International Update

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Contents

Director Membership report................................................ 2-4
New ICE Representatives..................5-8
Brunel International Lecture............. 8-9
Africa, Middle East and Americas
News..........................................................9-11
Asia Pacific News......................... 11-20
General News.................................20-25
**Director Membership’s welcome**

Dear Colleagues,

I write to you at the end of an episodic year within the Membership Division; a year which has seen the Director post ably mentored by the Director General himself as well as John Laverty supported by colleagues from across the globe. With the year drawing to an end, we are beginning to close with some of the personnel challenges we currently face and hope by spring next year to be fully manned and ready for the challenges that lie ahead.

David Lloyd-Roach departed for pastures new soon after writing this newsletter last year and recruiting for a replacement began soon afterwards. I applied for the post in March but was delayed arriving in London due to being embroiled in the Nepal earthquakes and reconstruction efforts thereafter. I finally arrived in the Institution in August and have undergone something of a baptism of fire having visited all UK regions (less Wales which I will seek to rectify in the New Year), Hong Kong, Beijing and Oman. With the Institution in August and have undergone something of a baptism of fire having visited all UK regions (less Wales which I will seek to rectify in the New Year), Hong Kong, Beijing and Oman. With the Institution approaching a seminal point in its history, I feel that I have joined a vibrant, forward-leaning and exciting organization and one benefitting from having 86,000 expert professionals as part of the team.

Soon after arriving in the Institution I was privileged to attend Sir John Armitt’s inaugural address to members. The speech was inspirational as it focused on innovation and creativity in our profession. I sent the link to international members the following morning, but, for those who missed it, Sir John’s address can be found at: https://www.ice.org.uk/eventarchive/presidential-address-2015. For those who are keen to see civil engineering lead the built environment and who seek something of a renaissance in the profession, you would do well to listen to his words again. As for Sir John, he intends visiting as many of the overseas membership as possible and, at the time of writing, his programme for 2016 already includes China, Hong Kong, Trinidad and Tobago and Australia.

As many of you will be aware, the past year has been one of flux in terms of ICE personnel. At the beginning of the year three new teams were formed within the membership division – Education & Inspiration, Qualifications and Professionalism. The teams were formed in order to better align staff output with the ICE Business Plan. Penelope McNeile, who headed up the newly formed Professionalism strand, left just before I arrived in the summer. Her team was assimilated into Susan Clements’ Qualifications team. In order to absorb the staff and role, Susan thereafter restructured her own team to include Professionalism as part of the offer. It is hoped that members will be better served by London once these changes have had time to bed in. These changes are further expanded on later in this newsletter, but it is of note that the restructure led to Mike Rogers, who had worked tirelessly for the
Institution for some six years, leaving the Institution at the end of September. I know from various conversations that many of you knew him well and will miss his knowledge, wisdom and easy manner. We all wish Mike well in his future endeavours.

The International team is currently depleted in terms of numbers. Brian da Cal left the Institution on promotion and now works for Four Paws, an animal charity in London. Kathryn Miller, Area Manager for Asia Pacific, who had been on maternity leave has decided to place family before career and will not be returning to work. I am sure that you will join me in wishing both Brian and Kathryn well for the future. Fortunately, we still have the talented stalwarts in the forms of Melissa Zanocco, Allyson Lewis, Renee Reilly and Irene Lopez. Sadly absent from this pantheon of worthies is Ruth Dennett, Head of International, who has been unwell for several months. We hope that Ruth is able to re-join us in the New Year and wish her a speedy recovery. For those working hard to cover the gaps, I would like to take this opportunity to thank them all for what has been a first class performance during trying times.

I said that I would return to the reorganisation of Qualifications and International. Certainly, it is one of the more profound changes that has taken place this year. Based upon feedback from the membership, external stakeholders and indeed ICE staff, the reorganisation seeks to ensure that the London-based team is better able to respond to the needs of members and has the capacity to provide the right level of support to those new members that will join in the months ahead.

Staff administering the qualifications process have been combined and now form two teams; each comprising a number of specialist staff who in turn are supported by a team of qualifications administrators, who are able to undertake a range of tasks depending upon demand. This arrangement will allow for greater flexibility and an ability to reinforce across the department according to the fluctuating demands of the various work streams.

The Education Learning and Assessment Team led by Ellen Ryan will include an AQP specialist (Kreepa Sharma), a JBM specialist (Chrissie Goan) and a Membership Assessment specialist, yet to be recruited but who will be responsible for career appraisals and new member assessments. In parallel, we have created the Profession Development and Admissions Team. Led by Sheila Billett, this team will include a Technician Review and TRR specialist (Shetal Khetani) and two new posts due to be filled by spring next year. These will include an IPD specialist (responsible for training schemes and mentor supported training) and a Reviews and Recognitions specialist (responsible for CPR and MPR reviews and exemptions and recognitions).

The assimilation of Professionalism into the department has led to the creation of a Professionalism Manager post, which will lead on all professionalism processes including CPD, Fellowship, Specialist Registers, and the ICE mentoring scheme. The new role of Qualifications Development Manager will see the Division better placed to deliver a digitised qualifications and professionalism process. The incumbent will manage our web and guidance document content ensuring that it remains current and relevant. With Rebecca Webster newly arrived in the department (Recognitions
Policy Manager), these changes will provide a more customer-focused service. The final uplift of the Qualifications Advisor will for the first time provide members with a single initial point of contact for email and telephone queries.

My travels since arriving in the ICE have reinforced my belief that the international offer must be better. With a stated aspiration of fifty percent of ICE membership being overseas by 2020 we have much work to do. To that end, we are seeking to strengthen the international team with immediate effect. We are set to be joined by Catherine Cole as Director International in February 2016. Catherine will be charged with delivering an enhanced international offer overseas and one which will see academia, employers and local engineers working with the Institution in a new and more engaged fashion. International members will be better supported, the committees better funded and importantly will feel more part of the decision making process. I look forward to reviewing progress a year from now.

As I close, I am reminded of the adage that the only permanent thing in life is change and hope that 2016 sees positive change which can be embraced by all in the Institution. I wish you continued good fortune in your respective fields. Thank you again for all the work that you do on behalf of our Institution and I look forward to doing more on your behalf in the year ahead.

Seán Harris
Director Membership
ICE International Representatives – New Appointments (more on the way)

Australia (Western)

Dr Ali Sarandily

Dr Ali Sarandily joined ICE in 1981. He holds a BSc (Hons) Civil Engineering (1982), MSc Civil Engineering (1983) and PhD Civil Engineering (1985). He was awarded CEng MICE in 2000.

He has held the position of Chairman of the Western Australian ICE Local Association for the last 2 years and has been a committee member for approximately 5 years.

He has Winner of Silver Medal for Civil Engineering Paper of the Year 2001. (Development and Design of low wave reflection seawall for Central Reclamation Phase III, Hong Kong) from Hong Kong Institute of Engineers.

In addition to his ICE Membership he is a Fellow of the Institution of Engineers, Australia.

Canada Prairies

Niamh Ni Chróinin

Niamh Ni Chróinin current role is Project Management/Estimating/Contractual Support for Aecon Construction Group. She is also the Communications Officer for the Canadian Prairies Group of Chartered Engineers, Calgary Alberta.

She joined the ICE in 2008 and became Chartered in 2013.

She has taken on many diverse roles throughout her career including Contract Administrator to dimensional control engineer and junior designer.

She has furthered her Continual Professional Development (CPD) and completed an MSc in Construction Law and was a visiting lecturer at King’s College London on the Construction Law programme lecturing law students on engineering topics in 2013.

She aims to take her Professional Engineering Exam in Alberta (Peng) within the coming 12 months and will strive to make connections between APEGA and the ICE to strengthen collaboration on matters of joint interest.
Hong Kong

Ir Hon Chi-Keung

Ir Hon Chi-Keung joined ICE as a Graduate member in 1980 and qualified as a Chartered member in 1983.

He graduated from the Department of Civil Engineering University of Hong Kong in 1980. He also obtained a Masters’ degree in Public Administration from the University in 1997. In addition he holds a Bachelors Law degree from London University completed by distance learning.

He joined the government of Hong Kong as Assistant Engineer in 1983. He was promoted to Chief Engineer in 1999, to government Engineer in 2005 and to Principal government Engineer in 2008. He was Project Manager of Hong Kong Island and Islands Development Office of the Civil Engineering and Development Department from 2008-2011. He has been Director of Civil Engineering and Development from January 2011 to April 2015 before his appointment as Permanent Secretary for Development (works).

He is a long standing member of the ICE and has recently been made a Fellow of the Institution via the President Invitation route. In addition to his ICE membership he is also a Fellow of both the Hong Kong Institute of Engineers and Chartered Institute of Arbitrators.

Malaysia

Dr Yean Guan Tan

Dr Yean Guan Tan joined ICE in 1977. He holds a Bachelor Engineering (Tech) (Hons) 1980 from University of Wales, Cardiff and obtained his PhD on Geotechnical Engineering on Piled Foundations from the same University in 1983. He was awarded a CEng MICE in 1986 and became an ICE Fellow in April 2015.

He has been a member of the Malaysia ICE Committee for the last 6 years under the leadership of the outgoing Representative Dr Ooi. He frequently attends the APSC Webex alongside Dr Ooi. In 2011 he was part of the organizing committee to host the Asia Pacific International Conference.

In addition to his ICE membership he is a Fellow of the Institution of Engineers Malaysia and was also an IEM council member from 2006/07/08. In addition he has served on IEM Professional Practice Standing Committee and is an active reviewer for IEM Professional Reviews.

He is also a Member of American Society of Civil Engineers and Member of Association of Consulting Engineers Malaysia.
He is currently the Managing Director of Dr Y G Tan Jurutera Perunding Sdn Bhd and responsible for the overall management of the firm with 90 staff including 40 Engineers in the Civil, Structure and Geotechnical Works.

**Nepal**

Kirsteen Merriless

Kirsteen Merriless is a Principal Consultant with IMC Worldwide having worked with them since 1994 (in their various forms). She graduated in Civil Engineering from the University of Warwick in 1993 and also has Masters’ degrees in Geotechnics and Social Studies (Managing Rural Development).

She joined ICE in 1995 and became a Chartered member of the ICE in 1998 and recently became a Chartered Manager.

Her early career was in highways design in the UK with short secondments in Geotechnical design, tunnel construction and quality management on site. In 1999 she transferred to the international arm of the company and took up her first overseas position in Nepal. Since then she has worked mostly on rural and community managed infrastructure projects, living and working in Vietnam, Uganda and Ethiopia with short inputs in Bangladesh, Pakistan and Zambia. She returned to Nepal in 2010 with her family to work on the Rural Access Programme (RAP). She is currently the Deputy Programme Manager on RAP responsible for management systems and continual improvement. She also supports IMC Worldwide with business development in Nepal and the region.

In addition to ICE membership, she is a Member of Institution, Highways & Transportation, Chartered Manager, Member of Chartered Management Institute 2014.

**Singapore**

Kok Hui Heng

Kok Hui Heng has a Master Science (Geotechnical Engineering) from Nanyang Technological University (Singapore) and is a registered Professional Engineer in both Civil and Geotechnical Engineering in Singapore. He is a Chartered Civil Engineer with more than 16 years of experience in underground and civil works. His experience range from geotechnical and civil design, project management and site supervision to a variety of large infrastructure projects including mass rapid transit stations and tunnels, micro-tunnels, deep basement for building structures, as well as cut-and-cover structures.

He is currently the Director (Geotechnical) with Beca Carter Hollings & Ferner (S.E. Asia). He is a leading a multi-disciplinary
team in the delivering of design and build projects in Singapore and the region. His past experience of working with a geotechnical company dealing with in situ soil investigation tests, soil laboratory tests, environmental drilling and instrumentation works has enhanced his knowledge in the geology and soil conditions in Singapore.

He joined ICE in 2010 and was awarded CEng MICE in 2010 after sitting his professional review in Hong Kong.

In addition to his ICE membership he belongs to Institute of Engineers Singapore (MIES) and Geotechnical Society of Singapore (GeoSS).

Duncan Gibb

Duncan Gibb, was appointed General Manager of the Stronger Christchurch Infrastructure Rebuild Team (SCIRT) in 2010-11 with a target completion date of December 2016. SCIRT succession plan has facilitated the development of team members throughout the program, enabling Duncan’s exit from the role of General Manager in December 2014 and the appointment of a Christchurch local.

He is the ICE’s 10th Brunel International Lecturer. His lecture is entitled ‘Collectively we are stronger – engineers generating collaborative solutions to strengthen community resilience post-disaster’. The Inaugural launch took place in London on Tuesday 17 June 2014. The touring elements of the series have now been planned and delivered. Whilst he was in the UK in 2014, Duncan Gibb (who was based in New Zealand) was able to deliver lectures for local members for ICE Regional Support Teams in the South West, East of England, Scotland and South East England.

To date the Brunel International Lecture has been delivered in the following locations: North America, namely: St Louis, New York, Montreal and Toronto. In January 2015 – Indian Sub-continent - Delhi, Mumbai, Kolkata, India and Sri
Lanka. In February 2015 – Jordan, Abu Dhabi, Dubai, UAE, Tanzania, Johannesburg, Durban and Cape town, South Africa and Mauritius. On 15 June 2015, Kuala Lumpur, 16 June, Jakarta, 1 July, Brisbane, Queensland, Australia, 10 August, Auckland, 11 August, Wellington and 12 August, Christchurch. The last leg to Shanghai 28 October, Hong Kong 29 October and Seoul, Korea on 30 October.

We would like to thank the ICE Representatives for organising the lecture and looking after the lecturer in their regions ensuring a successful delivery.

The online recording of the highly informative and enjoyable lecture can be viewed on the ICE homepage and can also be downloaded: https://www.ice.org.uk/eventarchive/10-brunel-international-lecture-cambridge

*The SCIRT team are now halfway through the rebuild of the horizontal infrastructure services in Christchurch. To celebrate this milestone they have made a great musical video to say thank you to the people of Christchurch for their understanding, support and patience during the rebuild. Watch this on youtube at https://www.youtube.com/watch?v=yrg8SnvSn0M

**Overseas News**

**Africa and Middle East News**

**Oman**

**ICE 4th Middle East and Africa Convention - Oman 2015**

In October 2015, ICE hosted its 4th ICE Middle East and Africa (MEA) Convention in Muscat, Sultanate of Oman. This was in partnership with the Oman Society of Engineers (OSE) and the Sultan Qaboos University (SQU). The event took place under the Patronage of His Excellency Dr Rasheed Al Safi Khamis Al Huraibi, Chairman of Oman Tender Board with the convention theme of *Shaping the Future, Respecting the Past.*

The three day event started with Students and Graduate Competition on Monday 19th October at the Higher College of Technology, The Conference day and Gala Dinner on Tuesday 20th October followed by a site visit and business day meeting on Wednesday 21st. ICE President, David Balmforth, delivered his Presidential address during the convention.
A total of sixteen regional and international speakers delivered the following sessions after the key note address.

- Engineering a Prosperous Future
- Professional Status, a Commitment to Competence and Quality.
- In Country Value How Achievable?
- Engineering Education in the 21st Century.

The convention was a great success, highlighting how Oman is taking big strides right now, to develop its engineering education standards to create a long lasting, sustainable impact. ICE and the local organisers OSE and SQU were pleased and proud to become part of that and holding the MEA Convention in Muscat.

Raman Subbaraman, ICE Representative for Oman

United Arab Emirates

UAE Chapter looks ahead to more success in 2016

The UAE Chapter of the ICE enjoyed an outstanding 2015 in which its membership grew to more than 1,000.

The year was studded with well organised events, topped by the Gala Dinner in September. A record attendance of around 450 people enjoyed the occasion, which included an excellent after dinner speech from guest speaker Sir William Patey, whose distinguished career with HM Diplomatic Service included roles as Ambassador for Afghanistan, Sudan, Iraq and the Kingdom of Saudi Arabia.

Sir William Patey

Mark Jamieson, UAE Chapter Chair, says: “We've matured well as an organisation in the UAE during the last year and the success of our various events shows the level of engagement we've established with members.

“The Gala Dinner, in particular, was a fabulous celebration and a great indicator of how far we've come over the past five years.”

The annual Middle East Convention in Oman offered an opportunity for ICE representatives from across the region to explore opportunities and challenges in order to support continued development.

Learned events throughout the year have been consistently well attended. Highlights included Mark Whitby, the founder of Whitbybird, who presented on the Business of Engineering; and Alan Thomson, the Managing Director of Abu Dhabi Sewerage Services Company, who discussed his experience of delivering successfully in the region.

Looking ahead, Sir John Armitt is set to visit in 2016, building on his well-received lecture tour in 2014.
“We’ve set ourselves a tough challenge to keep building on our growth and development during 2015 but I’m confident we’ve got everything in place to do that and to really respond to the needs of our members,” adds Mark.

Ben Thompson
UAE Committee Member

Americas News

ICE President, David Balmforth’s visit to New York

The New York Local Association recently hosted a visit by the President of the Institution of Civil Engineers, Professor David Balmforth.

On the evening of Thursday September 24th he attended one of our famous bar debates, which as always are held at the 11th Street Bar in the Manhattan. The motion this time was ‘It was right to cancel the ARC tunnel rail project between Manhattan and New Jersey’. The event was well attended and a lively debate took place involving 2 speakers for the motion and 2 against and good audience participation. The debate was followed by some extensive post-debate discussions at the bar.

On the following morning the President delivered a breakfast presentation on ‘Innovating for the Future’. This was also very well attended and generated some good audience participation.

The President was then escorted on a visit to the Fulton Center project in downtown Manhattan which recently won the British Construction Industry Award for International Project of the Year.

Both the bar debate and the Presidents breakfast address were broadcast live over the internet and a recording of the breakfast address may be viewed at the following location;

https://www.ice.org.uk/eventarchive/presidents-address-innovating-for-the-future

Richard Giffen
Council Member

Asia Pacific News

Asia Pacific Convention 2015

On the 27th October 2015, The Institution of Civil Engineers (ICE) with support of sponsors China Harbour Engineering Company (CHEC), China Civil Engineering Construction Corporation (CCECC) and Mott Macdonald hosted the 7th ICE Asia Pacific Regional Convention at the Asia Hotel, Beijing, China. The Convention consisted of a public single day conference under the banner ‘Investment Led Infrastructure Development’ followed by a Business Meeting for the ICE Representatives next day. The conference was fully subscribed with approximately 110 participants.
The Chinese government’s ‘One Belt, One Road’ policy and the creation of a new Asian Infrastructure Investment Bank (AIIB), expected to be operational by the end of this year, promise exciting new opportunities for investors, construction, and communities across Asia. The AIIB will focus on the development of infrastructure and other sectors in Asia, including energy and power, transportation and telecommunications, rural infrastructure and agriculture development, water supply and sanitation, environmental protection, urban development and logistics, etc. Its founding partners include representatives from over 50 countries including Australia, China, India, Indonesia, Nepal, New Zealand, Pakistan, Singapore, Sri Lanka, and the United Kingdom.

While details are still emerging, the time is right to reflect on the practical experience of recent infrastructure projects and how they can inform the implementation of the ‘One Belt, One Road’ policy. In particular, the promise of new economic opportunities across less developed parts of Asia presents fresh challenges for the infrastructure and investment communities. How do we manage risk to release investment funds? What are the most appropriate legal structures? What can contractors and consultants from participating nations learn from their different experiences of projects in Asia, Africa and Europe?

The main conference day brought together speakers and delegates from China, the UK and across the Asia-pacific region to share their experiences. It examined the key principles for the successful delivery of major infrastructure schemes, used case studies to explore those principles in practice, and brought together perspectives from different countries to identify key lessons for the next wave of infrastructure investment across Asia.

Speakers and Topics were:

- Welcome address:- Mr Ziyu Sun, Vice President of China Communication Construction Company Ltd (CCCC)
- Key Note Address:- Prof David Balmforth, ICE President
- International Cooperation to facilitate Infrastructure Investment and Development :- Mr Qiuchen Fang, Chairman of China International Contractors Association, (CHINCA)
- ICE developing civil engineers in the Asia-Pacific region to help build professional civil engineering: Tim Warren – ICE’s Council Member for Asia Pacific and Managing Director of Constructing Excellence NZ Limited
- Financing options for infrastructure projects :- Richard Dawson, Head of Debt Advisory, KPMG
- Legal structures for investment led infrastructure:-   Sam Boyling, Partner Pinsent Masons
- Risk management of combined finance/construction projects, the RAMP model:-  Chris Dulake, Engineering Director, HS2
- Global case study: Ethiopia-Djibouti Railway, a story of win-win cooperation:-  Mr Li Yuan, Chairman of China Civil Engineering Construction Corporation (CCECC)
- Avoiding bumps on the One Belt, One Road:- David Gutteridge, Group Practice Manager, Transport, Mott MacDonald
- Asia Case Study: Colombo Port City:- Kian Siew Lim, Director of Planning & Development for CHEC Colombo Port City
Ending with a Question and answer section with all speakers and closing comments from the ICE President.

The agenda for the ICE Representative Business Day was built around the objective of allowing us to build relationships and to learn from one another. The agenda commenced with a council update from the ICE President, a comprehensive Business Plan Briefing from Sean Harris, Director Membership followed by an update on the Beijing branch delivered by Mr Wang Bo (past ICE representative). For the remainder of the agenda our ICE Representatives shared over 12 case studies of best practices aligned with the 4 key Business Plan Streams (Qualifications, Professionalism and Knowledge, Education and Inspiration, Informing opinion).

The overwhelming feedback from the convention has been positive. Feedback received has intimated that the Conference Day was both interesting and informative and that the Business Day provided many with new ideas for growing and supporting their local ICE Associations and our ICE Members when they returned home.

Australia

Victoria Local Association

ICE VLA Site visit to Burke Road Level Crossing Removal Project.

10th November 2015.

Steve Litterick the Alliance General Manager from John Holland and Chris Crellin the Alliance Design Manager from KBR gave a very detailed and in-depth presentation of this project.

A major rail and civils construction project presents major challenges on the inner urban rail corridor on such an important junction next to the Monash Freeway. It is also a major tram route with complicated topography.

The Alliance has used innovative off-site manufacturing and targeted rail occupations to reduce congestion and delays to transform the existing junction to making it much safer and more efficient for all road users and commuters. They have challenged the existing occupations regime to look to finishing 6 months early by using a 34 day occupation to re-build on-line to the new station at Centre Road, spending around $90M in a month – a first for a level crossings removal project.

The group was also given a tour around the site to see the offline construction of the new rail line that goes under Burke Road and also the top-down construction of the new station.
A view through to Burke Road of the new rail corridor

The existing crossing at Burke Road

The group enjoyed Christmas dinner at the local Thai restaurant next door.

The new station being constructed

Dominic Brown
Chairman, Victoria Local Association
New South Wales

Recent Events

Technical Meeting on Sydney’s New Light Rail Project:

What is urbanism versus urban design? What role is urban design playing in Sydney’s new light rail project?

On Monday 14 September 2015, Tanya Vincent, Urban Design Manager for Transport for New South Wales, regaled an audience of 55 with her professional journey as an architect who specialises in urban design. In defining Urbanism, Tanya discussed how people live and move in a large city, giving examples of mixed use areas, urban streets and connectivity, place-making and the social responsibility that is brought to the urban design process.

The roles of pioneers of Urbanism, namely Sitte, Jacobs, Lynch, Whyte and Gehl were discussed, with their individual legacies (which include wayfinding, social capital, nodes, landmarks, edges, distances and paths) outlined for all to understand how they have influenced the way we live in large cities.

With the audience understanding the theoretical approach of urban design, Tanya transported them to the present where she discussed her involvement in the current iconic Sydney Light Rail Project. The project objective is to provide a new 12 kilometre light rail system into the heart of the city of Sydney. She explained how important urban design has been in integrating the new light rail system into the existing street scape. Numerous examples were provided of challenges and how these were being resolved, whilst maintaining an equitable position between key stakeholders and the final required functionality of the light rail system.

Thursday 10 December 2015: ICE NSW Christmas Dinner

This year’s Christmas Dinner was held in the Tea Room at the Queen Victoria Building in Sydney. Special guest speakers were The Veloroos, the first all-female Australian cycling team to compete in the Race Across America (RAAM) in June 2015.

Geoff Amblin
New South Wales Publicity Officer
Implementation of a successful bridge project originates through a sound planning and design while the durability can only be ensured with its appropriate use and maintenance scheme. Effective interactions between the policymakers, academics and professionals are vital for the success of the project over its life span with minimum cost. With this end in view, the IABSE-JSCE Joint Conference on Advances in Bridge Engineering –III with the theme of ‘Towards Owning a Resilient Infrastructure’ was jointly organized by International Association for Bridge and Structural Engineering (IABSE), Bangladesh Group and Japan Society of Civil Engineers (JSCE) during 21-22 August, 2015 at the Pan Pacific Sonargaon Hotel, Dhaka, Bangladesh. The event also marked the Centenary of Hardinge Bridge, a 100 years [1915-2015] old Railway Bridge at Paksey, Bangladesh built over the lower reaches of the mighty Ganges (known as the Padma in Bangladesh). Over the 100 years of service life, the Hardinge Bridge not only overcame the adversities of the harsh environment but also recovered from a significant war-damage occurring during the historic liberation war of Bangladesh in 1971.

The theme of the 2015 conference inspired 196 professional engineers and researchers from 11 countries to contribute six keynote papers together with 74 technical papers grouped into eight broad topics of bridge engineering: History and Planning, Materials, Geo-environmental Issues, Design and

Hardinge Bridge

Construction, Design for Dynamic Forces, Administration and Monitoring & Repair, Renovation and Retrofitting. A significant number of papers on repair, renovation and retrofitting are directly related to achieving resilience in the structure. Among twelve parallel sessions, Institution of Civil Engineers, United Kingdom (ICE Centre Bangladesh) & American Society of Civil Engineers, Bangladesh International Section jointly organized a thematic session of historic bridges. IEB and JSCE organized two thematic sessions on Short and Medium Span Bridges. The necessities of the development of new materials, effective use of available materials and adoption of efficient forms of substructure and superstructure as well as new construction technology were discussed in-depth for owning a resilient infrastructure for the future based on the past and present experiences. Three hundred and thirty four participants assembled together under the same roof to share experiences, discuss new ideas and also to brainstorm topics like planning, design, construction and maintenance of bridges. A 651 page volume proceedings containing keynote addresses and technical papers was
published. In addition to providing free online global access to the proceedings at www.iabse-bd.org, an archival set containing 2005, 2010 and 2015 proceedings was also published in hard copy to commemorate the occasion.

The Government of People’s Republic of Bangladesh acknowledged the event contribution at a policy level by sending the Ministers from the Ministries of Finance, Railway, Science and Technology. Support staff from the Embassy of Japan, British High Commission, Japan International Cooperation Agency, Institution of Civil Engineers (UK), American Society of Civil Engineers, Japan Society of Civil Engineers, Japan Prestressed Concrete Institute, Japan Concrete Institute and the Institution of Engineers, Bangladesh along with the scholars, researchers and young engineers of the premier technical universities of Bangladesh and Japan marked the very strong commitment of the National and International Bodies and Agencies for the event. A very close participation of all the bridge owners of Bangladesh, namely Roads and Highways Department, Bangladesh Bridge Authority, Padma Multipurpose Bridge Project, Local Government Engineering Department and Bangladesh Railway together with the active support of Bangladesh Association of Consulting Engineers and Bangladesh Association of Construction Industry helped to contribute to the success of the event.

To add the final colours to the event, the Bangladesh Railway arranged a day-trip via a solo non-stop Special Train, the ‘Hardinge Bridge Centenary Train’ for the guests, authors and participants of the conference to the Hardinge Bridge site on 23 August 2015. This provided a unique opportunity for all of the delegates not only to inspect this heritage bridge but also to feel the sentiment of the local people living at the bridge site about how they really think about the bridge and how they really own the bridge at their heart.

Considering the public importance of the event, the whole conference and its activities received wide press coverage in the electronic and print media of Bangladesh, generating no less than forty six new reports. The conference web site includes all the coverage of the event. The registration fees for the young professionals, members of the IABSE Bangladesh Group, Bangladesh authors and participants from regional countries were subsidised with a hope that the objective of the conference could be achieved.

Brunei

Professional Reviews took place within Brunei Darussalam this year for the first time in over 10 years with reviewers from the UK flying in for two days of reviews on 21st and 22nd September. The reviewers enjoyed the hospitality of the Public Works Department in Brunei with excellent organisation and facilities. One of the reviewers, Prof Ian Whyte very kindly agreed to round off his punishing itinerary
by delivering an evening talk on The Design of Slopes. The event was organised in conjunction with the local Engineering Institution, PUJA – the first such collaboration with ICE in the country. The event was extremely well attended with more than 100 Engineers coming from around the country and from neighbouring Malaysia to listen to Ian’s expertise and ask him some testing geotechnical questions.

Philip Roberts
ICE Representative for Brunei

New Zealand

Alice, the giant Tunnel Boring Machine (TBM) has successfully completed excavation of the second motorway tunnel on Auckland’s Waterview Connection motorway project. The world’s 10th largest TBM broke through into daylight after its 2.4km-long journey underground between the suburbs of Waterview and Owairaka.

“The breakthrough is a massive milestone for a project that will transform the way Aucklanders get around their city – a brilliant and remarkable effort and a proud day that needs to be celebrated”, says the NZ Transport Agency’s Highways Manager in Auckland, Brett Gliddon. More than a thousand staff and contractors who have been working hard to deliver the project, stopped work on 19 October 2015 to watch the breakthrough together live on specially erected screens and celebrate their success so far.

“The risks associated with constructing tunnels twice as long as the Auckland Harbour Bridge were always high and the Waterview team rightly needs to be congratulated for its engineering skills and innovation to complete this job safely and on time. That’s a fantastic achievement”. The $1.4bn Waterview Connection is New Zealand’s largest ever roading project. It includes construction of twin 3-lane tunnels – the longest road tunnels in the country – and a giant interchange to connect Auckland’s Northwestern and Southwestern Motorways (State Highways 16 and 20).

The project is being delivered for the Transport Agency by the Well-Connected Alliance. Tunnelling at Waterview first began in 2013. The first tunnel was completed in September 2014. In a rare manoeuvre for any TBM worldwide, Alice was then turned 180 degrees to complete her second drive.

“The project’s careful and detailed design, planning and operation for the
construction of the tunnels and the complex turnaround grabbed some pretty amazing headlines in New Zealand and overseas”, Mr Gliddon says.

During her time underground, Alice excavated enough dirt to fill 320 Olympic-sized swimming pools and installed more than 24,000 concrete segments to line both tunnels.

The TBM’s job is now complete. Over the coming months Alice will be taken apart and returned to the German company, Herrenknecht, that designed and built her.

“Although it’s the end of the road for Alice she will leave behind a lasting legacy – the world class tunnels she helped construct that will benefit Auckland and New Zealand for 100 years and more”, Mr Gliddon says.

Meanwhile, there is a busy programme of work to complete both tunnels. Sixteen cross passages linking the two tunnels are being constructed, equipment to operate the tunnels together with lighting and signage are being fitted, walls and the ceiling are being painted, and back-filling continues before the motorway asphalt is laid.

The Transport Agency plans to open the tunnels and the adjacent Great North Road interchange in early 2017.

The Waterview Connection completes Auckland’s Western Ring Route, a 48km alternative route to SH1. It will link Manukau, Auckland, Waitakere and the North Shore, improving network resilience, travel time reliability and bus shoulder lanes as well as upgrading cycleway and pedestrian facilities.

The Waterview Connection project is being delivered by the Well-Connected Alliance which includes the Transport Agency, Fletcher Construction, McConnell Dowell, Parsons Brinckerhoff, Beca Infrastructure, Tonkin & Taylor and Japanese construction company Obayashi Corporation. Sub-alliance partners are Auckland-based Wilson Tunnelling and Spanish tunnel controls specialists SICE.

Sri Lanka

Broadlands Hydropower Project

The Broadlands Hydropower Project is a run-of-river type project planned to be built on the Kelani River, with the object of harnessing the hydro potential downstream of the existing Polpitiya power station.

The project will have an installed capacity of 35 MW and expects to generate 126 GWh of electrical energy annually.

The main work sites of the project are located about 90km north-east of Colombo, near the town Kithulgala. The main components included in the project are Main Dam, Diversion Dam, Headrace tunnel, Diversion Tunnel, Surface Power Station, Switch Yard and transmission Line.

The Cabinet approval for the project implementation on Design Build Basis was granted in 2006 by securing funds arranged by the successful contractor.
After following international competitive bidding procedure, China National Electric Equipment Co., Ltd (CNEEC) was selected as the successful bidder and a contract agreement was signed with them at the end of 2010.

The total project cost is USD 82 million. 85% of the cost is provided by the Industrial & Commercial Bank of China (ICBC) and the balance is to be obtained from Hatton National Bank of Sri Lanka. The Financial Agreements were signed in 2013 with both the Banks.

The construction work of the project has commenced and it is planned to complete the project within four years. At the end of 2013 the contractor was mobilised and the construction work commenced. At present the work of the main dam site is in progress. The work at the power station site is yet to be commenced. Under the resettlement program 48 families were identified for relocation and they have been successfully resettled after compensation.

This was the country’s first large scale hydropower project to register in the CDM (Central Development Mechanism) at the end of 2012. The scheduled construction period of the project is four years and the plant is scheduled to open in year 2017.

Dr Kamal Laksiri
Secretary, Sri Lanka Local Association

General News
1. Qualification Update

Revised member application for experienced engineers

New combined member assessment
As part of our work to help make the process of applying for membership more straightforward, we launched a new member assessment earlier this year:

- This is for non-members of ICE who want to apply for CEng MICE or IEng MICE
- It’s a combined assessment of a candidate’s qualifications (academic assessment) and experience (career appraisal)
- It is for engineers with enough experience to demonstrate the member attributes but who don’t hold an accredited qualification.

Applicants will receive a single letter advising if they are ready to apply for review at their preferred level.

To find out more, potential applicants can view our recorded webinar on member assessment

Changes to career appraisal requirements
We also updated our career appraisal requirements, removing the need for an experience report. Applicants will now need to submit an extended CV (up to 4 sides), the attribute achievement form and appendices.

TMICE to MICE
On 7 December we announced that ICE’s technician members can now use the MICE post-nominal letters instead of TMICE.
Earlier this year members voted in favour of a proposed change to ICE’s Royal Charter to allow our technician members to use MICE post-nominal letters. This change has now been formally approved by Privy Council.

They will still be referred to as technician members and will not be corporate members (ie will not have voting rights on changes to the Royal Charter and By-laws)

There is no change in post-nominal letters for other grades of membership. Chartered and incorporated members continue to use MICE, along with their Engineering Council qualification (IEng or CEng)

**IPD Online**

We are currently working on an enhanced version of IPD Online in response to user feedback. Initial design and testing has been completed and development work will take place in the first half of 2016.

New features will include:

- a reduction in the number of categories under which experience has to be recorded. For IEng, MICE, and AMICE there will be 9 attributes to be achieved at three levels; for CEng there will be 9 attributes to be achieved at 4 levels. For EngTech there will be 5 standards to be achieved at 3 levels
- those aiming for MICE and AMICE will be able to use the new system
- a central document library for each trainee to store all documents referenced
- the ability to record and sign off experience above a trainee’s eligibility (however, completion above eligible grade will not be possible)
- the ability for trainees to change their aim up or down between IEng and CEng
- the ability for SCEs to bring forward annual appraisal dates or to delay them by 2 months
- a new set of soft skills to be assessed at annual appraisal
- a reporting function for Training Managers and lead SCEs

There will be a programme of user testing, training, and communications in advance of the launch.

**Subscription fees**

[2016 subscription fees](#) are on the website. From the beginning of 2016, subscription fees will be pro-rata for all grades depending on start date.

**Application fees**

Application fees for career appraisals, member assessment, training agreements and mentor-supported-training are also changing.

**Entrance fees**

From January 2016, entrance fees are no longer required.

**Change in the By-Laws on unspent convictions**

The By-Laws have been changed so that clause 4 of our Admissions regulations now says that:

“No person with an Unspent Conviction relating to a Serious Criminal Offence will be admitted to any grade of membership unless there are special circumstances that show beyond reasonable doubt that the person is a fit and proper person to be admitted to membership of the Institution. Sponsors of such persons will be required to make a specific declaration that they are aware of such person’s conviction and
the nature of the offence of which the person was found guilty.”

We will implement these changes as quickly as possible, but existing application and sponsor forms will be accepted for the spring reviews.

Susan Clements MA CEng MICE
Head of Qualifications
Institution of Civil Engineers

2. International Membership News

1. Change to UK Recognition of Washington Accord bachelor degree courses

At the end of June 2015, the Engineering Council informed the other signatories of the Washington Accord that it would be changing the recognition it will give to Washington Accord degrees for Chartered Engineer registration. The change means that those graduating with a Washington Accord degree from 2019 onwards will be eligible for IEng registration, but will need to demonstrate further learning to the European masters level to be eligible for CEng registration, either through formal study or experience. The change brings the recognition given to UK accredited engineering programmes and Washington Accord degrees into alignment.

Who is affected by the change?

- Only students enrolling on a Washington Accord degree course after 1 July 2015 are affected by this change.

Who is not affected by the change?

- No other members or applicants will be affected by this change.
- Students who have started a Washington Accord degree course before 1 July 2015 will still be recognised for CEng registration.
- Graduates, experienced engineers and professionally qualified engineers who already hold a Washington Accord degree will still be recognised for CEng registration.

ICE contacted all student and graduate members who are studying or who have studied a Washington Accord degree directly in July to confirm that they remain eligible for CEng registration.

What should you do if you have just started a Washington Accord degree course and you want to apply for CEng registration in the future?

Seek advice from ICE when you graduate. ICE is currently developing its further learning and individual assessment options to improve the routes to CEng registration for all future graduates. For Washington Accord graduates, one of those options will be to consider studying an accredited MSc.

If you have any questions please contact ICE’s Education Learning and Assessment Manager, Ellen Ryan at ellen.ryan@ice.org.uk

2. Changes to sponsor requirements for Member and Fellow applications

In July, ICE’s Council approved changes to our requirements for supporting sponsors for Member (MICE) and Fellow (FICE) applications.

What’s changed?

We’ve increased the range of professionally qualified engineers who can act as supporting sponsors for MICE and FICE applicants to include those from more institutions outside the UK.

And what hasn’t changed?

There has been no change to ICE’s by-laws therefore:
- Applicants still need three sponsors
- Their lead sponsor must still be an ICE member (the changes only affect requirements for supporting sponsors)
- All sponsors must still be qualified at the equivalent grade or above as the grade the applicant is applying for, and the sponsorship process remains exactly the same

Why have we done this?
We received feedback from international representatives, members and applicants that our sponsor requirements could be a barrier to membership for some. Many applicants based outside the UK would simply just not know any engineers that met our requirements. This was because:

- We only allowed supporting sponsors from a limited range of international engineering institutions. Many applicants are based in countries outside the reach of these institutions and so there are very few potential sponsors
- Sponsors from those international institutions also had to be qualified in the civil discipline, whereas sponsors from the Engineering Council institutions could be in any engineering discipline

More detail about the changes
The new requirements allow supporting sponsors from a broader range of international engineering institutions. These institutions were selected because they are members of the International Engineering Alliance’s professional engineer agreements (International Professional Engineer and International Engineering Technologist). These agreements are based on national registration systems which are at equivalent levels to CEng and IEng in the UK.

The changes also now mean that internationally professionally qualified engineers from other engineering disciplines can be supporting sponsors.

- The new sponsor criteria for Members are listed in the Professional Review sponsor questionnaire. The new sponsor criteria for Fellows are listed in appendix C of the Fellowship guidance

When did they come into effect?
The guidance documents and sponsor questionnaires for MICE and FICE applications were updated on 1 September and can be used by all new applicants.

What about technician members?
We are also planning to revise the sponsor requirements for technician members, but this will need to go to member ballot in 2016 as it will require a change to the by-laws.

Any questions
If you have any questions about the new sponsor requirements, please contact membership@ice.org.uk

3. Idaho becomes first US state to approve UK Chartered Engineer System
The Idaho Board of Licensure of Professional Engineers and Professional Land Surveyors (IPELS) recently passed a motion to approve the UK Charter Engineer system as substantially equivalent to their own.

‘Professional Engineer’ is a protected title in the USA and licensure (registration) for
the engineering and surveying professions is regulated by each individual state.

To become licensed, engineers must complete a four-year college degree, work under a Professional Engineer for at least four years, pass two intensive competency exams and earn a license from their state's licensure board. Then, to retain their licenses, PEs must continually maintain and improve their skills throughout their careers.

Professional Engineers in the USA may apply for licensure within another state using an application process known as 'comity', which broadly means that one state extends certain courtesies to other states. Previously the 'comity' application process has not been extended to the UK meaning that Chartered engineers registered with the Engineering Council could not be recognised in this way.

The recent change to Idaho's licensure system means that they are now the first US state to allow CEng registrants with more than 8 years' post-registration experience to apply for Professional Engineer (PE) licensure in the same way as a PE from another US state.

Seán Harris, ICE's Director Membership commented

"This is a welcome move to streamline the process for chartered engineers wishing to work in Idaho. I hope that other US states will follow Idaho's lead in recognising that the standards by which chartered engineers registered with the Engineering Council are judged, are amongst the most robust in the world."

You can find more information about working in the US, as well as Idaho's new comity process by visiting our 'Working in the USA' page

Rebecca Webster
Recognitions Policy Manager

3. New Civil Engineer launches new print and digital formats

ICE has worked with New Civil Engineer (NCE) to help re-launch their suite of content products following research with more than 1,200 ICE members which took place earlier this year.

An independent research company was commissioned by NCE to carry out research among ICE members to solicit their views on the current offering from New Civil Engineer, as well as to understand what they would like to see in future.

The results showed that members were looking for a greater mix of print and digital content and wanted the printed magazine to include more technical content, particularly reports on projects in the UK and around the world.

As a result, the re-launched NCE promises a host of new content and features across a mix of formats including a new monthly feature packed magazine. The expanded monthly edition will allow for in-depth coverage and analysis of major projects and key market developments.

Billed as a new set of intelligence tools, NCE's re-launch is designed to better reflect the contribution made by civil engineers to the world's built environment. According to the publishers, the new products, including a re-launched website, a 'Daily Fix' news e-mail, 'Weekly News
Wrap' and smartphone app address the areas that matter most to ICE members; global insight, technical knowledge, and inspiration for technology pioneers.

Commenting on the changes, Mark Hansford, Editor of New Civil Engineer said:

"We want New Civil Engineer to be an independent voice for the professional civil engineer with a clear remit to challenge and inform; to get under the skin of the industry and give professionals intelligence they cannot find elsewhere in a format and frequency that fulfils the need of today's civil engineers."

Visitors can find out more about the changes by visiting newcivilengineer.com/re-engineered

4. Website

2015 has been a big year for ICE’s digital presence.

In May, we launched a significant upgrade to ice.org.uk. The project saw a number of major improvements from a technical perspective, including upgrading the underlying software and redesigning the layout to provide a responsive site. This means you can now access ice.org.uk from your desktop, tablet or mobile device without needing to resize pages or struggle with interacting with the site.

In addition, we carried out a radical overhaul of the structure and content of ice.org.uk following advice and analysis of user feedback. We’ve now got a site with a more streamlined navigation and more focused content.

Whilst the response to the re-launched site has been positive, we know that we’ve a lot more work to do, to continue improving your experience. 2016 will see a number of major projects aimed at achieving this, most notably a complete overhaul of our online IPD platform. We are also working to become more responsive to user feedback, and you will see us become more active in seeking feedback on how we’re doing online.

Ice.org.uk has not been the only major digital project this year. ICE Publishing successfully relaunched the ICE Virtual Library in September. Again this saw the site move to a more sophisticated platform, and provide a more compelling mobile experience, along with a revamped structure and improvements to key tools such as search.

We’ve also delivered some major changes to the way we manage and deliver emails across the group. We recently completed a project to provide a single global email platform to the business, which will culminate in the launch of an email preference centre. This will give you far more control over what emails you do and don’t receive from us, as well as the ability to unsubscribe or re-subscribe.

If you’ve got any questions about ice.org.uk then please don’t hesitate to contact web.feedback@ice.org.uk

The ICE Web Team

5. Change of Address

We are grateful to our Representatives who update their address changes online via MyICE. We would appreciate it if Representatives could also inform their Area Manager at the same time as the system does not automatically inform the International Department of these changes.
International

Director General
Nicholas Baveystock
t +44 (0)20 7665 2002
e nick.baveystock@ice.org.uk

Director Membership
Sean Harris
t +44(0)20 7665 2112
e: sean.harris@ice.org.uk

Recognitions Policy Manager
Rebecca Webster
t +44(0)20 7665 2289
e rebecca.webster@ice.org.uk

Asia Pacific, Area Manager
Renee Reilly
(based in Australia)
Area Manager
GMT plus 10 hours)
t +44 (0)20 7665 2156
e renee.reilly@ice.org.uk

Europe and Central Asia, Area Manager
Melissa Zanocco

t +44 (0)20 7665 2175
e melissa.zanocco@ice.org.uk

Middle East, Africa & the Americas
Area Manager,
Melissa Zanocco

t +44 (0)20 7665 2175
e melissa.zanocco@ice.org.uk

International Administrator (Part-time)
Allyson Lewis
t +44(0)20 7665 2006
e allyson.lewis@ice.org.uk

International Membership Development Officer
e: internationalmdo@ice.org.uk

International Department
e: international@ice.org.uk

We welcome articles for June 2016 edition of the newsletter.
Allyson Lewis    December 2015
Our vision

Civil engineers at the heart of society, delivering sustainable development through knowledge, skills and professional expertise.

Core purpose

- To develop and qualify professionals engaged in civil engineering
- To exchange knowledge and best practice for the creation of a sustainable and built environment
- To promote our contribution to society worldwide