



University of  
**Nottingham**

UK | CHINA | MALAYSIA

***Experiences from  
University of  
Nottingham Ningbo***

**Chris Rudd**

**Provost, University of Nottingham  
Ningbo China**





# Ningbo City (宁波市)

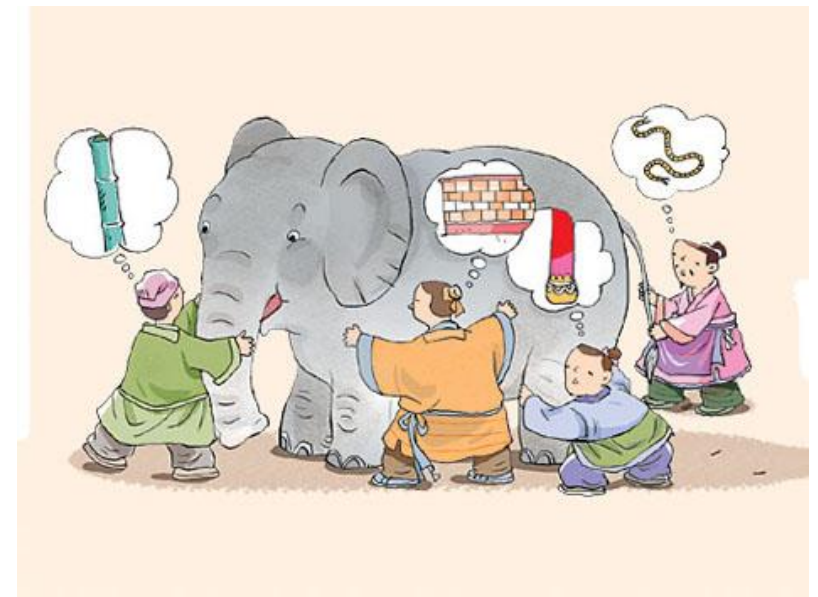
- Sub Provincial City in Zhejiang Province
- Population c.8.5M with c.4M in metro area
- One of the busiest Ports in the world and starting point for the Marine Silk route.
- Birthplace of Chiang Kai Shek
- Historically “open” and internationalised city with longstanding Jewish, Christian and Arab communities
- Close relationship with Hong Kong
- Sister City relationship with Nottingham since 2005





# What is University of Nottingham Ningbo China?

- JV between UoN and WanLi Education Group
- A branch campus of UoN
- A very good “private” University
- A springboard for study overseas
- A sino-foreign collaborative University



- To reproduce the Nottingham experience in China
  - Nottingham degrees, taught in English
  - Western pedagogy
- To deliver a highly internationalised education
  - Overseas faculty, mixed student population
  - Multiple study abroad opportunities
  - Interactive, small group teaching
- To build a high quality research operation
- To support China's higher education reform
- Initial target of 4000 students, fully residential campus





**... University has been offered the opportunity to participate in a Joint venture with Wanli Education group (WEG) to develop a university campus in Ningbo Zhejiang province China. This opportunity has emerged due to the new liberalised and positive approach by the Chinese government under new legislation on Sino-Foreign educational enterprises. The new campus has a target population of 4000 in the first phase (2004-2008), covering classroom based subjects in arts and social sciences at undergraduate (3000) and postgraduate (1000) levels. It has been allocated premium land (70 acres) with a further additional amount available if required.**

## **Identified Risks in 2004**

1. Political instability
2. Possibility of staff/students running foul of political authorities
3. Difficulties in regulatory environment for academic approvals
4. Difficulties in terms of administrative regulatory frameworks
5. Difficulties in the U of N/China and UK China relationship
6. Availability of high-quality academic staff.
7. Fee paying ability of Chinese students

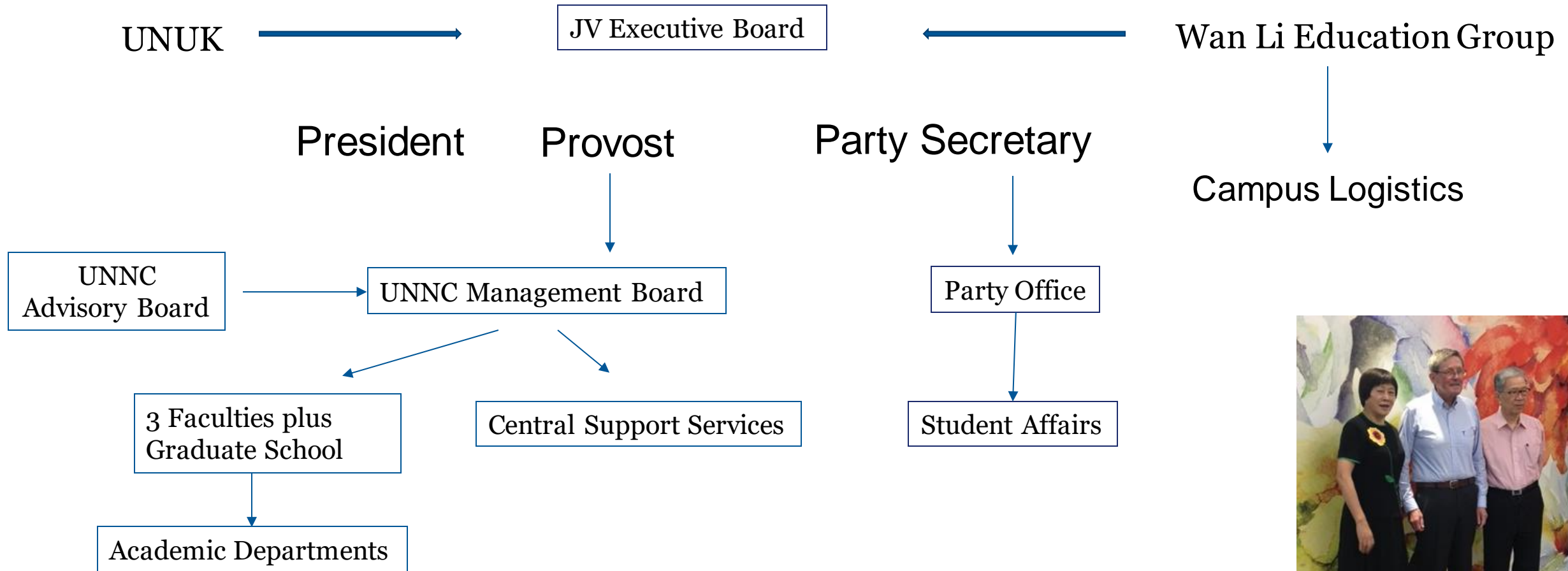




- First cohort Sept 2004
- Now 6800 students on fully residential campus (8612 registered)
- 11% international students
- 2016/17 turnover RMB 773M (c. GBP91M)
  - 74% of this is tuition
  - FT fee RMB 90k
- 407 Academic Staff
- 322 Administrative Staff
- Research Income c.RMB 100M pa
- 345 registered PhD students



# UNNC Management and Governance



*President nominated by Chinese partner  
Provost nominated by UK partner*





## Nottingham University Business School 商学院

Entrepreneurship, Marketing and  
Management Systems  
创业学、市场营销与管理信息系统

Finance, Accounting and  
Economics  
金融财务、会计与经济学系

International Business and  
Management  
国际商务与管理系

## Faculty of Humanities and Social Sciences 人文社科学院

Language Centre 小语种语言中心

Economics 经济系

Education 教育学系

English 英语语言学与文学系

International Communications  
国际传播系

International Studies  
国际事务与国际关系学系

## Faculty of Science and Engineering 理工学院

Aerospace 航空学院

Architecture and Built Environment  
建筑 and 建筑环境系

Chemical and Environmental  
Engineering 化学与环境工程系

Civil Engineering 土木工程系

Computer Science 计算机科学系

Electrical and Electronic Engineering  
电气与电子工程系

Geographical Sciences 地理科学系

Mathematical Sciences 数学科学系

Mechanical, Materials and  
Manufacturing Engineering 机械, 材料  
与制造工程系





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## Centre for English Language Education (CELE)- preliminary year

- English for Academic Purpose (EAP) / English for Specific Academic Purpose (ESAP)
- Coaching and Support (CAS) Academic Literacy Development Centre (ALDC)
- Online materials Knowledge exchange





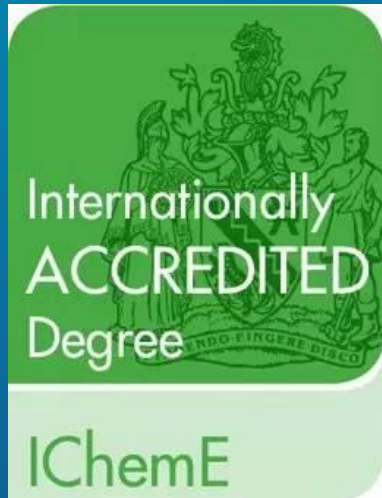
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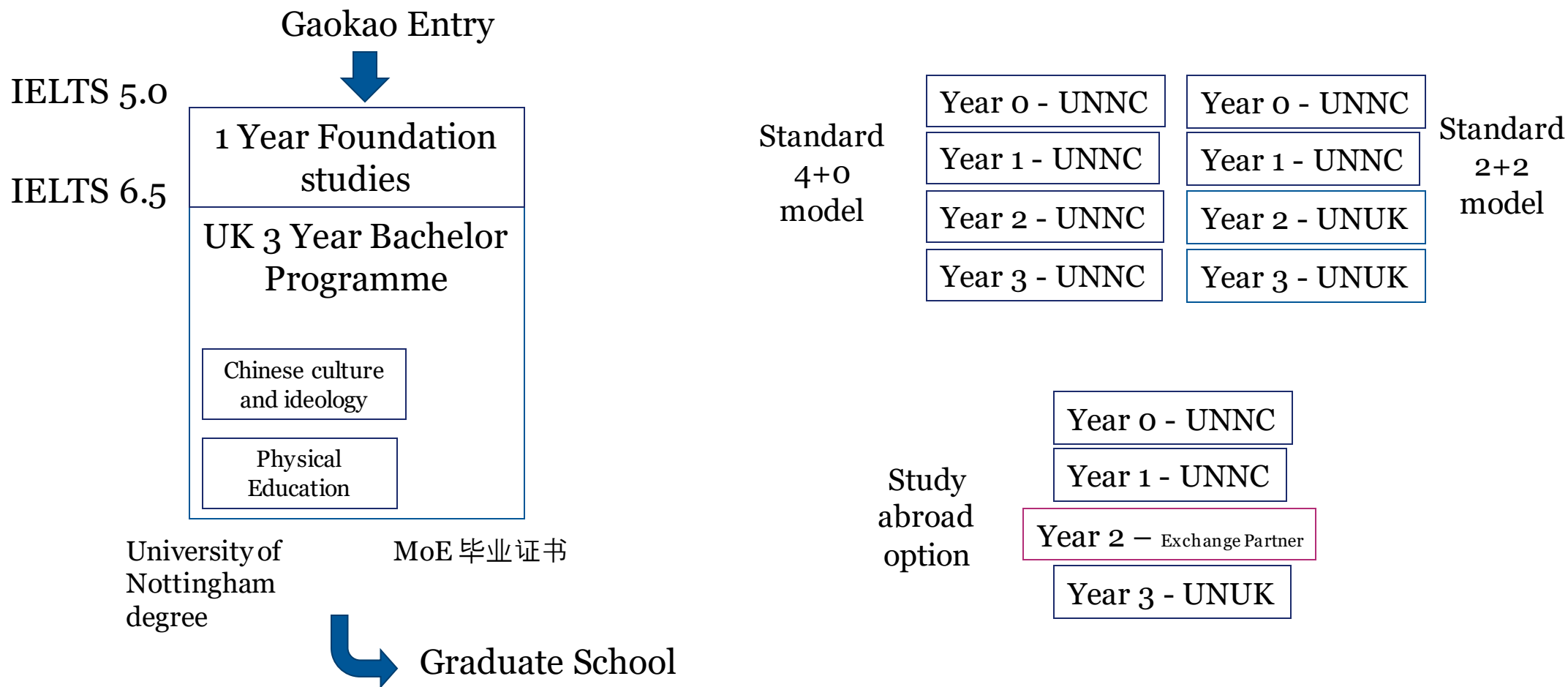
# Accreditation

Faculty of Business: EQUIS accredited

All Science and Engineering programmes have been internationally accredited



# UG Curriculum Adaptations (for local students)







# Student Quota

- Domestic Undergrad and Masters recruitment restricted by MoE quota (currently 1905, 600)
- Overseas UG, PGT (incl HMT\*) not limited by quota
- Overall PhD recruitment is restricted by MoE quota (currently 225)
- Overall student numbers are restricted by number of available beds (and other factors) – currently 7500 (increasing to 8565)
- MoE figures are (strictly speaking) based on registered students not resident students

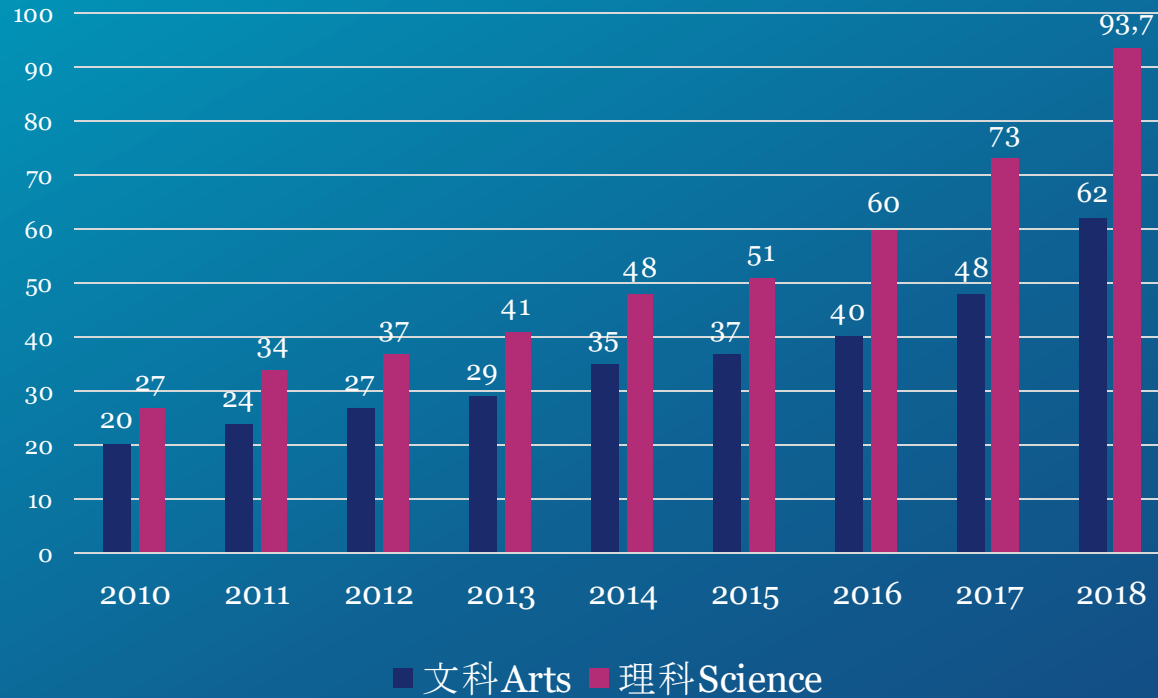
\* Hong Kong, Macao, Taiwan





# Our Students

Gaokao entrance scores average in 29 provinces  
Points above Division 1



Undergraduates from 29 provinces,  
Division One in Gao Kao and English  
score 115 above

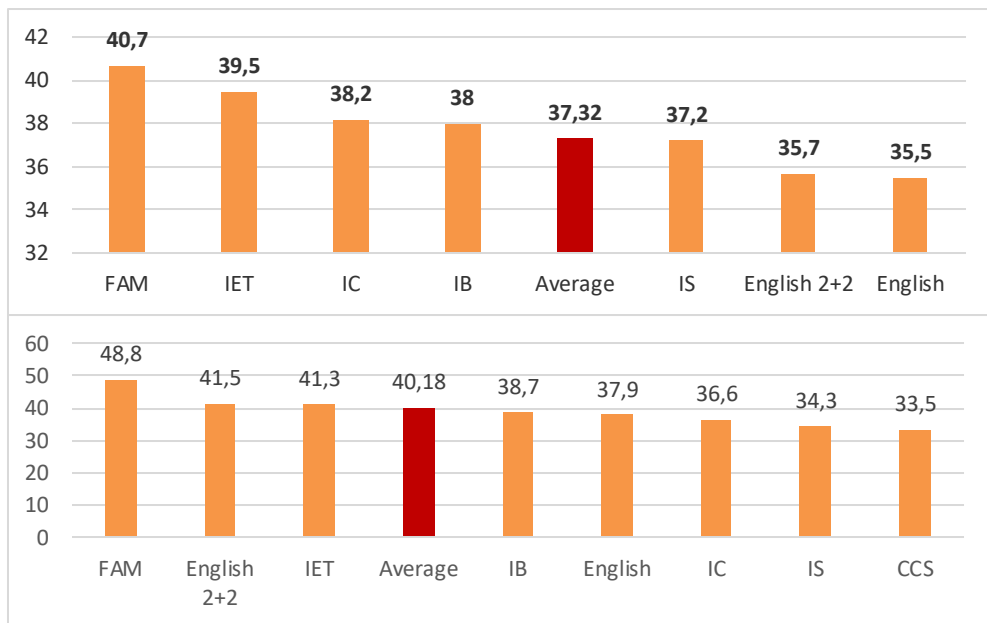
In 2018, UNNC on average recruits  
top 6% students – second highest in  
Zhejiang.

PGT/PGR students & int'l students  
who meet requirements submit  
application to UNNC.

# Mainland China Intake Score by discipline

## Average Score above Division One line (2015-2017)

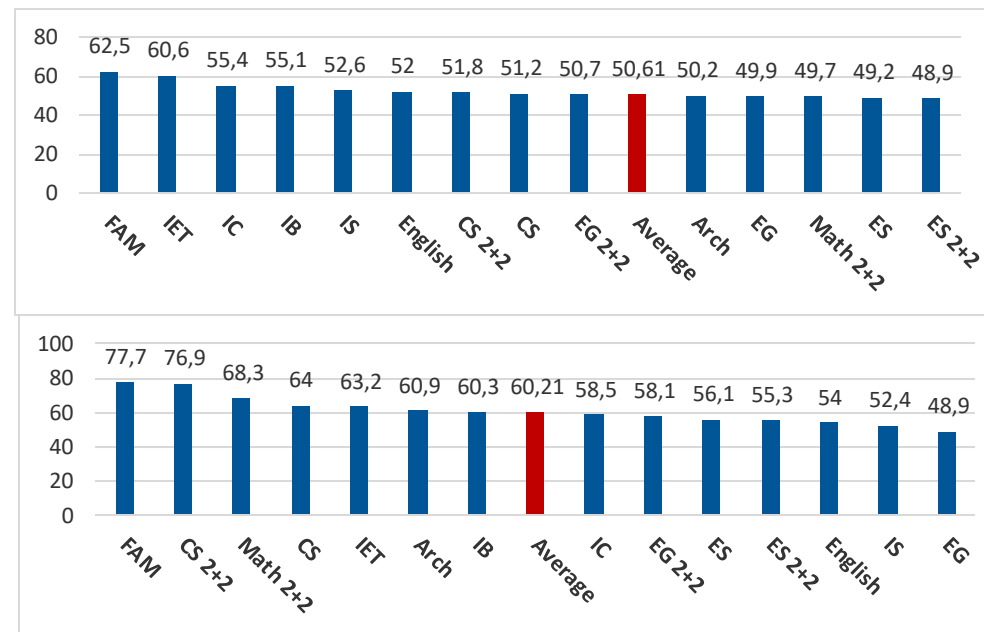
Average Score above Division 1 Line per Course for Arts



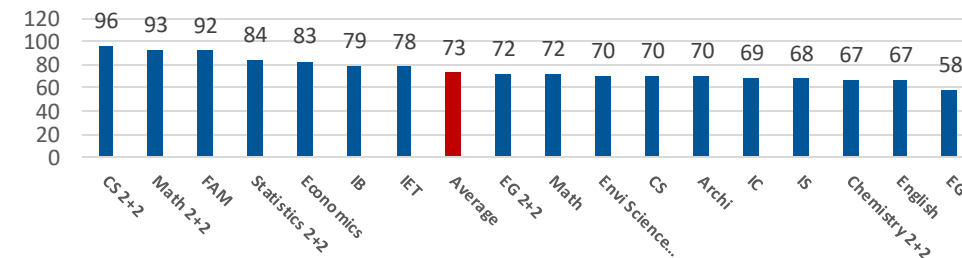
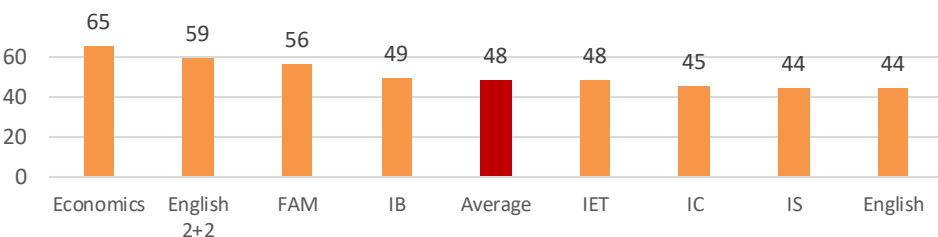
2015

2016

Average Score above Division 1 Line per Course for Sciences



2017



*Availability of 2+2 boosts programme popularity significantly*



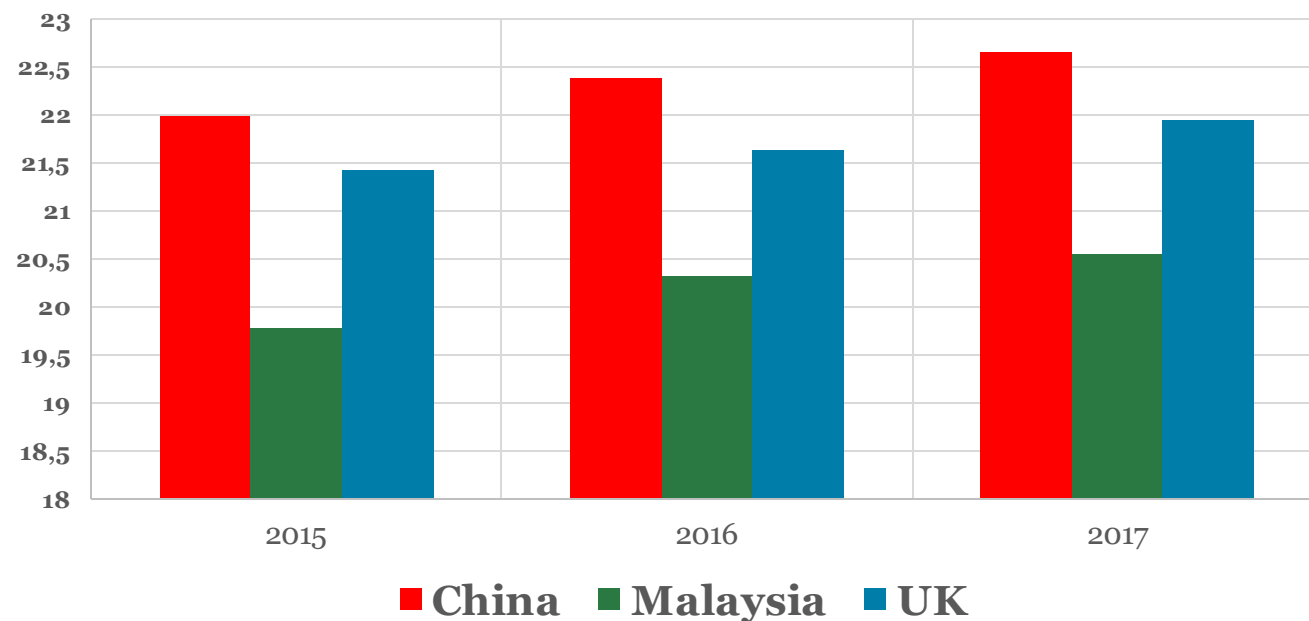


The Quality Assurance Agency (QAA) published the review of transnational education in China on 2013, which found that in just eight years, UNNC has achieved its goal of providing its students with the 'Nottingham experience' in China.

The 2013 review said: “The student experience received at UNNC which is as fully a British education as is possible to provide in China together with the creation of a tri-campus university that offers unique opportunities for student exchange and transnational education. UNNC is an impressive achievement. As an integral part of the University of Nottingham, the academic standards and the quality of the student learning experience at UNNC are equivalent to those of the home university.”



**Student Teaching Evaluation Scores 2015-17**



- In 2016/17, UNNC received 3 municipal and 5 provincial awards on teaching related programmes and projects, which accounts for 50% of all 17 Teaching and Learning awards UNNC achieved.
- In the latest iGraduate report released in 2017 spring, UNNC's overall student satisfaction rate reached **91.1%**, outperforming the global benchmark rate of 89.7% and Asian average of 87.6% among more than 170 institutions participating this survey in the world.

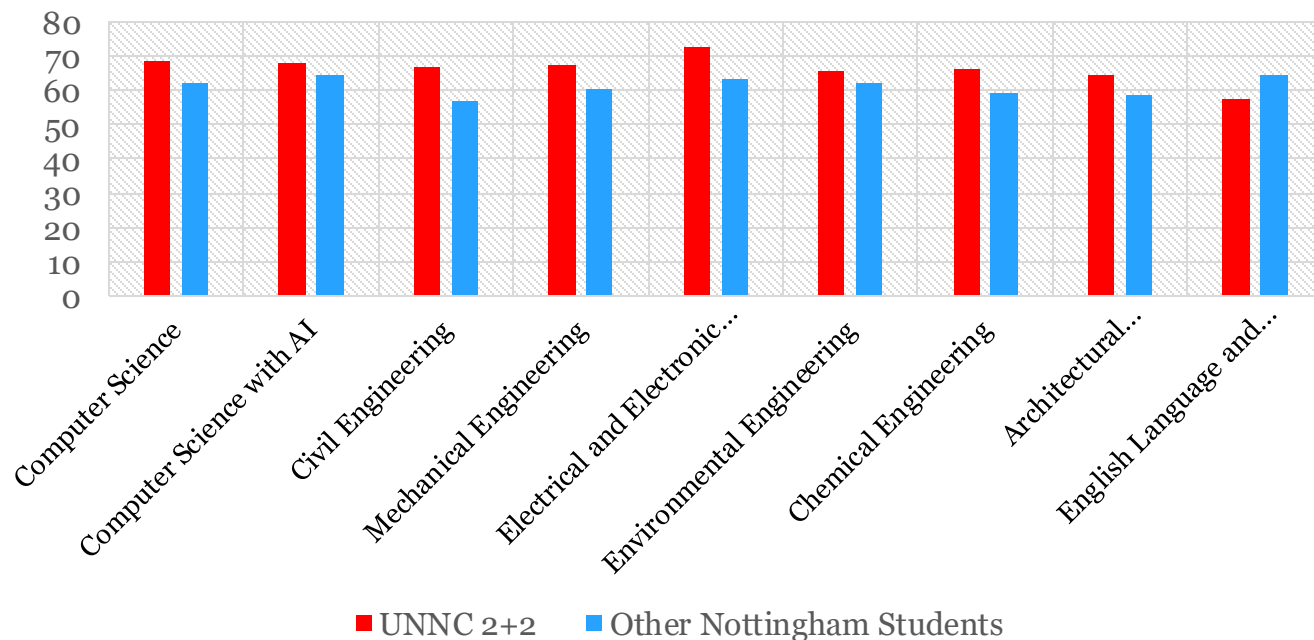
# UNNC Student Performance in 2+2 Programmes

UNUK hosts around 500 2+2 students, mainly in engineering

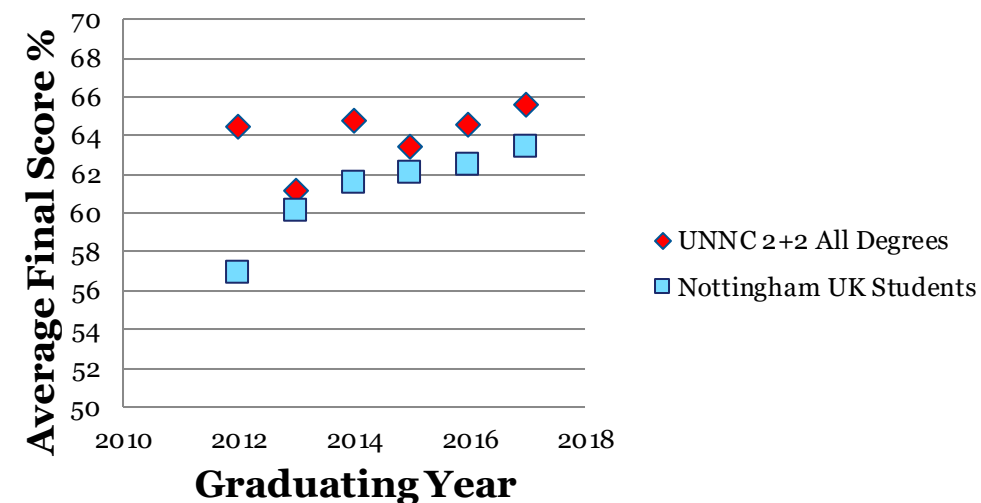
UNNC students generally complete their studies in UK with higher score than “other students”.

This masks differences between STEM and Arts/SS performance.....

## UNUK Graduating Class Averages 2012-17



## Graduating Class Average Score

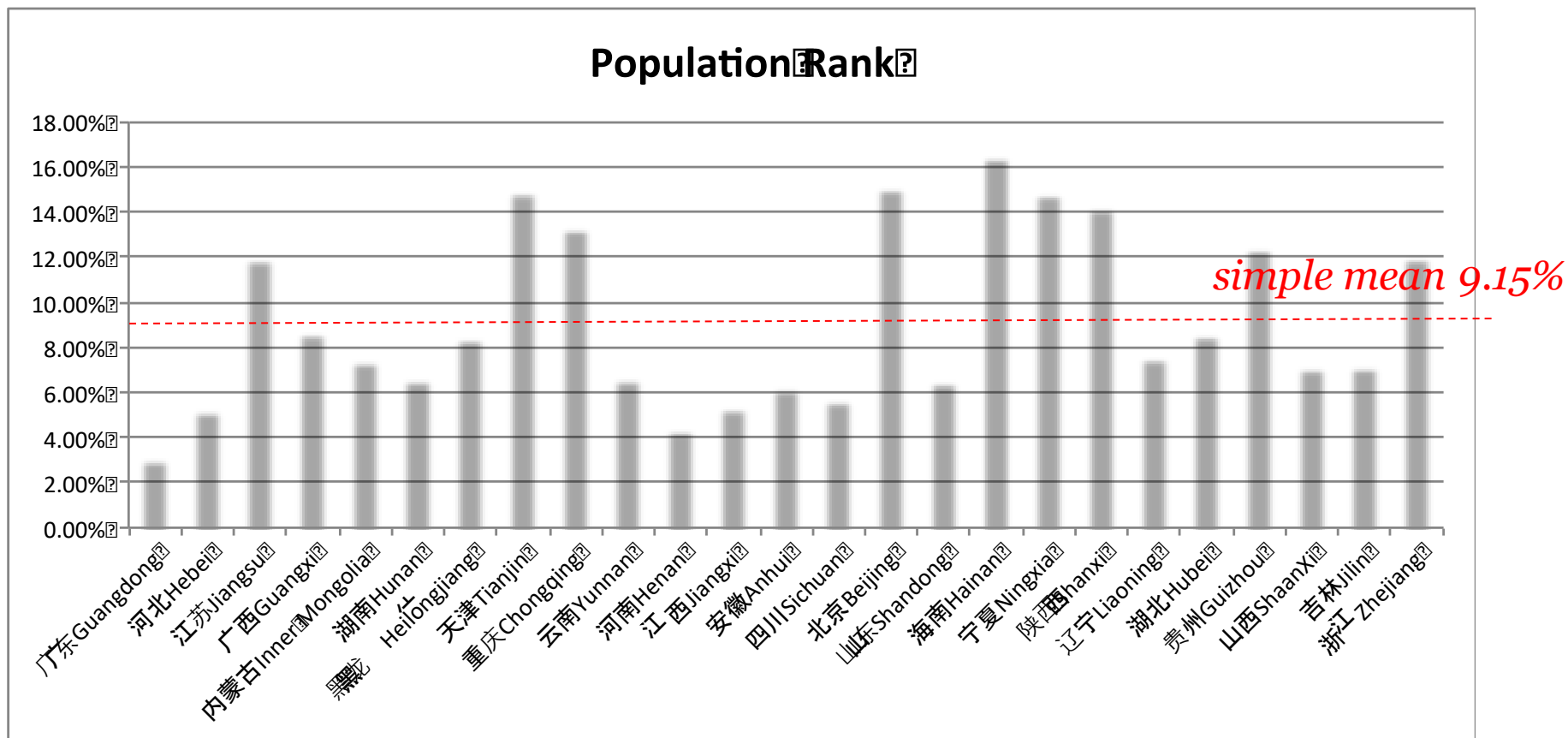






# Undergraduate Intake Quality

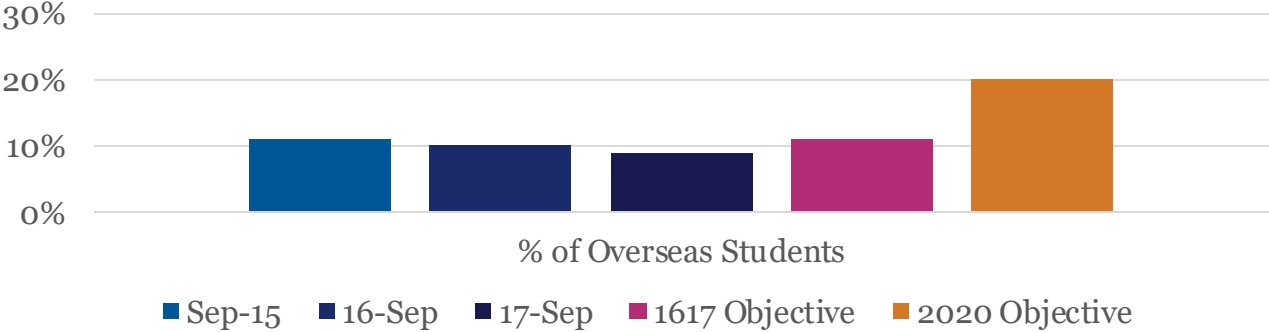
## Average Gaokao Population Ranking by Score for UNNC 2017 Intake



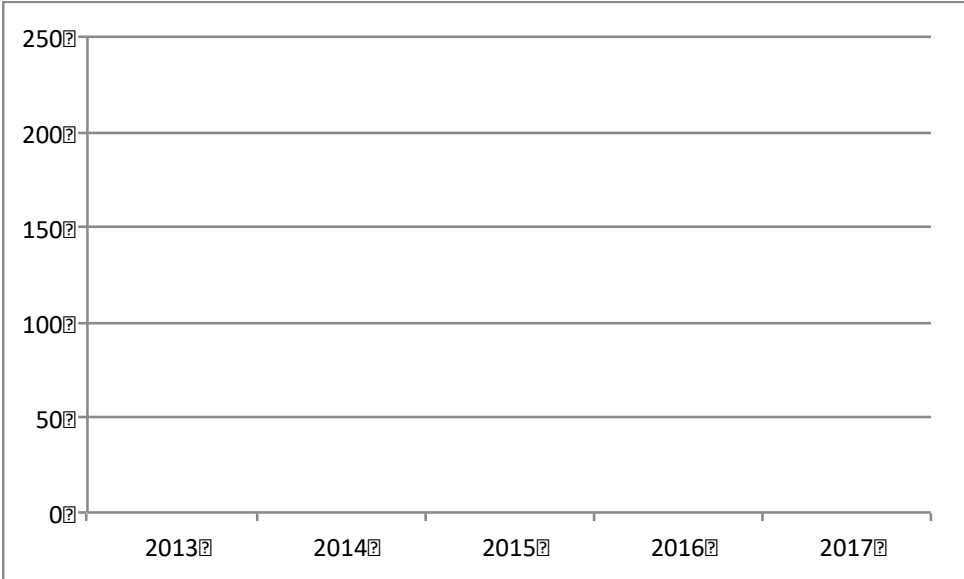
UNNC minimum intake approximates A\*A\*A based on 2016 A Level data  
UNUK average intake AAB/ABB – 39%, minimum threshold BBC – 60%

# Recruitment – Overseas Students

Internationalisation



Indonesia	50
Taiwan SAR	30
South Korea	23
Thailand	14
Nigeria	11
Russia	10
India	9
UK	9
Tanzania	9
Ethiopia	8
Hong Kong SAR	7



Overseas Degree Student Recruitment



# Our graduates

For Class of 2018, 25.6% of students who chose to go on further study went to a QS World top 10 university.

University 大学	Enrollment No 入学人数	18/19 QS Rank QS 排名
Stanford University 斯坦福大学	1	2
University of Oxford 牛津大学	6	5
University of Cambridge 剑桥大学	1	6
Imperial College London (伦敦大学) 帝国理工学院	90	8
University of Chicago 芝加哥大学	2	9
University College London (UCL) 伦敦大学学院	143	10

81.9% of students went to a QS 100 university

82% of our masters graduates are employed by world renowned companies

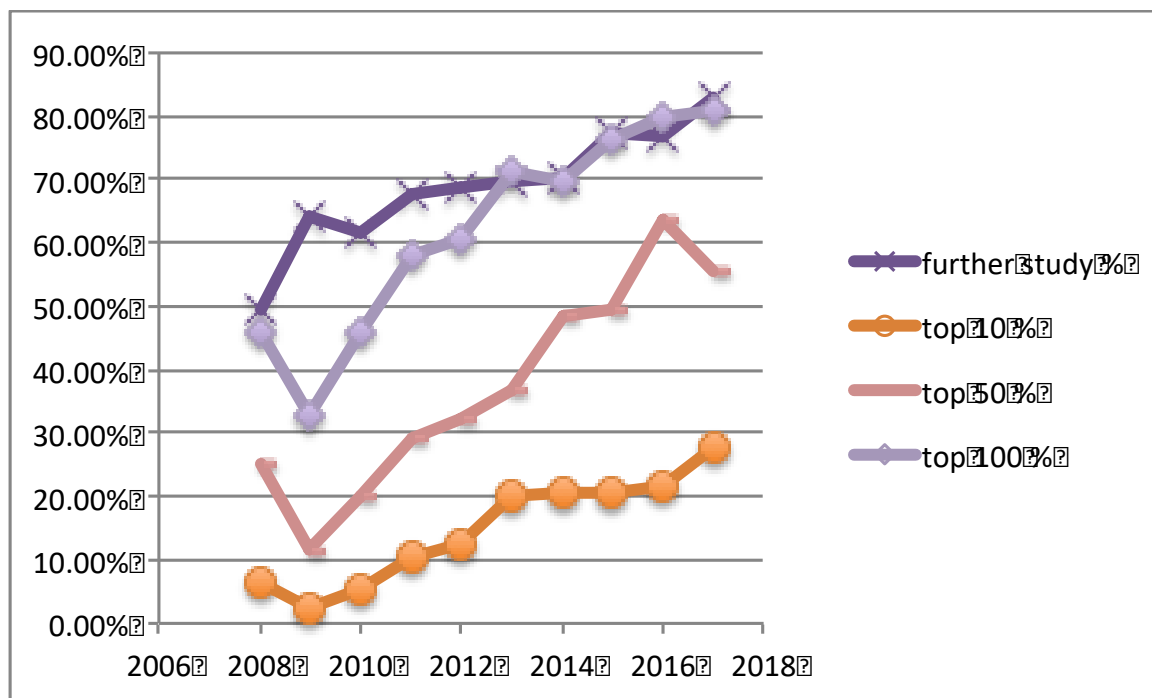
PhD employment rate is 100%







# Further study by UNNC Students *ref QS top 100*



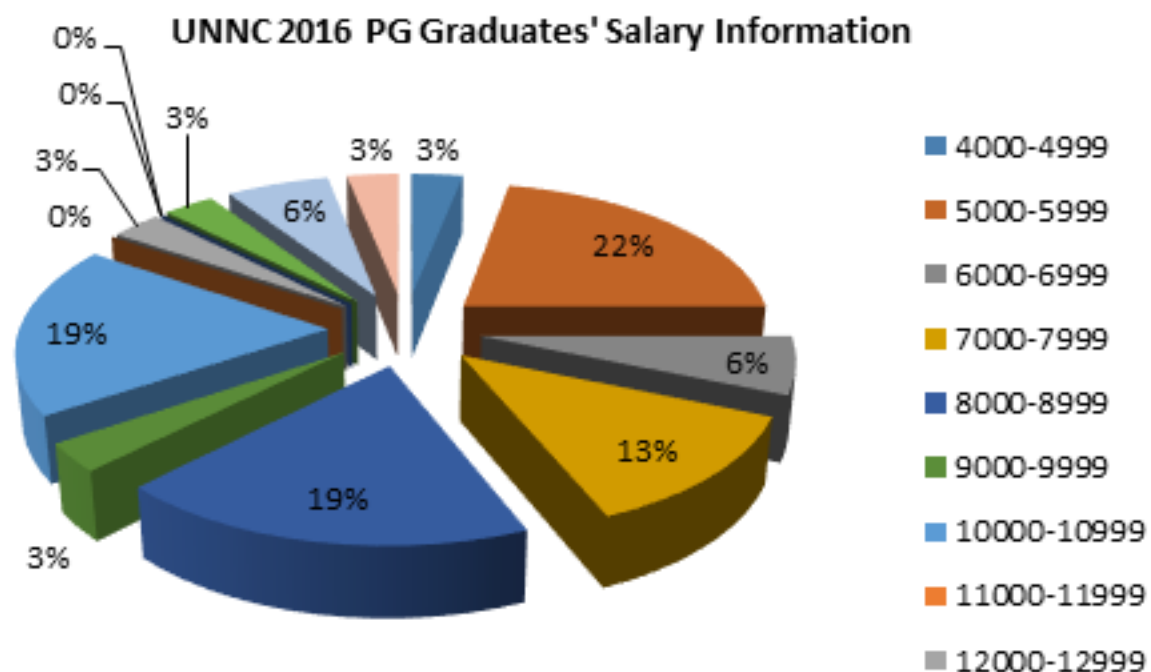
- The vast majority of UNNC graduates go overseas for further study
- Most of these attend World Top 50 Universities

University	enrollment number	17/18 QS rank
Stanford University	2	2
University of Cambridge	3	5
University of Oxford	4	6
University College London (UCL)	164	7
Imperial College London	99	8
Swiss Federal Institute of Technology Zurich	3	10

Last year's Top 10 destinations



# Graduate Pay Survey



Mean 2016 Graduate starting salary (Domestic Chinese employment) : RMB 4765 /month

UNNC Graduate starting salary RMB 9510 /month



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9 PDM students have received 10 awards from IDA (International Design Award, U.S.) and European Product Design Award in 2018.



Our alumnus CHEN Yeting, International communications, interpreted for former president of Peru.

PhD student XIE Linjun receives award from German government.



UNNC alumni Belle Chen and Abubakar Sadiq Mohammed Falalu were named in Forbes 30 under-30 lists of China / Africa in 2018 who are recognised as promising young entrepreneurs.





Life cycle fundraising to encourage education equity



Tri-campus games and arts festival



Students second in SIFE World Cup, beating out the national champions of 38 other countries with a presentation and annual report on their community outreach projects



# University experience



Over 100 student-run clubs and societies







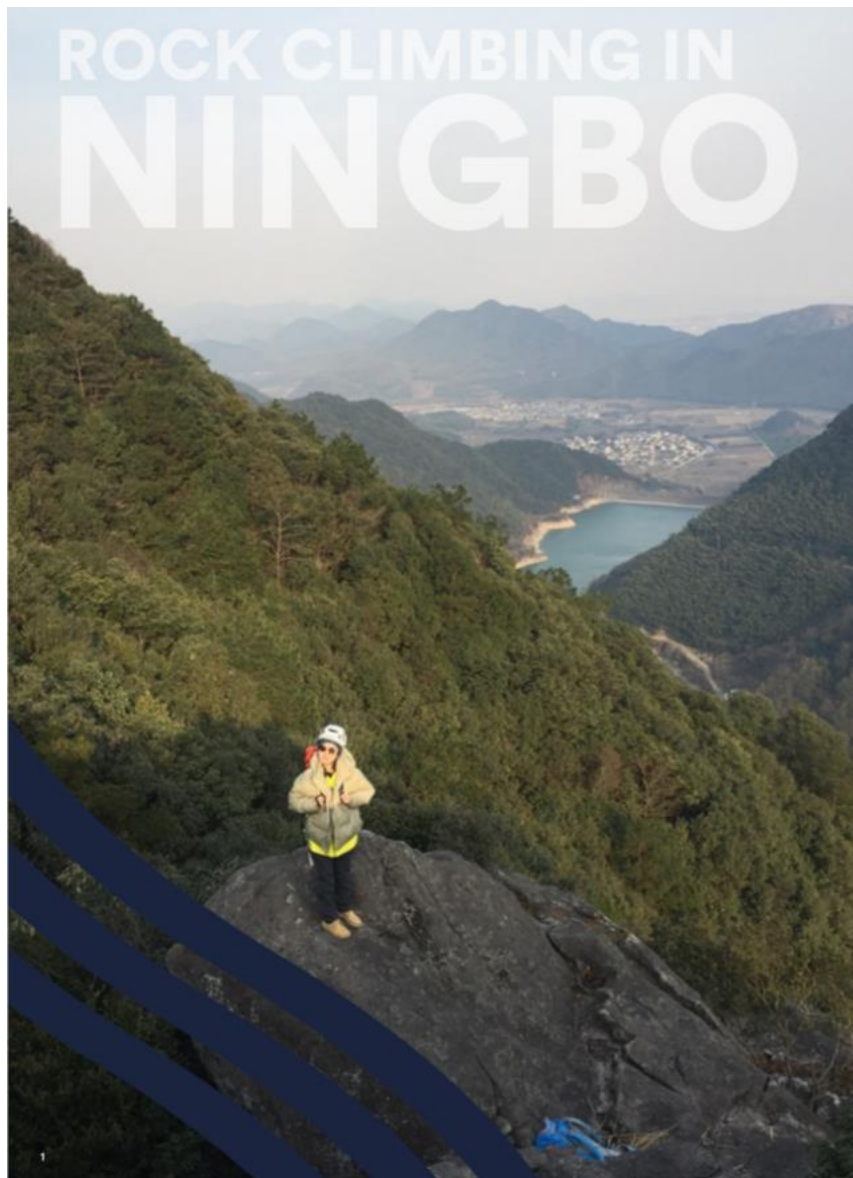
Dec 25<sup>th</sup> 2016







# Ningbo's first Rock Climbing Guidebook 2018!



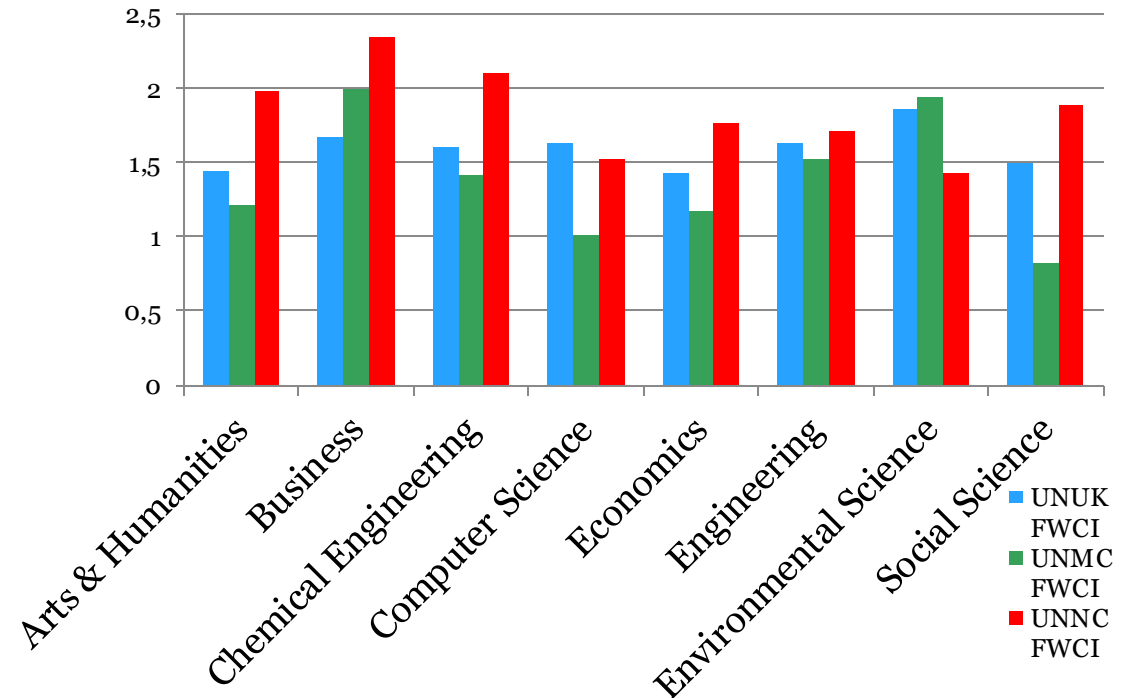
## 宁波自然岩壁路书 Rock Climbing in Ningbo

声明 Disclaimer:	xx
宁波自然岩壁开发背景 Earlier Developments around Ningbo	xx
宁波岩壁开线者介绍 The Pioneers	xx
感谢 Acknowledgements	xx
宁波岩壁汇总表 Summary of Climbing Areas	xx
宁波岩壁分布图 Overview Map	xx
宁波自然岩壁使用建议 Safety Advice	xx
岩场名称：西岙岩场 Xi Ao Valley (Fenghua)	xx
岩场名称：狮子山岩壁 Lion Cliff	xx
岩场名称：商量岗岩壁 Shāngliáng Gang Cliff	xx
岩场名称：三十六湾村小岩壁 Xiaoyanbi, Sanliuwan Village (East Cliff)	xx
岩场名称：三十六湾村大岩壁 Sanshi Liuwan Cun West Cliff (the Big One!)	xx
岩壁名称：珠山尖岩壁 Zhushan Cliff	xx
珠山尖抱石 Zhushan Boulder Field	xx





- UNNC Faculty are recruited on the basis of research excellence and provided with resources to realise their full potential.
- Graduate School manages research training environment
- Promotions are based on combined research and teaching portfolio
- Foreign faculty are supported by local staff in grant writing for Chinese agencies
- Overall research environment is relatively good although UNNC treated as private University by MoE







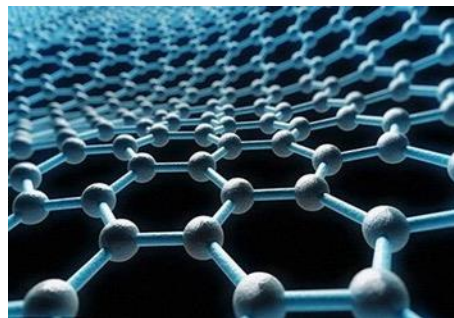
# Strategic Research Platforms

**AHRC Centre for Digital  
Copyright and IP Research**



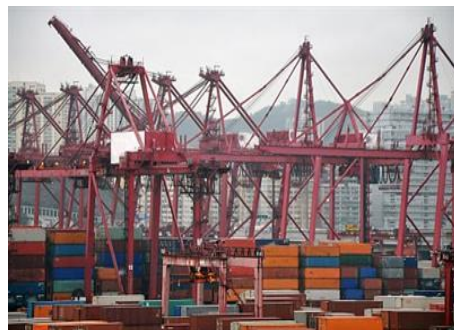
**Institute of Aerospace  
Technology China**

**The University of Nottingham  
Ningbo New Materials Institute  
(NMI)**



**PBOC Ningbo Inclusive  
Finance Research Centre  
(IFRC)**

**International Academy for Marine  
Economy and Technology  
(IAMET)**



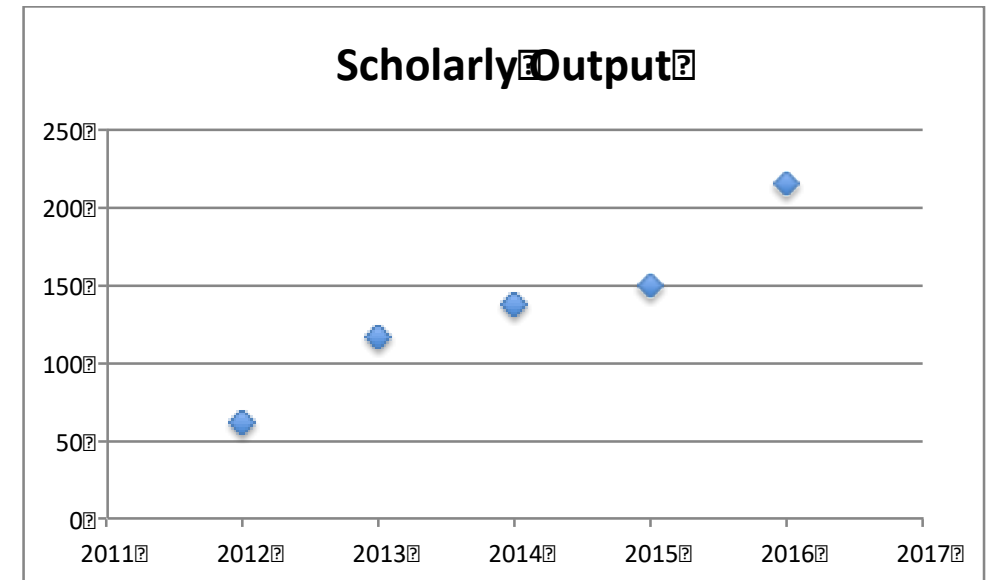
**Yuyao Electrification  
Centre**





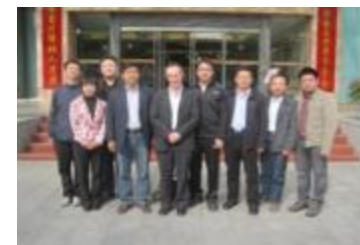
# UNNC Research Metrics 2017

- Research Awards 16/17 RMB 112.5M (up 51%)
- Industry is around 30% of total – joint centres with AVIC and COMAC
- Papers in top 10% journals 15.5% (UNUK is 19.5%)
- 27 patent filings registered in 2017
- Registered PhD students: about 440 (18/19)
- PhD quota raised in 2017 from 75 to 225 p.a.
- Joint PhD centres launched with several CAS Institutes





# Partnerships with China Business





# Shanghai Ranking Metrics

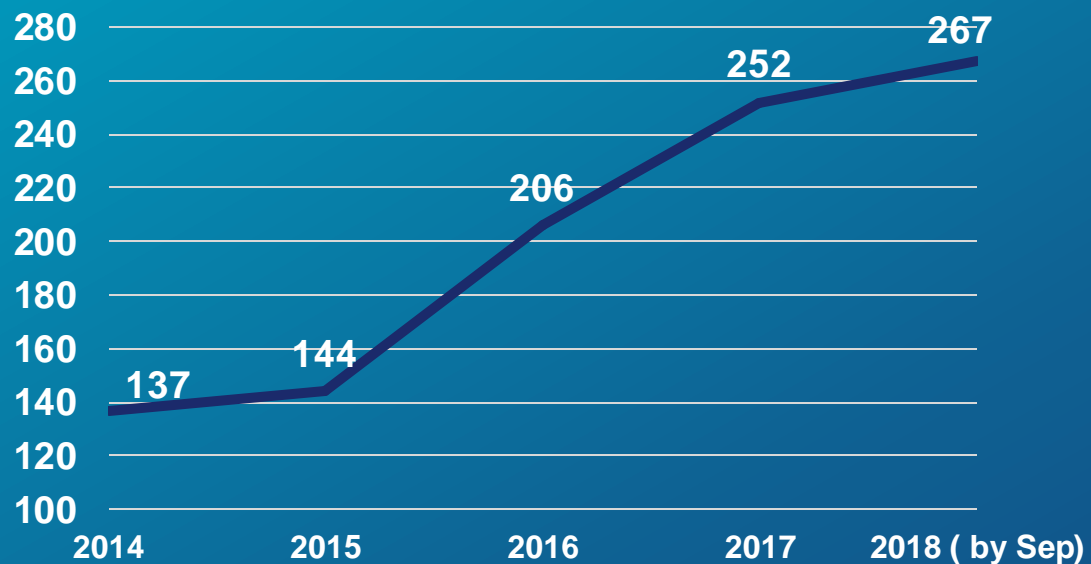
- Chinese consumer behaviour heavily influenced by ranking tables
- ***Shanghai ranking methodology favours sino-foreign Universities due to emphasis on quality rather than volume indicators as well as internationalisation***

Gaokao score (Ranking among peers)	30%
% of UG employment	10%
Annual Income of Education Foundation (audited and reported)	5%
No. of 5Y publications in Scival	10%
Field-weighted citation impact	10%
% of publication among top 1% cited	10%
No. of top cited scholars	10%
income of research funding (horizontal only)	5%
Income from technology transfer, eg. IP transfer	5%
% of international student	5%

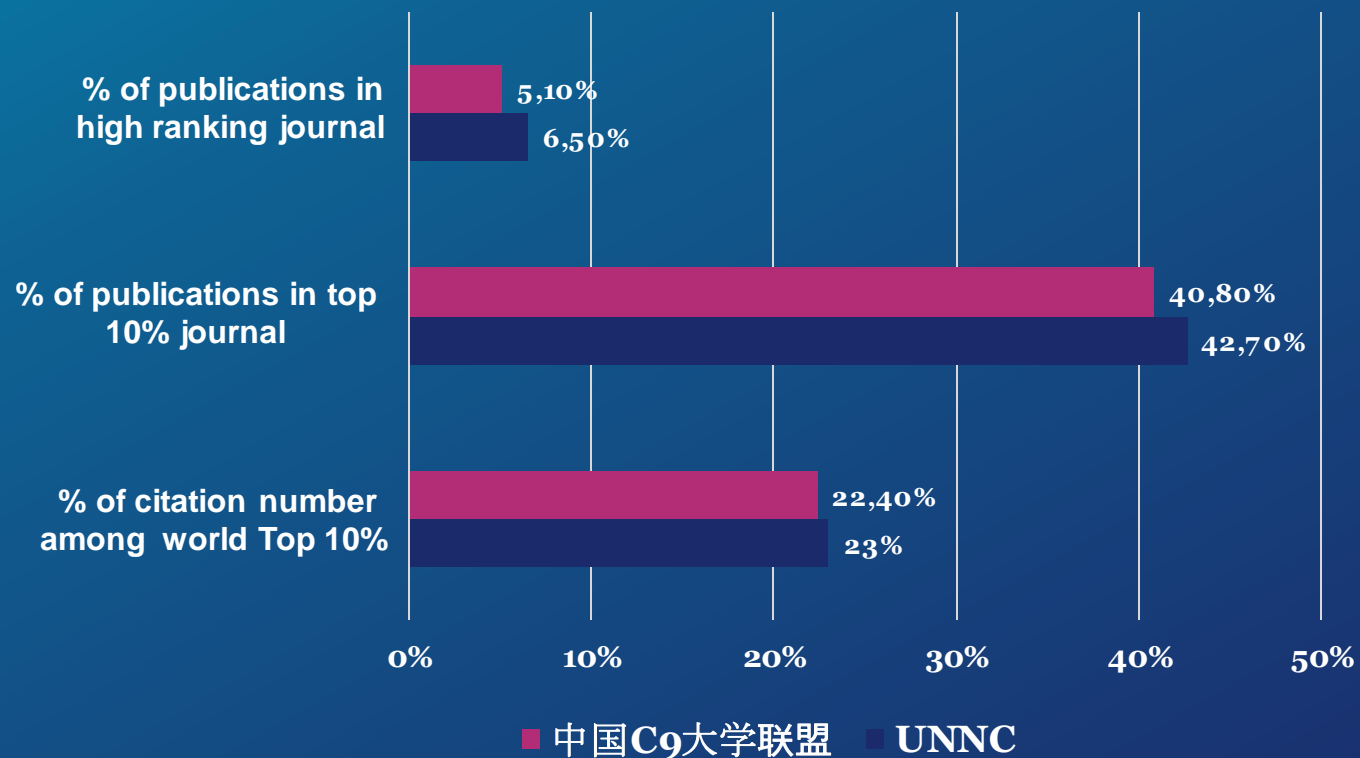


# Publications

## Publication outputs

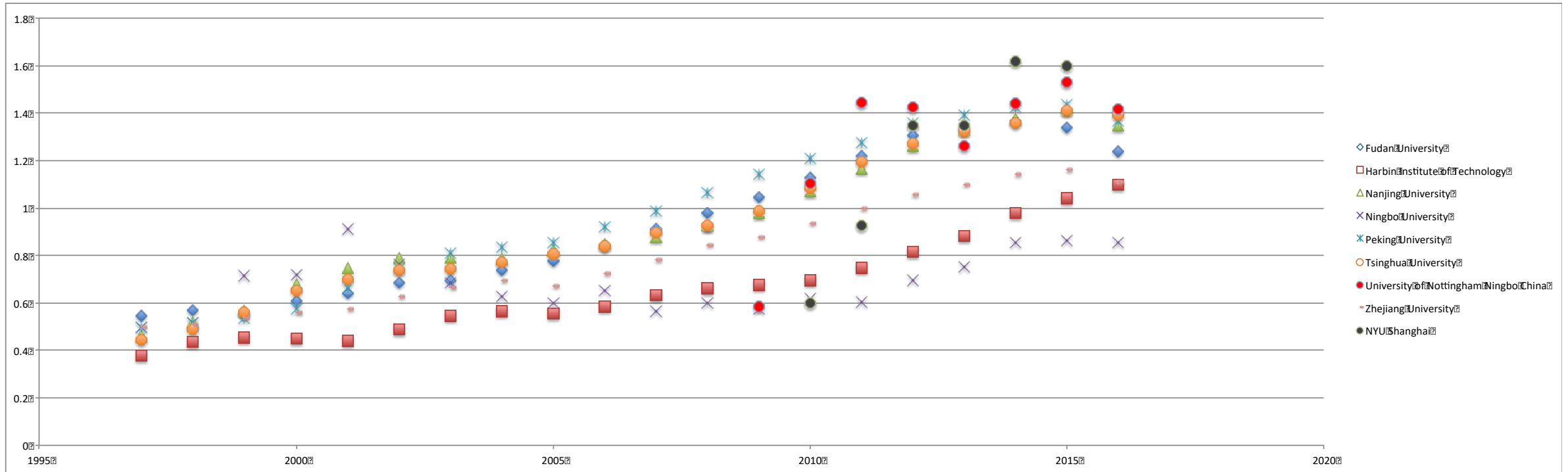


## Quality of academic papers (2017)





# Research Impact – China's top Universities



*Chinese Universities are improving performance as they publish increasingly in international journals  
UNNC and NYU Shanghai have high research impact largely because of international collaboration*



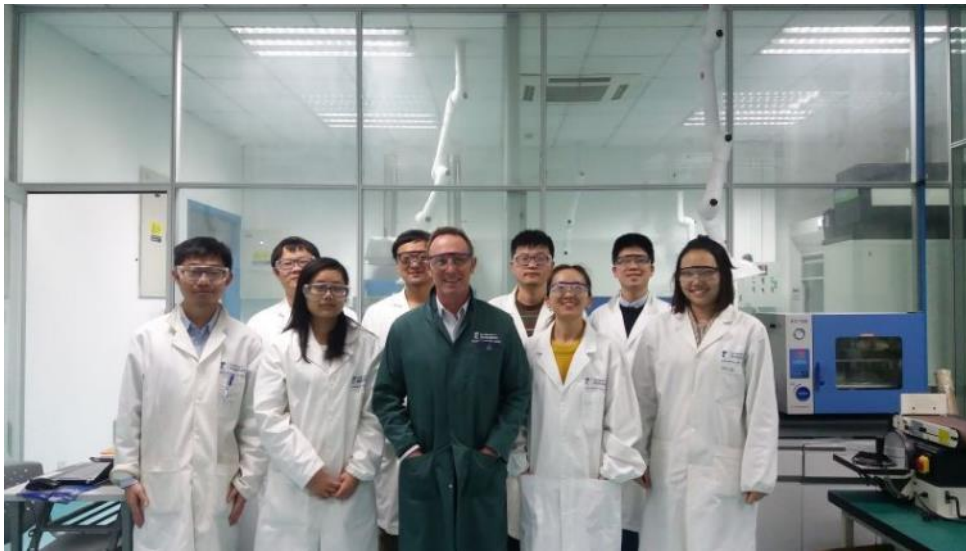
- World leading research centre in Power electronics and Electrical Machine
- Located in Nottingham UK and Ningbo China
  - In total 125 members and \$40M active projects
  - Around 30 team members and over ¥43.11M research funding in Ningbo
  - Ningbo team led by Prof Chris Gerada
- Extensive lab and prototyping facilities
- Arguably the largest group in the field world wide.
  - Power Electronics
  - Electrical Machines
  - Electrical Drives
  - Integration
- Offsite “Electrification Centre” for commercialization of new drive solutions.





# Polymer Composites Research Group

- Chaired by Professor Chris Rudd, Professor of Mechanical Engineering, Pro-Vice-Chancellor of UoN and Provost of UNNC
- 20 team members and over ¥26M research funding in Ningbo
- Awarded as Ningbo 3315 Innovation Team
- Joint laboratory award with AVIC Composites Corporation and several international supply companies



## Recruitment of high-level scholars to drive forward high-level disciplines

In 2017, UNNC recruited **10** high-level scholars **in the key disciplines** respectively from

- **Material Science**
- **Engineering**
- **Health Economics etc.**

	2015	2016	2017*
No. of <b>FULL</b> Professors	<b>20</b>	<b>26</b>	<b>44</b>

\*Data till 30th Nov 2017



Dr Li Dak Sum





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In December 2016, UNNC launched Li Dak Sum Chair Professor Scheme to recruit 20 world-leading chair professors in 10 key research fields.

By end of May 2018, 25 Chair Professors have been recruited.

Faculty of Science and Engineering  
A Guide For International Students

Chair Professors

## Meet our Chair Professors

### Li Dak Sum Chair Professors

The Faculty of Science and Engineering is a host for 14 Li Dak Sum Chair Professors, appointed across a range of key research areas, including Marine Economics, New Materials and business innovation. The Chair Professors are the world leading scientists and researchers supporting the University a key initiative towards advancing the teaching, research, knowledge exchange and global engagement.

**Professor Mike George**  
Li Dak Sum Chair Professor  
in Chemistry

**Professor Nicholas Warrior**  
Li Dak Sum Chair Professor in  
Light-weight Structure

**Professor Jim Greer**  
Li Dak Sum Chair Professor in Advanced  
Electronic Materials and Devices

**Professor Pat Wheeler**  
Li Dak Sum Chair Professor in  
Electrical Engineering and Aerospace

**Professor Ping Cui**  
Li Dak Sum Chair Professor in  
Advanced Materials

**Professor Serhiy Bozhko**  
Li Dak Sum Chair Professor in  
Aircraft Systems Modelling and Design

**Professor Thomas Meersmann**  
Li Dak Sum Chair Professor in  
Translational Imaging

**Professor Vladimir Brusic**  
Li Dak Sum Chair Professor in  
Computer Science

**Professor Xiaosu Yi**  
Li Dak Sum Chair Professor in  
Advanced Materials and Composites

**Professor Yuying Yan**  
Li Dak Sum Chair Professor in  
Thermofluid Engineering

**Professor Dragos Axinte**  
Li Dak Sum Chair Professor in  
Manufacturing Engineering

**Professor Guang Zhu**  
Li Dak Sum Chair Professor in  
Nanomaterials and Devices

**Professor Adam Clare**  
Li Dak Sum Chair Professor in  
Additive Manufacturing

**Professor George Chen**  
Li Dak Sum Chair Professor in  
Electrochemical Technologies



# Nottingham's role in Belt and Road

- Talent training for China outbound businesses
  - 2000+ graduates from UNNC each year
  - Around 1000 senior managers trained for China outbound companies – AVIC, CRRC, CRG etc
- Use of international resources in UNNC to connect with Belt and Road countries
- International innovation!







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# UNNC Incubator







- Opened Sept. 2017
- 25 Student and Graduate Start-ups
- Technology Spin-out Centre
- Executive Leadership Centre
- International tech transfer
- Twinning arrangements with Biocity Nottingham and University of Nottingham Innovation Park
- UK-China-India Innovation Corridor







# Case Study - China-Britain FC

- Established in 2016 by 2 UNNC Alumni
- Brokerage of International Soccer Club partnerships in mainland China
- Soccer Training camp provider in China
- Coordinator for Soccer Academy Tours in UK
- Joint tenancies in Nottingham (UK) and Nottingham (Ningbo) Incubators
- Winners *Ingenuity 2018*

China-Britain FC was set up to connect the UK and China through football. Building on the UK-China Golden Era and people-to-people dialogue, China-Britain FC is focused on connecting the players, clubs and organisations of both countries for mutual benefit.

中英足球中心旨在搭建中英足球文化的桥梁。在中英黄金时代和人文交流的基础上，中英足球中心专注于将两国的球员、俱乐部和组织联系起来，以实现互利共赢。

China-Britain FC is developing programmes which sees the UK supporting China in becoming a world-class footballing nation by delivering outreach programmes, academy tours and summer camps.

中英足球中心一直致力于开发活动，其中包括外展计划、学院参观及夏令营项目，以支持中国成为世界足球强国。

Nottingham Forest are keen to build on the Ningbo-Nottingham special city relationship, and the Zhejiang-Nottinghamshire relationship to explore how the club can support local clubs, schools and organisations develop a love for football.

诺丁汉森林队渴望搭建宁波-诺丁汉的特殊城市关系和浙江-诺丁汉郡的关系，以探索应当如何支持当地的俱乐部、学校和组织并发展他们对足球的热爱。

China-Britain FC is a registered business in the UK and in China (英传体育发展(宁波)有限公司).





# Benefits to Stakeholders

- **UoNottingham**

- Revenue
- Reputation
- Talent
- Research and KE expansion

- **Nottingham City**

- Inward investment
- Healthcare and Education partnerships
- Tourism



- **Ningbo City**

- Internationalisation
- Talent introduction
- Urban Regeneration
- Educational reform

- **Families**

- Springboard to overseas study at top GS
- Graduate Earnings
- High wealth networks
- Inspiring peer group



## Opportunities

- Enhanced access to domestic UG market in the west
- Research collaboration opportunities
  - Other Universities
  - Government
  - Local Industry
- Access to talent pool

## Challenges

- Maintaining stakeholder engagement
- Maintaining quality on limited resources
- Management stretch and institutional culture
- International talent and turnover
- International recruitment
- Governance arrangements
- Brand protection
- Student welfare
- Income diversification
- Restriction of academic materials



# Inter-campus activities

- Important for professional development, student experience and institution building
- Secondments – around 15 senior faculty and administrators in China are seconded from UNUK.
- Split appointments – around 12 joint chairs
- Travelling fellowships for admin staff
- 2+2 UG transfers – around 250 p.a.
- Exchange out places – around 400 p.a.
- Inter-campus PhD projects
- Tri-campus activities
  - Tri-campus games
  - Tri-campus arts festival
  - Tri—campus teaching and learning conference

