

FEATURED STORY

International Education Forum on Innovation Talent Cultivation for the Future & GEC Education Summit First Held in Western China

On May 25th, Xi'an played host to the first-ever International Education Forum on Innovation Talent Cultivation for the Future & GEC Education Summit in the western China area. Co-hosted by GEC Academy and SJTU - GEC Center of Innovative Design for Interdisciplinary Studies, and co-organized by OxfordAQA, this event saw over 200 distinguished educators, scholars, and representatives from various China and overseas universities, international schools, and international organizations gather to share their insights for international education development in the new era.



Click [HERE](#) to watch the highlights at the forum on YouTube

The forum employed a mix of keynote speeches and roundtable discussions to delve into key topics such as international innovation talent cultivation and global competence development, with a specific focus on ideas and experiences exchanges between international high schools and universities, given the unique industrial structure and talent development trends prevalent in the western region of China.



Mr. Sheng Yan giving an opening address for the forum

Mr. Sheng Yan, President of GEC Academy, delivered an opening speech for the forum, highlighting the significance of international innovation talent development in the new era. He also shared with the audience GEC's extensive experience in developing international and innovative talent through project-based and research-oriented learning over the past several years.

After the opening remarks, GEC's teaching faculty, Professor David Johnson, Chartered Educational Psychologist, Director of Oxford Education Analytics, and Professorial Fellow in St Antony's College at the University of Oxford, conveyed his warm greetings to all the attendees through online addresses.

Professor Johnson expressed his pleasure in welcoming attendees to the forum held in Xi'an, which he referred to as his favorite city in China. He stressed that "teachers are the lifeblood of the educational system. And attending this forum is an essential part of your personal and professional development. There is no better organization than GEC to facilitate your learning. I've been working with GEC for the last 2 years. And I've been thrilled to share ideas with many students and young professionals during this time."

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During the keynote speech, Mr. Zhijia Wang, who formerly held positions as the Director of International Cooperation at the National Environmental Protection Agency and as a Special Coordinator at the United Nations Environment Program, emphasized that global competence encompasses a wide range of capabilities, including the capacity to analyze regional, global, and cross-cultural issues, appreciate and understand different perspectives, engage in effective interactions with individuals from diverse cultural backgrounds, and take practice in collective well-being and sustainable development. He advocates for a well-rounded education that balances international perspectives with practical skills. "STEM students, in particular, should broaden their horizons by studying humanities, arts, and philosophy to better engage with the world beyond academia. Crucial competencies such as communication, teamwork, and innovative thinking are highly valued by both domestic and international employers. Innovation cultivation will be essential for achieving success upon the foundation of current accomplishments in the post-pandemic era. Therefore, it is imperative to encourage students to develop this skillset", he stated.



Mr. Zhijia Wang giving a keynote speaking on global competence development



Mr. Chengbin Ma introducing the Global Institute of Future Technology at Shanghai Jiao Tong University

Dr. Xiaoli Fan, Dean of Queen Mary College at Northwestern Polytechnical University, discussed the engineering college's approach to cultivating international talent. She pointed out some of the challenges faced by universities in this area, including the rigidification of teaching models and outdated educational philosophies.

Mr. Chengbin Ma, Assistant Dean of the Global Institute of Future Technology at Shanghai Jiao Tong University, believes that a significant shift in mindset is necessary for cultivating talent. Rather than taking a teacher-centered and subject-focused approach, he suggests adopting a student-centered and question-oriented approach. This approach prioritizes individual students' needs and aims to develop innovative, research-oriented talents. According to Mr. Ma, "modern science and technology are characterized by large-scale interdisciplinary development and the ultimate goal of engineering education is to apply knowledge to practice, which requires creating an immersive environment for shared learning and living. Therefore, it is essential to establish a conducive learning and living environment for students and foster a culture of communication and collaboration. By doing so, we can ensure that future generations of engineers and scientists have the skills and knowledge necessary to solve 'bottleneck' problems and make significant contributions to society. "

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The event then proceeded into three illuminating roundtable discussions. Over ten esteemed principals and educators from China international schools participated in these thought-provoking discussions, which delved into several key topics.

The first discussion focused on cultivating versatile talents with robust global perspectives and intercultural competencies, as well as their efforts in cultivating talent. They also engaged in lively discussions about how schools can assist children in adapting to the changes brought by the era of artificial intelligence and prepare them for the future. Ms. Li Liu, Principal of Xi'an Liangjiatan International School, emphasized that in the age of information technology, it is crucial for educators to help children improve their data processing and critical thinking skills. This will enable them to effectively use information and accelerate the development and progress of society.



Mr. Haibo Wang, COO at GEC Academy, hosting the first roundtable discussion

While discussing the challenges and innovations inherent in integrating curriculums within international schools, Ms. Qingqing Duan, the International Department Director at Yinchuan No.1 School Affiliated to Jiaotong University in China, emphasized the need for high-quality teachers who possess a thorough understanding of both local and international curricula. She also noted, "parental attitudes towards education can vary, making effective communication between educators and parents crucial in addressing any concerns or reservations about the curriculum. "

The final roundtable explored ongoing trends in admissions for overseas universities. The panelists discussed the types of students that are highly sought after by international institutions, including those with exceptional specialized skills and a well-rounded range of abilities spanning academics, sports, and arts. They also shared strategies for addressing the impact of the pandemic on international education and preparing students for a future that is rapidly changing.



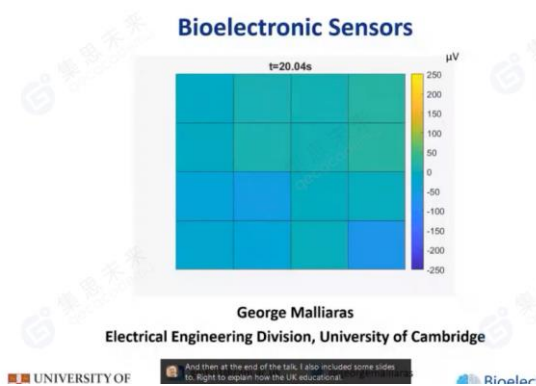
A group photo of some of the guest speakers after the forum

This forum provided valuable insights and strategies for addressing the challenges facing current international education and offered new ideas for developing innovative and versatile talent in a rapidly changing world. With the objective of providing new perspectives and approaches for international education, GEC Academy is committed to seeking opportunities in promoting international education development and continuing to explore new perspectives and approaches together.

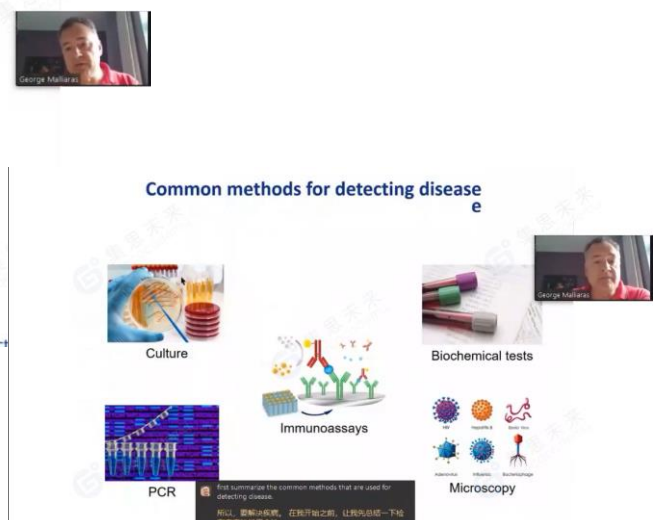
The Fourth GEC Global Top Scientists Forum Sparks Excitement with Insights on Bioelectronic Sensors

On May 17th, GEC Academy hosted the Fourth Global Top Scientists Forum, featuring an online keynote lecture by one of GEC's teaching faculties, Professor George Malliaras, the Prince Philip Professor of Technology at the University of Cambridge. The lecture focused on the fascinating field of Bioelectronic Sensors, which has become a hot-button topic provoking conversations over the past few years.

The audience for this online lecture primarily comprised students from various Chinese universities, studying medicine and biology, who greatly benefited from Professor Malliaras' profound expertise in this field. Apart from sharing valuable insights into bioelectronic sensors, Professor Malliaras also offered a glimpse into how UK educational system works from the admission perspective and shared tips on how to apply to graduate programs by taking the University of Cambridge as an example. Overall, it was a highly informative and enriching experience for all attendees.



Professor Malliaras expressing his gratitude and pleasure for giving a lecture at the forum



Professor Malliaras expounding on the common methods for detecting diseases

The discussion began with a focus on the benefits of bioelectronic sensors, particularly as highlighted by Professor Malliaras who emphasized their critical role in disease treatment. By allowing for the tracking of disease origins and early detection, sensors have become indispensable tools in promoting effective treatment. He also noted that the use of sensors has played a pivotal role in advancing precision agriculture and ensuring the preservation of our planet's ecological environment.

Professor Malliaras then delved into the common methods used to detect diseases, with Immunoassays and PCR gaining momentum as a result of their effectiveness in combating the pandemic. He also drew attention to two novel diagnostic approaches that are gaining popularity: wearable sensors for continuous health monitoring and in vitro biosensors for detecting metabolites and disease markers. These approaches show great promise in revolutionizing diagnostics.

Apart from discussing the advantages and methods of bioelectronic sensors, Professor Malliaras also raised the ethical issues brought by these sensors. He explained that with the proliferation of wearable devices, sensitive data about the wearer and their surroundings are collected and uploaded to the cloud. As a result, ethical issues and concerns about privacy and data protection have emerged due to the lack of regulation and legislation. Regulatory frameworks like the EU's General Data Protection Regulation aim to address these issues.

Privacy issues for wearable devices

- Shift towards direct-to-customer medical technology
- Wearables can generate wealth of sensitive data
 - Often coupled with cell phone, uploaded on cloud
 - Easy to identify wearer, surroundings
- Traditionally lacking legislation
 - Who owns the data?
 - How can the data be used?
 - How is the data protected?
- General Data Protection Regulation
 - Law as of May 25, 2018
 - "Data subject"



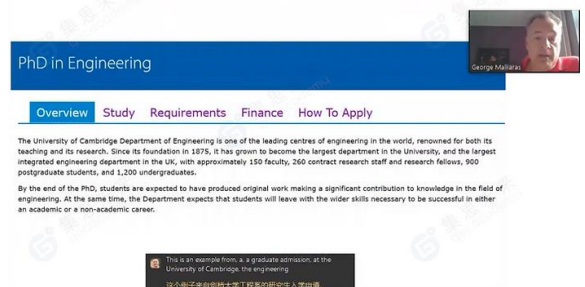
Professor Malliaras introducing the ethical issues raised owing to the development of wearable devices

After the discussion about the topic of bioelectronic sensors, Professor Malliaras drew upon his extensive experience in managing admission exams to provide valuable insights on students' applying to universities and colleges in the UK. He introduced the subtle differences in the educational systems across England, Scotland, Wales and Northern Ireland, which compose the UK's academic system, and emphasized the important role of university's admission websites in providing information on programs, departments, and expectations, and advised students to make good use of these websites to learn about the requirements of the programs and universities or colleges they are interested in. To illustrate, he discussed at length the University of Cambridge's admission process, stressing the crucial role of interviews in evaluating candidates' performance and achievements, particularly for graduate programs. He also underscored the importance of finding a suitable supervisor and recommended that prospective graduate students take the initiative to reach out to students in the supervisor's group to gain a deeper understanding of the laboratory's research direction and ensure alignment with their personal interests.

During the Q&A session at the forum, students from various universities contributed significantly to the discussion on British university applications and bioelectronic sensors. Some students asked whether exceptional research skills could increase their competitiveness in university applications if their GPA was not a strong suit. Professor Malliaras explained that while impressive research achievements can have an impact, good grades are still essential prerequisites for admission at each institution. In addition to good grades, Professor Malliaras stressed the importance of reference letters and extracurricular activities in a CV.

Students also asked about the replaceability of needles in glucose monitoring devices. Professor Malliaras confirmed that the needles are consumable and should be replaced regularly to ensure accuracy and hygiene. He emphasized the importance of maintaining device performance and safety, reminding students to promptly replace needles when using glucose monitoring devices.

Example from University of Cambridge



An example from graduate admission of the Engineering program at the University of Cambridge

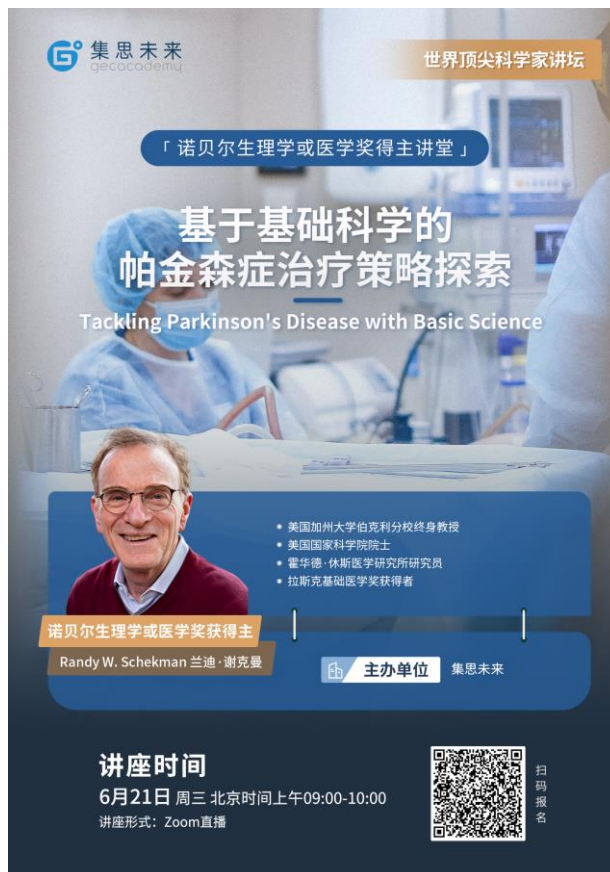
Since the announcement of the Global Top Scientists Forum series in late 2022, GEC has made efforts to create an interactive platform for global scientists and students, facilitating the dissemination of knowledge and ideas. The initiative seeks to broaden horizons and deepen understanding among students by providing insights into cutting-edge developments across diverse fields. The forum has covered a wide range of topics, including biology, chemistry, medicine, economics, and finance, providing valuable resources for students' development. Lectures offer important insights into school applications and expert guidance for students navigating their academic journeys. The most recent forums have focused on bioelectronic sensors and new strategies and technologies in biosensing and analytical chemistry.

The upcoming Zoom meeting on June 21st, from 9:00 am to 10:00 am (Beijing time), will feature Professor Randy W. Schekman, 2013 Nobel Laureate in Physiology or Medicine and Professor of Molecular and Cell Biology at the University of California, Berkeley. The focus will be on tackling Parkinson's disease with basic science via [Zoom Meeting](#) and the meeting ID is 810 9533 7808.

For those who might be interested in working with GEC, please feel free to contact our outreach specialist, [Katrina, at katrina.wang@gecacademy.com](mailto:Katrina.wang@gecacademy.com). GEC faculty who are interested in giving a speech at the next Global Top Scientists Forum should contact their academic manager.

RSVP: Lecture by Nobel Laureate Prof. Randy W. Schekman on Tackling Parkinson's Disease with Basic Science

We are thrilled to extend this invitation to you for the next Global Top Scientists Forum lecture series featuring Nobel Laureate **Prof. Randy W. Schekman**. As a Howard Hughes Institute Investigator and Professor of Cell and Developmental Biology at UC Berkeley, Prof. Schekman was awarded the Nobel Prize in Physiology or Medicine in 2013.



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世界顶尖科学家讲坛

「诺贝尔生理学或医学奖得主讲堂」

基于基础科学的
帕金森症治疗策略探索
Tackling Parkinson's Disease with Basic Science

美国加州大学伯克利分校终身教授
美国国家科学院院士
霍华德·休斯医学研究所研究员
拉斯克基础医学奖获得者

诺贝尔生理学或医学奖获得者
Randy W. Schekman 兰迪·谢克曼

主办单位 集思未来

讲座时间
6月21日 周三 北京时间上午09:00-10:00
讲座形式: Zoom直播

扫码报名

The theme of this month's lecture is "**Tackling Parkinson's Disease with Basic Science**," which aims to delve into the system, cellular, and molecular basis of Parkinson's disease. The lecture will focus on various aspects of the disease process, including genes and proteins implicated in familial Parkinson's disease, neuroinflammation processes that may trigger or exacerbate disease progression, neural circuits that interconnect with dopaminergic neurons, and predictive or triggering processes that may occur before the development of motor symptoms.

The lecture will take place on **Wednesday, June 21st, from 9:00-10:00 AM (Beijing Time) via Zoom.**

- Join Zoom meeting: <https://us06web.zoom.us/j/81095337808>
- Meeting ID: 810 9533 7808

[Here](#) is a tool for time zone converting.

For participants, please find [RSVP](#) here!

Faculty Work Gallery

This month we introduced a paper from Professor John Harris. If you are interested in showcasing your research, grants, book releases, conference presentations, or any work you deem valuable and interesting to share, please feel free to contact us.

A unified model of lenition as modulation reduction: gauging consonant strength in Ibibio



A unified model of lenition as modulation reduction: gauging consonant strength in Ibibio

Publication Type:	Journal article
Publication Sub Type:	Article
Authors:	Harris J, Urua E-A, Tang K
Publisher:	Cambridge University Press
Publication date:	2023

Author Information

[Prof. John Harris](#)

Emeritus Professor of Linguistics in the Division of Psychology & Language Sciences at University College London

Abstract

We review and elaborate an account of consonantal strength that is founded on the model of speech as a modulated carrier signal. The stronger the consonant, the greater the modulation. Unlike approaches based on sonority or articulatory aperture, the account offers a uniform definition of the phonetic effect lenition has on consonants: all types of lenition (such as debuccalisation, spirantisation, and vocalisation) reduce the extent to which a consonant modulates the carrier. To demonstrate the quantifiability of this account, we present an analysis of Ibibio, in which we investigate the effects of lenition on the amplitude, periodicity, and temporal properties of consonants. We propose a method for integrating these different acoustic dimensions within an overall measure of modulation size. Not only does the modulated-carrier account cover all the classically recognised lenition types, but it also encompasses loss of plosive release in final stops – which, although not traditionally classed as lenition, is clearly related to processes that are.

Please click [HERE](#) to find more information.

GEC CULTURE

“GEC Friends” & “GEC London Office Diary” Series Officially Published!

Starting from May 2023, GEC Academy has launched two exciting new series on the WeChat Official Account - "GEC Friends" and "GEC London Office Diary". These weekly-updated series showcase stories of GEC's teaching faculty in the United States and the United Kingdom, providing students and other interested individuals with access to the latest information about overseas universities, as well as entertaining and informative tales about GEC's collaborating professors and their project-based programs at GEC. This initiative demonstrates GEC Academy's commitment to providing valuable educational resources and fostering international connections within collaborating teaching faculty.



GEC Friends



GEC London Office Diary

Over the past six months, colleagues from the GEC London office, including Anastasia Zhou, the Teaching and Research Manager who was temporarily assigned there for half a year, have visited over 40 teaching faculty members in the UK. During Anastasia's visits, she had many insightful conversations with our professors, and we wanted to preserve these beautiful memories. That's why we launched the "GEC London Office Diary" column, which is updated every Tuesday. We shared stories with our readers about delivering invitation letters for the 2023 Summer Research Program to professors, enjoying Chinese Hotpot with them, experiencing dinner at Magdalen College, Oxford University, etc.

GEC CULTURE

While the "GEC London Office Diary" is about stories with UK professors, the "GEC Friends" Series centers on our teaching faculty in the US.

Led by Edison Yan, President of GEC Academy, and Wendy Wang, Director of GEC Academy's Teaching and Research Department, the GEC Visiting Team finished their first campus tour in the US in late April. They visited around 70 professors from over 20 universities, and the reunion after the pandemic brought many profound insights and remarkable stories.

To capture the essence of our unforgettable experiences, we are excited to present the "GEC Friends" series, which takes two primary forms. Every Monday, we release captivating articles that showcase the personal stories of GEC Academy professors. These articles highlight their exceptional experiences in GEC classes and provide insights into how they got to know GEC Academy, as well as their expectations for the upcoming 2023 Summer Research Program.

On Fridays, we release fascinating videos that showcase the picturesque campus scenery, conversations between the GEC visiting team and professors, and Edison Yan's informative introduction to various American universities. These videos offer a glimpse into the heart of life at GEC Academy.



GEC Friends-Videos

The "GEC Friends" and "GEC London Office Diary" series have gathered a lot of attention and positive feedback since their publication. Numerous GEC colleagues and students have forwarded these articles and videos, some of which have been shared over 1000 times. These two series are continuously updated to provide our readers with rich information on the interaction between GEC and our teaching faculty. We strive to keep our content fresh and engaging for our readers.

Introducing New Faces

We're pleased to welcome 2 new faces to the GEC team - **Ximeng & Xiao!**



Ximeng (Gloria) Lin
ximeng.lin@gecademy.cn

01 Educational background:

Bachelor of Arts in Business English, Jinan University
MSc in Educational Studies, University of Glasgow

02 What are your current duties?

As a consultant based in Chengdu, my main responsibility is to assist students with their university and college applications. This includes creating application plans tailored to each student's needs, providing solutions to any challenges they may encounter during the preparation process, and matching them with suitable GEC PBL projects.

03 What made you choose GEC Academy?

To be honest, it feels like fate brought me to GEC Academy. I had the opportunity to participate in two PBL programs at GEC - Research Methods in Social Sciences: Educational Processes and Cognitive Developmental Psychology where I was able to learn and benefit a great deal. What mattered most to me wasn't how it could help with my master's program application, but rather what I gained from it. I developed the courage to face difficulties, the strength to stick with my choices, the joy of forming friendships with other brilliant classmates, and the curiosity to delve deeper into these fields. These experiences also helped me improve my communication skills, team working, and critical thinking, all of which inspired me to help others, particularly students, to take advantage of similar opportunities and achieve their full potential..

04 What are your specialisms and interests?

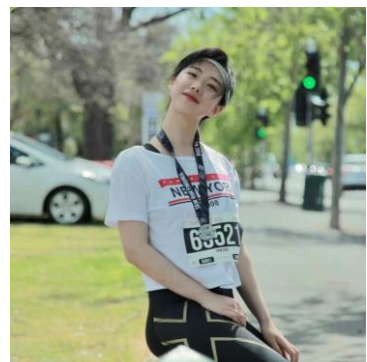
I enjoy spending time with friends by watching movies or playing games together. However, I'm also comfortable being on my own and appreciate solitude.

01 Educational background:

Master of Business, Monash University

02 What are your current duties?

I am a New Media Specialist of the STEAM Squirrels team. My responsibilities include managing multiple platforms such as TikTok, Xiaohongshu, and WeChat channels. I promote STEAM Squirrels and its resources through these platforms and distribute competition information and registration channels to the public. In addition, I work to popularize business content through various new media platforms..



Xiao (Gabby) Bao
xiao.bao@gecademy.cn

03 What made you choose GEC Academy?

I am thoroughly impressed with GEC's business model and the professionalism of the dynamic team. The talented group consists of young, fast-paced professionals who collaborate seamlessly to create a progressive work environment. What stands out to me is GEC's commitment to providing opportunities for professional development, training, and promotion, which aligns perfectly with my long-term career aspirations. I am excited about the potential to grow and thrive within GEC's supportive and innovative culture.

04 What are your specialisms and interests?

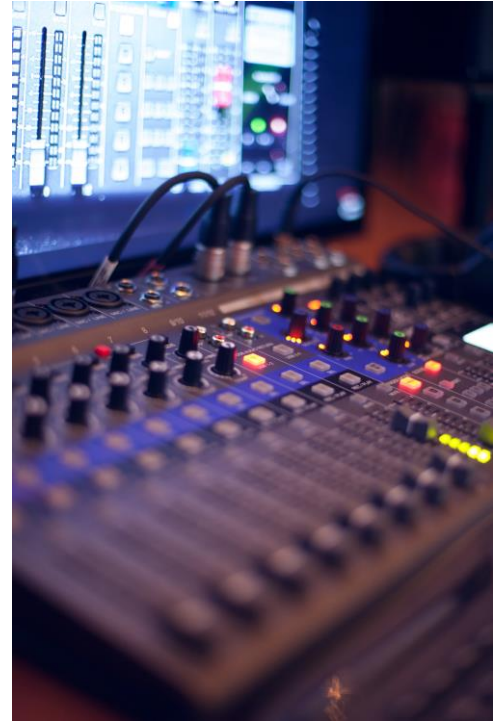
Playing the piano, writing Chinese calligraphy, and working out.

AMAZING WORK FROM GEC STUDENTS

Each month, GEC will introduce some of our exceptional students' work in a specific research area to our audiences. This month we selected two articles from our previous students in the field of [Computer Science](#).

AI Color Organ: Piano Music Visualization using Onset Detection and HistoGAN

The music visualization algorithm described in this study allows users to construct piano audio files using imported image files. This paper contributes to previous studies and designs of sonification by highlighting the effectiveness of utilizing onset detection in creating intuitive sonic changes. The audio-visual correspondences employed in this study could be expanded to many other syntheses and sample manipulation techniques. Translating visual information into sonic changes could yield many creative applications in music production, as it offers musicians a simultaneously optical and auditory production experience. This approach to audio manipulation also increases the unpredictability of the sound output, which could be appealing to experimental musicians seeking to control sounds with the visual structure of artworks that they enjoy, as opposed to precise parameters.



Click [HERE](#) to read the full text!



Application of Artificial Intelligence in Playing Cards

Artificial intelligence has invaded into fields of chess playing with the weapon of supervised, deep and reinforcement learning. However, the problem of whether artificial intelligence could qualify for an incomplete information system such as playing cards is still open. In this study, a model combining the Monte-Carlo method and decorated self-Reinforcement Learning was proposed to tackle such a problem. To be more specific, a card game called "Zhengshangyou" was chosen to verify the proposed method. It requires two players to compete with each other with a pack of cards including the Jokers. In addition, the rules of this game and the designed Artificial Intelligence (AI) algorithm are presented and explained to provide a clear mechanism. The method has promising through theoretical and experimental analysis.

Click [HERE](#) to read the full text!

WHAT PROGRAMS DOES GEC OFFER IN June 2023 SEMESTER?

In June, GEC launches a total of 97 online research programs in the areas of Finance, Marketing, Management, Computer Science, Biomedical Engineering, Mechanic Engineering, Materials Science, Mathematics, Physics, and so on and provides 61 personalized programs for Chengdu University, and China Medical University. This month, GEC also set up 2 customized lectures for Zhejiang Chinese Medical University. We will continue to gather students, faculty, and staff for an unrivaled academic experience.

The tables

[GEC 2023 June Program List,](#)

[GEC Personalized Programs for Universities,](#)

[GEC Customized Lectures for Universities in June 2023](#)

show detailed information about the programs that GEC launches in June.

Please click [HERE](#) to find previous program/course offerings.

Newsletter Improvement Survey

We would love to hear your thoughts or feedback on how we can improve your experience with our newsletter.

For your convenience, please click [HERE](#) to fill out the survey link.

GEC Academy

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