 / 訪問人數：4) <input type="checkbox"/> 其他：請註明
重點摘要	伊爾默瑙工業大學機械系在精密機械方面在國際頗負盛名，希望與本校建立大學部與研究生得交換合作關係，對本校在精密機械方面的研究與教學，提供非常有利的發展條件。
其他必要之說明	無。

二、合作機構簡介

機構名稱	國家：德國 中文名稱：伊爾默瑙工業大學機械系 原文名稱：Technische Universität Ilmenau, Department of Mechanical Engineering
機構歷史	伊爾默瑙工業大學是德國圖林根州內僅次於耶拿大學的第二大大學，位於伊爾默瑙，伊爾默瑙工業大學創建於 1894 年。
機構規模	The 7200 or so students (at the last count) include about 1650 who come from outside Germany. The courses they take lead to Bachelor's and/or master's degrees in which the subjects tend to be drawn from a number of disciplines within the overall groups of Engineering, Mathematics with Science, and Economics with Social Studies.
國際合作	The International School is drawing attention from lot of students and researchers. Master's in Communications and Signal processing is the well sought course in English. Each semester, approximately 35 students join to the program from all over the world, with a high percentage of students from Asia. This Master's program is very well reputed for its scientific research standards.
聲譽特色	其機械系研發出國際上極為著名的奈米定位與量測平台，其系統量測度確定可達 5 個奈米等級，為世界上目前最為精良的系統平台，其研發能力在國際上享有極高的聲譽。
歷年交流概況	[1] 目前已有一位該校碩士學生(Mr. Johannes Belkner)由本校機械系陳亮嘉老師以及伊爾默瑙工業大學 Prof. Manske Eberhard 共同指導畢業，並繼續在伊爾默瑙工業大學繼續攻讀博士。 [2] 本系精密量測實驗室自從范光照教授開始，已經與該校機械系進行研究合作，發展精密量測平台技術，時間已經超過 20 年以上。
其他必要之說明	無