

科學研究  
SCIENTIFIC RESEARCH



## 人工智能

### 推出行業領先“中葡同傳通2.0”

為配合國家“一帶一路”發展，機器翻譯暨人工智能應用技術教育部工程研究中心開發的“中葡同傳通2.0”於2021年11月正式發佈。該產品是在獨立開發的千萬級別中葡雙語平行語料庫的基礎上，使用神經網路技術，結合多語言識別，以及語音合成技術研發而成的行業領先中葡語音識別和同傳系統，可實現高品質的中葡同聲傳譯以及多語言轉寫服務，為工作會議、商務溝通、論壇演講等不同場合的需求提供完善的同聲傳譯解決方案，還可應用於外語教學以及學術會議等領域。新產品在語音識別和機器翻譯準確度全面提升的同時，還帶來更豐富的實用功能和人機交互體驗，為翻譯工作節省大量時間和人力資源，適用於政府部門及各行業機構。

### 上線新版“中葡新聞學習網”手機應用程式

為促進中葡資訊互通和雙語學習交流，大學於2020年11月推出“中葡新聞學習網”手機應用程式，為用戶提供持續更新的雙語平行新聞，程式上線以來反響熱烈，廣受好評。為促進中葡資訊互通和雙語學習交流，大學於2021年9月上線新版“中葡新聞學習網”手機應用程式2.0版本，在原版的基礎上整合資訊類別，細化欄目分類，新增大灣區、就業、科技、娛樂、體育、生活、文化七大板塊，並在新聞欄目設有“本地新聞”、“中國新聞”、“世界新聞”、“粵港澳大灣區”、“橫琴粵澳深度合作區”、“葡語國家”等近二十個分類。此外，程式還提供新聞檢索功能，支持對“粵港澳大灣區”、“一帶一路”、“十四五”規劃、“粵澳合作”、“橫琴”、“中葡論壇”等熱門話題進行檢索。

## Artificial Intelligence

### Chinese-Portuguese Simultaneous Interpretation Machine Translation System 2.0

In line with the “Belt and Road” Initiative, the “Chinese-Portuguese Simultaneous Interpretation Machine Translation System 2.0”, which was developed by the Engineering Research Centre of Applied Technology on Machine Translation and Artificial Intelligence, Ministry of Education, was officially launched in November 2021. The product is an industry-leading system of Chinese-Portuguese speech recognition and simultaneous interpretation. Based on a ten-million-level bilingual parallel corpus, this system adopted neural network technology, combined with multilingual recognition and speech synthesis technology. The system provides high quality simultaneous interpretation in Chinese and Portuguese, and multilingual transcription services, providing a complete solution for different occasions such as work meetings, business communication and speeches, as well as foreign language teaching and academic conferences. Additionally, it has increased practical functions and human-machine interaction experience, whilst also improving the accuracy of speech recognition and machine translation to save significant time and human resources in translation work. This system is particularly suitable for government agencies and various industrial organisations.

### New Version of “Chinese-Portuguese News Learning App”

In order to promote information exchange and bilingual learning between China and Portuguese-speaking countries, MPU officially launched the “Chinese-Portuguese News Learning App” in November 2020 to provide users with a continuous feed of bilingual news. Since its launch, the App has been well-received and applauded by users. Hailing bilateral development in various fields, MPU presented the “Chinese-Portuguese News Learning App” version 2.0 in September 2021. The new version integrates information categories with column classification on the basis of the original version, adding seven major sections: the Greater Bay Area, Employment, Technology, Entertainment, Sports, Life, and Culture. The new App also has a new section which includes nearly 20 categories comprising “Local News”, “China News”, “World News”, “Guangdong-Hong Kong-Macao Greater Bay Area”, “Guangdong-Macao In-Depth Cooperation Zone in Hengqin”, and “Portuguese-speaking countries”, etc. In addition, the App has a news retrieval function which supports tag-based retrieval of hot topics such as the “Greater Bay Area”, the “Belt and Road”, the “14<sup>th</sup> Five-Year Plan”, “Cooperation Between Guangdong and Macao”, “Hengqin”, “Forum Macao”, and so on.

## 舉辦“智慧社區基礎設施與應用技術”專題講座

為拓展科研視野，大學於2021年10月舉辦了題為“智慧社區基礎設施與應用技術”的專題學術線上講座，加強師生在人工智能、大數據、物聯網、增強現實技術、環境感知及新一代通訊技術方面的學術交流，對相關領域的計算機應用技術人才培養起促進作用，助力建設智慧城市。本次講座邀請了四位國內外相關領域具有豐富經驗，並取得了突出代表性成果的中外專家先後進行了主題演講，包括：加拿大卡爾頓大學教授兼IEEE會士Halim Yanikomeroglu、中國科學院軟件研究所研究員詹乃軍、清華大學自動化系副教授劉燁斌，以及葡萄牙科英布拉大學信息工程系副教授Carlos Lisboa Bento。

## 中葡平台

### 合辦中葡語言國際學術研討會

為進一步推動認知與語言等相關領域的跨學科研究，搭建以澳門為橋樑的粵港澳大灣區、中國與葡語國家、中國與世界的人文科學學術交流協作平台，澳門理工大學與巴西聖保羅大學，聯合弗魯米嫩塞聯邦大學、伯南布哥農業聯邦大學，以及聖保羅聯邦學院等院校於2021年11月底至12月初，共同舉辦“第二屆‘與人文科學相遇’國際研討會暨第四屆語言與認知國際學術研討會”線上學術會議。會議主題為“認知、語言、文化與翻譯之跨國界跨學科對話”。來自中國、巴西、美國、葡萄牙和比利時的7位知名學者進行主旨發言，涵蓋口筆譯、語言習得、語言複雜性、超語言等認知與語言領域的前沿研究；來自中國與葡語國家的逾百位與會者圍繞認知、語言習得與教學，認知、文化與文學，認知與翻譯，認知與口譯，認知與計算機輔助翻譯及機器翻譯，認知、語用與超多樣性，認知、語法與話語等七個分議題在37個分會場同時開展研討。

## Seminar on “Smart Community-Infrastructure and Application Technology”

In order to broaden students' horizon of scientific research, MPU held an online seminar on “Smart Community-Infrastructure and Application Technology” to promote academic exchanges in fields such as artificial intelligence (AI), Big Data, the Internet of Things (IoT), augmented reality technology, environment perception, and new generation communication technologies. This event not only enhanced the cultivation of application-oriented talents in computer-related fields, but also gave an impetus to the construction of smart cities. Four world-renowned and well-experienced experts were invited to give speeches based on their outstanding and remarkable research findings. The distinguished keynote speakers invited were: Dr. Halim Yanikomeroglu, Professor of Carleton University, IEEE Fellow; Zhan Najun, researcher at the Institute of Software Chinese Academy of Sciences; Liu Yebin, Associate Professor in the Department of Automation, Tsinghua University; Dr. Carlos Lisboa Bento, Associate Professor in the Department of Informatics Engineering, University of Coimbra.

## Cooperation Platform between China and Portuguese-speaking Countries

### Chinese-Portuguese Language International Conference

With the goals of promoting interdisciplinary research in the related fields of cognition and language, and constructing a collaborative platform for academic exchanges in humanities between Macao and the Guangdong-Hong Kong-Macao Greater Bay Area, Mainland China and Portuguese-speaking countries, as well as the world beyond, MPU and the University of São Paulo (USP), Brazil, in partnership with the Fluminense Federal University (UFF), Federal Rural University of Pernambuco (UFRPE) and Federal Institute of São Paulo (IFSP), jointly organised “The 2<sup>nd</sup> International Conference on Encounter with the Human Sciences & The 4<sup>th</sup> LinCog – International Symposium on Language and Cognition”. The conference was held online from late November to early December 2021. The theme of the conference is “Cognition, Language, Culture and Translation: A Borderless and Interdisciplinary Dialogue”. In this academic conference, seven world-renowned scholars from China, Brazil, the United States, Portugal and Belgium were invited to give keynote speeches about frontier research in the fields of language and cognition which involve translation and interpretation, language acquisition, language complexity, super language, etc. The conference attracted more than a hundred experts from China and Portuguese-speaking countries to discuss in seven thematic symposiums: “Cognition, Language Acquisition and Language Teaching”; “Cognition, Culture and Literature”; “Cognition and Translation”; “Cognition and Interpretation”; “Cognition and Computer Aided Translation and Machine Translation”; “Cognition, Pragmatics and Superdiversity”; and “Cognition, Grammar and Discourse”; and in 37 concurrent parallel sessions.

## 續出版中葡英三語對照國際漢語教材

繼《國際漢語教程》初級篇上冊出版印行後，大學本學年出版《國際漢語教程》初級篇下冊（中葡英三語對照，包括主教材、練習冊、教師手冊三個分冊）。作為澳門首套國際漢語教程和國內外首套中葡英三語對照的國際漢語教材，該書對促進澳門地區國際漢語教育的發展、對面向葡語國家的國際漢語教育水平的提升，具有十分積極的意義。近年伴隨“一帶一路”倡議的進一步實施，葡語平台建設的不斷深入，葡語國家學生來澳學習漢語的人數持續上升。《國際漢語教程》的出版能為語言及翻譯學院非漢語母語的學生量身打造一套具澳門特色、適合來澳留學生（尤其葡語國家留學生）使用的本科漢語教材。

## 舉辦中葡名家專題講座

為充分發揮澳門對接葡語國家窗口作用，分享交流粵港澳大灣區和橫琴粵澳深度合作區建設背景下的中葡合作新方向，加強中葡文化交流，大學舉辦多場由中葡名家和專家學者主講的專題講座，包括：由國際葡萄牙語培訓中心主任高若今主講“澳門與科英布拉——兩座城市間聯繫的歷史”線上學術講座，探討並分析澳門與科英布拉間互通交流的根源及發展狀況；由澳門歐洲研究學會主席麥健智主講“澳門—橫琴：中葡合作之未來”學術講座，重點探討澳門在深合區打造中面臨的新機遇，並展望中國與葡語系國際及地區的合作前景；由中國社會科學院歐洲研究所教授、創新工程項目研究團隊首席研究員張敏主講“粵港澳大灣區建設科技創新中心及澳門的作用”講座，探討粵港澳大灣區國際科技創新中心建設的戰略定位，對照歐盟科技創新研發體系與研發政策，分析澳門深度參與大灣區國際科技創新中心建設的基礎條件、澳門高校及科研機構、國家重點實驗室的作用等。



“澳門—橫琴：中葡合作之未來”學術講座

Academic Lecture on “Macao – Hengqin: the Future of Sino-Portuguese Cooperation”

## A Course in International Chinese presented in Trilingual Version (Chinese, Portuguese and English), Volume 2

After the publication of *A Course in International Chinese, Elementary Level, Volume 1*, MPU published its Volume 2 in trilingual version in Chinese, Portuguese and English, comprising a Student's Book, an Exercise Book and a Teacher's Book. As the first set of international Chinese language teaching materials developed in Macao, and the first of its kind to present its content in a trilingual version, this coursebook plays a positive role in the facilitation of international Chinese education in Macao and the enhancement of the quality of Chinese language teaching provided to students from Portuguese-speaking countries. With the implementation of the “Belt and Road” Initiative and in-depth development of the lusophone platform in recent years, the number of students from Portuguese-speaking countries coming to Macao to learn Chinese language has significantly increased. *A Course in International Chinese* is a set of undergraduate Chinese language textbooks with Macao's unique features tailored for students of the Faculty of Languages and Translation who are non-native speakers of Chinese, especially those from Portuguese-speaking countries.

## Sino-Portuguese Celebrities Lectures

In line with the global vision of Macao as a crucial link between China and Portuguese-speaking countries, MPU held a series of lectures by Sino-Portuguese celebrities to explore new orientation of bilateral cooperation and enhance cultural exchanges within the framework of the development plans of the Guangdong-Hong Kong-Macao Greater Bay Area and the Guangdong-Macao In-Depth Cooperation Zone in Hengqin. Lectures included: Online Seminar on “Historical Connection between Macao and Coimbra” presented by Professor Joaquim Manuel Costa Ramos de Carvalho, Director of the International Portuguese Training Centre for Conference Interpreting of MPU, exploring and analysing the connection between the two cities, bilateral relationship and development; Academic Lecture on “Macao–Hengqin: the Future of Sino-Portuguese Cooperation” given by José Luís de Sales Marques, President of the Institute of European Studies of Macau, with attention placed on exploring the new opportunities for Macao initiated by the development of the In-Depth Cooperation Zone and the future prospects of international and regional cooperation between China and Portuguese-speaking countries; Academic Lecture on “The Role of Macao in the Construction of International Innovation and Technology Hub in the Guangdong-Hong Kong-Macao Greater Bay Area” given by Zhang Min, Professor of the Institute of European Studies of the Chinese Academy of Social Sciences, Principal Investigator of Engineering Innovation Research Project Team, to explore the strategic positioning of International Innovation and Technology Hub in the Greater Bay Area, and discuss the prerequisites for Macao participating in the in-depth construction of the innovation hub in the Greater Bay Area as well as the roles of higher education institutions, research institutions and State Key Laboratories in Macao, aligning with the EU research and innovation system and policies.

## 博彩及旅遊

### 舉辦綜合旅遊休閒企業社會責任論壇

為推動澳門博彩與旅遊業的可持續發展，博彩旅遊教學及研究中心於2021年12月舉辦“綜合旅遊休閒企業社會責任論壇”，邀請業界高級管理層人士及中心研究人員發言，並就有關社會普遍關注的企業社會責任議題展開研討，促進綜合旅遊休閒企業之間的交流，以及促進澳門博彩旅遊業更加穩定健康的發展，六大綜合旅遊休閒企業代表介紹其履行社會責任的措施及成果。

### 進行博彩旅遊相關研究項目

為促進澳門博彩旅遊行業的發展，博彩旅遊教學及研究中心積極進行多項學術調研及研究項目，包括：《2021-2023年澳門博彩業未來人才需求調研》、《澳門博彩旅遊行業大數據建設計劃》、《澳門博企前線員工“負責任博彩”認知及行為研究》、《綜合娛樂場度假村吸引力構成要素及其影響因素研究：以澳門為例》、《澳門莊荷職業發展研究》、《基於灣區產業融合的澳門旅遊產業發展研究》等，向政府和博彩旅遊企業未來發展的科學決策提供支持。

### 開展學術專業活動

為提升教學科研水平，博彩旅遊教學及研究中心開展多方面的教學及專業培訓活動，包括：修改《娛樂場幸運博彩經營法律制度》學術研討會、“亞洲綜合渡假村發展”工作坊，以及一系列的“博彩與娛樂管理專題講座”和“博彩領導與管理系列講座”，邀請博彩旅遊相關專業的權威學者主講，主題包括：“與博彩關連的公共政策”、“娛樂場設計管理”、“娛樂場旅遊與服務體驗管理”、“娛樂場保安及監控系統設計”、“博彩營運與管理”和“企業社會責任”等。

## Gaming and Tourism

### Forum on Macao Integrated Tourism and Leisure Enterprises and Corporate Social Responsibility

In order to promote the sustainable development of gaming and tourism industry in Macao, the Centre for Gaming and Tourism Studies (CJT) of MPU held the “Forum on Macao Integrated Tourism and Leisure Enterprises and Corporate Social Responsibility” in December 2021. The senior management personnel from the industry and researchers of CJT delivered speeches in the forum, and participants conducted discussions on general interest to society about the corporate social responsibility of the Macao gaming industry and promoting exchanges among integrated tourism and leisure enterprises (ITLEs) so as to contribute to a more stable and healthy development of the Macao gaming and tourism industry. The representatives from six ITLEs gathered to share experiences and insights on their efforts to fulfill social responsibility as well as the remarkable results that they have achieved.

### Research Projects Related to Gaming and Tourism

For the purpose of facilitating the development of the gaming and tourism industry in Macao, CJT proactively conducted multiple academic and research projects, namely *2021-2023 Survey of Future Talent Demand in Macao Gaming Industry*; *Big Data for the Gaming and Tourism Industry in Macao*; *Frontline Employees Perception of Responsible Gambling and their Behaviors in Macao*; *Research on Attractive Elements and Key Factors Affecting Integrated Resorts: Take Macao as an Example*; *Research on Casino Dealers' Career Development in Macao*; *Research on the Development of Macao Tourism Industry based on the Industrial Integration in the Bay Area*; and others. These provided support for scientific decision-making for the future development of the government and gaming and tourism enterprises.

### Academic Events

With an aim to enhance the gaming education and research, CJT launched a variety of gaming-related academic and professional training programmes, including: Academic Seminar on the Revision of *Legal Framework for the Operations of Casino Games of Fortune*, Workshop on “Development of Asian Integrated Resorts”, as well as a series of keynote speeches on “Administration in Gaming and Recreation Management” and “Gaming Management and Leadership Lectures”. Senior experts and scholars of gaming-related majors were invited to give speeches on the topics of “Public Policies Related to Gaming”, “Design and Management of Casinos”, “Casino Tourism and Service Experience Management”, “Casino Security and Surveillance System Design”, “Gaming Operations and Management”, “Corporate Social Responsibilities”, and so on.

## 文化創意

### 推動校園及社區文創發展

大學結合校園內外的相關文化創意產業資源，推動校園及社區文創發展。本學年，舉辦了一系列文化創意活動，包括：2021 雕塑聯展、“墨生人”中國畫聯展、視覺藝術課程教師“仨個展”及學術對話會、“半影”素描三聯作品展、“非遺·品賞”非物質文化遺產品牌設計展、“26首可見的歌”空間與造型設計作品展、“乘風轉向”現當代藝術實踐展、“或躍在淵”視覺藝術課程畢業作品聯展、“Show Time”設計課程畢業作品展，以及多場學生音樂會、澳門文創藝術之旅等。部份講座及工作坊活動亦邀請文創業界代表或藝術家，分享業界經驗，旨在促進形成與粵港澳大灣區、業界等往來橋樑，搭建本澳文創工作者互動平台，帶動文化創意創新發展。

### 舉辦“當代設計與視覺文化”國際學術網絡研討會

為促進藝術資訊及學術交流，加深師生對不同地區設計與視覺文化領域內涵的了解，文化創意產業教學及研究中心於2021年12月舉辦“當代設計與視覺文化”國際學術網絡研討會，邀請來自美國、日本，以及中國內地、香港和澳門等地專家學者主講，分享經驗交流意見。研討會從“當代設計與視覺文化”的不同角度與觀點，切入不同議題，為澳門未來的“當代設計與視覺文化”教育，探視新面貌，探索新出路。

### 與金沙中國推出藝術展才培訓計劃

為提升大學生實踐能力、強化專業技能，澳門理工大學、金沙中國和澳門理工大學校友會攜手推出“藝術展才培訓計劃”，自2021年11月啟動，參與計劃的學生和畢業生完成多項平面及多媒體設計作品，盡展藝術所長，成果顯著，並於2022年6月舉行成果分享會，同場展示學生的創作成果和進行成果分享，並向參與計劃的學生頒發證書。

## Cultural and Creative Industries

### Cultural and Creative Development on Campus and in Communities

MPU is committed to promoting cultural and creative development on campus and in the community. In this academic year, MPU held a variety of cultural and creative events, including: the 2021 Sculpture Joint Exhibition; Chinese Painting Joint Exhibition of “Ink-Painting Life”; “Trio Exhibition” of teachers of the Visual Arts Programmes and Academic Dialogue Session; “Penumbra” Sketch Tri-images Collection; Macao Intangible Cultural Heritage Brand Design Exhibition; ‘Space and Structure’ Design Exhibition: 26 Visible Songs; Joint Modern and Contemporary Art Exhibition: “Riding on the Wind”; Joint Graduation Exhibition of the Visual Arts Programmes: “Up in the air, Remains to be seen”; Design Programme Graduation Exhibition: “Show Time”; and other university concerts, cultural and creative art journey, and so on. Additionally, representatives and artists from cultural and creative industries were invited to share their experience and insights through lectures and workshops, with the aim of building a bridge between the Greater Bay Area and related industries, creating a platform for cultural and creative personnel in Macao, and facilitating the innovation and development of culture and creation.

### International Academic Webinar on “Contemporary Design and Visual Culture”

In an effort to promote art information and academic exchanges, and to deepen the understanding of design and visual culture in different areas for faculty members and students, the Cultural and Creative Industries Teaching and Research Centre held the “Contemporary Design and Visual Culture” International Academic Webinar in December 2021, and invited experts and scholars from the United States, Japan, Mainland China, Hong Kong and Macao to share their experiences. Participants had in-depth discussions on the future prospects and development path for Macao’s “contemporary design and visual culture” education from different aspects and perspectives.

### Art Talent Development Programme Jointly Organised by MPU and Sands China

To improve students’ practical skills and strengthen their expertise, MPU, Sands China and the MPU Alumni Association jointly launched the “Art Talent Development Programme”. Since its initiation in November 2021, participating students and graduates have finished a number of graphic and multimedia design works with outstanding features, achieving satisfactory results. During the sharing session in June 2022, participants showcased their creative work, shared their experiences, and received their certificates of participation.

## 人文社科

### 出版綜合性人文社會科學學術理論刊物

《澳門理工學報》（人文社會科學版）是大學主辦的綜合性人文社會科學學術理論刊物，近年學術影響力持續提升。在中國人民大學複印報刊資料轉載指數排名中，《澳門理工學報》已連續九年穩居全國高校學報前列。目前全國各類高等院校主辦學報約有1,150種。與此同時，《澳門理工學報》還先後入選《複印報刊資料重要轉載來源期刊》2014年版、2017年版、2020年版，以及《複印報刊資料重要轉載來源機構（2018版）》。除複印報刊資料外，近年來《澳門理工學報》發表的多篇文章，也被《新華文摘》、《中國社會科學文摘》及《高等學校文科學術文摘》等二次文獻轉載。

### 中西文化研究

中西文化研究所長期致力於中國傳統文化和澳門歷史的研究和教育推廣工作，近年在抗戰史，文化遺產、口述史等領域，取得豐碩成果。2021年9月，中西文化研究所完成整理和出版《故紙留痕——抗日戰爭時期澳門報刊資料選輯》共四冊，近三百萬字，選輯戰時澳門中文報章所載的史實內容，包括《大眾報》、《市民日報》、《復興晚報》和《復興日報》等。所選史料豐富而系統，內容涉及政治、經濟、社會、治安、醫療衛生、慈善救濟、教育和社團機構等多個方面，展示了戰時澳門社會的時代特徵，填補了有關史料整理的空白，具有重大的史料價值和現實意義。



## Humanities and Social Sciences

### A Comprehensive Academic Journal of Theories in Humanities and Social Sciences

The *Journal of Macao Polytechnic University* (Humanities and Social Sciences Edition) is a comprehensive academic journal of theories in humanities and social sciences sponsored by MPU, with its academic influence increasing significantly in recent years. According to the rankings of the index of academic articles in the "Replicated Journals" produced by Renmin University of China, the *Journal of Macao Polytechnic University* has been at the forefront of all higher education institution journals in China for nine consecutive years. At present, there are approximately 1,150 journals sponsored by higher education institutions of different types across the country. In the meantime, the *Journal of Macao Polytechnic University* was selected successively into the 2014, 2017 and 2020 versions of the *Important Source Journals for the Selected Materials*, and the *Important Source Institutions for the Selected Materials* (Version 2018). In addition, many academic papers published by the *Journal of Macao Polytechnic University* were reprinted by *Xinhua Digest*, *Chinese Social Science Digest* and *China University Academic Abstracts*, among others.

### Sino-Western Cultural Studies

The Centre of Sino-Western Cultural Studies has been dedicated to the research and education promotion of traditional Chinese culture and Macao history, with fruitful and satisfactory results accomplished in the history of the War of Resistance against Japan, cultural heritage, oral history, etc. The Centre of Sino-Western Culture Studies finished the compilation of the *Tracing in Old Records - Selected Documentation in Macao Newspapers and Periodicals during the War of Resistance against Japan*, and published it in four volumes with nearly three million characters. This was based on news reports from the Chinese newspapers during the war period in Macao such as *Jornal Tai Chung Pou*, *Jornal do Cidadão*, *Fuxing Evening Post* and *Fuxing Daily*. Based on a large volume of systematic historical records related to politics, economy, society, security, medical care, salvation and relief, education and associations, it showcases the images of Macao society in the war period. The publications of valuable historical materials have bridged the gap in the compilation of historical records with great historical value and practical significance.

### 《故紙留痕——抗日戰爭時期澳門報刊資料選輯》新書發佈會

Book Release Conference of *Tracing in Old Records - Selected Documentation in Macao Newspapers and Periodicals during the War of Resistance against Japan*

## 語言文化研究

澳門語言文化研究中心致力於對澳門語言文化資源、生活、政策和教育等方面的科學研究，為澳門特區政府制定語言政策提供學術參考，為澳門地區語言文化的建設與發展作貢獻。為助力澳門“一中心、一平台、一基地”建設，加強中外文化教育交流，由教育部語言文字應用研究所、北京語言大學和澳門理工大學合辦的“語言研究和語言教育”學術研討會於2021年10月線上舉行，在北京及澳門設有主會場，來自內地和澳門多家高等院校和研究機構的學者參加會議。

## 社會經濟與公共政策研究

社會經濟與公共政策研究所於2021年11月舉辦“橫琴深合區發展中的府際關係與體制創新”學術講座，深入分析與探討了粵澳深合區府際關係重建的前提、限度、類別、重點、模式、難點以及治理體制創新的要求、原則和方式等。此外，研究所亦承擔《關於澳門發展定位的論述及其發展脈絡》、《澳門建設“以中華文化為主流、多元文化共存的交流合作基地”》等多個課題，以及撰寫《澳門四大新興產業的發展策略》研究報告，為政府管理與公共行政、經濟政策與社會政策，以及區域合作與區域治理等方面，貢獻智慧和力量。

## “一國兩制”研究

“一國兩制”研究中心於2021年12月舉辦“一國兩制”高端論壇2021——“一國兩制”實踐與法治國家建設。透過不同專業領域的學者發表最新研究成果，並進行討論交流，為提升澳門特區法治政府建設與社會治理水平提供了多角度、多層次的分析，共同就新形勢下“一國兩制”實踐與法治國家建設出謀劃策，展望澳門特區未來“一國兩制”繼續行穩致遠。為紀念國家憲法日，中心於2021年11月舉辦“紀念國家憲法日線上講堂——中國憲法的變遷與發展”。本學年，中心持續出版《“一國兩制”研究》學術期刊，以及《“澳門融入國家發展進程中的法律與政策”學術論文集》。

## Research in Language and Culture

The Language and Culture Research Centre of Macao is committed to research on Macao's language and cultural resources, well-being, policies and education, providing references for the language-related policy making of the Macao SAR Government as well as the contribution to the development of language and culture in Macao. In alignment with the positioning of Macao as "One Centre, One Platform and One Base" and strengthening cultural exchanges between Mainland China and foreign countries, the Institute of Applied Linguistics, the Ministry of Education, Beijing Language and Culture University and MPU jointly held the "Linguistic Research and Language Education" Online Academic Conference in October 2021, with its main sessions located in Beijing and Macao. The webinar attracted the participation of scholars from universities and research institutions in the Mainland China and Macao.

## Research in Social, Economic and Public Policy

The Social, Economic and Public Policy Research Centre held the Academic Lecture on "Intergovernmental Relations and System Innovation in the Development of Hengqin In-Depth Cooperation Zone" in November 2021, where participants conducted in-depth exploration and analysis on the preconditions, limitations, categories, priorities, modes and challenges of the reconstruction of intergovernmental relations, in addition to the requirements, principles and methods of governance system innovation. Moreover, the Centre has undertaken a number of research projects on topics such as *Discussion on Positioning of Macao's Development and its Development Process*, *"Construction of 'Exchange and Cooperation Base with Chinese Culture as Mainstream, Multicultural Coexistence' in Macao"*. It has also produced a research report on *Development Strategies of Four Major Emerging Industries in Macao*, contributing to social governance and public administration, social and economic policies, as well as regional cooperation and governance.

## Research in "One Country, Two Systems"

The "One Country, Two Systems" Research Centre organised the "One Country, Two Systems" Advanced Forum 2021 with the theme of "Implementation of 'One Country, Two Systems' and Building Law-based Country" in December 2021. Experts and scholars released the latest research findings in their respective professional fields and exchanged ideas for the purposes of providing a multi-faceted and multi-level analysis to promote the building of lawful government and the steady and long-term implementation of "One Country, Two Systems" in Macao. In addition, the Centre held the Online Lecture on the Changes and Development of the Chinese Constitution to commemorate the National Constitution Day in November 2021. The Centre also continued to publish the *Journal of "One Country, Two Systems" Studies and the Proceedings of Academic Conference on "Law and Policy Relating to the Integration of Macao in National Development"* in this academic year.



## 學術成果

### 學術論文

隨着積極推動科研及教研人員的不懈努力，大學的科研成果產出不斷提升。本學年，大學人員發表的學術期刊論文、會議論文及書章共366篇，其中被SCIE、SSCI、AHCI、EI、Scopus等引文索引收錄共280篇，部分更發表於*International Journal of Nursing Studies*、*IEEE Transactions on Image Processing*、*Applied Surface Science*、*Mathematics*、*Nature Communications*、*Bioinformatics*、*Science of the Total Environment*、*ACS Catalysis*、*Molecular Therapy - Nucleic Acids*、*Journal of Research in Interactive Marketing*、*Psychology of Sport and Exercise*、*Journal of Environmental Chemical Engineering*、*Journal of Chemical Information and Modeling*、*International Journal of Pharmaceutics*、*Microbiology Spectrum*、*Journal of Travel & Tourism Marketing*等在學科內影響力因子排名前20%的期刊。

獲國際知名引文數據庫Scopus收錄的學術文章182篇，研究範圍涉及計算機科學、社會科學、工程學、數學、藥物學、物理及天文學、商業、管理和會計、環境科學、藝術及人文、生物化學、遺傳學及分子生物學、化學工程、化學、決策科學、心理學、護理學、農業與生物科學、材料科學、神經科學、經濟學、計量經濟學及金融學、衛生專業、能源學、藥理、毒理和藥劑學及地球和行星科學等。

中文核心期刊的論文17篇，分別發表於《情報理論與實踐》、《乾旱區地理》、《中華醫院感染學雜誌》、《上海教育科研》、《領導科學》、《人文地理》、《文化遺產》、《中國音樂》、《教育學術月刊電影評介》等刊物上。

## Academic Outputs

### Academic Articles

With MPU's continuous support for scientific research and its faculty members' unremitting efforts, the scientific research outputs of MPU have been constantly increasing. In this academic year, MPU faculty members published a total of 366 academic journal articles, conference papers and book chapters, of which 280 were included in citation indexing databases such as SCIE, SSCI, AHCI, EI and Scopus. Journals in which articles were published include *International Journal of Nursing Studies*; *IEEE Transactions on Image Processing*; *Applied Surface Science*; *Mathematics*; *Nature Communications*; *Bioinformatics*; *Science of the Total Environment*; *ACS Catalysis*; *Molecular Therapy - Nucleic Acids*; *Journal of Research in Interactive Marketing*; *Psychology of Sport and Exercise*; *Journal of Environmental Chemical Engineering*; *Journal of Chemical Information and Modeling*; *International Journal of Pharmaceutics*; *Microbiology Spectrum*; and *Journal of Travel & Tourism Marketing*, as well as other journals in the top 20% ranked by impact factor as seen from a disciplinary perspective.

A total of 182 academic articles were indexed by Scopus, an internationally renowned indexing database, covering research areas including, but not limited to, computer science, social sciences, engineering, mathematics, pharmacy, physics and astronomy, business, management and accounting, environmental sciences, arts and humanities, biochemistry, genetics and molecular biology, chemical engineering, chemistry, decision science, psychology, nursing science, agricultural and biological science, materials science, neuroscience, economics, econometrics and finance, health sciences, energy science, pharmacology, toxicology and pharmacy, and earth and planetary science.

A total of 17 articles were published in core Chinese journals, including the *Information Studies: Theory & Applications*; *Arid Land Geography*; *Chinese Journal of Nosocomiology*; *Shanghai Research on Education*; *Leadership Science*; *Human Geography*; *Cultural Heritage*; *Chinese Music*; and *Movie Review of Education Research Monthly*.

## 出版物

本學年，大學出版學術著作10項，範疇涵蓋語言學、翻譯、高等教育、音樂教學等研究。

此外，大學定期出版學術刊物《澳門理工學報》（人文社會科學版）、《“一國兩制”研究》、《葡萄牙語的東方之路》和《世界博彩與旅遊研究》，教研人員著作由海內外著名出版機構出版。

## 科研投放

本學年大學立項的科研項目共43項，涵蓋人工智能、智慧城市、物聯網、無線通信、多媒體取證、區塊鏈、資訊科技、電腦輔助藥物設計、神經網絡機器翻譯、深度學習、自然語言處理、應用數學、運動生理、護理、健康科學、博彩旅遊、中國與葡語國家人文交流、同聲與交替傳譯、中葡翻譯、語言學、文學、科技藝術創新、設計、視覺藝術、建築藝術、公共治理、都市規劃、舊區改造、企業管理、教育心理、高等教育、文化遺產保護、非物質文化遺產、歷史等研究領域。

## 外界資助 / 委託研究項目

作為一所服務澳門社會的應用型大學，大學每年均獲特區政府部門或其他外界機構委託、資助或透過公開招標的方式進行項目研究。本學年獲政府部門及外界機構委託的研究項目及澳門教育基金資助研究項目共6項，涵蓋大灣區旅遊產業融合發展、橫琴粵澳科技創新共同體研究、博彩旅遊、資訊科技、自然語言處理、翻譯、文化藝術、音樂等研究領域。

## Books and Other Publications

In this academic year, MPU published 10 academic monographs, covering topics such as linguistics, translation, higher education and music teaching.

Additionally, MPU publishes academic journals periodically which include the *Journal of Macao Polytechnic University* (Humanities and Social Sciences Edition); the *Journal of "One Country, Two Systems" Studies*; *Orientes do Português*; and *Global Gaming & Tourism Research*. Works of MPU faculty members are published by prestigious domestic and overseas publishing agencies.

## Research Input

In this academic year, the 43 established scientific research projects of MPU covered such research areas as artificial intelligence, smart city, Internet of Things, wireless communication, multimedia forensics, blockchain, information technology, computer-aided drug design, neural machine translation, deep learning, natural language processing, applied mathematics, sports physiology, nursing, health science, gaming and tourism, people-to-people and cultural exchanges between China and Portuguese-speaking countries, simultaneous and consecutive interpretation, Chinese-Portuguese translation, linguistics, literature, technology art and innovation, design, visual art, architectural art, public governance, urban planning, old district reconstruction, enterprise management, education psychology, higher education, cultural heritage protection, intangible cultural heritage and history.

## External Funding / Commissions

As an application-oriented higher education university serving the community of Macao, MPU is commissioned, funded or supported with open tenders by government departments or other external organisations each year to conduct research. In this academic year, six research projects were commissioned by government departments, external organisations and the Macao Education Fund. The research projects covered the tourism industrial integration in the Greater Bay Area, community of sci-tech innovation in the Guangdong-Macao In-Depth Cooperation Zone in Hengqin, gaming and tourism, information technology, natural language processing, translation, culture and arts, music, and other research areas.