

Students and the Wiring Regulations

With a great number of electrical courses available for anyone who wants to pursue a career in the electrotechnical industry, it's essential that those who intend on working with electrical systems, whether installing, maintaining or designing, have a good understanding of the IET Wiring Regulations, where they come from and what they mean. Nicole Whitton speaks to Steven Devine, Electrical Engineer, Educational Sector at the IET, about the IET's focus on students.

Students and the Wiring Regulations

Steven Devine was recruited from the educational sector to oversee the IET's further involvement with students and BS 7671, the IET Wiring Regulations. As Steven points out, when students begin studying to become an electrician, either through an apprenticeship or on a full-time course, they will generally have little or no knowledge of the Wiring Regulations and the related guidance, such as the *On-site Guide* and the Guidance Note suite. Steven points out the pressure on students: "When introduced to such titles the content can be difficult to understand and relate to for someone just entering the industry. However, as the students progress in their education and training, they will have to become familiar with the content in order to complete certain aspects of their qualifications."

Awarding bodies such as City & Guilds have exams that require students to use the Wiring Regulations and the *On-Site Guide*. As Peter Tanner, Lead Technical Consultant: City and Guilds, remarked: "With the introduction of the new 'Trailblazer' Apprenticeship, one of the new units is *Requirements of BS 7671: IET Wiring Regulations*. This means that students will be assessed on their knowledge and understanding of the publication towards the end of their study. As this is a technical standard, students always have difficulty understanding the language used within the publication."

Steven recalls his experience as a lecturer: "Because many students find the Wiring Regulations a fairly dull subject and the information within difficult to interpret it tends to be the subject they are happy to see the back of and therefore do not become as familiar with them as they should. I have personally seen many students complete electrical qualifications and still have difficulty in understanding the purpose and origin of the Wiring Regulations – and many more who have given up because they find the subject too challenging."

Steven's focus is to provide students with a clearer understanding of the importance of standards and regulations – who is actually responsible for them and how much voluntary time is contributed from experts from the electrotechnical industry. In addition, it should be made clear to students the process by which various accidents and incidents that occur as a result of electrical systems failing are brought to the electrotechnical committee to be discussed. Ultimately, amongst the students of today are likely to be the industry leaders of tomorrow.

"Students should be confident that they will have a voice and an influence on how the regulations are reviewed and amended in the future," says Steven.

What is the IET doing?

The IET is getting closer to education, to encourage emerging electricians to thrive in the electrotechnical industry by providing students with the support and guidance they need, not



only from the time they are working as electricians but from the moment they begin their education in the electrotechnical industry.

Having access to this guidance at an early stage will begin to pave the way for future electricians who have the aspiration to achieve excellence, to thrive in their career and to work with confidence, knowing that the electrical systems they are installing are safe and in accordance with the regulations.

The Student's Guide to the IET Wiring Regulations

The *Student's Guide to the IET Wiring Regulations*, available later this year, will provide guidance for students, helping them to navigate their way through the information available in the Wiring Regulations while studying electrical courses. The book is designed to integrate with current qualifications being delivered and to provide relevant content that will support learning and development and clarify the purpose and origin of various regulations in the Wiring Regulations.

Peter Tanner adds that "A student's guide to BS 7671 would be a great tool for any student new to the industry to introduce them into the world of electrotechnical standards and provide the essential background needed to develop an understanding of electrical installations, the regulations and how to apply them."

In addition, the IET is working to put together multimedia tools, such as videos and podcasts, to complement the Student's Guide and to better convey the IET Wiring Regulations.

What are your thoughts?

Let us know at wiringmatters@theiet.org about your experiences studying – and how you found understanding the Wiring Regulations, and how effectively you worked with the Wiring Regulations after your studies.

About Steven Devine – author of the *Student's Guide to the IET Wiring Regulations*

Steven Devine has been appointed as Electrical Engineer, Educational Sector within the Technical Regulations team, and is the author of the *Student's Guide to the IET Wiring Regulations*. He will be driving the focus on providing more support to students to better prepare them both for their studies and for their future careers.

Steven began working in the educational sector as an assessor, working primarily with apprentices who had already completed at least one year of their technical qualification and had had experience working in the electrical industry. At that stage in their education they needed to demonstrate vocational skills, the ability to carry out various work activities safely and, most importantly, install all electrical systems in accordance with the Wiring Regulations while demonstrating knowledge and understanding of the Wiring Regulations and how they are applied.

Steven says, "All too often I found that the apprentices would comply with the Wiring Regulations without really understanding why. For example, when asked why they were installing equipment in a certain way they would often reply "because that's what the regs say" or when verifying test result and asked why the value is acceptable the answer would be, again, "because that's what the regs say". Apprentices were aware that the values and

requirements needed to be met but had almost no idea why. I found the best way to make a lasting impact on the students was to tell them of incidents where things went wrong to maintain the importance of following the Wiring Regulations and the potential consequences of not doing so.”

Steven’s experience within the educational sector makes him ideally placed to drive the IET’s focus on empowering students and apprentices, and identifying the challenges that students face. Like any students, those entering the electrotechnical industry after studying will find the level of commitment that they have to apply to the work they are doing as one of their biggest challenges.

However, a second challenge that Steven has noticed during his time in the educational sector is the difference in views on the real world limitations on how systems should be installed against how the Wiring Regulations specifies they should be installed.

As Steven observes, “During the course of their qualification they will be installing various systems in the workshop on blank walls or boards with little or nothing to consider other than the bare bones of the installation they are working on. When they begin installing electrical systems in the workplace they will encounter many different environments such as loft insulation, existing installations that will not support additions to the circuit and special locations, zones in bathrooms etc. Although they may have covered this during their technical qualification, it is an area that is not always understood as well as it should be – like many other areas covered by the Wiring Regulations.”

Steven emphasises that, in order for students to have the best opportunity to have a successful career in the electrotechnical industry, they must have a good understanding of how to apply the Wiring Regulations in practice – and how to find their way around the Wiring Regulations when confronted with unfamiliar situations.