

Interview with John Bradley, Chair of JPEL/64

John Bradley has recently been appointed Chair of JPEL/64, the decision-making committee for the BS 7671 Wiring Regulations. We talk to John about his career and the changes he foresees to the future editions of BS 7671.

First, congratulations on your appointment of Chair of JPEL/64! What are you most looking forward to as Chair?

Chairing my first JPEL/64 meeting. This could be quite a challenge as JPEL/64 has more than 40 members, each with a mind of their own and not too shy to speak it! Seriously, though, I count it a privilege to chair a committee whose roots go back to the very early editions of the Wiring Regulations, and which is responsible for an important task with far-reaching consequences.

Can you please take us through your background through to your appointment as Chair of JPEL/64?

I started my career at the age of 15 as an apprentice electrician in electrical contracting, where I stayed for 8 years, rising to become a contracts engineer. After that, I moved into consultancy, where I spent 21 years in the design and management of electrical and mechanical installation projects. In 1994 I went to NICEIC as an Inspecting Engineer, rising to become the Principal Engineer after ten years, and 'retiring' in 2014. I now work part-time for Schneider Electric and also do consultancy work part-time.

I first got involved with JPEL/64 back in 1998, when I began serving on its panels. The panels do much of the detailed technical work on different parts of BS 7671 (the IET Wiring Regulations). I also served on various IEC and CENELEC committees that are responsible for the international wiring rules that form the basis of most of the content of BS 7671. In 2007 I became Chairman of Panel C of JPEL/64 – Electric shock protection and isolation and switching, which gave me a seat on JPEL/64 itself. The rest, as they say, is history. I became Chairman of JPEL/64 at the beginning of this year, following the retirement of Paul Galbraith, the previous Chairman.

What have been the highlights in your career?

Making off my first mineral-insulated cable end; getting my degree in Electrical Engineering from Birmingham Polytechnic and becoming a Member the IEE (the forerunner of the IET) and a Chartered Engineer; discovering that I had a fairly good understanding of the Wiring Regulations and then going on the help write them; working with some really interesting and talented people in every part of my career.

Looking to the years ahead as Chair of JPEL/64, what changes or inclusions do you foresee in BS 7671, broken down by, say, the next edition but also over the next decade?

Changes in the next edition, which will be the Eighteenth Edition, in 2018, are not too hard to foresee. These are likely to include the addition of safety requirements relating to the transmission of power over data cables, requirements for smart electrical installations and smart grids, and requirements for energy efficiency in electrical installations. Energy efficiency will be a new type of venture for BS 7671, outside of its historic, mainly safety-related role.

Changes beyond the Eighteenth Edition are more difficult to predict and I am not going to try, at least not in print. What I would say is that we live in a world of fast-moving technological developments. For example, who could have predicted the rise in importance of embedded generation (such as solar PV and wind turbines), mobile communications and LED lighting not so many years ago. Developments like these can have significant implications on our priorities as human beings, as well as on electrical loadings and load flow patterns, and hence on what we need from our electrical installations.

Which developments excite you the most?

The additions likely to be introduced by the Eighteenth Edition that I've just mentioned (power over data cables and energy efficiency), I think. But less glamorous changes can be stimulating too, if not exactly exciting. For example, the requirements recently introduced by Amendment No. 3 to BS 7671: 2008 to enhance the fire safety of consumer units and similar switchgear in domestic premises and to prevent the premature collapse of wiring systems in escape routes in the event of fire. Things like this can make a big contribution to improving safety for us all.

There is debate about certain areas of the electrotechnical industry, such as smart cities, requiring standards in place before actual physical, technical development progresses too far. What are your thoughts?

Standardisation work takes time, as consensus has to be built between all those involved in the standardisation process, not only in the UK but also in other European countries and the wider world. In order for suitable standards to be ready for implementation when the need comes, development work has to begin early. If standards are found wanting, or are absent, when the need for them comes, the result can be chaos and waste.

How 'futuristic' do you think we'll be in the next ten years, in terms of renewable energy, smart cities and robotics? Do you foresee significant behavioural change for the UK?

As engineers, it is part of our psyche to appreciate that technical change is always happening and that the rate of change only ever seems to grow. The UK will need to play its part, along with other countries, to develop wiring regulations that will make electrical installations fit for purpose in the face of change. We must also make sure that those wiring regulations are suitable for our particular needs in the UK, such as for UK wiring practices and equipment.

What would your advice be to young people entering the field right now, or considering electrotechnology as a career?

To those who feel drawn to it as a career and are prepared to work hard and sometimes suffer frustration, I say go for it! Many years of your life will be spent working for a living. Make them as stimulating, rewarding and satisfying as you can. A career in electrotechnology has certainly put a tick in all those boxes for me and for many others who I know.