News, views & information for members and friends of ICE in the East of England

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Got an idea for future meetings?

Herts & Beds want to hear from you!

Have you got fresh ideas? If so the ICE Hertfordshire & Bedfordshire Committee would definitely like to hear from you as they put together the 2016/17 meetings programme.

Hertfordshire and Bedfordshire is largest of the six East of England branches, and represents around 1,800 members, offering a thriving programme of meetings and events for members. These include learned society events which are usually held in St Albans. The branch’s main aims include:

• Arranging an annual programme of meetings, seminars, courses and debates
• Arranging visits to works of engineering interest
• Promoting, developing and expanding public perception of civil engineering and civil engineers
• Promoting civil engineering education in local communities, colleges and school

We need new committee members to help keep our ideas fresh and move the branch forward.

Interested?
Contact Branch Chairman
Andy Palmer to find out more.
Environment Committee accuses Government of failing to protect communities from flooding

The cross-party Environmental Audit Committee (EAC) says the Government is failing to protect communities from flooding and doubts a target to protect 300,000 homes will be met.

The report ‘Flooding: Cooperation across Government’ followed the floods of December 2015 to January 2016. Every major flooding event is subject to a similar review.

The reports states: “Communities and taxpayers have the right to know that they are being protected from flooding and that their taxes are being spent efficiently on sustainable flood defences. Overall, we found that there was a lack of effective long-term strategic planning about how to manage flood risk. Despite efforts to improve, the Government appears to be reactive rather than proactive. “

It goes on to highlight the fluctuations in spending year-on-year and criticises the lack of funding for maintaining existing defences. The independent Worsfold review demonstrated a relationship between flood maintenance spending and the good condition of critical flood defences.

The Committee said: “We are concerned that the Government only released this review when we requested it and it has been published only on our website.”

“Despite efforts to improve, the Government appears to be reactive rather than proactive.”

The Committee added: “We note the Government’s commitment to spend £2.3 billion on building new defences and protect spending to maintain existing defences. We are sceptical, however, that the Government will reach its target of protecting 300,000 properties, based as it is on an inherently optimistic forecast that assumes optimal efficiency in spending decisions. We were also surprised to hear that the additional £700 million of funding, announced in this year’s Budget, was based on a “political calculation” and may not be allocated using the same methods as the £2.3 billion which could lead to inefficiencies in flood investment, poor decision making and potentially geographically unfair outcomes.”

“Despite sustainable urban drainage systems being widely acknowledged to be an efficient way of dealing with surface water, successive governments have been reluctant to mandate them as the default option in new developments. We are disappointed that the Government has kicked this into the long grass by commissioning another review. This is an issue that now requires action.”

The report can be viewed and downloaded from the publications section at www.parliament.uk

Welcome to our newest members

We are pleased to publish the details of our most recent professionally qualified members. Success at the Professional Review is the final step in becoming an ICE member. Passing is a significant achievement, showing that a person has developed all the skills, knowledge and experience needed to become a professionally qualified member. We are delighted to announce details of candidates who have passed their Professional Review at the UK 2016 spring session and 2016 international session. Our congratulations go to all who passed. Meet our newest members.
Herts & Beds Stalwart Honoured

Retiring long serving branch committee member Jim Hannah was presented with an ‘Award of Merit’ certificate at the East of England AGM by Regional Chairman Paul Mitchelmore.

Jim started his service with ICE Chilterns which later combined to become the Hertfordshire & Bedfordshire branch. As Treasurer and being from north of the border he is a colleague says ideal for the job. “He treated the money like his own, short arms and deep pockets. He always did pay but quite often you were made to feel guilty for even daring to ask. That said when the accounts went off to Great George Street there was never any problem with the books, he was meticulous.”

He was always actively involved in identifying and organising topics and speakers for the meetings programme. He joined the East of England Engineering Science & Technology Association (EEESTA) committee, providing an important link with the branch and is also a member of Bedford Civil Engineering Society.

Jim is immensely proud to be a member of ICE and its traditions. As a committee stalwart he always attended meetings to support speakers, often when others were put off by the weather or there was a football match on TV. He listened attentively and could be guaranteed to ask an interesting question whenever there might be an embarrassing pause.

We thank Jim for his dedication and work on behalf of ICE and also his wife Rosemarie for her support. In summing up Jim’s contribution we can do no better than committee colleague Brian Peers who said: “He is a true gentleman, always cheery, and always keen to encourage younger members.”

Calling all Golfers –
Team needed for Thomas Telford Trophy

The 2016 Thomas Telford Trophy takes place at Hillside Golf Club, Southport on 19 September and we need a team to represent the East of England.

The highlight of the section’s golfing year, the tournament is a competition between teams of four players from each of the Regions/Branches of the Institution. The first Thomas Telford Trophy was held at Wentworth Golf Club in 1986, when Sir William Francis, then chairman of the Civil Engineers’ Club and of Thomas Telford Ltd, presented the cup to the winning Yorkshire team.

If you are interested in representing the East of England please register your interest by emailing Golf Secretary Martin Taylor at: m.s.taylor1@btinternet.com or call 01444 484306.

In 2018 the East of England is due to play host to the tournament. The Golf Section of the ICE Civil Engineers’ Club is seeking expressions of interest in helping to organise the event by contacting the Golf Secretary as above.

For details of the 2016 event visit Hillside Golf Club, Southport. View the 2015 results.
Ipswich Flood Barrier flies the flag for national engineering campaign

A tidal barrier across the river Orwell at Ipswich has become the latest addition to a national campaign to promote the benefits of civil engineering.

Called This is Civil Engineering the campaign, launched by Institution of Civil Engineers, places banners on infrastructure projects across the UK telling the public what civil engineering is about. It makes clear the link between the work taking place and benefits to the community and businesses and provides links to a dedicated website.

At the New Cut of the River Orwell a banner was unveiled by Environment Agency Project Manager Andrew Usborne and ICE East of England Regional Director Glen Owen. It joins a host of other projects across the country.

Andrew said “The Ipswich Tidal Barrier is a vital piece of infrastructure that will significantly reduce the risk of flooding to central Ipswich. The team are pleased to be able to work closely with the Institution in promoting the skills and abilities of civil engineers.”

The team are pleased to be able to work closely with the Institution in promoting the skills and abilities of civil engineers to deliver infrastructure projects that benefit the whole community.”

The barrier forms part of the £58 million Ipswich Flood Defence scheme, a three year project to upgrade Ipswich’s flood defences. Similar to the Thames Barrier (though much smaller), the 20 metre wide gate will be raised during periods of extreme high tides to hold back the North Sea and, with the help of the sheet piling, keep Ipswich dry.

When finished, the project will reduce the risk of flooding to 1,608 homes and 422 businesses and support key infrastructure such as the fire station and council buildings. Everything upstream of the barrier will be protected against a tidal surge like the one experienced in 1953 and, more recently, in 2013.

The scheme included building a special tunnel to house two 132 kV cables, which replaced cables installed in the 1950’s. The cables were at a high risk of damage from vibration caused by the construction work.

The cables have been diverted through a tunnel running underneath the Wet Dock Lock. The 2.1m diameter tunnel is 42 metres long, with 22m deep shafts on the east and west side of the Wet Dock Lock, with 8.2 and 6m diameters respectively.
Peter Brett Associates Cambridge office are ICE East of England 5-a-side champs

A team from the Cambridge office of Peter Brett Associates saw off three other teams to take the regional title.

The competition kicked off on Saturday 4 June at Hertfordshire Sports Village, Hatfield. In the first round Peter Brett Associates beat a team from Smith & Wallwork (also Cambridge based) 1-0. The other first round match was between two AECOM Bedford office teams (green & blue) ending in a no score draw.

AECOM Blue beat Smith & Wallwork 1-0, their colleagues AECOM Green then took the wind out of Peter Brett Associates with an impressive 2-0 victory. The final game of the group stage saw AECOM Green repeat their 2-0 winning scoreline against Smith & Wallwork. Meanwhile Peter Brett Associates picked themselves up beating AECOM Blue 2-0.

What 5-a-side should be – which ended in a 2-1 victory for Peter Brett Associates.

In all a great day was had by all players, handshakes were exchanged between once bitter rivals and even the refs had fun. Congratulations to Peter Brett Associates who go through to the National Final in August.

Roads Minister opens Chelmer Viaduct

On 13 April, Roads Minister Andrew Jones officially opened the £32m Chelmer Viaduct in Chelmsford.

Three lanes and 900 metres long, it was completed on time and on budget by Graham Construction replacing the old two lane 1930s bridge which is to be demolished.

The project started in March 2015 and used 800 tonnes of steel, worth over £3.6m and 104 beams, all sourced in the UK. Around 48,000m³ of earth was moved and 10,500 square metres of surfacing laid to complete the project.

Left to right: Essex County Council Chairman, Councillor Norman Hume, Highways England Chief Highway Engineer Catherine Brookes, Roads Minister Andrew Jones and GRAHAM Director Leo Martin.
The award followed his top performance during his Professional Review. The reviewers were so impressed they nominated him for the medal. Three nominees are put forward to present a project to the awarding panel. The Panel said he should be highly commended for delivering an impressive presentation and his undoubted knowledge of the project in response to some tough questioning.

Lloyd works for Morrish Consulting Engineers on structural designs and detailed computer aided design (CAD) drawings, including models for analysis on larger projects. He is also a STEM (Science, Technology, Engineering, and Mathematics) ambassador working with local schools and colleges. He is studying part-time for a Bachelor of Engineering, BEng (Hons) in Civil Engineering at London South Bank University.

A thrilled Lloyd said:

“this is a fantastic benchmark in my engineering career and a huge stepping stone to what I hope will be a successful career in what I love doing.”

“Following news of the nomination, I researched Jean Venables and I was delighted to see the work she did in her presidency to promote Technician members and I hope to channel this ethos as much as possible. I would like to thank Morrish for all their support through this process and in my career so far, to the reviewers who put me forward for this award and everyone else who helped me become a Technician member of the ICE.”

Lloyd will receive the medal, a certificate and £500 at ICE's Annual Awards Ceremony in the autumn.

Jean Venables was ICE's first woman President (2009/10). She used her presidential term to raise the profile of technician members and is still working to promote them.

Vox Popit and win £100

Since 2008 we have run a regional photography competition. As there is now a national ICE monthly This is Civil Engineering Photo Challenge we have decided to try something different.

Just send us your mp3/4, two minutes maximum on anything to do with civil engineering.

It could be your view on a particular area of the profession or a brief project report. So long as it is clean and legal it will be considered and the best will win £100.

Closing date 31 August. Send your entry to chris.dodson@ice.org.uk If the file is very large it might be a good idea to use Dropbox or similar.

Good luck Mr DeMille.
Steven Trewhella from Peterborough & Jonathan Broadhead formerly of Norwich but now based in Abu Dhabi have been made ICE Fellows.

They were presented with their certificates at ICE’s Westminster HQ by Senior Vice President Prof. Tim Broyd.

Steven works for Royal HaskoningDHV as Director of Business Development – Water Europe. Delighted at being made an ICE Fellow he said: “The recognition by the ICE and my peers is terrific, but what this really gives me is a renewed motivation and responsibility to apply my 25 years of experience in shaping and influencing the debate and responses regarding the water and urban challenges we face in the UK and globally, and how Civil Engineers should work with communities and other professionals to shape the future and our choices.”

Jonathan is Development Director for Abu Dhabi Airports. He had worked extensively overseas and on similar projects in Australia and South Africa as well as Heathrow Terminal 5. He said: “I am honoured to be made a Fellow.

Qualifying as a civil engineer requires dedication, hard work and a passion for what you do. But it offers a fantastic career that allows you to work as a member of a team on projects that contribute to the wellbeing and improvement of communities and society all over the world.”

Respected internationally, ICE Fellowship is the highest grade of ICE membership and a benchmark for those practising at the top level within the profession. Only those with a position of responsibility in the planning, design, construction, maintenance or management of important engineering work can be awarded this level of membership and add the letters “FICE” to their name. Perhaps it is time you applied for an ICE Fellowship?

You can find out more at www.ice.org.uk/fellow

Former Royal Engineer Seán Harris has joined ICE as Director of Membership. His arrival was somewhat delayed by the earthquake in Nepal where he was seconded as UK Defence Advisor and Commander of British Forces in Nepal.

In a diplomatic role he was responsible for the delivery of the UK’s defence diplomacy programme. He has extensive leadership, planning and financial experience including overseeing the Institution of Royal Engineers as it gained and implemented the Engineering Council licence to qualify members as EngTech, IEng and CEng.

Seán took over from David Lloyd Roach, who held the role for nearly 10 years.

Welcome aboard Sean.
The Carillion/Costain Joint Venture has joined ICE's This is Civil Engineering campaign. Banners are placed on infrastructure projects across the UK telling the public what civil engineering is about. It makes clear the link between the work taking place and benefits to the community and businesses and provides links to a dedicated website. We are always looking for more projects, if you are interested please send the details to iceeastofengland@ice.org.uk.

The A1-M1 Link Road involves building a two-lane dual carriageway running east from the A5 north of Dunstable to join the M1 at a new junction 11a south of Chalton. Construction started in March 2015 and ongoing works include drainage and culverts installation, site clearance, construction of temporary slip roads, archaeological surveys and the installation of boundary fencing. The scheme will take about 2½ years and working methods will be designed to have the least impact on local residents. The estimated cost of this scheme is £162.1million.

Further works on the M1 for the construction of the new junction started on 17 June 2015. These roadworks – including the installation of safety barriers, signs, CCTV and average speed cameras – should be finished in spring 2017 as the scheme nears completion.

The A5 provides a route from Milton Keynes to the M1 at Junction 9, passing through the built-up area of Dunstable. This section of the route often experiences traffic congestion. Other local routes also carry significant amounts of traffic and these include the A5120 passing through Houghton Regis and Toddington to Junction 12, and the A505 linking Dunstable and Luton town centres via Junction 11.

The completed scheme will:

- reduce journey times and improve journey time reliability for long distance traffic
- relieve Dunstable of significant congestion and through traffic on the A5
- reduce traffic travelling to Junctions 11 and 12 from the local road network in Dunstable, Houghton Regis and surrounding areas
- boost economic growth by investing in roads to relieve congestion and improve road safety
- provide a link between the M1 and the A5 that is critical to facilitate economic development and jobs growth in the Central Bedfordshire area
- unlock the development of 7,000 houses and 40 hectares of employment land – potentially providing 4,000 jobs at Houghton Regis, whilst also improving safety on the existing A5 and local roads

Patrick entered and presented the paper in the 2016 Emerging Engineer Awards. The East of England Final was held at Fitzwilliam College, Cambridge in March. He will go forward to the next round where papers from all ICE regions are considered and three selected for a national final later this year.

Reena was followed by Douglas Bale also from Mott MacDonald's Cambridge office. His paper was titled ‘The Lee Tunnel Flow Transfer System – Design and Construction of twin, 2.4m diameter, steel, elevated pipelines.’ As runners up Amrit and Douglas each received £100. Patrick and Douglas are colleagues working in the same office so it was particularly pleasing to hear how they helped each other prepare and rehearse.

A paper billed 'A Collaborative Approach to Design and Build Delivery Using NEC3 ECC Contracts’ landed Patrick Maguire from Mott MacDonald's Cambridge office £250.
ICE supports Location C for new Lower Thames Crossing

Responding to Highways England Consultation on the Lower Thames Crossing, ICE have called for a new tunnel at Location C and rejected plans for the construction of a new crossing at Dartford.

The response calls on Highways England “to ensure that the scheme delivers the most benefits to the area” by reconsidering the C Variant; the widening of the A229, so the approach to the new crossing does not become congested or overloaded.

The Institution also highlighted the need to reassess public transport on the crossings to consider the growth of commuter traffic between Essex and Kent. ICE suggested that Highways England could consider the installation of an additional light rail link connecting the Tilbury loop line and the North Kent Railway so that commuters between the two sides of the river would no longer need to travel into London to reach their destination. Failing a commitment for a rail link, a Park and Ride scheme would provide suitable provisions for cyclists and pedestrians.

The response also sets out the need for clarity on funding arrangements for the crossing, with ICE suggesting that Highways England should consider subcontracting out tolling, maintenance and warranty management of both crossings together to ensure the best service for road users, most resilience and greatest cost-savings.

Rod Hulse, Chair of the ICE South East England Transport Panel, which compiled the response, said:

“A new river crossing is essential if we are to reduce congestion on the Dartford Crossing and increase the productivity and growth of the South East and East of England. As a major trade link with Europe and with growing demand for housing in the area, it is vital that we ensure our transport network is able to cope by investing in new crossings.

“After examining the options, the Panel decided that building another crossing at Dartford would not be viable as it would have a lesser effect on traffic levels around the crossing and would cause severe disruption during the construction period.

“Instead we have backed a new tunnel to the East of Gravesend, at Location C. Now it is for Highways England to ensure that the region gets the maximum benefit from the new river crossing, which will require reconsidering the C Variant, looking at future commuter needs and the best funding arrangements for the two crossings.”

More than 47,000 people took part in a consultation for a new crossing making it the largest ever public consultation for a UK road project. The responses will be used to help decide a preferred route for the crossing by the Secretary of State later this year. Subject to the necessary funding and planning approvals, the new crossing would be open in 2025, if publicly funded. If private funding is also used to meet the costs of the project, it is anticipated the crossing would be open by 2027.