Winter 2014 ISSUE 11 第十一期

UMAGAZINE



大規模遷校 澳大完成創舉 UM Completes Relocation to the New Campus 澳門大學年度簡報

2013/2014

編者的話 Editor's Words

澳大新校園在經過三年多的建設後,於2014年 9月全面投入使用。整個遷校過程對大學來說 挑戰極大,但最後都在各位同仁的同心合力之 下,完成了這次史無前例的艱鉅任務。國家主 席習近平於澳門特區成立15週年紀念日到澳大 新校園考察,影響深遠,意義重大。

新校園提供了一個長遠提升大學本地和國際地位的最佳平台,也吸引了一批經全球招聘的頂 尖學者。他們加入澳大為大學帶來新的管理和 學術思維,也將有助澳大向世界一流大學的目 標邁進。今期我們訪問了其中四名學者,分享 他們未來將如何帶領各自領域取得更好的發 展。

澳大經過30多年的發展,為澳門和世界培養了 大量獨當一面的人才,為社會發展作出了重大 貢獻。其中四度登上珠穆朗瑪峰的世界傑出華 人、澳大校友李樂詩非常難得重回母校並接受 我們的專訪,分享她如何實現小時候環遊世界 的夢想和遊走極地的藝術人生。

大學的使命之一就是通過研究促進人類社會的 進步,改善人們的生活和健康。今期重點介紹 了澳大在電腦及資訊科學領域、微電子和中醫 藥的最新研究,讓讀者透過文章瞭解這些新的 研究發現對全世界產生的影響。

新的環境,新的理念,新的思維,我們期待澳 大可以開創更美好的未來! After more than three years of construction, the University of Macau's (UM) new campus became fully operational in September 2014. Relocating to the new campus was an arduous task that presented an unprecedented challenge for the university, but with the concerted effort of all UM members, it was completed successfully. On 20 December 2014, which marked the 15th anniversary of the establishment of the Macao Special Administrative Region (Macao SAR), President Xi Jinping made his first visit to the new campus.

From the standpoint of long-term development, the new campus provides an excellent platform for UM to improve its local and international standing, and it has already helped attract a number of top-notch scholars from around the world to join the university. These scholars bring with them new managerial and educational ideas, which are expected to help UM progress towards the goal of becoming a world-class institution. In this issue of *umagazine*, we interview four of these recently recruited scholars and ask how they plan to lead the university in their respective areas of expertise.

Over the past three decades, UM has produced a large number of exemplary graduates who have gone on to leave their marks in different professions and in different parts of the world. This is literally true of UM Alumna Rebecca Lee Lok Sze, who has made four visits to the Mount Everest region. In this issue's exclusive interview, Lee recounts how travelling around the world has meant realising her childhood dream.

One of the core missions of a university is to promote scientific progress, advance social development, and improve people's lives and wellbeing through innovative research, thereby making a positive impact on the world. This issue discusses UM's significant progress in this respect through recent research discoveries in computer and information technology, microelectronics, and traditional Chinese medicine.

Armed with both a new campus and a new paradigm, UM is bound to have a brighter future!

張惠琴 Katrina Cheong

Winter 2014 << ISSUE 11 第十一期 >>

電話 Tel: (853) 8822 8833 傳真 Fax: (853) 8822 2360

通訊 Mail: 中國澳門氹仔 大學大馬路 澳門大學N6行政樓G012室

Room G012,

Administration Building, University of Macau, N6 Avenida da Universidade,

電郵Email: 網址Website: Taipa, Macau, China prs.publication@umac.mo http://www.umac.mo/umagazine 總編輯 **Editor-in-chief** Katrina Cheong

編輯 Editor

Ella Cheong, Kathy Che

助理編輯 **Assistant Editor** Cravina Chong 翻譯 Translator Ruby Chen

顧問 Advisors

Prof Timothy Simpson Prof Wu Mei Prof Zhu Shoutong

出版 **Publisher** University of Macau

ISSN: 2077-2491



溪 大 新 該 是澳門大學之官方刊物,每年出版兩期,旨在報導教學、科研及大學發展的最新動向。

umagazine is a biannual publication of the University of Macau. It aims to provide information on the latest development of the university in teaching, research and other areas.

Contents

国線

封面故事 Cover Story

02 知名學者加盟澳大 Renowned Scholars Ioin UM

專題故事 Features

- 14 國家主席習近平考察澳大 與學生討論中華文化
 President Xi Jinping Visits UM and Discusses Chinese Culture with Students
- **20** 大規模遷校 澳大完成創舉

 UM Completes Relocation to the New Campus
- **30** 校園導賞 帶您遊走新校園
 Tour the New Campus with PR Student Ambassadors
- **38** 新研究項目:Google Glass可竊密 突破芯片運行瓶頸 治癌糖尿藥新發現 New Research Findings: Google Glass Can Steal Passwords, Breakthrough that Overcomes Technical Bottleneck in Chips Operation, New Discoveries in Anti-Diabetic Drugs

人物專訪 Interview

44 冰雪女王遊走極地的藝術人生——專訪世界傑出華人、澳大校友李樂詩
"The Queen of Ice and Snow" Living an Artistic Life at the Three Poles—Exclusive Interview
with Distinguished Chinese and UM Alumna Rebecca Lee Lok Sze

學院專欄 Faculty Column

- 50 澳大英語中心推行課內外項目學習模式
 The ELC Promotes Project-based Learning Both inside and outside the Classroom
- 56 服務身心障礙學生:作為身心障礙學生及老師之我見 Serving Students with Disabilities: My View as a Former Disabled Student and Now Disabled Teacher

Winter 2014 《 ISSUE 11 第十一期 >>

知名學者加盟澳大

Renowned Scholars Join UM

文 Text | 張愛華 Ella Cheong 圖 Photo | 譚金榮、部分圖片由被訪者提供 Eric Tam, with some provided by the interviewees



教學和研究是大學重要的核心使命,在過去幾年,澳門大學從全球廣攬世界知名學者加盟,新招的一批學者在教學和研究都取得了重大的成就並在國際學術界具有廣泛的影響力。新加盟的學者包括:副校長(學術)、計算機科學家倪明選講座教授,全球事務總監兼校長特別助理、物理學家馮達旋教授,健康科學學院院長、癌症研究專家鄧初夏講座教授,人文學院院長、語言學家靳洪剛講座教授,中華醫藥研究院副院長、藥理學家葉德全講座教授,歷史學家茅海建特聘教授,以及語言學家許德寶特聘教授。世界級學者加入澳大的師資團隊,推動教學和研究取得更加卓越的成就,並助力澳大建成有特色和高水準的世界一流大學的目標。

今期《澳大新語》訪問了上述其中四位經全球招聘後新加盟澳大的傑出學者,包括倪明選講座教授、馮達旋教授、靳洪剛講座教授,以及鄧初夏講座教授,暢談他們未來將如何帶領各自領域取得更好的發展。

Teaching and research are two core missions of a university. Over the past few years, UM has hired numerous world-renowned scholars through global recruitment, including the computer scientist, Chair Professor Lionel M Ni, vice rector for academic affairs; the physicist, Prof Da-Hsuan Feng, director of the Global Affairs Office and special assistant to the rector; the cancer research expert, Chair Professor Chuxia Deng, dean of the Faculty of Health Sciences; the linguist, Chair Prof Hong Gang Jin, dean of the Faculty of Arts and Humanities; the pharmacologist, Chair Professor Richard Dequan Ye, deputy director of the Institute of Chinese Medical Sciences; the historian, Distinguished Professor Haijian Mao; and the linguist, Distinguished Professor De Bao Xu. The addition of these new scholars, all of whom have outstanding achievements in their respective areas of expertise as well as widespread influence in international academic circles, is expected to elevate UM and provide momentum for UM to achieve the goal of becoming a high-quality world-class university with regional characteristics.

In this issue of *umagazine*, we interview four of these newly-recruited scholars, including Chair Professor Lionel M Ni, Prof Da-Hsuan Feng, Chair Professor Hong Gang Jin, and Chair Professor Chuxia Deng, about how they plan to lead the university to make progress in various areas.



倪明選講座教授: 跨學科合作是一流大學發展的必走之路

Chair Professor Lionel M Ni:

Interdisciplinary Collaboration Is an Indispensable Step in Building a First-class University

副校長(學術)倪明選講座教授是世界知名計算機科學家,擁有出眾的學術成就以及豐富的管理經驗。曾於香港科技大學擔任講座教授、計算機科學及工程學系主任以及霍英東研究院院長。倪教授對於出任副校長一職深感興奮且充滿期待:「很興奮能有機會與澳大傑出的領導團隊共同去實現校董會設立的願景和使命。」

倪教授在計算機研究成果贏得學術界一致認同,而在教學方面亦是桃李滿天下。他曾指導過54名博士生,研究成果被廣泛引用,2011年榮獲中國國務院頒發的國家自然科學二等獎。在美國長達20年的專業生涯中,倪教授曾於美國密西根州立大學先後擔任助理教授和正教授。在返回亞洲後,獲香港和國

UM's Vice Rector (Academic Affairs) Prof Lionel M Ni is a world-renowned computer scientist, with outstanding academic achievements and rich managerial experience. Prof Ni was formerly chair professor, head of the Department of Computer Science and Engineering, and dean of the Fok Ying Tung Graduate School, at the Hong Kong University of Science and Technology (HKUST). Prof Ni expressed great excitement about his new career at UM. "I am excited to have the opportunity to work with an excellent senior management team to realise the vision and mission laid out by the University Council," said Prof Ni.

Prof Ni's career is distinguished by his mentorship and outstanding research. His achievements in computer sciences have earned him substantial recognition. His research findings are highly cited by his peers. He has supervised 54 PhD students. In 2011, he received the Second Class Award in Natural Sciences for Research Excellence from the State Council of China. In his more than two decades of professional life in the United States, he

內邀請出任多個重要職位,包括:中國科技部973計 劃其中一個項目的首席科學家、香港科技大學中國教育部/微軟亞洲研究院信息技術重點實驗室主任、中國科學院深圳先進技術研究院先進計算與數字工程研究所教授及創所所長。

熟識高校生態

多年在美國、內地,台灣與香港高校工作,倪教授對高校的生態很熟識,他認為:「跨學科合作是一流大學發展的必走之路,尤其處在目前社會型態,科技發展,生態環境等快速變遷的時代。澳大是一個綜合性的大學,擁有多方面的學術領域,這為跨學科合作提供了一個極好的平台。我們可以提出一些創新性的交叉學科,有機會引領其他高校,而不是在後面追趕,當然跨學科合作時如何打破各個學科的本位主義是有挑戰的。雖然澳大有較豐富的資源,學科的發展還是要有選擇的,我們得考慮人才的優勢與地區發展的需求。」

帶領學術續創佳績

倪教授對澳大的學術發展寄予厚望:「一所大學在 學術領域要取得卓越的成績脱不了優秀的師資與學 生再配合好的管理制度。按照澳大未來規劃,我的 一個非常重要任務就是繼續在全球招聘一流的師資 來澳大,當然對已經在澳大做貢獻的老師,我們也 要提供好的工作條件繼續往一流邁進。吸引優秀學 生也是一個更大的挑戰。尤其全球學生數量一直在 下滑,各個高校都在為爭取學生而競爭,我會與各 個有關部門密切合作集思廣益提出一個可行方案, 爭取更多優秀學生來澳大。」

未來工作挑戰重重,倪教授很有信心可以帶領澳大 學術續創佳績,「除了追求學術卓越外,我希望我 在計算機領域的知識能夠在有效管理,新學科發 展,人際關係等也能做出貢獻。」



served with distinction at Michigan State University (MSU) where he moved from assistant professor to full professor before assuming his office at HKUST. Upon returning to Asia, Prof Ni was invited by Hong Kong and mainland China to serve in many vital capacities, including the chief scientist of a project under the Ministry of Science and Technology's 973 Programme; director of the HKUST MOE/MSRA Information Technology Key Laboratory, Hong Kong; and affiliate professor and founding director of the Institute of Advanced Computing and Digital Engineering, Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences, Shenzhen.

Familiar with the Ecology of Higher Education

Having worked in higher education for many years in the US, mainland China, Taiwan, and Hong Kong, Prof Ni is very familiar with the ecology of higher education. "Interdisciplinary collaboration is an indispensable step in building a first-class university, especially in today's world where social forms, science and technology, as well as the ecological environment are experiencing rapid changes," said Prof Ni. "UM is a comprehensive university, with academic programmes covering various areas, and this provides a very good platform for interdisciplinary collaboration. We can consider developing some innovative interdisciplinary programmes; this way we would have a chance to get ahead of other universities instead of just doing the catching-up. Of course one of the challenges in interdisciplinary collaboration is departmentalism, and we need to overcome this challenge. Although UM has relatively abundant resources, we still need to be selective about which disciplines to give priority. We need to consider the strengths of our scholars and students as well as regional demand."

Leading UM to New Academic Heights

Prof Ni has high expectations for UM's academic development. "If a university wants to achieve academic excellence, it must have outstanding faculty and students as well as a good management system," Prof Ni said. "Considering UM's strategy for future development, one of my most important tasks is to continue recruiting first-class scholars from around the world. Of course for our current faculty members who are making a contribution to UM, we must provide good working conditions for them to grow into first-class scholars. Attracting outstanding students would be a greater challenge, especially given the declining number of students worldwide. Every university is competing for the best students. I will work closely with various departments to come up with a workable plan to attract more outstanding students."

Despite these foreseeable challenges, Prof Ni is still confident that he could lead UM to new academic heights. "In addition to pursuing academic excellence, I also hope to use my knowledge in computer sciences to make some contributions to the university in terms of effective management, development of new disciplines, and interpersonal relationships."

馮達旋教授: 協助發展21世紀全球策略與事務

Prof Da-Hsuan Feng: Assisting UM to Develop Global Affairs Strategies Suited to the 21st Century



全球事務總監馮達旋教授是傑出的物理學家,他是 美國物理學會會士,是核子與核天文物理、量子光 學與數學物理領域的專家,在學術、研究和領導大 學全面發展方面擁有卓越成就與豐富經驗。他説: 「對澳大的發展前景充滿信心,未來將協助大學制 定和實施全球事務發展策略及擴大國際網絡,提升 澳大的全球影響力。」

美台大學企業服務逾30年

馬教授出生在印度,在新加坡成長,後赴美國讀書。他在美國和台灣多間大學及企業服務超過30年,曾擔任美國德雷塞爾大學M. Russell Wehr物理講座教授、美國國家科學基金理論物理組主任、

Prof Da-Hsuan Feng, director of the Global Affairs Office, is an eminent physicist, an expert in the fields of nuclear and nuclear astrophysics, quantum optics, and mathematical physics, and a fellow of the American Physical Society. Prof Feng also has outstanding achievements and rich experience as a scholar, researcher and leader in university development. "I have confidence in UM's future development," said Prof Feng. "I will assist the university to formulate and implement global affairs strategies and expand UM's international networking, to help UM leave a deeper international footprint."

Over 30 Years of Experience Working at Universities and Companies in the US and Taiwan

Prof Feng was born in India, grew up in Singapore, and received education in the US. He has more than 30 years of experience working at numerous universities and companies in the US and Taiwan. He was M Russell Wehr

德州大學達拉斯分校研究副校長兼任物理系教授、美國五百強企業SAIC副總裁及台灣清華大學與成功大學資深副校長。馮教授與歐洲、北美、及亞洲的大學及有關機構保持著密切聯繫與合作。他曾擔任美國多所國家實驗室及高科技企業的顧問或董事,13所中國內地頂尖大學的客座或榮譽教授,以及內地、馬來西亞與印度尼西亞多所大學的董事或學術科技顧問。

「澳大需要全方位的全球策略」

「澳大需要有一個全新、全方位的全球策略,以引領大學的全球事務發展,這也將為我的工作帶來莫大的挑戰。」馮教授説:「澳門在兩岸四地中佔有特殊的地位,加上澳門特區政府對高等教育的高度重視,使澳大有了比舊校園面積增大20倍的新校園,相當於澳門總面積的1/30,全世界都會對澳門的高等教育寄予期待。」

開拓與其他地區戰略夥伴關係

展望未來,馮教授希望憑自己多年的經驗, 以及與世界各地高校的聯繫網絡,協助澳大 發展其21世紀全球策略與事務,並進一步加 強澳大的國際合作,除發展與現有合作夥伴 的良好關係外,還將積極開拓與世界其他地 區的戰略夥伴關係,進一步提升澳大的全球 影響力。 Chair Professor of Physics at Drexel University, director of the Division of Theoretical Physics of the United States National Science Foundation, vice president for research and economic development at the University of Texas at Dallas and professor in its Department of Physics, vice president of Science Applications International Corporation (a Fortune 500 company), and senior vice president at Tsing Hua University and Cheng Kung University in Taiwan. Prof Feng has maintained close contact and collaborations with universities and other organisations in Europe, North America, and Asia. He has served as advisor and board member at numerous national labs and high-tech companies in the US; visiting professor and honorary professor at 13 top universities in mainland China; as well as board member and advisor for science and technology at several universities in mainland China, Malaysia, and Indonesia.

"UM needs a multi-pronged global affairs strategy."

"UM needs a brand new, multi-pronged global affairs strategy to lead its global affairs to new heights, and this will present an enormous challenge for my work," Prof Feng said. "Macao enjoys a unique position in the four Chinese-speaking regions [mainland China, Hong Kong, Taiwan, and Macao], and the Macao SAR government attaches great importance to higher education. These have helped UM secure a new campus that is 20 times larger than the old campus, or about one thirty the size of Macao. And now the whole world has high expectations for higher education in Macao."

Exploring Strategic Partnerships with Other Parts of the World

Prof Feng hopes to draw on his rich experience and his network of contacts with universities around the world to assist UM to develop global affairs strategy suited to the 21st century. In addition to maintaining good relationships with existing partners, Prof Feng will also seek to expand UM's strategic relationships with other parts of the world. By forging such strategic relationships, Prof Feng hopes that UM will leave a deeper international footprint.



馮達旋教授上任後,牽頭邀請19間馬來西亞獨立中學領導層組成的代表團訪問澳大,加強澳大與東亞地區發展伙伴關係 After assuming office, Prof Da-Hsuan Feng invited heads of 19 independent schools in Malaysia to visit UM, in an effort to build partnerships with institutions in East Asia.



鄧初夏講座教授: 協助學院做出重要的科學發現

Chair Professor Chuxia Deng:

Assisting the FHS to Make Important Scientific Discoveries

健康科學學院院長鄧初夏講座教授是癌症研究專家,曾任美國國家衛生研究院(NIH)高級生物醫學研究員、美國國家糖尿病、消化病與腎臟疾病研究院(NIDDK)哺乳動物基因學研究組組長、NIDDK發育與疾病遺傳學實驗室研究員、霍華德·休斯醫學研究院以及哈佛醫學院遺傳學系博士后研究員。「新校園為澳大創造了一個前所未有的機會,也帶來巨大的挑戰,我希望能夠用自己的知識為教育和科學的發展做貢獻,而且能參與將澳大建成世界一流大學的過程是一件很榮幸的事。」鄧教授說。

Chair Professor Chuxia Deng, dean of the Faculty of Health Sciences (FHS), is an expert on cancer research. He was a senior investigator of the Senior Biomedical Research Service (SBRS) at the United States National Institutes of Health (NIH), chief of the Mammalian Genetics Section at the United States National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), investigator of the NIDDK's Genetics of Development and Diseases Branch, and postdoctoral fellow of the Howard Hughes Medical Institute and the Department of Genetics at Harvard Medical School.

"The new campus brings unprecedented opportunities, but it also brings challenges," said Prof Deng. "I hope to contribute my knowledge to the development of education and science, and it is a great honour to be a part of UM's team effort to develop the university into a world-class institution."

乳腺癌發病機理研究作出重大貢獻

鄧初夏教授在學術研究和管理擁有非凡的成就。他是研究癌症與代謝疾病、癌症與老化、癌症幹細胞、以及易感基因BRCA1致癌機理的研究專家,尤其在乳腺癌發病機理研究方面做出了重大貢獻。至今鄧教授已發表超過310篇研究論文,這些論文的總引用次數超過三萬次,H指數達96。鄧教授現為NIDDK終生研究員以及美國科學促進會會士。鄧教授憑傑出的教研成就屢獲殊榮,包括獲美國NIH頒發的NIH亞洲太平洋地區華人優秀成就獎、中國國家自然科學基金委員會頒發的傑出海外學者獎、NIDDK所長獎等。

招聘一流科學家

於2013年成立的澳大健康科學學院將會在生命科學的幾個重大領域開展基礎研究、應用研究以及轉化研究,包括研究慢性疾病、人體老化、免疫學、傳染病、神經系統疾病及癌症。鄧教授説:「我們打算招聘一流科學家,建設一流科研設施。學院在研究環境和質量方面應該是可以與中國內地以及美國的頂尖科研機構相提並論。」

重點建設先進基礎設施

節教授對學院的發展很有信心,已計劃重點建設 先進的基礎設施系統和操作系統,從而推動學院 教研達到一流水平。另一方面也會開展癌症研究 和醫療保健產業研發領域,協助學院做出重要的 科學發現,以填補澳門這些領域的空白。「學院 的長遠目標是在疾病相關的生物研究、轉化研究 和醫學研究領域成為具一定知名度和影響力的全 球頂尖教研機構。」

Contributions to Research in Pathogenic Mechanism of Breast Cancer

Prof Deng has outstanding achievements in academic research and administrative management. He has made significant contributions to research on cancer and metabolic diseases, cancer and ageing, cancer stem cells, and the breast cancer susceptibility gene, BRCA1, particularly to research on the pathogenic mechanism of breast cancer. He is the author or co-author of over 310 papers with a total citation frequency of over 30,000 and an H-index of 96. He is a tenured investigator of the NIDDK, and a fellow of the American Association for the Advancement of Science. He has received numerous awards in recognition of his outstanding achievements in teaching and research, including the NIH-APAO Outstanding Achievement Award from the NIH, USA; the Outstanding Overseas Scholar from the National Science Foundation, China; and the NIDDK Director's Award from the NIDDK.

Recruiting First-class Scientists

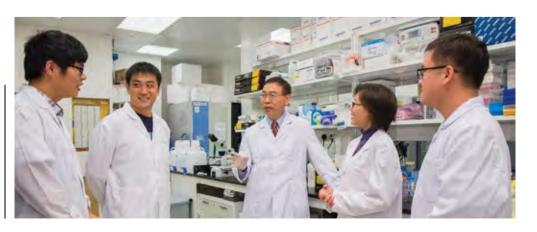
Founded in 2013, the FHS will conduct basic research, applied research and translational research in several major areas of life sciences, including chronic diseases, ageing, immunology, infectious diseases, neurological disorders, and cancer. "We will recruit first-class scientists and build first-class research facilities," said Prof Deng. "I think the FHS is comparable to top research institutions in mainland China and the US in terms of research environment and research quality."

Focusing on Building State-of-the-Art Infrastructure

Prof Deng is very confident in the FHS's future development. "I will focus on building a state-of-the-art infrastructure and operating system for the faculty to realise first-class teaching and research. I will also carry out research in the fields of cancer, medical sciences, and health care, and assist the faculty to make important scientific discoveries to fill the gaps in these areas in Macao," said Prof Deng. "The long-term goal of the FHS is to attain a top global ranking as a research and teaching institution, with commensurate visibility, in a broad range of disease-related biological, translational and medical research."

鄧初夏講座教授指健康科學學院 在研究環境和質量方面可與內地 及美國的頂尖科研機構相比

Prof Chuxia Deng thinks that the Faculty of Health Sciences is comparable to top research institutions in mainland China and the United States in terms of research environment and research quality



斯洪剛講座教授: 應人文學院優勢制定新的發展策略

Chair Professor Hong Gang Jin: Establishing New Development Strategies according to the FAH's Strengths



人文學院院長靳洪剛講座教授是傑出的語言學家,曾任美國漢明頓大學東亞語言文學系William R. Kenan 講座教授及中文專業教授,美國各大學聯合漢語中心總部主任。靳教授擁有大量和卓越的實證研究成果、獨到的教學理念和多年的豐富管理經驗。對於出任人文學院院長,她感到相當興奮:「能與新同事、學生共同奮鬥,創建世界一流的大學,感到非常榮幸。」

逾20年教研經驗

斯洪剛教授曾與美國、台灣、新加坡、香港以及內 地數10所大學進行數10年的合作研究,連續10年獲 得美國、內地、台灣的不同研究及專案基金。除了 學術研究以外,她也擔任美國多個教師學術學會的 會長或理事,現任美國大學理事會AP中文測試發 Chair Professor Hong Gang Jin, dean of the Faculty of Arts and Humanities (FAH), is an eminent linguist, with outstanding achievements and rich experience in empirical research, teaching, and administration. She was William R Kenan Professor of East Asian Languages and Literatures and a professor of Chinese at Hamilton College. She also served as the general director of the Associated Colleges in China headquarters. She is very excited about her new position as the dean of the FAH. "I feel very honoured to have the opportunity to work with my new colleagues and students to create a world-class university," said Prof Jin.

Over 20 Years of Teaching and Research Experience

Prof Jin has over 25 years of experience in teaching and research as well as ten years of experience in collaborative research with universities in the United States, Taiwan, Singapore, Hong Kong, and mainland China. She has secured several major federal and private grants from the US, mainland China, and Taiwan. She has also served as the president or a member of the board of

展委員會主任。有25年在高校從事教學和研究經驗 的靳教授認為「具備跨語言及跨文化交際能力既是 澳大人文學院的研究、教學優勢,又是建設具有澳 門特點的人文學院的基礎。」

把人文博雅教育理念帶來澳大

澳大推行符合21世紀需求的「四位一體」教學模式、強調研究,建立全亞洲最大規模、最完整的住宿式書院系統,反映澳大要建立一流大學的決心。 作為一個在美國受教育,又在美國博雅學院工作多年的教育專業人員,靳教授目睹了博雅教育對學生全方位能力培養的重視,對學生人生的影響,她希望來到澳大後,「將自己所瞭解的人文博雅教育理念及優勢帶到亞洲來,帶到澳門來,利用其優勢幫助澳大培養出世界一流的人才。」

制定課程評估標準及教學改革方案



directors at numerous teachers' associations in the US. She is currently the chair of the AP Chinese Development Committee. "UM students' ability to communicate across different languages and cultures not only gives the FAH an advantage in teaching and research, but also serves as a solid foundation on which we can develop the FAH into a faculty with local characteristics," said Prof Jin.

Bringing Philosophies of Liberal Arts Education to UM

Prof Jin noted that UM is determined to become a world-class university, as is reflected in its unique "4-in-1" model of education that meets the demand of the 21st century, its dual emphasis on teaching and research, as well as its comprehensive reforms in various areas including the establishment of Asia's largest residential college system. "I have received education in the US, and I have worked as an education professional at liberal arts colleges in the US for many years," Prof Jin said. "I have experienced firsthand how liberal arts education emphasises well-rounded development and how it impacted the students' lives and helped produce outstanding graduates for the US society. I hope to bring the philosophies and advantages of liberal arts education that I know to Macao so we could also produce world-class graduates."

Establishing Teaching Reform Plan and Evaluation Criteria for Academic Programmes

Prof Jin believes that a successful faculty is built on three cornerstones: a research-oriented faculty in line with international trends, a scientific curriculum and an outstanding faculty team, and an abundant supply of diligent students of diverse origins.

Prof Jin plans to formulate new strategies for the FAH's future development according to these three considerations and the FAH's strengths and advantages. "We will expand a research-oriented faculty team in line with international trends, and systematically review the current curriculum setup and teaching process so as to establish a scientific set of evaluation criteria for academic programmes and a teaching reform plan." On the student recruitment front, Prof Jin hopes to attract outstanding students not only from Macao, but from overseas as well. She also hopes that the multilingual and multicultural environment of the FAH will expose students to different disciplines in the field of the humanities, such as linguistics, literature, history, philosophy, and religion, thereby guiding students to explore different human experiences in different parts of the world, acquire positive morals and values, as well as develop a global mindset.

其他新加盟澳大的國際學術界知名學者

Other Recently Recruited Renowned Scholars



葉德全講座教授 中華醫藥研究院副院長 Chair Professor Richard Dequan Ye Deputy Director of the Institute of Chinese Medical Sciences

葉德全講座教授是資深藥理學家,尤其在受體和固有免疫方面有所建樹。他在美國從事研究27年後,於2010年作為「國家千人計劃特聘專家」從海外引進,擔任上海交通大學藥學院院長。

葉教授在回國前曾任美國斯克里普斯研究所助理教授及副教授、伊利諾大學藥學院教授。主要研究G蛋白偶聯受體如何識別趨化因子並介導固有免疫細胞的活化,並將信號轉導的原理運用於藥物先導化合物的高通量篩選。葉教授以主要作者或共同作者發表了160多篇學術論文,其總引用超過了9,000次。他曾與製藥企業領先者如強生和諾華等合作,共同發現新藥。葉教授曾經或現正擔任一些藥學和免疫學期刊的編輯工作,包括《美國生理學雜誌一肺生理》副主編,《分子藥理學》編委,《免疫學雜誌》分科編輯,以及自2014年起擔任《藥理學評論》副主編。

Chair Professor Richard Dequan Ye is an established pharmacologist specialised in receptors and innate immunity. He has 27 years of research experience in the United States and was recruited from overseas in 2010 through China's 1000 Experts Programme. Prior to joining UM, Prof Ye served as the dean of the School of Pharmacy at Shanghai Jiao Tong University.

Before returning to China, Prof Ye successively served as an assistant professor and associate professor at the Scripps Research Institute in the United States, and later received a tenured appointment at the University of Illinois College of Medicine and worked as a professor of pharmacology. His research focuses on G protein-coupled receptors (GPCRs) that recognise chemoattractants and mediate the activation of innate immune cells. He has applied signal transduction mechanisms to high-throughput screening of drug leads. Prof Ye has authored or co-authored more than 160 research articles, which have been cited for more than 9000 times. He has collaborated with pharmaceutical industry leaders such as Johnson & Johnson and Novartis in new drug discovery. Prof Ye has served as an associated editor of the *American Journal of Physiology – Lung Cellular and Molecular Physiology*, member of the editorial board of *Molecular Pharmacology*, and section editor of *The Journal of Immunology*. He has been an associate editor of *Pharmacological Reviews* since 2014.





茅海建特聘教授 Distinguished Professor Haijian Mao

國際學術界著名的歷史學家,在中國近現代史研究,尤其是兩次鴉片戰爭史和戊戌變法史的研究取得了學術界引人注目的成就。茅教授是教育部長江特聘教授,曾任華東師範大學歷史系教授及思勉人文高等研究院院長、中國社會科學院近代史研究所研究員、北京大學歷史系教授等;並曾於日本、香港、英國、台灣、韓國等地大學講學。茅教授著作豐富,主要著作有《天朝的崩潰:鴉片戰爭再研究》、《從甲午到戊戌:康有為〈我史〉鑒注》等。

Distinguished Professor Haijian Mao is a renowned historian. His research on the modern and contemporary histories of China, especially on the two Opium Wars and the Reform Movement of 1898 in Qing dynasty, has earned him recognition from his peers. He is a Distinguished "Changjiang" Professor of the Ministry of Education. He was formerly a professor of history at East China Normal University and dean of its Si-Mian Institute for Advanced Studies in Humanities; research fellow of the Institute of Modern History, Chinese Academy of Social Sciences; and professor of the Department of History at Peking University. He has given lectures at universities in Japan, Hong Kong, the United Kingdom, Taiwan, and South Korea. He is a prolific writer, and his main works include *The Collapse of the Heavenly Dynasty: A Restudy of the Opium War*, and *From 1895 to 1898: The Textual Research and Annotations on Kang Youwei's Autobiography, Woshi* [my history]



許德寶特聘教授 Distinguished Professor De Bao Xu

許德寶特聘教授是知名的語言學家,在音系學理論、漢語音系學以及對外漢語教學等取得了豐碩的成果且具有重要的學術影響力。許教授在美國具有30多年教研和管理經驗,曾任美國漢明頓大學東亞語言文學系主任和Leonard C. Ferguson 講座教授、北京師範大學珠海分校文學院講座教授。許教授著作豐富,在理論語言學、中文語言學以及計算機輔助語言學習在中文外語教學中的應用等領域出版10本獨著/合著書籍及80多篇文章和論文。此外,許教授也是中國社會科學出版社出版的《當代語言學理論叢書》的共同主編(另一位主編是來自哈佛大學的黃正德教授)。

Distinguished Professor De Bao Xu is a renowned linguist, with fruitful results and major academic impact in the theories of phonology, particularly Chinese phonology, and in teaching Chinese as a foreign language. Prof Xu has more than 30 years of experience in teaching, research and administration in the United States. He was formerly Leonard C Ferguson Chair Professor of East Asian Languages and Literatures and chairperson of East Asian Languages and Literatures Department, at Hamilton College, United States, and chair professor of the College of Humanities at Beijing Normal University's Zhuhai campus. Prof Xu is a prolific writer. He has authored or co-authored ten books and more than 80 articles and papers on theoretical linguistics, Chinese linguistics, and CALL study in teaching Chinese as a second language. He is a co-editor-in-chief (with Prof James Huang from Harvard University) of *Contemporary Linguistic Theory Series*, published by the China Social Sciences Press.

國家主席習近平考察澳大與學生討論中華文化

President Xi Jinping Visits UM and Discusses Chinese Culture with Students

文 Text | 張愛華 Ella Cheong

Manuel Reis, Government Information Bureau

2009年初,習近平以國家副主席身份在澳門考察期間宣佈,中央政府決定開發橫琴島。隨後,作為「一國兩制」框架下粵澳合作的標誌性項目——澳門大學新校園建設工程啟動。相隔五年,習近平在2014年12月20日再度來澳,並首次考察澳門大學新校園,並與書院學生座談,討論中華文化,受到師生的熱烈歡迎。

During a visit to Macao in his capacity as vice president of China in early 2009, Xi Jinping announced the central government's decision to develop Hengqin Island. Later, the University of Macau's (UM) new campus project, which is considered by many to be a landmark collaboration between Macao and the mainland province of Guangdong within the "One Country, Two Systems" framework, was started. Five years have passed, and on 20 December 2014 now President Xi made another visit to Macao. This time, his itinerary included a visit to UM's new campus. He received a warm welcome from UM teachers and students, and visited one of the residential colleges at UM where he had a lively discussion with the students about Chinese culture.



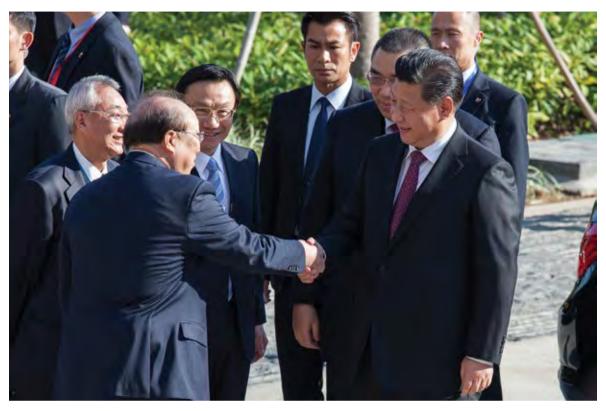


習近平勉勵學生要青出於藍 President Xi Jinping encourages the students to strive to surpass their teachers









社會文化司司長譚俊榮、澳大校董會主席林金城及校長趙偉迎接習近平到訪 President Xi is warmly received by Social Affairs and Culture of Macao SAR Tam Chon Weng, UM University Council Chair Lam Kam Seng, and UM Rector Wei Zhao

讚揚澳大辦學制度創新

習近平一行在行政長官崔世安陪同下於當日下午三時許到達澳大,社會文化司司長譚俊榮、澳大校董會主席林金城、校長趙偉在場迎接。習近平抵校園後首先前往大學展館參觀。趙偉向習近平介紹大學的整體規劃、歷史和辦學理念、兩個國家重點實驗室的科研成就,以及大學圖書館的珍藏古籍。習近平讚揚澳大新校園環境好,在辦學制度理念上也有很多的創新。當得知澳大研發的納米級芯片和中藥研究處於世界領先水平時,習近平鼓勵澳大為國家實施創新驅動發展戰略作出新的貢獻。趙偉回應:「一定會把澳大辦得更好,為澳門、為國家增光。」

Praising UM's Innovative Educational System

President Xi and his entourage arrived at UM around 3:00pm in the company of Macao SAR Chief Executive Chui Sai On. He was warmly received by Secretary for Social Affairs and Culture of Macao SAR Tam Chon Weng, UM University Council Chair Lam Kam Seng, and UM Rector Wei Zhao. Upon arrival, President Xi first visited the University Gallery, where Rector Zhao told him about the master plan for the university, its history and educational philosophy, the research achievements of the two state key laboratories, and the rare ancient books housed in the university library. President Xi praised the beautiful surroundings of the new campus and the various innovations UM has implemented in the educational system. After learning that UM has ascended to the world's leading position in research on nano-chips and in research on Chinese medicines with modern technologies, President Xi encouraged UM to keep up the good momentum and play a part in accelerating the implementation of China's "innovation-driven growth strategy". Rector Zhao responded, "We will try our best to make UM even better in the future so as to bring glory to Macao and our country."

探討中華傳統美德

習近平又參觀澳大八所書院的其中一所書院:鄭裕彤書院。副校長(學生事務)程海東和該書院院長鍾玲分別介紹了書院系統和書院設施。期間,適值有學生正在討論中華傳統文化與當代青年。當學生看到習近平來到,非常高興,並邀請主席參與其中,圍繞澳大校訓「仁、義、禮、知、信」、敬老護幼等中華傳統美德進行討論。在聽了學生的發言後,習近平就弘揚優秀傳統文化談了自己的看法。他表示:「中華文化源遠流長、博大精深,如同一座寶藏,一旦探秘其中,就會終生受用。我們要取其精華、去其糟粕,賦予中華傳統文化新的時代內涵,使之成為我們的精神追求和行為準則。」

Discussing Traditional Chinese Virtues with Students

President Xi also visited one of UM's eight residential colleges, Cheng Yu Tung College (CYTC). Vice Rector (Student Affairs) Haydn Chen and CYTC Master Chung Ling told President Xi about the residential college system and the facilities of the college. At the time of his visit, some college students were discussing what today's young people can learn from traditional Chinese culture and traditional Chinese virtues, such as respecting the elderly and loving the young, as well as the five virtues listed in the university motto: humanity, integrity, propriety, wisdom, and sincerity. The students were very pleased to see President Xi and immediately invited him to join their discussion. After listening to the students' remarks, President Xi expressed his own views about how to promote traditional Chinese culture. "Chinese culture dates back to a long time ago. It is profound and deep," said President Xi. "It is like a treasure trove. Once you are inside it and uncover the gems, you would benefit for life. We should take the essence and discard the dross, and give it a new dimension suited to the time. We should make it the moral standards we strive to achieve and let it guide our behaviour."

習近平參觀鄭裕彤書院 President Xi visits Cheng Yu Tung College





勉勵學生要青出於藍

習近平指出:「學生正處在人生的黃金時期,不僅要有求學求知的熱情,而且要有心繫國家、心繫特區的承擔。做到知行合一、學以致用,為將來走上社會,投身特區和國家建設做好思想品德、學識修養、能力才幹等多方面的儲備。同時以『修身齊家治國平天下』作為人生的一個引導,最後走出一條人生正確的道路。」

習近平希望澳大學生通過學習瞭解民族和國家的歷史,汲取中華民族的精神力量,增強民族自豪感,增強文化自信,增強作為一個中國人的骨氣和底色,並且珍惜青春年少的大好時光,創造有信念、有夢想、有奮鬥、有奉獻的人生;努力學習,青出於藍勝於藍,長江後浪推前浪。

最後習近平向澳大贈送了兩套書籍,分別是《北京大學圖書館藏稀見方志叢刊》和《永樂大典》重印本,並在贈書函上簽名。訪問行程逾一小時,離開校園時,習近平親切地與過百名在場歡送的師生握手道別,現場氣氛非常熱烈。





學生熱烈歡送習近平 Excited students see off President Xi



Encouraging Students to Surpass Their Teachers

"University years are the prime time of our lives," President Xi said to the students. "Not only should you have a passion for knowledge, but you should also have a sense of responsibility for your country and for the Macao SAR. You should combine 'knowing' with 'practicing'. You should put what you learn into good use, and well prepare yourself morally, intellectually, and professionally so you can make a contribution to the development of the Macao SAR and our country after graduation. Also, you should let the wisdom of the old Chinese saying that 'Cultivate good moral character in oneself, and peace, order and harmony in every house, every country and the entire world will eventually follow' guide you onto a right path in your life's journey."

President Xi expressed his hope that UM students will study the history of China and the Chinese people and draw strength from the knowledge, thereby achieving a greater sense of national pride and cultural confidence and exemplifying the inherent good traits of the Chinese people such as strength of character and integrity. He encouraged the students to cherish the prime time of their youth and to create meaningful lives with convictions, dreams, hard work, and selfless service to others. He also encouraged the students to study diligently and strive to surpass their teachers.

Finally, President Xi presented two sets of gift books to UM, namely *Rare Local Chronicle Series Housed in Peking University Library* and *The Yongle Encyclopedia*, and also signed on two separate books introducing the two sets of books. President Xi's visit to UM lasted more than an hour, and before he left the campus he shook hands with more than 100 excited UM teachers and students who saw him off.

大規模遷校 澳大完成創舉

UM Completes Relocation to the New Campus

文 Text | 余偉業、編輯部 Kelvin U, Editorial Team

圖 Photo │傳訊部、遷校工作小組、余偉業

Communications Office, Relocation Workgroup, Kelvin U

經過三年多緊鼓密鑼的施工建設,標誌著澳門高等教育邁向新發展里程碑的澳大新校園在2014/2015學年全面投入使用。

新校園面積1.09平方公里,比舊校園大20倍,整個遷校過程可說是史無前例的創舉,對負責搬遷工作的人員來說挑戰巨大。翻查資料,基本上找不到同類型的搬遷先例,類似大規模的搬遷鄰近地區只有香港國際機場的總體搬遷,而澳大新校園面積比香港國際機場大四分之一。 遷校工作龐大,用來包裝物品的紙箱就用了超過50,000個。究竟澳大是如何能夠在不妨礙教學和行政工作的原則下完成這項艱鉅的任務?

The University of Macau's (UM) new campus marks a milestone in higher education development in Macao. After three years of construction, it became fully operational in the 2014/2015 academic year.

The new campus covers 1.09 square kilometres, and is 20 times larger than the old campus. UM's relocation to the new campus was a challenging undertaking at an unprecedented scale. It would be hard to find in Macao's neighbouring regions another case of institutional relocation approaching such a large scale, except perhaps the former Hong Kong International Airport, which was 25 per cent smaller in size than UM's new campus. The UM relocation involved packing more than 50,000 boxes. This number alone provides some indication of the vast amount of work involved in the process. How did UM manage to complete this challenging task without disrupting teaching and administrative activities?







搬遷協調工作 井然有序

自2009年澳門特區政府公佈新校園項目後,澳大不久便成立臨時的「遷校工作小組」(以下簡稱小組),由副校長(行政事務)黎日隆博士率領,負責整個搬遷項目中全校所有單位及人員的搬遷相關規劃、協調及執行搬遷物流工作。全校各部門於2013年初設立單位聯絡人,負責協調各單位與小組間的聯繫溝通,包括就搬遷計劃補充資訊、聽取反饋,以及在搬遷過程中協調物流配送工作和組織各單位的人員參與具體搬遷行動。

澳大共有78個不同的部門或單位,在準備搬遷前的日子裡,小組與各部門緊密聯繫,部署搬遷日程。為更有效執行工作,小組共設有九個團隊,專責為各功能單位協調搬遷工作,包括:學術單位、學術支援單位及行政單位、圖書館、實驗室、電腦室、非科學實驗室、學生宿舍、住宿式書院、學生社團及組織、員工宿舍及公共空間;家具遷入以及物流及體育設施。

遷校工作異常繁複,必須做到有系統和有計劃,方能按部就班完成。由於大學部門眾多,在溝通和協調上也有一定的難度。遷校工作小組核心成員之一馮煥基表示,「各部門都有一名代表負責協調其部門之搬遷工作,同時擔當與小組溝通的角色。同事在搬遷前已知悉遷校的方案,大家有充分的準備,只等搬遷的日子確定後,就可以啟動。」

Good Coordination Ensures Orderly Relocation

UM established an interim Relocation Workgroup (the Workgroup) soon after the Macao SAR government announced the new campus project in 2009. Led by UM Vice Rector (Administration) Dr Alex Lai, the Workgroup was responsible for the planning, coordination and implementation of the relocation plan. In early 2013, each of the 78 units at UM appointed a contact person to liaise with the Workgroup, to provide supplementary information and collect feedback regarding the relocation plan, to coordinate logistics and distribution work in the relocation process, and to arrange for colleagues from different units to participate in specific relocation-related tasks.

Throughout the process of preparing for the relocation, the Workgroup maintained close liaison with the various units to better plan the relocation schedule. To carry out the relocation more effectively, the Workgroup established nine teams to coordinate efforts of different functional units, including academic units, academic support units, administrative units, the library, labs, computer rooms, student dormitories, residential colleges, student organisations, staff hostels, public spaces, and sports facilities.

Such a complicated project required a systematic plan. The fact that there are so many units at UM added to the difficulty in communication and coordination. Peter Fung Woon Kee, one of the core members of the Workgroup, says, "Each unit appointed a representative to coordinate the relocation of his or her own department. These unit representatives also served as a bridge of communication between their units and the Workgroup. All the colleagues knew about the relocation plan beforehand and so everyone was fully prepared. All they waited was for the relocation date to be confirmed so they could carry out the relocation plan."





澳門大學遷校短片 Video about the University of Macau's Relocation

專題故事 · FEATURE



遷校工作小組成員何嘉莉 Cornelia Ho, member of the Relocation Workgroup

無先例參考 憑經驗部署

鑑於是次校園搬遷項目工程龐大,於現代澳門發展史上實為罕見,小組於是四出訪尋,冀能搜集到性質相關的搬遷經驗。由於校園搬遷的規模實在空前龐大,國內並無先例可供借鑑。小組另一核心成員何嘉莉表示:「小組曾到香港大學取經,期望藉此了解搬遷項目策劃過程中有機會出現的困難。可是情況有別,香港大學是個別部門遷往一座相鄰的新辦學大樓,而非全校搬遷。澳門乃至全國史上,從沒出現一間具規模的大專學府在短時間內全校搬遷。只好靠小組成員以用家的身份,探索將有可能出現的問題,需要詢問哪些資料。當中有顧問公司提供資訊和意見,但該公司也從未接過工程如斯龐大的項目。」

澳大整個校園搬遷計劃共分三個階段進行,大規模的整體搬遷集中在六至八月的暑假期間,而在此半年前,作為先頭部隊的校園發展部和校園管理部率先於新校園安頓。何嘉莉表示:「先頭部隊的搬遷工作對我們工作的參考價值甚大,因為每一次搬遷,我們會觀察到當中存在着甚麼問題,如過程中可能需要不同的表格,有助詳盡記錄物資搬運情況,當出現有紙箱送點不符時,可透過翻查整個記錄找回紙箱,從這些細微的搬遷工作中,得到了這些寶貴的經驗,從而大大改善工作情況,確保了往後的整體搬遷順利。」

No Precedent to Draw Experience From

Because there was no precedent in modern Macao history for relocation at such a large scale, the Workgroup visited other places in China, trying, without much success, to gain experience from similar relocation projects. Cornelia Ho Ka Lei, another core member of the Workgroup, says, "The Workgroup visited the University of Hong Kong, hoping to learn what kinds of difficulties are likely to be encountered. But HKU's situation was different. It never relocated in its entirety. Only some of its departments moved to a neighbouring teaching building. It turned out that no other sizable university in China ever moved to a new campus in its entirety within a relatively short period of time. So members of the Workgroup had no choice but to put themselves in the shoes of a user to anticipate what problems were likely to occur and which information needed to be obtained. A consulting firm provided information and expert opinions to us, but even this consulting company had never undertaken such a large project."

The relocation was carried out in three stages, with the bulk of the work conducted in the summer holiday between June and August, six months after the Campus Development Office (CDO) and Campus Management Office (CMO) first moved to the new campus. "The CDO and CMO's moving to the new campus first was very useful to the Workgroup, because each experience could reveal problems that hadn't entered our consideration," says Cornelia. "For example, we learned that it would be best to prepare different kinds of forms beforehand so we could have a detailed record of the items being moved, and in case of any discrepancy, we could find the missing box by going through such records. These small-scale exercises in relocation helped us identify areas for improvement, which in turn made the large-scale relocation smoother."





階段性搬遷計劃

整個校園搬遷工程共分三大階段,於2013年12月至2014年8月期間進行。

第一階段:2013年12月至2014年1月

部分校長辦公室、澳門大學計劃指揮中心(當中包括校園發展部、校園管理 部及部分資訊及通訊科技部)

第二階段:2014年2月至4月

健康科學學院、部分體育事務部、科技學院部分實驗室、教育學院及法學院 部分辦公室

第三階段:2014年5月至8月

整體搬遷(詳見下頁)

Relocating in Stages

The relocation was conducted in three stages, between December 2013 and August 2014.

Stage 1: December 2013—January 2014

Part of the Rector's Office, and the New Campus War Room (including the Campus Development Office, part of the Campus Management Office, and part of the Information and Communication Technology Office)

Stage 2: February—April 2014

The Faculty of Health Sciences, part of the Office of Sports Affairs, some labs of the Faculty of Science and Technology, some offices of the Faculty of Education and Faculty of Law

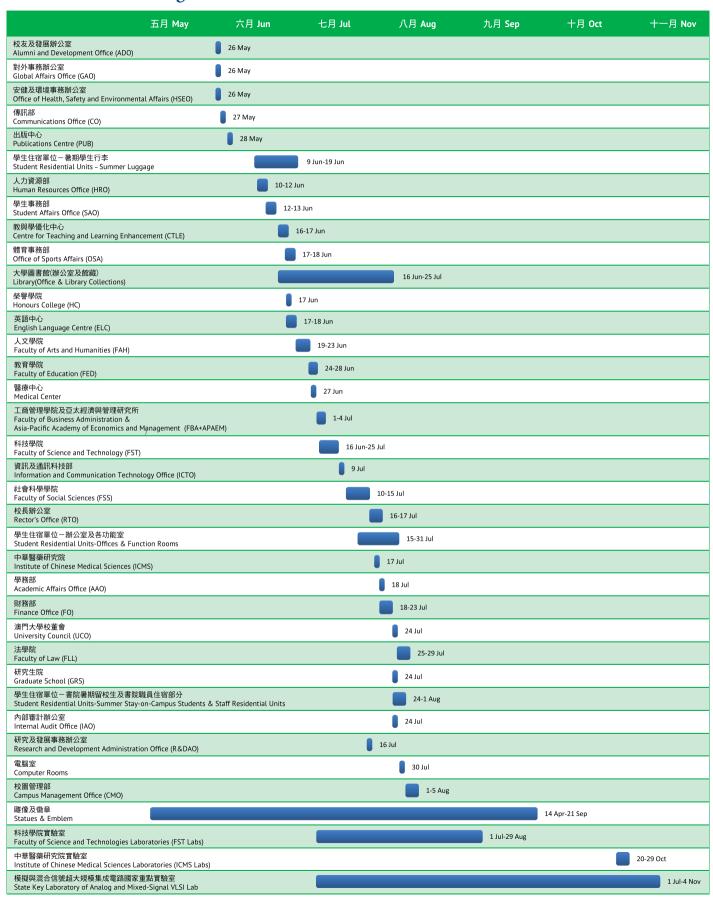
Stage 3: May—August 2014

Large-scale Relocation (More details on next page)



搬遷工程龐大,用於打包物件的紙箱超過50,000個 Over 50,000 boxes were used for packing during the relocation

整體搬遷時間表 Large-scale Relocation Schedule





遷校工作小組成員沈維翰 Brandon Sim, member of the Relocation Workgroup

工程龐大 部署講求周全多變

搬遷工程前期,校方成立了「搬遷協調中心」,以便協調各單位搬遷、物品招領、每天搬遷工作講解等。負責早期搬遷工作的小組成員沈維翰表示:「搬遷工作既要協同推進,又要分清輕重緩急。當中更需監控工作進度,收集大量文件、資料及整理分析等工作。因此,在前期統籌部署上,小組成員已完成了很多別人看不到的工夫。」而在搬遷前,小組與部門跟進實際日期,按部門運作及需要而作出搬遷的協調,也按日程與搬運公司制定搬遷時間表及搬運流程,再與部門落實。期間,小組還有準備工作如物品包裝示範、各專項搬遷指引、搬運物品安全指引、處理機密文檔指引等等。小組還把搬遷指引的資料上載到大學網頁,方便師生員工掌握和學習。

Thoughtful Planning and Quick Response to Changes

In the early days of the relocation, UM established a relocation coordination centre. In addition to assisting the various units with their relocation, the relocation coordination entre also provided lost & found services and gave daily relocation briefings. Brandon Sim Wee Han, a member of the Workgroup, says, "You need to work with the various units to push relocation ahead but also need to set the priorities straight. Moreover, you need to monitor the progress of the various tasks, and collect, sort and analyse a large amount of data. So in the early days, the Workgroup already completed a lot of work behind the scenes." Before the relocation, the Workgroup liaised with the various units about the actual relocation dates and worked with the moving company to make a relocation schedule and determine the relocation procedure before confirming the individual relocation dates with the various units. In the meantime, the Workgroup made all other necessary preparations, including making videos to demonstrate how to properly pack items, and establishing guidelines on how to safely move items and handle confidential files. The Workgroup then uploaded the videos and guidelines to the UM website for easy access by all faculty members, students and staff.



搬實驗室大型儀器過程艱鉅 Moving large laboratory equipment is a challenging task



工人拆遷銅像 Workers are handling the statue



首個實驗室:智能環境與控制系統實驗室遷入 The Smart Environment and Cybernetics System Laboratory, the first laboratory to move to the new campus.



完成遷校,2014 / 2015新學年正式在新校園開課 UM completes relocation, and officially starts offering classes on the new campus in the 2014/2015 academic year

搬遷大事記 Relocation Milestones

2013年7月20日 20 July 2013	新校園移交,實施澳門法律管轄 The new campus was handed over to the Macao SAR government and came under the jurisdiction of the Macao SAR
2013年8月20日	首座書院 (S9)移交大學
20 August 2013	The first residential college (S9) on the new campus was handed over to UM
2013年8月21至23日	新校園試運,其後2,000學生入住
21—23 August 2013	Trial operation. About 2,000 students moved to the new campus
2014年2月12日	首批學生 在新校園上課
12 February 2014	The first group of students began classes on the new campus
2013年11月5日	新校園舉行 啟用儀式
5 November 2013	The inauguration ceremony for the new campus was held
2014年2月28日	首個學院 :健康科學學院遷入
28 February 2014	The Faculty of Health Sciences was the first faculty to move to the new campus
2014年4月9日 9 April 2014	首個實驗室 :智能環境與控制系統實驗室遷入 The Smart Environment and Cybernetics System Laboratory was the first laboratory to move to the new campus
2014年8月22日	舉行 告別舊校園儀式
22 August 2014	A "Goodbye Old Campus" ceremony was held
2014年8月25日 25 August 2014	完成遷校,2014 / 2015新學年正式在新校園開課 UM completed relocation, and officially started offering classes on the new campus in the 2014/2015 academic year

每一次搬遷工作都考驗着小組成員隨機應變的能力。由於搬遷計劃隨時因為建築物驗收情況而需要重新部署,令確定正式遷入日期增加難度,小組成員也因此須準備多項臨時應變計劃。何嘉莉笑説:「應變計劃曾出現了很多版本,幸好沒遇上太大阻滯,如颱風暴雨,也沒有整幢樓宇未能投入運作的情況出現。」

小組成員由各部門調派人員參與,多數不具備豐富物流搬運管理的經驗,只是於過程中彼此觀察和學習。沈維翰表示:「每一次搬遷,均會預先假設很多可能遇上的糟糕情況,我們事先制訂危機處理表,如運輸車中途發生故障該怎辦?因此我們要求物流公司留後備車以供使用。」

Every exercise in relocation was a test of the Workgroup's ability to quickly respond to changes. The fact that the relocation plan had to be constantly adjusted according to the actual date when each building passed quality inspection made it more difficult for the Workgroup to set the official move-in date, and for this reason the Workgroup made several contingency plans. "We have had several different versions of contingency plans," says Cornelia. "Luckily, we didn't meet any major setbacks, such as typhoons or storms, and we didn't find ourselves in a situation where a building couldn't become operational."

The Workgroup consisted of representatives from the various units, most of whom didn't have experience with moving or logistics management, so it was a steep learning curve for many involved in the process. "Each time before we moved something to the new campus, we would consider worst-case scenarios, and we would make a crisis response checklist," Brandon says. "For example, what if the moving trucks broke down on the way? So we requested the moving company to have backup trucks on standby just in case."

安全至上 確保搬遷零事故

在校園搬遷工作上,安全是重中之重,這包括了資產安全、人員安全、校園安全等方方面面。搬遷工作小組預先做足應急處理方案,把安全工作貫穿校園搬遷全過程。馮煥基表示:「搬遷的工作中注意環節甚多。即使有遷入的訊息發出,仍需相關部門確認樓宇狀況是否妥當,確保遷入的建築物具備各項基本條件及安全,方可實行搬遷。」完成大規模的遷校工作後他感到相當安慰的是,「搬遷過程中總算暢順,並沒有任何突發事故發生。」

Safety Paramount, Zero Unexpected Events

Safety was the overriding concern for the Workgroup throughout the process of relocation. To ensure the safety of assets, safety of personnel, and security on the campus, the Workgroup made sufficient contingency plans. "There were many details to pay attention to," says Peter. "Even after we gave the go-ahead to move, we would double check with the parties concerned to make sure that the building was truly ready for use in every way. Overall, the relocation was quite smooth, with zero unexpected events, and this made our hard work worthwhile."



首個學院遷入新校園 The first faculty to move to the new campus



首座書院(S9)移交大學 The first residential college (S9) handed over to UM





遷校工作小組成員馮煥基 Peter Fung, member of the Relocation Workgroup

全校配合 順利完成創舉

集中的整體搬遷工作主要安排在暑假期間、在校學生不多的黃金時期內進行,從而大大降低對大學教學科研工作的影響,因此整個搬遷工作安排得非常緊湊。因應教職員於暑假期間外出參與學術交流、長時間離澳的情況,工作小組也準備了授權書以作配合,老師們只需自行收拾物資,再授權學院人員跟進即可。同時,也考慮到暑假期間有學生留校活動的情況,過程中儘量不中斷涉及學生服務的部門運作。馮煥基表示:「校園不同部門會事先發出通知指引,告之服務何時暫停,並移至新校園,有些部門更會先派一兩位同事到新校園這邊,開始投入運作,如註冊處、財務部等。為減少停止運作的時間,更有搬遷定於週末,且搬遷期間新舊校舍兩邊同時如常運作。」

此外,舊校園電腦室逐步停止開放並迅速轉移至新址,當中搬遷各同事工作甚為艱辛,因為涉及3,278部電腦、過萬個電腦周邊配件、逾70,000個網絡接駁點、無數電子門鎖需要逐一拆件入箱並運抵新校。運輸過程中亦需要非常小心和謹慎。同時因應日後擴校所需,校方也添購一批新的電腦設備供學生使用,確保服務在搬遷期間不受影響。在搬遷的同時,還要做好後續整理,為迎接新學期作好準備。

在短短數個月內,各部門按照逐步遷入、分批進駐的原則順利完成遷校的艱鉅任務,是因為大學能夠因應情況而靈活調動搬遷方案,以及一班盡責職員和全校師生通力合作,最終令到這次史無前例的遷校創舉順利完成。

University-wide Cooperation Leads to Successful Relocation

The bulk of the relocation work was carried out in the summer holiday to minimise disruption of teaching and research activities, because there were relatively few students on the campus in the summer holiday. But this also meant that the relocation had to be completed on a very tight schedule. Foreseeing the possibility that some faculty members would not be in Macao at the time of relocation, the Workgroup prepared a sample written authorisation to provide maximum convenience for these faculty members. Those who would be absent at the time of relocation only needed to pack their personal effects before leaving Macao and their representatives designated in the written authorisation would take care of the moving for them. Also, considering that some students remained on campus during the summer holiday, the Workgroup tried its best to prevent the relocation from causing interruption of services to students. "Before any unit moved to the new campus, it would send an email notification to the university community telling everyone when and for how long its services would be interrupted," says Peter. "Some units, such as the Registry and the Finance Office, went one better—they had one or two colleagues move to the new campus first to minimise the down time caused by the entire department's moving. Some decided to move on the weekends. Some even managed to maintain normal operation on both campuses during the relocation."

The computer rooms on the old campus gradually stopped opening, and what needed to be disassembled, packed, moved, unpacked, and re-assembled within the shortest time possible included 3,278 computers, over 10,000 computer accessories and peripherals, 70,000 network access points, and innumerable electronic locks. Great care was taken during the transport. Anticipating future needs, the university also bought some new computers to make sure that computer services were still available during the relocation process. At the same time relocation was going on, preparations were made for the new semester.

Within just a few months, all the units at UM successfully completed the difficult task of relocating to the new campus by following the principle of "moving in stages and in batches". The success was made possible by the university's ability to quickly adjust the relocation plan according to changing circumstances as well as the unreserved support and cooperation from all UM members.



















校園導賞 帶您遊走新校園

Tour the New Campus with PR Student Ambassadors



學生公關大使向嘉賓介紹新校園圖書館 A PRSA tells visitors about the library

「歡迎各位嘉賓來到澳門大學……」一位身穿藍袍、 風度翩翩的學生公關大使開始向訪客細心講解著校園 的一草一木,以及不可錯過的每一個角落和故事。無 論是在昔日的舊校園,又或者是現時的新校園,由學 生公關大使帶領的這些場景都是那麼熟悉,他們專業 的導賞技巧,精彩的描述內容,讓訪客對澳大校園留 下深刻的印象。 "Welcome to the University of Macau." On a typical day on the University of Macau's (UM) campus, you may overhear this warm greeting if you happen to pass by PR Student Ambassadors (PRSA) guiding campus tours. Whether on the old campus or the current campus, these PRSAs dressed in dark blue robes have become a familiar sight. Their professional tour-guide and presentation skills have left a deep impression on visitors.



張惠琴(中)親自向來賓介紹 新校園規劃

Katrina Cheong (middle) explains the new campus master plan to visitors

保姆式帶領 培養學生獨當一面

任何一所學校都有自己的校園文化,而學生公關大使 亦肩負推廣校園文化的重任,通過校園導賞把澳大的 文化傳遞給來自世界各地的訪客。時光荏苒,經過職 員以及學生的不懈努力,澳大傳訊部的學生公關大使 計劃日趨成熟,至今已迎來了第五屆的新成員。

首先提出在澳大推行校園導賞計劃的是傳訊總監張惠琴,她將此構想付諸實行,可說是此計劃的最大推手。凡事起頭難,每當她回想成立初期的種種不易,都甚為感嘆:「難以喚起學生公關大使的熱忱是成立初期遇到的最大挫折,當時負責的同事曾經像保姆一樣帶著他們走過每一步,並在工作以外的時間舉辦聚會與他們加強聯繫,逐漸地大家的參與感、歸屬感才得以增強,也更加了解自己的責任。」

新校園的落成是計劃發展的一大轉捩點,「突破」就是這個階段的代名詞。在未得知新校園項目前,舊校園的導賞服務一直由專職的同事擔當主要角色,但得知新校園項目後,張惠琴便預視到校園導賞需求量將大量增加。恰逢當時學生公關大使團隊新鮮出爐,便把握住時機加強培訓,提供了不少強化語言表達和導賞技巧的相關課程。漫漫四載,學生公關大使已能獨當一面,由輔助角色搖身蜕變為主導,肩負大部分的聯繫和協調的工作。「導賞工作未來將會逐漸交由他們獨立完成。」看著公關大使一步一腳印成長起來,張惠琴對他們的表現感到相當欣慰。

From Fledgling PRSAs to Competent Campus Tour Guides

Every university has a unique culture. The PRSAs play an important role in promoting UM's campus culture to visitors from around the world. This year saw the inauguration of the fifth cohort of PRSAs under the PR Student Ambassador Programme, which was launched by UM's Communications Office (CO).

CO Director Katrina Cheong proposed the guided campus tours, and she has played an instrumental role in putting this idea into action. But every beginning is difficult. "The biggest challenge we faced in the beginning was the lack of enthusiasm on the part of the PRSAs," says Katrina. "Our colleagues who were in charge of the programme took the students by the hand and coached them every step of the way. Outside office hours, we organised gatherings for the students to increase their sense of belonging and also to help them bond with each other. Gradually things started to improve, with the students gaining a better understanding of their responsibilities. We used to joke that our colleagues were like 'mommies' to the PRSAs in that they devoted a lot of time and energy, both during and after office hours, in order to help the PRSAs grow under the programme."

Grow they did. Before the completion of the new campus, CO's colleagues played the main role in campus tours, with the PRSAs playing the role of helpers. But after learning about the new campus project four years ago, Katrina correctly predicted that there would be a great increase in the demand for campus tours, so after the first batch of PRSAs were recruited, Katrina and her colleagues lost no time in organising training courses in presentation skills and tour guiding skills for the PRSAs. Now the PRSAs are able to handle many tasks single-handedly, taking on the lion's share of campus-tour-related work, from liaison to coordination to on-site guiding. "Our hope is that one day they can completely take over the campus tours and do it independently," Katrina says, obviously pleased with how much the PRSAs have grown.



校園導賞考安排功力

為迎接絡繹不絕的訪客,學生公關大使一星期七天、每天提供四場導賞服務。妥善安排一次導賞,事前花不少準備功夫。在傳訊部專職接待的職員確認校園導賞的申請後,便會把訪問團的資料告知每日駐場的學生公關大使,往後的程序也就交由學生公關大使一手包辦,並由駐場大使負責導賞團的人手安排。直到當日帶團前一小時抵達傳訊部開一個簡會並準備好所有的必需器材,便可前往迎接嘉賓。導賞後則會有一個小總結,空能通過每一次的實踐發現不足,不斷完善。

正所謂「台上一分鐘,台下十年功」,學生公關 大使雖稱不上「十年功」,但絕對是相當用功。 除了前期、後期的準備之外,身為一名學生公關 大使還得有不可懈怠的用功,因為他們必須對校 園的資訊瞭如指掌,不然隨時有可能出現被訪客 問倒的窘境,因此用功複習校園資訊在所難免。





學生公關大使接受傳訊部的專業培訓 PRSAs receive professional training organised by the Communications Office



學生公關大使到台灣的大學交流取經 PRSAs travel to Taiwan to learn experience from local PRSAs

Guiding Campus Tours Requires Good Organisational Skills

With the new campus receiving a steady stream of visitors on a daily basis, the PRSAs need to guide four campus tours per day, seven days a week. The seemingly straightforward procedures of each tour belie the amount of work that needs to be completed beforehand. CO colleagues usually provide the information about a visiting delegation to the PRSAs who are on duty in the CO's office after a request for a guided campus tour is confirmed. After that, PRSAs are left alone to do the rest of the work single-handedly, with the on-duty PRSAs responsible for arranging working personnel for the tours. One hour before each tour, the PRSAs involved will arrive at the CO's office to receive a briefing and prepare all necessary equipment before they set off to receive the guests by themselves. After each tour there is a one-hour debriefing session. The purpose of the briefing and debriefing is to identify areas for improvement so the PRSAs can do better in the future.

There is a Chinese saying that goes, "One minute of excellent performance on the stage requires ten years of practice off the stage." Although it needn't take ten years for one to become a good PRSA, practice and preparation are absolutely essential. Every PRSA has to memorise all the relevant information about the university and the campus to avoid the embarrassment of being asked a question by a visitor that they cannot answer.



第四屆學生公關大使香燕彤 Shirley Heung from the fourth cohort

收穫終生受益的經驗

付出的背後,收穫當然也是等值的。來自香港的第四屆學生公關大使Shirley原抱著認識更多朋友的心態加入,除了如願擴大了社交圈子,更收穫了不少彌足珍貴的經驗。她感恩該計劃讓她學會更有效地與人溝通,「各個訪客的性格、興趣不一,與他們相處的方式、導賞稿的內容自然也得相應作出調整。」「不放手,何來成長?」第三屆學生公關大使George感謝傳訊部「放手一搏」,讓他的成長之路得到大躍進。越來越喜歡公關大使角色的George希望通過自己的講解,「讓更多的人知道源大的直蓋美」。



Reap Experience that Benefit For Life

For the PRSAs, the greatest reward for their hard work is the valuable experience gained from guiding the campus tours. Shirley, a UM student from Hong Kong who is among the fourth cohort of PRSAs, joined the programme to make more friends. She accomplished that goal, but in addition, she is also grateful that the programme taught her how to communicate more effectively. "Different visitors have different personalities and interests, and you have to adjust accordingly in how you interact with them and in how you prepare the script," Shirley says. George, who joined the programme in its third year, is grateful to the CO for "letting go of his hand to help him grow," to quote George's own words. George now finds himself liking his role of PRSA more and more. "I hope to help more people discover the beauty of UM and its people," George says.

Every day, visitors from around the world come to UM to experience firsthand the new campus through guided campus tours. M Allison Witt, acting director of the Office of International Programs and Studies at the









來自美國伊利諾大學厄巴納香檳分校的訪客M. Allison Witt和Jenn Raskauskas讚賞公關大使表現專業

M Allison Witt and Jenn Raskauskas from the University of Illinois at Urbana-Champaign praise the PRSAs for their professionalism

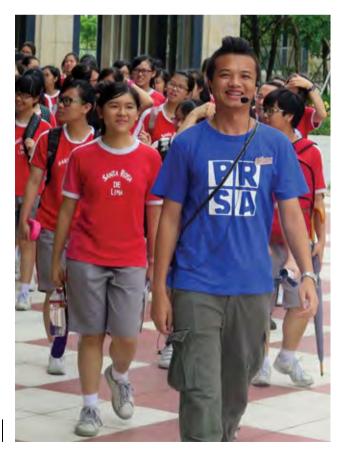
現時,每天都有不少賓客從世界各地來到澳大,透過校園導賞感受這座嶄新的校園。來自美國伊利諾大學厄巴納香檳分校的國際項目辦公室代主任M.Allison Witt和課程主任Jenn Raskauskas參觀後表示,校園導賞讓他們更瞭解澳大學生的生活和學習情況,並盛讚學生公關大使細心專業:「他們對校園瞭若指掌,講解十分詳細,而且能回答我們提出的所有問題,也會在每個參觀點留時間給我們拍照。」

「希望各位來賓有機會再來澳門大學……」任務結束,除去藍袍,得到掌聲的同時,更收穫終生受益的經驗。當這班公關大使畢業離開校園後,曾經他們介紹過的一花一草、每一步腳印、每一個帶團故事,都是成長歷程中不可抹去的美好回憶。



University of Illinois at Urbana-Champaign, and Jenn Raskauskas, programme coordinator from the same university, felt that the guided campus tour gave them a better understanding of how UM students live and study on the campus. They both lavished praise on the PRSAs. "They know the campus like the back of their hand, and gave a very detailed presentation," Witt and Raskauskas said. "They were also able to answer every question we asked, and they gave us time to take pictures at each spot we visited."

"We hope you can visit UM again," is what the PRSAs normally say to the visitors at the end of each tour. Whether or not the guests return, it is the PRSAs' hope that every guest leaves with a memory of the visit made more beautiful by the guided campus tour. And for the PRSAs themselves, each plant, flower and building they introduced will probably remain in their memory long after their graduation, and each tour they guided is sure to leave them with valuable experience that may well benefit them for life.



經過四年發展,學生公關大使已能獨當一面 The fourth cohort of PRSAs can handle many tasks single-handedly

新研究項目:

Google Glass可竊密 突破芯片運行瓶頸 治癌糖尿藥新發現

文 Text | 霍雅芝 Kristy Fok

圖 Photo | 譚金榮、何杰平及部分由受訪者提供

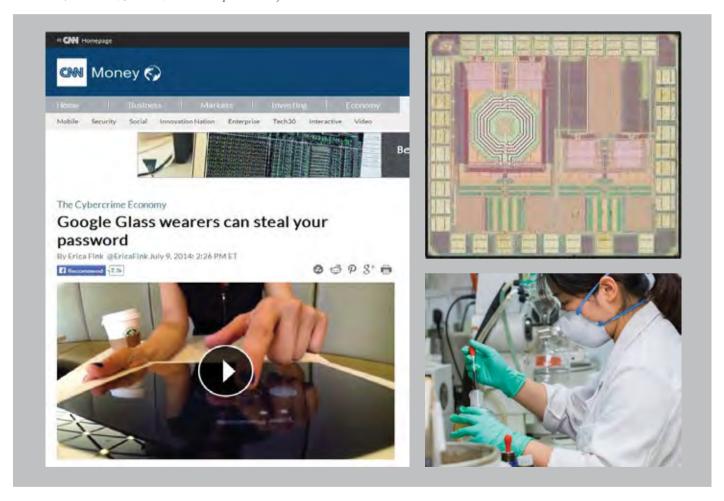
Eric Tam, Jack Ho, with some provided by the interviewee

New Research Findings:

Google Glass Can Steal Passwords

Breakthrough that Overcomes Technical Bottleneck in Chips Operation

New Discoveries in Anti-Diabetic Drugs



澳門大學在電腦及資訊科技、微電子和中醫藥三大領域有創新性的科研成果。這些研究成果不局限於象牙塔內,而是與人們的日常生活和 健康息息相關,並且在全世界產生了影響。

Today, scientific research is no longer just an academic pursuit confined to the ivory tower. Rather, it is intrinsically linked to our everyday life, and has the potential to set the trend for the world to follow. Perhaps that's why an important scientific discovery made in one part of the world often catches the attention of the globe. Recently, the University of Macau (UM) has done just that with innovative scientific outputs in information science, microelectronics, and Chinese medical sciences.





發現Google Glass可竊密

澳大校長趙偉講座教授率領研究團隊與美國麻薩諸塞大學洛厄爾分校(University of Massachusetts Lowell)華裔教授付新文團隊合作的研究發現,iPhone、谷歌眼鏡(Google Glass)、智能手錶等設備隨時可以被不法分子利用來竊取手機、平板電腦,甚至銀行帳戶的密碼。這項研究結果獲多家國際媒體例如CNN、Wired、Huffington Post的廣泛報導,引起大眾對使用智能裝置隱私問題的熱議。相關研究成果已被行內頂級計算機安全大會Black Hat USA 2014和著名學術會議ACM CCS接受並發表。

趙偉校長是電腦及資訊科學領域的專家,也是內地國家重點基礎研究發展計劃「973計劃」物聯網專案的首席科學家。他與研究人員設計出計算機視覺演算法,透過標記使用者手指在智慧型手機或者平板電腦上輸入文字或符號時的陰影位置進行陰影追蹤,再使用計算機視覺演算法將這些陰影區域翻譯成具體的鍵位,從而計算出使用者點擊輸入的內容。趙偉校長說,這款新應用程式軟件只要獲取Google Glass、智能手機、視像鏡頭或攝錄機等裝置攝錄到使用者手指按下密碼動作的視頻,就可以破解對方智慧手機或平板電腦的密碼。如果視頻中用戶正在登入網上銀行,那麼帳戶的密碼很可能同時被破解。

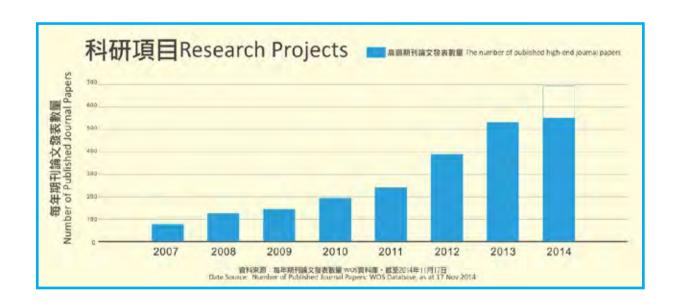
趙偉校長與研究人員分別以iPhone 5、高清攝像頭以及Google Glass進行測試,發現Google Glass在三米外盜取密碼的準確度達到八成三,而使用iPhone 5和羅技攝像頭的準確度更高達九成二,即使在看不見手機屏幕顯示任何文字的情況下,依然可以輕易竊取密碼。若配合使用軟件分析攝錄機的錄像,破解距離甚至可遠至44米。

Google Glass Can Steal Your Passwords

A research team led by UM Rector and Chair Professor Wei Zhao, in collaboration with a team led by Prof Xinwen Fu from the University of Massachusetts Lowell, discovered that smart devices like iPhone, Google Glass and smartwatch can be used by hackers to steal the passwords of one's phone, tablet, or even bank accounts. The findings have been reported by numerous media worldwide including CNN, Wired, and Huffington Post, sparking a heated discussion about privacy issues of smart devices. Related results have been presented at the top computer security industry conference Black Hat USA 2014 and the prestigious academic computer security conference ACM CCS 2014.

Prof Zhao is an expert in computer and information sciences. He is also the chief scientist of the Internet of Things project under the 973 Programme, a national key research development programme in China. The teams created a piece of software that identifies the shadows from fingertips typing on a tablet or smartphone. The algorithm then converts those touch points into the actual keys that were being touched, thus allowing the researchers to crack the password. According to Prof Zhao, once the videos were retrieved from a Google Glass, smart phone, webcam, or camcorder, this software can capture the movement and shadows of an unsuspecting victim's typing fingers, and whereupon steal his or her passcode to the smart phone or tablet. If the victim uses online banking and types in the PIN, the hacker can potentially access the victim's bank account.

The teams tested the software with a iPhone 5, a high-definition camera, and a Google Glass, and discovered that Google Glass, iPhone 5, and Logitech camera can steal passwords from 3 metres away (even when what's on the screen is not visible), with 83 per cent accuracy for Google Glass, and 92 per cent accuracy for iPhone 5 and Logitech camera. With a camcorder, the researchers were able to capture passwords from up to 44 metres away.



「這可能是全球首個應用程式,能在一個完全看不見對方手機熒幕顯示的情況下,精確解讀對方的鎖機密碼。」趙偉校長指出,這些與計算機視覺有關的技術經過開發,將有廣泛的應用前景;同時這一研究發現,使全球10多億的智慧行動裝置使用者關注到使用行動裝置的隱私問題,也提醒了設計業者在開發應用軟體時需要留意和改善之處。

微電子研究走在世界前沿

澳大微電子研究在過去10年發展非常迅速,在該領域已躍居世界前沿。由澳大副校長(研究)馬許願講座教授帶領的模擬與混合信號超大規模集成電路國家重點實驗室,在過去幾年間共發表了55篇國際期刊論文、115篇國際會議論文、三部專著,獲授予10項美國專利,並連續四年獲邀在被譽為芯片界奧林匹克的會議——國際電機電子工程師學會(IEEE)國際固態電路會議(ISSCC)上發表研究成果。

2014年度ISSCC會議吸引來自世界各地的頂尖學者和業界人士參與,澳大團隊在會上發表了三項世界前沿的科研成果及芯片設計,相關論文已收錄於ISSCC國際會議論文集中,題目分別為「一個用於電視譜段低功耗多通道無線電接收器」、「一個零外部元件極小功耗433/860/915/960MHz ISM頻段ZigBee接收器」和「一個可驅動0.15至15nF容性負載用於液晶顯示幕的高性能超小面積 (0.0013 mm2) 的單階放大器」。這

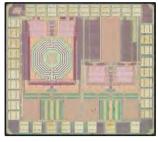
"This is probably the first application in the world that can steal someone's password to his or her smartphone without having to see what's on the screen," says Prof Zhao. The related computer vision technologies have the potential to be used for different purposes. The teams' findings sparked a heated discussion about privacy issues among over one billion users of smart mobile devices worldwide, and also pointed to areas for improvement in the design of application software.

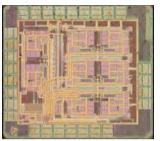
Leading Position in Microelectronics Research

Over the past decade, UM has developed rapidly in microelectronics research, and now enjoys a leading position in the field. In recent years, the State Key Laboratory of Analog and Mixed-Signal VLSI (AMS-VLSI Lab), led by the Vice Rector (Research) and Chair Professor Rui Martins, has published 55 papers in international journals, 115 in conference proceedings, and 3 monographs, and has obtained 10 US patents. The research team has been invited to present their research findings at the International Solid-State Circuits Conference (ISSCC) of the Institute of Electrical and Electronics Engineers (IEEE), which is considered the "Chip Olympics", for four consecutive years.

At the 2014 ISSCC, with participants from top universities as well as world-leading IC companies in the field, the UM team presented three innovative works and state-of-the-art chips. The designs of these works enable extra-high speed and low energy consumption in the operation of the chips, which until then had been a technical bottleneck. The three presented papers are entitled "An RF-to-BB-Current-Reuse Wideband Receiver with Parallel N-Path Active/Passive Mixers and a Single-MOS Pole-Zero LPF", "A 0.5V 1.15mW 0.2mm2 Sub-GHz ZigBee Receiver Supporting 433/860/915/960MHz ISM Bands with Zero External Components", and "A 0.0013mm2 3.6µW Nested-Current-Mirror







澳大代表與校友參加第61屆IEEE國際固態電路研討會 UM representatives at the 61st ISSCC

在2014年度國際固態電路會議上發表的芯片
The chips UM presented at the 2014 International
Solid-State Circuits Conference

些設計的優異之處,在於研究團隊成功突破了芯片技術上極高速和低功耗的技術瓶頸,也使澳大在年度的ISSCC上成為以第一作者發表論文數量最多的全球首10所大學之一,同時擠身10大的大學均為世界頂尖名校,如密西根大學、麻省理工學院、加州大學洛杉磯分校與柏克萊分校等。

會上,澳大博士生嚴祖樹更因卓越的科研表現,獲頒 IEEE固態電路學會博士生成就獎。其後全球第一大 手機芯片製造商美國高通向三名出席ISSCC會議的澳 大博士生發出了面試邀請,其中二人被該公司以超過 百萬(澳門幣)的年薪僱用,另一名則被業內另一巨 頭聯發科技(新加坡)延攬。

憑著傑出的科研,模擬與混合信號超大規模集成電路國家重點實驗室取得了斐然的成就:副主任余成斌教授獲選為2014/15年度IEEE固態電路協會(SSCS)傑出講師;副主任(研究)及無線研究組主任麥沛然副教授成為IEEE電路與系統學分會(CASS)史上最年輕的傑出講師之一,同時獲邀擔任國際電機電子工程師學會出版社(IEEE Press)編輯委員會成員,以及《IEEE新興及精選電路與系統期刊》編輯、《IEEE電路及系統期刊第一部分——常規論文》副編輯、《IEEE射頻識別電子期刊》的客座編輯。

Single-Stage Amplifier Driving 0.15-to-15nF Capacitive Loads with >62° Phase Margin", which led UM to be ranked among the world's top ten universities in terms of the number of first-authored papers. Other universities that entered the top ten include the University of Michigan; the Massachusetts Institute of Technology; the University of California, Los Angeles; and the University of California, Berkeley. The related papers have been included in ISSCC's conference proceedings.

Additionally, UM PhD student Yan Zushu was awarded the IEEE Solid-State Circuits Society Predoctoral Achievement Award, in recognition of his outstanding academic achievements in his PhD study.

Not only the works were highly appraised by the conference participants, three UM PhD students were invited for job interviews by Qualcomm, which is an American semiconductor company and the No 1 mobile chipmaker in the world. Due to their exceptional works achieved at UM, two of the three students were eventually hired by Qualcomm, while the other one was hired by MediaTek Singapore Pte Ltd, one of the world's leading IC design companies.

More good news from the IEEE reached the AMS-VLSI Lab. Prof Ben U Seng Pan, deputy director of the AMS-VLSI Lab, was named Distinguished Lecturer of the IEEE Solid-State Circuit Society (SSCS) for the 2014-2015 period. Prof Elvis Mak Pui-In, associate director (research) and coordinator of the Wireless Research Line of the AMS-VLSI Lab, was named Distinguished Lecturer of the IEEE Circuits and Systems Society (CASS). Prof Mak is one of the youngest scholars to receive this honour in the CASS's history. He was also invited to serve on the editorial board of IEEE Press, and was appointed editor of the IEEE Journal on Emerging and Selected Topics in Circuits and Systems, associate editor of the IEEE Transactions on Circuits and Systems I – Regular Papers, and guest editor of the IEEE RFIC Virtual Journal.



中華醫藥研究院副教授梁重恒(右)與助理教授梁少偉

Associate professor Leung Chung-Hang(right) and assistant professor Leung Siu-Wai from the Institute of Chinese Medical Sciences

癌症及糖尿病藥物為患者帶來福音

澳大在醫藥方面豐碩的科研成果同樣令人鼓舞。中華醫藥研究院、中藥質量研究國家重點實驗室梁重恒副教授,聯同香港浸會大學馬迪龍博士利用計算機輔助設計先進技術和生物活性評價方法,成功發現能夠直接抑制訊號傳導和轉錄啟動因數3(STAT3)的二聚化的類天然產物,並證明該類天然產物具有抑制腫瘤細胞生長的活性。隨後研究團隊又進一步與台灣高雄醫學大學團隊合作,更全球首度發現能夠直接抑制於STAT3二聚化的「銠(III)複合物」,並且在小鼠模型中證明該複合物能抑制黑色素瘤的生長。

梁重恒副教授這項突破性的研究成果為新一代特異抗腫瘤藥物提供了理論和實驗基礎,同時為癌症藥物研發帶來了新啟示。該兩項研究成果已分別發表於「自然出版集團」(Nature Publishing Group)旗下的著名期刊《Cell Death & Disease》及另一化學研究領域的專門期刊《Angewandte Chemie International Edition》。

另一邊廂,中華醫藥研究院助理教授梁少偉博士帶領研究 生進行糖尿病藥物降糖療效的系統評價,成果也為有肥胖 傾向的2型糖尿病患者帶來了喜訊。「藥物達格列淨沒有增 加體重的副作用,而且只要將該藥與某些降糖藥聯合使用 更可以大大提高降糖效果。」梁少偉博士指出,雖然藥物

Research on Cancer and Diabetes Drugs Bring New Hope for Patients

The university's achievements in medical sciences are equally encouraging. Associate professor Leung Chung-Hang from the Institute of Chinese Medical Sciences (ICMS) and the State Key Laboratory of Quality Research in Chinese Medicine (QRCM) and his collaborator Dr Ma Dik-Lung of the Hong Kong Baptist University have successfully identified a natural product-like STAT-3 dimerisation inhibitor by using advanced computer-aided design (CAD) technology and biological activity evaluation, which could potentially inhibit tumour cell growth. In a further collaboration with Kaosiung Medical University in Taiwan, the research team discovered that rhodium complexes may be developed as effective STAT3 inhibitors with potent anti-tumor activity. Significantly, the lead complex repressed tumour growth in a vivo mouse xenograft model of melanoma.

These two findings have been published in the *Cell Death & Disease*, under the Nature Publishing Group, and the chemistry journal *Angewandte Chemie International Edition*, both of which are recognised as prestigious and reputable journals. The studies provide a theoretical and experimental basis for developing new anti-tumour drugs from natural product or metal complex scaffolds.

達格列淨(Dapagliflozin)作用於腎臟的降糖效果遠不及增加細胞對胰島素敏感性或作用於肝臟的其他降糖藥,但研究團隊的系統評價顯示了該藥的獨特性。

澳大團隊針對糖尿病藥物系統評價的研究成果,分階段地刊於BioMed Central旗下的《Systematic Reviews》學報和英國醫學雜誌開放版《BMJOpen》。路透社在成果發表後隨即訪問該團隊,並以醫學新知報導該項研究,更得到各國媒體廣泛轉載,就連各地臨床醫師廣泛使用的醫學專科網站Medscape亦選錄了該研究論文內容作為醫師的參考材料。

當代著名的華人數學家華羅庚曾說:「科學成就 是由一點一滴積累起來的,唯有長期的積聚才能 由點滴匯成大海。」上述科研成績,無論是帶給 人們舒適便利的科技發明,或是保障人類健康長 壽的醫藥技術,都是澳大學者日夜埋頭苦幹的成 果,他們為促進社會發展和改善人類健康貢獻了 自己的一份力量。 Another researcher Dr Leung Siu-Wai, assistant professor from the ICMS, and his postgraduate students, found through a meta-analytic study that the combined use of dapagliflozin with conventional anti-diabetic drugs may improve glycemic control in type 2 diabetes without significant side effects such as weight gain. The research team was aware that the dapagliflozin, which acts on the kidney, is not as effective in lowering blood glucose levels as other hypoglycemic drugs, which increase insulin sensitivity of cells or act on the liver. However, the team's finding would benefit many type 2 diabetic patients with predisposition towards obesity.

The study of Dr Leung's team was first published in BioMed Central's *Systematic Reviews*, and the *British Medical Journal's BMJ Open*. It was later reported by Reuters Health and forwarded by other worldwide media. Additionally, the study has been published as reference material on *Medscape*, which is a professional medical website widely used by clinicians around the world.

The late Chinese mathematician Hua Luogeng once said, "Scientific achievements are accumulated drop by drop, and it is only after a long time can these drops be accumulated to become a sea." Whether it's an invention that brings comfort and convenience to people's lives, or a medical advancement that promotes people's health and prolong their longevity, UM scholars have worked hard—and will continue to work hard—to crack some of the most challenging problems facing our modern society so as to better the world and improve people's wellbeing.











冰雪女王 遊走極地的藝術人生

──專訪世界傑出華人、澳大校友李樂詩

"The Queen of Ice and Snow" Living an Artistic Life at the Three Poles

--Exclusive Interview with Distinguished Chinese and UM Alumna Rebecca Lee Lok Sze



在南極探險常常要出動到破冰船

An icebreaker is a staple of expeditions to the South Pole

12級的狂風亂作,巨浪將破冰船拋至20米高。船上只有一台主機,若機器故障,船將在兩小時內下沉。情況十分嚴峻。一些隊員穿著整齊,拿出家人照片端詳,而李樂詩卻冷靜地繼續進行拍攝工作,隨後爬上船頂層之通訊室向傳媒發放訊息,通知船隻在險情中……

這是1991年,國家南極考察隊從南極歸國,途經西風帶,破冰船遇上大風暴的事跡。看著眼前這位已踏入古稀之年、身形瘦小的講者,她留著及耳短髮,氣定神閒,難以想像她就是穿梭於南北極冰天雪地的香港第一位女探險家,難以想像她是18次闖蕩地球南北極,更四度登上珠穆朗瑪雪域的冰雪女王。9月10日,在澳門大學傑人講壇的講台上,李樂詩作為澳大的傑出校友,為台下期待已久的師弟師妹們再次重述她遊走極地的藝術人生。

A force 12 storm churned up the sea. Towering waves tossed the icebreaker 20 metres high. There was only one main propeller engine on the ship, and if it broke down, the ship would sink in less than two hours. The situation grew increasingly dire by the minute. Some of the crew members dressed neatly and took out photographs of their family members to enjoy one last longing look. Rebecca Lee Lok Sze, however, continued to take pictures, impervious to the dangerous surroundings. After a while, she climbed onto the top deck of the ship and went into the communications room to send out the news to the media that the ship was in danger of sinking...

This incident occurred in 1991, when China's Antarctic expedition team was caught in a massive storm on a return trip from the South Pole. It is difficult to reconcile the image of Rebecca, a thin woman in her 70s who wears her hair in a bob and exudes an aura of calm and peace, with the "Queen of Ice and Snow," the first female explorer from Hong Kong to have visited all three extreme locations on Earth — the South Pole, the North Pole, and Mount Everest. She has made 18 visits to the South Pole and the North Pole and four visits to the Mount Everest region, the highest point on Earth. On 10 September 2014, Lee visited the University of Macau (UM) to give a distinguished lecture as an alumna. In the long-awaited lecture, she shared her experiences at the "Three Poles" and how these experiences changed her outlook on life.



一個背囊走天涯 畫中國畫賺旅費

「小時候,夢想是環遊世界。」輕輕轉動地球儀, 專注地看著每一條經緯線,當年那個小女孩夢想著 有一天可以環遊世界、小女孩長大了,出走香港, 一個背囊走天涯,從亞洲大洋洲到歐洲、北美、南 美洲、非洲,再到……

「當時我覺得地圖很美麗,好有趣,於是上世紀70年代我就開始第一次自由行。獨自到台灣遊了兩個星期,我不會普通話,學習人生第一次看人文風景的自助旅遊。」在旅途中,她看到像國畫一樣美好的風景。於是,李樂詩背起背包開始了她的旅途。旅費不足時,她會畫中國畫,以10美金一張出售。

年輕時的李樂詩身體並不強壯,坐車搭船也會感到暈眩。為了實現環遊世界的夢想,她樣樣運動都學,練習跑步、游泳,還參加渡海泳,以此鍛煉個人體能。李樂詩將自己的人生劃分為幾個20年,第一個20年打基礎,第二個20年得以實現自己環遊世界的夢想。「天生我才必有用,擇其善者而從之。」她鼓勵現時的年青人追求遙遠夢想時要勤奮、不放棄、堅持。

Backpacking around the World with a Paintbrush

"When I was a little girl, I dreamt of travelling around the world," says Lee. "I liked to turn the globe and watch the latitude and longitude lines spinning." When she grew up, Lee packed a backpack and left her hometown for Hong Kong, and from there she went on to travel to virtually every corner of the world.

"At that time I found maps beautiful and fascinating, so in the 1970s I started travelling alone," says Lee. "I first visited Taiwan and stayed there for two weeks. I didn't speak Putonghua, so that was the first time I learned how to enjoy a journey which was purely about sight-seeing and experiencing local culture and customs." On that trip, she saw scenery as beautiful as Chinese landscape paintings, so when she continued to travel to more places, she would paint Chinese paintings and sell them for ten US dollars each to earn extra money when she was short on cash.

Lee was not particularly strong when she was young, and was apt to feel dizzy when riding on a bus or boat. To realise her dream of travelling around the world, she began to practice different kinds of sports, including running and swimming, even participating in swimming competitions held at the Victoria Harbour, in order to improve her fitness. She divides her life into several 20-year periods. The first 20 years she spent laying a solid foundation, while the second 20 years was devoted to realising her dream of travelling around the world. Lee is a firm believer in the old Chinese saying, "Everyone has been given a talent for a purpose." She encourages young people to be diligent and persistent and to never give up pursuing their dreams.



Presenting Science through the Language of Art

"Art is what I love the most," says Lee. She has worked as a graphic designer, photographer, writer, and now, a polar explorer. But "artist" has always been her favorite role, and throughout the years she has never stopped painting—she believes images and words are necessary in scientific pursuits.

In 1985, the advertising company Lee founded was commissioned to organise an exhibition of the findings of China's Antarctic expedition team. She herself took charge of the project, and within one month her company accomplished the task and produced a photo album. Intrigued by the scenery captured in the photos, Lee decided to give up her longtime successful career in advertising and join China's Antarctic expedition team. Recalling her first visit to China's Great Wall Station in the South Pole, she joked that members of the expedition team were very disappointed to find out that she was the rumoured "Miss Hong Kong".

"Words, music, photos...these require a lot of thought before they can be presented to the public," Lee says. "For instance, the choice of words, the selection of photos, the lengths of the videos, and the way music complements the words and images not only require market research, but require a good understanding of human psychology and a clear idea of who your target audience is. More often than not, words and images have to hit the nail on the head." Over the years she has worked tirelessly to promote scientific knowledge and public awareness of the three poles through the language of art.

用藝術演繹科學

「最鍾意是藝術」,她曾經是廣告設計師、畫家、攝影師、作家,現在是一位極地探險家,而她最喜歡的角色依然是藝術家。從做廣告設計到環遊世界,再到現在的極地考察,她從未停止過繪畫。她強調科學也需要攝影,需要文字。

1985年,李樂詩創辦的廣告公司為國家南極考察隊做考察成果展覽。她親自組織工作,一個月內完成任務並出了一本畫冊。被畫冊圖中的景色吸引,自此李樂詩放棄從事多年的廣告業,轉而追隨國家南極考察隊,開始了行走於南北極冰天雪地裡的故事。回憶起第一次造訪南極中國長城站,她開起玩笑説她這位「香港小姐」讓考察隊的隊員們大失所望。

「文字、音樂、攝影藝術、展覽,這些東西要呈現給大眾之前都要用腦思考,比如文字的篩選、圖片的選擇、短片的長度、音樂的配合等等,除了市場調查,還要考察心理學,面向的觀眾是誰。文字、圖片很多時候需要一針見血。」李樂詩運用自己擅長的藝術去演繹科學,推廣極地科學普及。





2005年李樂詩帶同影星梁家輝等人赴南極考察 Rebecca Lee with fellow explorers, including the Hong Kong actor Leung Ka Fai, in the South Pole

Training the Next Generation in Promoting Environmental Protection

Lee graduated from UM's Department of Literature and History in 1987. Looking back on those years at UM, she still remembers the good academic atmosphere, the beautiful campus, and the close rapport between teachers and students, which were an important influence on her personal growth. She also believes that general education has a positive influence on students' personal development. "General education is very important," she says. "It's not enough to specialise in just one area—that would be too boring. Perhaps that would work 40 or 50 years ago, but we now live in a world that needs generalists who know how to apply knowledge in a more flexible way. For instance, a person whose area of expertise is politics must also know something about world history and local history. When we go on an expedition, we need to have some astronomical, geographical and nautical knowledge." Now in her 70s, Lee gives approximately 100 lectures every year in Hong Kong, Macao, and mainland China.

After seeing firsthand the heartrending plight of starving polar bears who have lost their natural habitat in the North Pole, Lee was determined to promote environmental protection and to draw people's attention to pressing issues concerning water resource, food crops, and climate change. "Only human beings are capable of understanding and protecting the Earth," Lee says. She advocates sustainable development and environmental protection for the next generation. She is very impressed with those small museums in Macao, and she hopes Macao can have more nature reserves and make good use of the limited space to create a more hospitable environment for its residents.

培養新一代 推動環保

李樂詩於澳大修讀文史系,1987年畢業,回想當年在澳大讀書的情形,李樂詩難以忘記那自由活潑的學習氣氛、優美的校園環境和良好的師生關係,這對她的個人發展起著至關重要的作用。此外,她也十分肯定通識課程對學生個人發展的積極影響。「通識非常重要,不可以只懂一樣東西,只懂一樣太單調。現代人不能像40、50年前那樣了,現在不僅要求通才,還要舉一反三。例如做政治的要知道世界歷史、本土歷史。我們出外考察,要懂得看天、看地、看海等。」現在已經步入人生第四個20年,李樂詩到中港澳開講座講述自己的人生考察路,每年開講約100次。

在北極,她看到無處棲身、食不果腹的北極熊,這使 她決心推動環保,關注水資源、糧食以及應對氣候異 變。「只有人可以了解地球,好好地愛護地球。」李樂 詩呼籲人們關注國家的可持續發展以及下一代生存的 空間。她亦讚賞澳門的小型博物館做得很好,希望澳 門保留多一點大自然,利用有限的空間,創造更適合 人類居住的環境。

澳大英語中心 推行課內外項目學習模式

The ELC Promotes Project-based Learning Both inside and outside the Classroom

撰文 English Text | Evelyn Doman 中文翻譯 Chinese Translation | 陳靜 Ruby Chen 圖 Photo | 由英語中心提供 Provided by ELC





作者為澳門大學英語中心主任,主要研究領域包括學習者自主性以及語言處理 性理論,重點從事形式教學及教師信念的研究,特別對「翻轉語言教室」以及 如何提高學生課內外的自主性有興趣。

Dr Evelyn Doman is the director of the English Language Centre at the University of Macau. Her research interests include learner autonomy, and Processability Theory, with focus on form instruction and teacher beliefs. She is particularly interested in the flipped language classroom and ways to promote student autonomy both inside and outside the classroom.

澳門大學英語中心(下稱ELC)肩負著提高 學生語言水平,培養其終生學習能力的重要使 命。 ELC的課程遵循「主動學習」的原則。學 生通過活潑生動的課堂以及互動式的教材定期 開展小組合作。小組合作的常見形式包括拼圖 式閱讀、資訊互補、口頭報告、小組討論等, 有助培養學生主動學習的能力,使其順利完成 學習目標。除小組合作之外,項目學習亦是 ELC採用的另外一個教學模式。

相比傳統的以教師授課為主的學習模式,項目 學習是一種以學生為中心的教學模式。在這種 模式下,學生每個學期會參與各種短期或長期 的項目。這種跨學科的教學模式有助學生培養 各種技能,比如合作能力、處理人際關係衝突 的能力、時間管理能力、決策能力、創造力、 主動性、認知能力以及跳出框框解決複雜問題 的能力。這些不僅是職場發展必需的技能,更 能使學生終生受益。所有項目都有可衡量的結 果,不過並非所有項目都會計入學生期末總分。 The English Language Centre (ELC) at the University of Macau (UM) is responsible for promoting students' language proficiencies and for equipping students with skills they need in order to excel in their academic studies at the university and as life-long learners. The curriculum at the ELC is based on the principle of active learning. Students collaborate with each other and engage with the materials on a regular basis in active classrooms. Group work consisting of jigsaw readings, information gaps, presentations, and discussions are what spectators would normally see on any given day if they were to visit an ELC class. An additional way of promoting active learning, as well as meeting our intended learning outcomes, is through the use of projects.

Project-based Learning (PBL) is an approach to learning that shifts traditional teacher-fronted instruction to student-centred learning with students being involved in various projects throughout the semester; some projects are short while others are longer. This is an interdisciplinary approach that leads students to develop lifelong skills that will help them as they seek employment, such as the ability to work with others, handle interpersonal conflicts, manage time, make thoughtful decisions, be creative, show initiative, use higher cognitive skills, and to solve complex problems by thinking outside the box. All projects have tangible outcomes which can be measured and evaluated, although they need not all be counted as part of a student's final course grade.



學生在lpad上完成作業

A student completes a quiz on the lpad as part of her project



學生參加課外戲劇工作坊 Students participate in a drama workshop

理想情況下,項目學習包括以下八個步驟:

第一步:教師分組

第二步:小組成員確定主題

第三步: 教師給予每個小組一定的自主權去決定期

末項目的內容

第四步:小組成員確立項目結構並進行分工

第五步: 小組成員收集資料

第六步:小組成員編輯資料

第七步:提交期末項目

第八步:由教師、個人或小組成員評核項目

以上是項目確立的過程,下面通過一些例子讓大家

瞭解一下ELC經常開展的一些項目。

課內項目

ELC將各種項目融入所有通識預備課程和通識 課程。

通識預備課程中常見的項目包括訪問ELC教師、製作最愛書籍海報以及參加計分小組討論。其中一個最受歡迎的活動是一年一度的最愛書籍海報介紹會。該活動主要針對預備課程學生,由學生製作海報介紹自己最喜愛的書籍。活動中,學生不僅要介紹書籍的詳細內容,還要回答ELC師生現場提出的關於書籍的問題。這就迫使學生不可以事先準備答案,而必須現場隨機應變即問即答。最愛書籍海報展屬於個人活動,在挑選最愛書籍並決定如何用生動有創意的方式介紹書籍主要內容的過程中,學生的自主能力得到鍛煉。

PBL can best be conducted in eight simple steps that any discipline can easily manage:

Step 1: The teacher assigns groups.

Step 2: Group members agree on a theme.

Step 3: The teacher allows each group some autonomy in determining the final product.

Step 4: Group members structure the project and assign roles.

Step 5: Group members gather information.

Step 6: Group members compile the information they found.

Step 7: Groups submit their final products.

Step 8: The teacher, individuals and group members evaluate the project.

Now that we have seen how a project can be set up, let's take a look at some examples of projects that are frequently carried out at the ELC.

Projects inside the Classroom

The ELC incorporates a variety of projects into each level of our courses, both at the pre-GE (general education) level as well as at the GE-level.

In pre-GE courses, common projects that students work on include interviewing teachers at the centre, producing posters about their favorite books, and participating in graded group discussions. A real crowd-pleaser is the annual poster presentation that Level-0 students produce of their favorite books. During the presentation, students not only present the details of the books, but they also respond to questions that visitors – both students and teachers from the ELC - ask them about the books. This forces students to really think on their feet rather than to produce memorised chunks of language. As an individual project, the poster project promotes student autonomy by allowing them to choose their own books, decide how to describe the books, and encouraging them to present in a creative and entertaining manner.



小組報告是另一個深受歡迎的項目。由一至三年級的學生分組進行以藝術為主題的口頭報告。分析藝術作品是培養學生觀察能力的絕佳方式。在描述藝術作品的過程中,學生需要留意細節並加以詳細闡述,這有助培養學生的審辯式思考能力。此外,學生還可以學習如何用語言表達所見之物以及如何評價自己的發現。這些都是受用終生的技能。

通識課程學生所參與的項目具有一定的挑戰性。其中一個最受歡迎的項目是小組討論。小組討論讓學生有機會研究某個經批准的課題,然後與小組其他成員共同匯報研究結果。這種成果匯報有時是以辯論的形式進行。聽取研究成果匯報的小組所擔當的其實是「同輩評審」的角色,而這正是主動學習的另一個特點。

ELC三年級學生會參與一個名為「公共服務通告」的商業項目。ELC鼓勵學生發現澳門或校園內存在的問題,然後製作一部探討如何解決問題的教育短片。短片的主要目的是説服觀眾採取行動——例如清潔黑沙海灘、在校園循環利用資源、使用完住宿式書院洗衣設施後清理乾淨等。「公共服務通告」項目激發學生深入思考周遭環境中觀察到的問題,並與小組成員共同尋找有創意的解決方法。

辯論是通識課程的一個重要部分。學生修完許多通 識課程後發現,自己論證觀點的能力以及説服其他 人接受自己觀點的能力均得到顯著提高。因此,學 生經常會就某個具爭議的話題進行辯論,首先分組 確定自己小組的立場,然後收集可以支持自己論點 的資料,繼而展開邏輯縝密的辯論。

此外,ELC還安排學生使用Google Docs完成「協同寫作」項目。這種「協同寫作」可以在語言實驗室中集體進行,也可以在學生家中分開進行。不論身處語言實驗室還是自己家中,學生都可以查閱同一個文檔,分工撰寫文章的一部分。在協同寫作的過程中,

Group presentations are another favorite of students. At Levels 1, 2, and 3, students work with group members to make presentations about art. Analysing art is a great way to develop students' observational skills. As students learn to describe art, they sharpen their critical thinking skills by focusing on detail and elaboration. They also learn to communicate what they see and to evaluate the findings. These are lifelong skills that students can take with them far after graduation from UM and well into their careers.

In GE courses, the nature and types of projects might be slightly more challenging for students. One of the most popular projects is the group discussion. Group discussions allow students the opportunity to research an approved topic and then to present – often debate – the topic with their group members. As other groups listen to the discussion, they are actively involved in peer assessment – which is another feature of active learning which the ELC embraces.

At Level 3 of the ELC curriculum, students are involved in a persuasive commercial project known as a Public Service Announcement (PSA). After identifying a problem in Macao or on campus, students are encouraged to make an informational video about ways to solve the problem. The main goal is that they must persuade their audience to do something – for example, to clean up the beach at Hac Sa, to recycle on campus, or to clean up after themselves when they use the laundry room in the residential colleges. By investigating real-world issues, this PSA projects motivates students to think deeply about issues surrounding them and to come up with creative ways to tackle the problems with their team members.

Debate is a key component of many sections of GE courses. The skill of developing an argument and persuading others of your argument is high among the learning outcomes in many courses. Therefore, students often work in teams to take a stance on a controversial topic, to do research to support their stance, and then debate other teams in an attempt to win with the most logical arguments.

Collaborative writing through Google Docs is another technique that ELC teachers utilise to get students to complete projects. Groups of students, either working in a language lab beside each other or working independently from home, can all access the same document and contribute different sections of the paper. They can revise and edit each other's work as they go along. One class session is usually devoted to having groups peer review

同一小組的成員可以修改和校對其他人的作品。寫作完成後,會有一堂課專門給學生互評其他小組的作品。各小組按照教師制訂的準則評論其他小組的作品,或者直接在線閱讀其他小組的文章,然後就文章的內容、層次結構等提供反饋意見。

在ELC最高級的課程裡,有些學生會用整整一個學期的時間去參與「讓愛傳出去」項目。該項目旨在增強學生的個人意識和社會意識,而這也是澳大通識課程的其中一個目標。在活動中學生分組去尋找本地社會中存在的問題,通過發現和分析身邊亟待解決的問題以提高自己的審辯式思考能力。然後各小組公開競爭資助經費以實施其提出的解決方法。該項目包括四個步驟:(1)找出澳門社會存在的某個問題;(2)展開相關研究;(3)起草計劃書,簡單介紹問題,提出解決建議及做預算;(4)現場面對觀眾宣傳計劃書爭取經費。贏得足夠觀眾投票的小組將獲得資助去實施其解決方案。2013年秋季學期,有五個小組得到ELC兩個高級導師所獲得的通識課程資助。

四年級學生也有機會參與各種研究項目。這些研究項目允許學生參與學術研究,並且允許學生期末所交的 文章中包含各種體裁。這有助學生避免僅為老師寫作 的陷阱,鍛煉各種體裁的寫作能力。

課外項目

ELC亦提供各種參與課外項目的機會,其中一個途徑就是參加中心每周舉辦的各種活動。目前定期舉辦的活動包括歌唱比賽、舞蹈比賽、戲劇工作坊、攝影展和演講工作坊。很多短期項目都是在ELC每學期舉辦的英語節期間進行。在2014年10月15日至17日期間舉辦的2014英語節上,學生得以與ELC的教職員進行互動,一起雕刻南瓜、講鬼故事、參加文化講座、喝下午茶、玩遊戲、參與創意寫作、學習繞口令等等。

此外,ELC在澳大Moodle上設立了一個「獨立學習」網站,目前已向澳大所有本科生開放。Moodle上鏈接的語言學習網站讓學生有機會選擇喜愛的活動、活動的難易程度以及希望在每項活動上投入的時間。這對提高學生英語水平有極大的幫助。

each other's work; that is, groups offer feedback through a set of established guidelines provided by the teacher or through undirected feedback by reading the online essays and providing feedback on the content, organisation, or mechanics.

In our most advanced course at the ELC, some students spend the entire semester participating in a Pay-it-Forward project. The Pay-it-Forward project aims to increase students' sense of personal and social awareness, one of the goals of the GE programme. In a Pay-it-Forward project, students work in teams to identify a social issue in the local community, allowing them to hone their critical thinking skills by evaluating the pertinent needs surrounding them. The students then compete with other groups to get funding for their proposal for solving the social problem. The steps involved in this project include: 1) identify a problem in Macao; 2) conduct research related to that problem; 3) draft a proposal outlining the problem, suggest a solution, and create a budget for financing that solution; and 4) present proposals to a live audience to see which proposal can be funded. Groups with sufficient votes then get to carry out their proposed solutions. In the autumn of 2013, five groups received project funding thanks to a GE grant received by two of the senior instructors at the ELC.

Students at Level 4 also engage in extensive research projects. Adapting a multi-genre approach, the research projects allow students to engage in academic research and to include various forms of written genres into their final portfolios, which help students to learn to write for a larger audience rather than just for the teacher.

Projects outside the Classroom

The ELC offers numerous opportunities to engage in projects outside the classroom as well. One way of doing this is through the weekly activities that we offer through our centre. Some examples of ongoing projects that are available include: singing and dancing competitions, drama workshops, photography exhibitions, and workshops on public speaking. Many short projects are done at the English Festival which the ELC hosts every semester. At the Fall 2014 English Festival held from 15 to 17 October 2014, students had the opportunity to interact with ELC staff while doing pumpkin carving, telling ghost stories, listening to cultural presentations, drinking afternoon tea, playing games like Jeopardy and Scrabble, engaging in creative writing, and learning funny tongue twisters, just to name a few of the numerous activities that the ELC organised.

Additionally, the ELC has produced an extensive Independent Learning (IL) site on UM Moodle, which is available to all UM undergraduate students. The language learning sites which are linked to Moodle allow students to pick and choose which types of activities, level of activities, and amount of time to spend on each activity. This is a great way for students to improve their English.

項目學習模式的挑戰

項目學習是一種有效的教學模式,有助培養學生主動學習,提高學生的參與度。不過教師在將其融入 到課程之中時可能會遇到一些挑戰,比如學生較低 的語言水平、尋找適合各年級學生程度的教材、期 末項目的質量保證、小組內部的關係以及項目面臨 的時間限制。

項目學習要求老師事先精心計劃,給學生足夠的時間完成項目。很多項目最好是在學期最後一周提交。此外,課堂上應安排足夠的時間向學生清楚解釋相關的課程要求、小組項目和個人項目的評分標準,並確保學生有機會安排課外與組員見面,有足夠時間提問。展示以前學生完成的項目也有很大幫助,可以幫助學生對項目成品有更清晰的瞭解。

Challenges of PBL

Although PBL is a sound pedagogical method which encourages active learning and student engagement, it is not without its potential pitfalls. Some of the challenges that teachers can face when implementing PBL into their curriculum include the low language proficiencies of the learners, the difficulty in finding level-appropriate material, the quality of the final products that are submitted, group dynamics, and time constraints for carrying out a longitudinal assignment.

PBL requires that teachers plan well in advance and give students a proper amount of time to complete projects. Many projects are best submitted in the final week of class. A sufficient amount of class time should be devoted to ensuring that students understand what is expected of them, understand how they will be graded (as a group and individually), have opportunities to arrange outside-the-class meeting times with their groups, and are allowed ample time to ask questions. Showing examples of previous students' projects greatly helps as well, as these examples facilitate students in knowing what the final product might resemble.



四年級學生參與「讓愛傳出去」活動,志願 幫助長者

Level-4 students participate in Pay-it-Forward by volunteering to help the elderly

項目學習提供將課堂所學應用於實際生活的機會。ELC擁有一個優秀的師資團隊,教師擁有多元的教育背景和專業背景,全身心投入項目學習模式,致力尋找創新教學方法融入英語課堂中。由於項目學習是一種跨學科的學習方法,我們希望澳大所有學院都可以將項目學習融入其課程之中;同時我們鼓勵所有本科生和研究生都能積極參加ELC每周舉辦的活動。

如果想進一步了解ELC舉辦的各種活動,可以瀏覽本中心網站http://elc.umac.mo,點擊「活動」。想進一步瞭解ELC的相關資訊或者中心如何將項目學習融入語言課程,歡迎前往中央教學樓E7-2016。

Project-based Learning provides students with opportunities to apply classroom learning to real-life situations. The ELC is proud that it has a diverse group of teachers who are devoted to PBL. Since our teachers come from a variety of educational and professional backgrounds, they are all dedicated to searching for creative and innovative teaching techniques that can be integrated in our English classrooms. As PBL is an interdisciplinary approach to learning, we hope that all faculties on the UM campus will adopt PBL for their curricula. And we encourage all students — undergraduate and graduate — to attend our weekly ELC activities.

To learn more about the activities which are offered by the ELC, please visit our website at http://elc.umac.mo and click "Events and Activities". To learn more about the ELC or about how we incorporate PBL into our language courses, feel free to visit us in E7-2016 in the Central Teaching Building.

The views expressed in the Faculty Column are solely those of the authors, and do not necessarily reflect the views of the umagazine or UM

[「]學院專欄」內容僅代表學者個人意見

服務身心障礙學生: 作為身心障礙學生及老師之我見

Serving Students with Disabilities:My View as a Former Disabled Student and Now Disabled Teacher

撰文 Chinese & English | 張樹輝 Cheung Shu Fai 圖 Photo | 吳景洪 Kidonis Ng

在本文中,首先我會分享自己作為一名身心障礙學生的一些經歷。之後會分享現在作為老師對澳大同事及學生在過去數年服務身心障礙學生的一點看法。本文不是一份正式報告,而是表達我對澳大人在服務身心障礙學生方面付出的欣賞。

In this article, I will first share my experience as a disabled student. Then I will share my view as a teacher about the efforts made over the last few years by colleagues and students of the University of Macau (UM) to serve students with disabilities. This is not a formal report, but a note of appreciation for UM's contributions to this important issue.





張樹輝教授現為澳門大學社會科學學院心理學系副教授。研究範疇包括後設分析、結構方程模型、性格特質理論、及態度和主觀規範對社會行為的影響。

Prof Cheung Shu Fai is an associate professor in the Department of Psychology, Faculty of Social Sciences, University of Macau. His research areas mainly include meta-analysis, structural equation modeling, trait theories in personality, and the influence of attitudes and subjective norm on social behaviours.

讓學生擁有平等機會

我從小學開始已經是弱聽。我在香港一所大學就讀本科生時,香港的平等機會委員會尚未成立。我嘗試像一個「正常」的學生般讀書。在學校的官方紀綠中,並沒有註明我是弱聽,而我亦沒有接受任何相關的安排。但我是否真的能夠,或是否應該,做一個「正常」的學生?到底何謂「正常」?

我於2005年加入澳大服務。2008年中國確認了聯合國殘疾人權利公約。從那時起,澳門特區政府及不少本地非牟利機構陸續舉辦了不少活動,希望提高澳門市民對身心障礙人士權利的認識。當我再次檢視自己作為「隱形」身心障礙學生的那段時期,我有了新的看法。面對身心障礙是正常的;談論身心障礙是正常的;與身心障礙相處也是正常的。在學校裡,無障礙設施並不是福利,而是為了儘量讓所有學生擁有平等的機會。討論身心障礙是為了提高意識,為了增進瞭解,為了裝備學生將來更好的服務社會。當然,如何做一個身心障礙學生,是個人選擇。但澳大作為一個教育機構,實有需要為身心障礙學生提供選擇。提高意識對於所有學生的學習和個人成長都有很大幫助。

Providing a Level Playing Field for Students

I have been hard of hearing since I was a primary school student. I studied at a university in Hong Kong. In my undergraduate years, the Equal Opportunities Committee did not yet exist. I tried to study as a so-called "normal" student. Officially, the university did not know that I was hard of hearing and I received no accommodation or special treatment.

But could I, and indeed should I, have attempted to study as a "normal" student? In fact, what does it even mean to be normal?

I joined UM in 2005. China ratified the United Nations Convention on the Rights of Persons with Disabilities in 2008. Since then, both the Macao SAR government and local nonprofit organisations have held campaigns to raise Macao residents' awareness of the rights of people with disabilities. When I reflect on my life as a student with a "hidden" disability, I realise I had a different view. It is normal to confront disabilities, talk about them, and live with them. Accommodations in schools, such as provision of an accessible environment, are not benefits or advantages, but ways to try to create a level playing field for all students. Discussion of disabilities is meant to raise awareness, to improve mutual understanding, and to equip undergraduate students so they can better serve the community. Certainly, students must ultimately make a personal choice about how to live with a disability. But as an educational institution, UM should provide a range of choices for those students. Enhanced awareness can also facilitate the development and learning of students, with or without disabilities.



升降機點字按鈕 Braille signs on lift buttons

無障礙服務需多方合作

2009年,澳大成立了身心障礙學生服務委員會 (現時的名稱),負責處理與身心障礙學生相關 的服務。我從2010年起代表社會科學及人文學院 (現時則代表社會科學學院)參與該委員會的 工作。我有幸能為我的學院提供這方面的服務, 並且見證澳大這些年在這方面的發展。

發展初期,我們部分人對服務身心障礙學生認識 很少,不大清楚可以怎樣做及應如何做。法律上 的要求又不多。雖然我曾是身心障礙學生,但因 為我嘗試做一個「正常」學生而不去面對自已的 身心障礙,反而令我不瞭解應如何服務身心障礙 學生。身心障礙人士在需要、喜好及性格等方面 亦有很大的個人差異。即使對有同一類身心障礙 的人而言,有時亦未必有適用於所有人的方案。

各部門的同事對該服務的態度十分正面。提供無障礙服務,需要很多不同部門的合作及協調。所有部門在這個過程中都有許多東西要學習。學生事務部在協調各部門方面做了不少工夫,而且亦向校外團體收集了不少資訊及經驗,包括和身心障礙人士有關的團體、其他已有相關服務的學生事務單位、無障礙顧問機構等。我在社會科學及人文學院及現在的社會科學學院同事亦提供了不少寶貴的意見。

Services to Students with Disabilities Require Cooperation among Various Parties

The Committee on Student Disability Services of UM was established in 2009, to provide services related to students with disabilities. I have served on the committee since 2010, first as a representative of the Faculty of Social Sciences and Humanities (FSH) and now as a representative of the Faculty of Social Sciences (FSS). It is my pleasure and honour to serve on behalf of the faculty, and also to have the precious opportunity to witness UM's development over the last few years.

Initially, some of us knew little about what we could and should do. There were also very few local legal requirements concerning disabled students. Despite my disability and experience as a disabled student, my attempt to be a "normal" student, and reluctance to face my disability, resulted in my ignorance about how to serve students with disabilities. Moreover, people with disabilities vary greatly in their needs, preferences, and personalities. Even for people with the same disabilities, there is no one-size-fits-all solution.

But colleagues from different units at UM have been very positive in providing the services. Providing accessible services involves the coordination of a wide variety of units. All units need to learn in the process. The Student Affairs Office has done a good job in coordinating different units, and in acquiring necessary information and learning from experience from other parties, including organisations for people with disabilities, student affairs units at other universities serving students with disabilities, and organisations specializing in accessibility issues. Colleagues from the FSH and FSS have also provided useful suggestions to the committee.





新校園增無障礙設施

在搬到新校園之前,不同部門的同事亦仔細觀察校園各處。在收集了專業機構及用家的意見後,列出了需要改善的地方並按輕重緩急去處理。 大部分主要路徑皆設有導盲磚。升降機有語音提示及點字。校園設有不少身心障礙人士洗手間。 書院亦有專為有需要人士而設的無障礙房間。資訊科技方面,亦有指引給同事預備方便失明人士的電子文件及網頁。當然,現時尚有不少未盡如意的地方需要改善,亦有不少可更進一步發展的地方。但毫無疑問,與舊校園相比,新校園在無障礙設施上進步了不少。

服務身心障礙人士持正面態度

我印象最深的是同事和學生對服務身心障礙學生的態度。過去數年間,數個學生組織舉辦了不少活動,希望提升澳大人對身心障礙的認識,亦邀請了身心障礙學生及同事分享經驗。2014年學生事務部舉辦的社區服務展覽會上,有不少本地的身心障礙人士機構舉辦講座、工作坊及展覽,得到很多學生同事的積極支持。他們對服務及理解身心障礙人士的正面態度,令我印象深刻。

教學上,我覺得對學習的態度比過去的成就重要。過去的成就當然某程度上能預測將來的成就。但過去的成就是已發生的事,不可能再改變,而對學習的態度,則是可改變的,而這也會對個人未來的發展和轉變有莫大的影響。我個人認為,就服務身心障礙學生來說,硬件固然重要,但最重要的還是人。人是澳大真正的資產。雖然我們還有很多要學習及改善的地方,但我們有一班關心服務及願意學習的學生及同事,能和他們合作,是我的榮幸。

「學院專欄」內容僅代表學者個人意見 (文內小標題為本刊編輯所加)

More Accessible Infrastructure on the New Campus

Before UM's relocation to the new campus, colleagues from different units examined the new campus carefully. With the help of external accessibility experts as well as some end users, the areas that needed to be improved were prioritised and acted on accordingly. As a result, most major routes now have tactile guide paths. Elevators have audio announcement systems and Braille signs on buttons. There are also accessible washrooms in the main buildings. Residential colleges have rooms designed specifically for students with disabilities. On the front of information technology, we have created guidelines for UM colleagues to prepare electronic documents and webpages that are accessible to users with visual disabilities. Certainly, there are still areas that are not yet satisfactory and need to be improved. But undoubtedly the current campus infrastructure is more accessible than what was available on the old campus.

Positive Attitude towards Services to Students with Disabilities

What I found most impressive is the attitude of both colleagues and students toward the services. Several student societies have organised various kinds of activities in an attempt to raise UM members' awareness of disabilities, and students and colleagues with disabilities were invited to share their experiences. In 2014, the SAO organised the Service Learning Fair. Many local nongovernmental organisations serving people with disabilities organised workshops, talks, and exhibitions during the fair, which attracted many students and colleagues. I am impressed by the positive attitude of the students and colleagues towards serving and understanding people with disabilities.

In teaching, I value students' attitudes toward learning more than their past achievements. Our current gains are certainly predictive of future achievements, to an extent. But these things have already happened and can't be changed. Students' attitude toward learning, on the other hand, can be changed and can contribute significantly to what we will become in the future. I think hardware is an important factor in providing services to students with disabilities, but the most important component is people. They are the real asset of the university. We still have a lot to learn and improve, but we have many students and colleagues who care about the services and are willing to learn. I am proud to work with them.

The views expressed in the Faculty Column are solely those of the authors, and do not necessarily reflect the views of the umagazine or UM.

(The subheadings were added by the editorial board of umagazine)





