



UNIVERSITY OF  
BIRMINGHAM

INDIA INSTITUTE

# UNIVERSITY OF BIRMINGHAM INDIA INSTITUTE

---

## ANNUAL REPORT



2019

# WELCOME



*Pro-Vice-Chancellor (International)  
Professor Robin Mason.*

The University of Birmingham established its India Institute in January 2018 with ambitions to be a focal point for our interaction with India. At that point, we set out a vision to forge new connections and create a support network for academics to build meaningful education and research partnerships in India. Indian students have been studying in Birmingham since 1909, but the purpose of the Institute was to recognise the importance of a coherent and impactful way to pull together the many ways we engage with India.

This first Annual Report affords us the opportunity to reflect on the progress made. We see increased levels of meaningful engagement with research opportunities whereby University of Birmingham researchers and Indian partners collaborate to tackle challenges in areas such as health, transport and the environment. Through our India Institute Fellowship scheme, we have welcomed exceptional researchers from our partners to our campus in Birmingham, and we have delivered high profile cultural events to celebrate the anniversary of the birth of Gandhi and Guru Nanak, and the influence of India on our institution more generally. We have also moved to establish a permanent University of Birmingham office in Delhi, a long-term investment reflecting the importance we place on our work in India, and through which we will continue to engage with local partners and stakeholders and further increase our impact and visibility.

We must acknowledge the significant contributions made by academic and professional services colleagues from across the institution, and in particular our Chancellor, Lord Karan Bilimoria, the first Indian born Chancellor of a British university. We must also acknowledge partners, stakeholders and friends from outside the institution including the Indian High Commission, and particularly the Consulate General of India, Birmingham for their unwavering support and expertise.

Whilst taking this opportunity to look back on a year of exceptional achievement, we are firmly to the future with a number of new and very exciting projects that will go even further towards ensuring we continue to deliver against the ambitious vision we set ourselves when we launched the institute.

#### **Robin Mason**

Pro-Vice-Chancellor (International)  
Director of the India Institute

## CONTENTS:

2 **Welcome**

3 **Year in Review**

4 **Key Research Projects**

10 **Education**

12 **Fellowship Scheme**

13 **Culture and Events**

# YEAR IN REVIEW

15 

India Institute Fellows  
since May 2018

4 

key international  
conferences

1,378 

Twitter followers

3 

new members  
of staff

5 

major events  
on campus

25 

outgoing visits  
to India

1 

major award  
announcement

15 

academic  
workshops

40+ 

joint research  
projects

16,000+

incoming visitors  
for Indian events

7 high level

including 5 Ministerial  
and Ambassador level  
VIP incoming visits

4 times

of Birmingham average;  
9 times of world average  
joint publication cited

International media  
coverage reach:

658 million  
potential views

International media  
publications:

975 articles

Advertising Value  
Equivalent (AVE):

£7.59 million

Indian student number:

37% up in 2018    54% up in 2019

External research income:

15% increase  
from 2017–18

Collaborative research output:

almost 50%  
increase in the past 5 years

# KEY RESEARCH PROJECTS

The University of Birmingham's collaborative research output with India partners has grown by almost 50% over the last 5 years. We currently have over 40 joint research projects. And the quality of the joint work is outstanding: the joint publications are cited over four times as much as Birmingham's overall average, and almost nine times the world average. These joint projects are making a significant impact on many global challenges that the UK and India face. Read more of our research stories below:



## CLEAN WATER

### How to use new water technology to benefit India?

Between 2019–23, the University of Birmingham will coordinate: INDIA H2O, a consortium involving 20 partners from the EU and India. This project is funded by the Horizon 2020 programme and by the Department of Biotechnology (DBT), Government of India.

Our leading Professor of Water Technology, Philip Davies, who won the Green Gown 'Research with Impact' Award, in recognition to his work on cooling and desalination technologies, is collaborating with key partners in India to deliver an innovative project addressing critical water shortages in many rural parts of the country. 'India H2O' is developing new technologies to make it possible to reuse water that is too contaminated to drink untreated and is maximising the impact of research to benefit rural communities across India.



A centre of excellence will be established in water treatment membrane technologies, design operation and monitoring. Activities such as supply chain mapping and EU – India collaboration on developing industrial scale forward osmosis membranes and batch-RO systems will support the development of business models to exploit the developed solutions to mutual EU-India economic advantage.

## PLASTIC RIVERS

### What is the impact of plastic waste on the Ganges's ecosystem and public health?

Almost 5 billion tonnes of mismanaged waste that have been discarded into the environment over the last century, and now it is time to investigate the impacts of the plastic waste on the water's ecosystem functioning and public health.

Professor Stefan Krause, professor of Ecohydrology and Biogeochemistry, leads 'The 100 Plastic Rivers Programme' project at Birmingham to work with UK and international partners, pioneering whole river network-wide plastic sampling in large river networks. The first campaign at the River Ganges in India – one of the most polluted rivers in the world; commenced in November 2019. Other large Asian rivers will be analysed for plastic pollution hotspots and hot moments in 2020. The study will provide unique insights into what types of plastics are accumulating in river networks and how they are changing along their environmental passage.



## CLEAN COOLING

### How can we deliver clean cooling in India in a sustainable way?

Cooling is at the heart of safety, resilience and economic advancement of the society. It materially impacts people's lives in countries like India. Technology alone will not resolve the problem. The challenge is how to embed a holistic approach to establish a clean cold chain sustainably. The University of Birmingham is a global leader in clean cooling and we are committed to making a significant contribution to Indian society. The University signed an agreement with the State of Government of Haryana to collaboratively develop centres for clean cold chains that will help to map out a blueprint and delivery plan for 'clean cold' in India. Key Activities in 2018–19 include: Clean Cooling joint workshops with the UK government's Department of International Trade (DIT) Chandigarh and Delhi (September 2018); Clean Cooling workshop with the Shakti Foundation, an Indian energy private funder, Delhi (February 2019), and 2nd Clean Cooling Congress in collaboration with BEIS, London (April 2019).



*Professor Francis Pope with air pollution workshop delegates 2019*



An international conference held in Delhi in March 2019, brought together international experts, and called for air quality metrics to be incorporated into several of the 17 UN Sustainable Development Goals, most notably SDG3 – Good Health and Well-being.

It also called for access to clean air to be considered as a basic human right, and a special scoping study was launched which highlights the health threat to an estimated 46,000 or more people living and working on the streets of Delhi.

## AIR POLLUTION

### How can a systems approach to research help protect India from air pollution?

With air pollution levels up to 30 times greater than in the UK at times, leading researchers from the University of Birmingham are working across disciplines to help resolve the health, social and economic problems associated with air pollution. We work with the Indian Institute of Technology Delhi (IIT Delhi) to determine the sources and processes responsible. We are taking a systems approach to develop options to mitigate air pollution. This will allow us to assess the likely effectiveness of changes in behaviour – for example, odd/even number plate traffic bans – to improve air quality.

'Air pollution kills millions and costs the world economy billions – tackling the problem is not just a technical issue, but a social-economic and social-political challenge that requires a new approach' comments Professor Francis Pope, Professor of Atmospheric Science at Birmingham, 'By adopting a systems approach, we can help to resolve health, social and economic problems associated with air pollution in Delhi and other similarly polluted regions. This type of pollution is more than just a health risk; it slows countries' development, diminishes the quality of life and reduces people's incomes.'

Due to the extensive research and alarming findings from the study, this motion has now been picked up and is being lobbied by Indian MPs to create a nationwide social change to air pollution.

## RAILWAY

### How can we develop world-leading rail transportation through innovative education?

The University of Birmingham Centre for Railway Research and Education (BCRRE) is one of the largest in the world of around 200 academics and experts, specialising in digital systems, simulation and modelling, and providing education programmes for railway professionals. The University of Birmingham signed an agreement in 2019 with the National Rail and Transport Institute (NRTI), India's first institute for railway education, to form a partnership for capacity building and joint research. BCRRE will provide training to Indian railway engineers, and develop world-leading technologies to drive UK and Indian rail innovation.



*Professor Clive Roberts and Mr Viod Kumar Yadav, Chairman of Indian Railways, signed a MoU on 18 December 2019*



## RURAL ROAD MANAGEMENT

### How can we help India to improve rural connectivity and boost farmers' income?

Studies show that good road connectivity in rural areas has significant impact on growth and poverty. In 2019 the India Government announced ₹ 70,000-crore investment in road building project over the next five years, constructing over 125,000 kilometres of roads, linking villages with nearby market places to boost the rural economy.

The Linear Transport Research Group (LTRG) at the School of Civil Engineering at the University of Birmingham has great expertise in rural road technologies and management. LTRG have been engaging with Ministry of Rural Development (MoRD), and Ministry of Indian Railways, NITI Aayog – India government's think-tank, to carry out research and capacity building in the rural roads sector. Efforts are focused on setting up a Centre of Excellence in Rural Roads in India, and providing professional training programmes on rural roads for development to India senior managers, engineers and policy makers.

## WOMEN'S CANCER

### What are the factors causing the most common cancers in women in India?

Scientists and clinicians from Birmingham, India and Africa have been working together on a UK-India cohort study to examine the factors causing the three most common cancers in women of non-Caucasian ethnicity; breast, ovarian and uterine cancer. We are collaborating with Centres of Excellence in India to investigate how ethnic diversity has an impact on the prevalence of these cancers and to improve early detection. This study is led by Professor Sudha Sundar, a gynaecological cancer surgeon and a clinical academic who is the first female President of the British Gynaecological Cancer Society effective 2018. Professor Sundar has also recently been recognised by India Inc Group and one of the Top 100 most influential people in the UK-India relationship, as well as receiving a nomination for the GG2 Leadership Awards.



*Professor Sudha Sundar*



## GLOBAL SURGICAL RESEARCH

### How do counties like India solve the critical need for safe, affordable surgical care?

Studies show that globally more patients die after surgery than from HIV, TB and malaria combined, especially in low- and middle-income countries. The University of Birmingham's leading surgeons have been awarded £7 million by the National Institute for Health Research (NIHR) to establish a joint unit focused on driving surgical research in India and other countries. A global surgical research hub in Ludhiana, Punjab was established in 2019. By undertaking collaborative research and engaging the local surgical hospitals and community, our researchers are transforming the global access to safe and affordable surgery.



## SIKH STUDIES

### How do we encourage inter-faith harmony and community cohesion: the core values of Sri Guru Nanak Dev Ji?

The University of Birmingham specialises particularly in the field of interreligious relations, religion and development, religion and politics, and religion and peacebuilding, and has hosted a UNESCO Chair in Interfaith Studies and a Chair in Interreligious Relations. Birmingham was the first UK University to establish a lectureship in Sikh Studies and is the only Russell Group University to have a programme (MSc in Sikh Studies) in this field. Our prominent academic Dr Jagbir Jhutti-Johal, senior lecturer in Sikh Studies, was awarded the Order of the British Empire by Prince Charles of Wales in 2019 for her services to Higher Education, Faith Communities and the Voluntary Sector. Dr Jhutti-Johal is also a board member for the European Society for Intercultural Theology and Interreligious Studies and works with the British Sikh Report which presented the latest 2019 version to Prime Minister May in April, 2019 at Downing Street.

On 1 November 2019, during the University of Birmingham India Institute's Annual Guest Lecture, guest of honour Shri Minister Hardeep Singh Puri announced that the University had been selected to host the Chair in Sikh Studies for the United Kingdom with funding from the Universities Grants Commission, Government of India. This prestigious academic Chair will promote research into the life and philosophy of Sri Guru Nanak Dev Ji, the revered first Sikh Guru.



*Dr Jagbir Jhutti-Johal OBE, with the Archbishop of Canterbury and Bhai Sahib Dr Mohinder Singh Ahluwalia with delegates from Guru Nanak Sewak Jatha and the Church of England outside the Golden Temple, Amritsar*



*Dr Martin Toms and in-country Director Dipankar Chakraborty meeting delegates in India*

## SPORT SCIENCE AND PERFORMANCE

The Government of India has identified sport as an important area for growth in India, not only in terms of talent development and performance but also in respect of its impact on health, and as an element of the growing leisure industry. The University of Birmingham with its strength in sport, has been working with the Sports Authority of India (SAI) to help India for capacity building. The University has successfully run training programmes for SAI sponsored Indian coaches and athletes in our new Sport & Fitness centre, and will continue to provide aspiration to India for its ambition in its national sports development and competition for the forthcoming Tokyo 2020 Olympics and the Commonwealth Games 2022.

# EDUCATION

This University's relationship with India is a long one, beginning in 1909 with the first cohort of Indian students attending the University to study for degrees in Mining and Commerce. Since then, over 2,000 outstanding Indian students have graduated in the Great Hall of the University. The alumni network in India extends across the entire country and some of India's most distinguished and finest minds were educated at Birmingham, including Mr Ajit Kumar Seth, 30th Cabinet Secretary of the Republic of India; acclaimed writer and critic, the late Dr U R Ananthamurthy, recipient of the Jnanpith and Padma Bhushan awards.

We currently have over 280 Indian students studying undergraduate and postgraduate courses in a range of subjects, and each year we have between 30–40 students studying in India. We continue to attract more Indian students to come and study at Birmingham. In the past two years we've seen a significant increase of Indian student numbers: increase by 37% in 2018, compared to average 8% increase of Russell Group institutions, and a further 54% increase for new enrolments in 2019.



*International Development and International Relations postgraduate students outside of the Taj Mahal*

## UNIVERSITAS 21

### Intensive Delhi module

Through Universitas 21, a select number of University of Birmingham Political Science and International Development postgraduate students had the opportunity to study an intensive module on South Asian security concerns at the University of Delhi in January 2019, in partnership with the University of Melbourne, Australia. The week included lectures and seminars on contemporary South Asian security issues such as the Rohingya crisis, geopolitics, UNSCR1325 and environmental security. The week allows collaborative work and research between the three involved universities with teaching inputs from each respective university to diversify learning and approaches to the topics. Students were encouraged to discuss and critique different approaches to the issues and present security recommendations in groups at the end of the week with each group representing a different South Asian country.

## BIRMINGHAM INTERNATIONAL SUMMER SCHOOL (BISS)

### Indian Students join the Birmingham International Summer School (BISS)

During the summer of 2019, the University of Birmingham saw an uptake of Tata Institute of Social Sciences (TISS) students for the Birmingham International Summer School programme. BISS provided an opportunity for the Indian students to have their first experience of the University's high quality education and the British life and culture.



*Birmingham International Summer School students*



*Dental School students preparing the health packs for the volunteer trip to India*

## DENTAL STUDENTS

### Students volunteer dental services to underprivileged rural India

Ten dental students from the School of Dentistry volunteered with the charity Satya Samaj UK in 2019 to provide medical and dental aid to the underprivileged people of the Rishikesh and Himalayan region of India. The group worked with local doctors and dentists to look after more than 500 adults and children at a special five-day pop-up dental, diabetes and asthma health camp. The students provided an oral health check and tutorials to patients on how to clean their teeth and gums effectively to prevent diseases. As part of the programme each patient received a toothbrush, toothpaste, brushing instructions and diet advice.

# FELLOWSHIP SCHEME

The India Institute Fellowship programme is a strength of the University of Birmingham which distinguishes us from competitors; our fellowships provide a generous stipend and allowance. The fellowship gives the opportunity to Indian scholars to undertake joint research projects using University of Birmingham resources and expertise.

In academic year 2018–19, we welcomed ten outstanding Indian fellows to come to Birmingham and work with our academics on joint research projects. Many of them came from our Indian partners such as IIT Bombay, IIT Delhi, ICGEB Delhi, TERI School of Advanced Studies, Panjab University.

## *Women in Science*

PROMOTING GENDER EQUALITY, WOMEN LEADERSHIP AND EXCELLENCE

Women leaders and scientists are important for any society's progress and development, and yet various studies have shown there is a significant leadership diversity gap. Promoting equality and encouraging inclusive leadership in Higher Education, Business and Science will help organisations in these sectors to achieve greater prosperity. In 2018–19, 80 per cent of fellowships have been awarded to Indian women scientists and researchers. They have ranged from young researchers to senior scientists and professors employed in reputed private and public institutions.



# CULTURE AND EVENTS

Cultural events on our Edgbaston campus have played a key role in promoting Indian cultures and community engagements.

In 2018–19 we have worked alongside various organisations such as Sampad Arts and the Consulate General of India, Birmingham to create vivid and engaging cultural and academic events to spark insightful discussion and to celebrate Indian festivals.

## INTERNATIONAL DAY OF YOGA

June 2019

The India Institute was thrilled to be asked to participate in hosting the 5th International Day of Yoga on campus in June 2019, in partnership with the Consulate General of India, the Ministry of AYUSH, Incredible India. Hundreds of staff, students and community members took part in the first ever International Day of Yoga on our campus.



*Yoga participants on the University of Birmingham Green Heart in front of Old Joe*



*Dr Manu Sehgal, Mr Saurav Dutt, His Excellency Navdeep Suri, Lord Chancellor Bilimoria and Dr Andrew Davies leading the panel talk to the audience*

## CENTENARY OF THE JALLIANWALA BAGH MASSACRE

June 2019

For the centenary commemoration of the Jallianwala Bagh Massacre, we hosted the Indian Ambassador to the UAE, His Excellency Navdeep Suri at the launch of his translation of the book *Khooni Vaisakhi* from Punjabi into English; which was originally authored by his grandfather, Nanak Singh. The panel discussion was hosted by Chancellor Lord Bilimoria, with the guest of honour, author – Ambassador Suri, alongside Dr Manu Sehgal, Lecturer in History and Dr Andrew Davies, Director of the Edward Cadbury Centre. We were also thrilled to host Mr Saurav Dutt, novelist and political columnist.



*The Guru Nanak celebrations starting on campus with a religious procession through the University of Birmingham's Green Heart with the holy scriptures*

## GURU NANAK 550TH ANNIVERSARY CELEBRATIONS

### August 2019

We are fortunate to have such a large and engaged local Sikh community here in Birmingham. Working closely with the Guru Nanak Nishkam Sewak Jatha (GNNSJ), the University hosted five days of celebration to mark the 550th birth anniversary of Guru Nanak Dev Ji. In this truly unique event, the campus welcomed over 15,000 visitors over the five days: Sikhs and non-Sikhs from the region, and with some travelling from India and Kenya. The five days included continuous prayer recital, educational symposia, exhibitions, inter-faith dialogue, activities for children and young people, and Langar. We were the first University in the UK to host such celebrations, which attracted a lot of positive media coverage from ITV Central, BBC WM, BBC Radio 4, Sangat TV, Asian networks and YouTube live streaming.

## SPIRIT OF DIWALI

### October 2019

During October 2019 we introduced our Spirit of Diwali celebrations to the University. This involved a series of celebratory events including the official launch of Barber Institute of Fine Arts exhibition: *The Mughals: Power and Beauty* at the Indian Court.

A family friendly rangoli takeover encouraged our students and staff to take a break and to try something new.

Our celebrations finished with a spectacular Spirit of Diwali concert, curated by Sampad Arts. The concert was open to our local community and celebrated a range of Indian cultural performances such as karthaks, bharatnatyams, Bollywood dancing and Indian fusion music.



*University of Birmingham students using art materials to make rangoli designs*



*Consul General Dr Aman Puri and Professor Helen Abbott celebrate Diwali performance with Sampad Arts dancers and Piali Ray, OBE*



*Professor Robin Mason welcomes Ambassador Dr S Jaishankar, Mrs Kyoko Jaishankar and India Consul General Dr Aman Puri to the University of Birmingham*

## DISTINGUISHED GUEST LECTURE

In late 2018 our inaugural Distinguished Guest Lecture was hosted by Chancellor Lord Bilimoria. We were delighted that our first Distinguished Lecture was delivered by Dr S Jaishankar, former Foreign Secretary of India, former High Commissioner and Ambassador to Singapore, China, and the United States, and now Minister of External Affairs in the Government of India. Dr S Jaishankar delivered a lecture on 'What India means to the West'.

## ANNUAL GUEST LECTURE SERIES





On 1 November 2019, we held an invited-audience dinner hosted by Lord Bilimoria for 350 distinguished guests in the University of Birmingham's Great Hall. Our guest of honour for this event was Minister Hardeep Singh Puri, Civil Aviation Minister of India and Ministry of Housing and Urban Affairs in India. Minister Puri spoke on Guru Nanak and interfaith as well as unveiling the University of Birmingham as the host for the UK Guru Nanak Chair funded by the University Grants Commission of India.



*Honourable Union Minister of India, Shri Hardeep Singh Puri and Consul General of India in Birmingham, Dr Aman Puri with a portrait of Sri Guru Nanak Dev Ji*

## CONNECT WITH US!

India Institute  
Birmingham Global  
University of Birmingham  
Edgbaston, B15 2TT

 @UOB\_India
  @UOB\_India  
 uobindia@contacts.bham.ac.uk  
 www.birmingham.ac.uk/indiainstitute



UNIVERSITY OF BIRMINGHAM

Edgbaston, Birmingham,  
B15 2TT, United Kingdom  
[www.birmingham.ac.uk](http://www.birmingham.ac.uk)



Designed and printed by

UNIVERSITY OF BIRMINGHAM | **creativemedia**