

JUNE/JULY 2011

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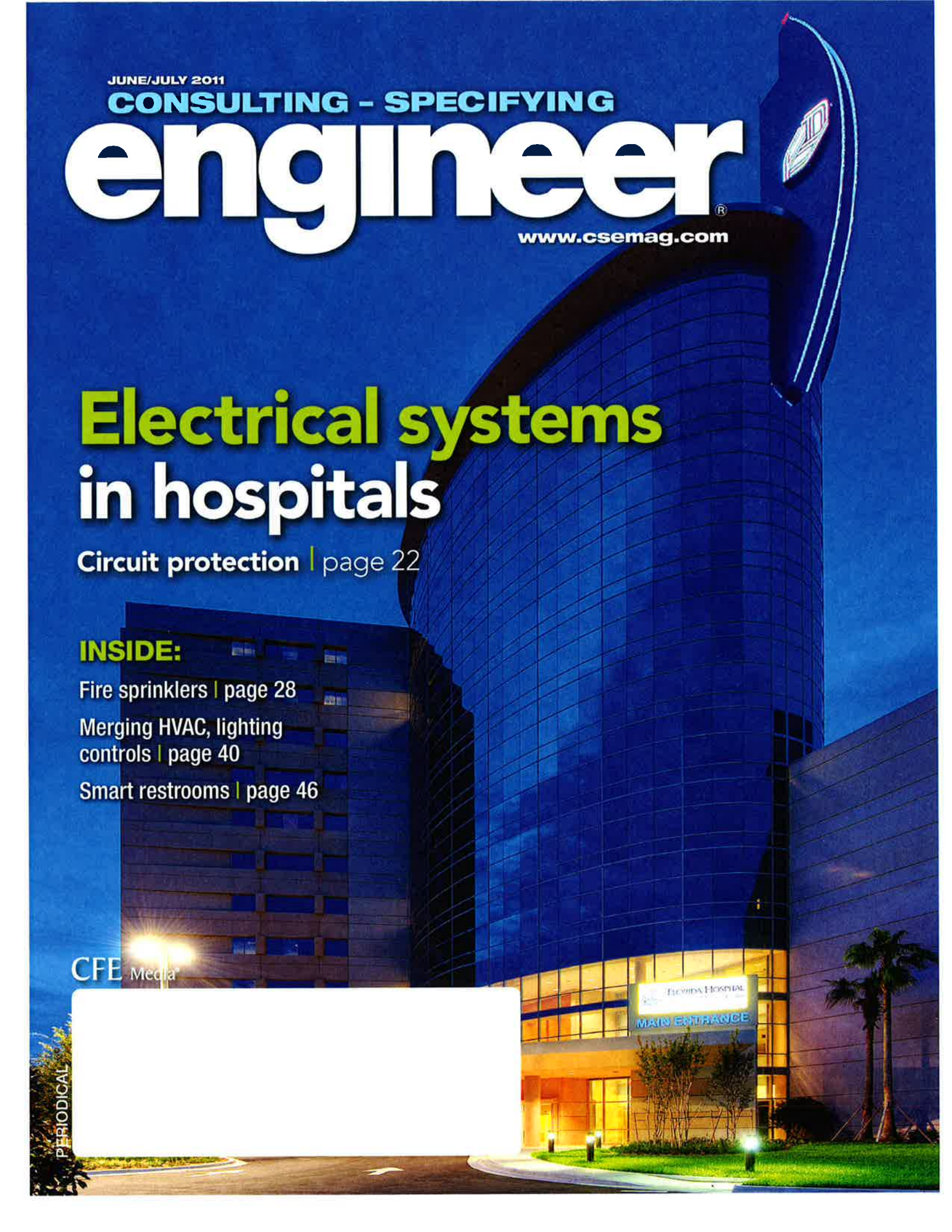
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## A fully programmable controller equipped with basic wired I/O has the capability to manage both HVAC and lighting.

### Trans-disciplinary technology development

We often react to innovation with admiring surprise: "What a great idea!" But in many cases, we should react with inquisitive reprimand: "What took so long?" In this case, I really believe it should be the latter because even though the factors that have delayed this innovation are tangible, they should have been circumvented earlier.

These factors are twofold. First, for a number of manufacturers, the departments and subsidiaries that develop HVAC products are separate from the ones focused on lighting products. Second, their respective research and development efforts were always limited to the confines of automation technology, foregoing all the opportunities presented by the IT and networking side of the technological spectrum. Creating

a line of HVAC and lighting, wired and wireless controllers, required taking the opposite route: combining automation, IT, and networking know-how through an innovation process that leveraged multiple fields of expertise.

The juxtaposition of expertise can be summarized as follows: Automation know-how is the base of the pyramid, providing reliability, interoperability, and accuracy in execution. IT technology powers this base via electronic components that boost controller random-access memory, storage, processing capabilities, and multiprotocol integration. Networking standards, namely established wireless ones, add flexibility and reduce the labor cost of system installations.

By finally opting for a transversal research and development philosophy, the building automation industry is now able to offer more flexible and powerful

solutions to contractors and end users. Contractors gain competitive advantages by offering systems with shorter payback periods and reduced invasiveness and downtime on installation. End users gain by harnessing the maximum amount of energy savings at a lower cost of ownership.

The smartphone you have in your pocket right now probably enables you to talk, exchange e-mail, surf the Web, and take pictures at the same time. What has your BAS controller done for you lately?

**lcse**

*Hamer is the vice president of product strategy at SCL Elements Inc. He is the co-founder of the engineering consulting firm Eco2Max and has worked for Nortel and Verint. His expertise covers energy efficiency, greenhouse gas reduction, wireless technologies, and network reliability and security.*

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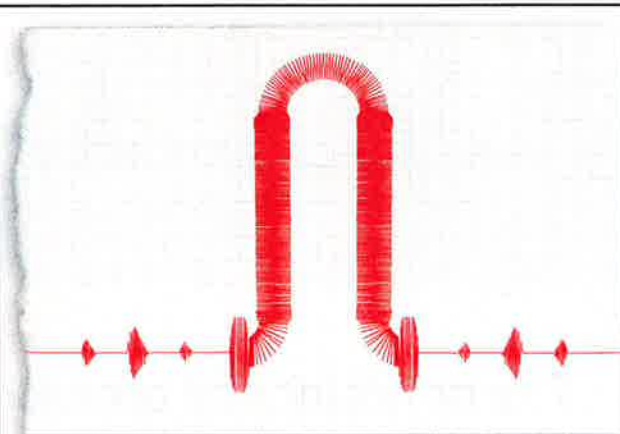


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