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Editorial
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Editorial

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In 2011, ICE Publishing, the publishing division of the Institution of Civil Engineers (ICE), launched a major new flagship journal series: ICE Science. But why would such a non-profit institution, one that has been serving civil engineers for nearly two centuries, want to suddenly branch into 'Science'?

This move was made by ICE Publishing in recognition that they could better serve their constituents, and capture a broader view of their potential readership, by recognising the importance of interdisciplinary research. By publishing at the intersection of many scientific disciplines, and specifically tailoring offerings to a materials focus, the ICE Science series aims to inspire the cross-fertilisation of ideas and drive forward knowledge both within and beyond civil engineering. This collection covers materials science, biomaterials, nanotechnology, energy, green chemistry and surface engineering, bringing together communities that traditionally work in silos to hopefully inspire fresh thinking in areas with application to civil engineering.

This was a big change for ICE – most of the core civil engineering titles were geared towards the practitioner market, meaning the journals operate very differently to the academic journals of ICE Science, both in terms of editorial scope and readership. Entering into the academic market, growing an ICE presence beyond civil engineering and reaching a global audience were all driving forces for the birth of ICE Science. Over the last decade, interdisciplinary research has become increasingly high profile, with academics and government bodies beginning to see it as a way to deal with some of humanity's greatest problems.[1] Prior to the launch of ICE Science, ICE Publishing conducted research into the growing market of interdisciplinary science and identified an opportunity to provide a platform for the funded physical sciences research that was being undertaken on a global scale. Porter and Rafols developed interactive maps that assist this process, which helped to identify the links between materials, engineering, nanoscience and chemistry, particularly in EPSRC-funded research efforts.[2]

As an established engineering publisher, with a history stretching back to 1836, ICE Publishing's internationally renowned journals and books comprise the most comprehensive civil engineering collection in the world. The wide range of publications produced ensures expert advice is continuously shared, while integrally supporting ICE's commitment to knowledge transfer and best practice within civil engineering and construction. To grow this knowledge transfer and best practice, the core sciences needed to be embraced. The launch of the ICE Science collection strengthened ICE's vision, viewing research communications as a multidisciplinary platform for the engineering and scientific community. After the successful launch of the inaugural three journals under the ICE Science brand, ICE Publishing added a fourth title: *Green Materials*.

ICE has always been committed to sustainable engineering. Richard Coackley, the 2012 ICE president, commented on the ICE Science journals in an issue of the *Proceedings of the ICE – Civil Engineering*: 'As we think about the future and our impact on the planet, it is imperative that engineers and scientists continue to work together in order to ensure we have sustainable buildings and houses that are environmentally responsible and resource efficient'.[3]

The focus of *Green Materials* unites researchers in the fields of polymer chemistry and materials science, who work towards a common goal of reducing the use of hazardous substances in the design, manufacture and application of products. With increased strain on natural resources and growing markets and across the globe, the importance of fiscally and environmentally responsible materials has never been higher. These green materials build from the field of green chemistry, and look to develop alternatives to traditional materials or processes that offer an environmental advantage. We hope that integrating such a front-line science journal within an engineering institution will promote the uptake of green materials innovation in major applications.

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The content of *Green Materials* is applicable to all scientists and engineers working with polymers and materials who have an interest in the environment and are adopting green principles and sustainable methodologies. Beyond this journal, examples of this research can also be found within ICE Publishing's engineering literature, ranging from a book chapter dedicated to alternative materials in construction[4] to journal articles about natural polymer-based concrete[5], the reuse of highway materials[6] and general renewable and sustainable engineering practices[7].

The topical and common themes represented in *Green Materials* are an extension of essential engineering and construction principles that ICE Publishing has featured in their portfolio for many years over. The interdisciplinary nature of this journal, together with the other four titles that constitute ICE Science, will hopefully lead to improved practice, thoughtful perspective and better integration and knowledge transfer for scientists and engineers alike.

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