



DIRECTOR'S MESSAGE

The Research Laboratory of Electronics (RLE) is the oldest, largest, and most intellectually diverse of MIT's interdisciplinary research laboratories. Now well into its second half-century, the Laboratory continues to thrive as its researchers push forward the boundaries of knowledge and bring new technologies to fruition. Their achievements, during the 2003-2004 academic year, are described in this Progress Report.

During the past year, the Laboratory embarked on a process of refurbishing its core space. While our research facilities have undergone a remarkable and intensive process of renewal — driven by the creation of new research initiatives and the arrival of new faculty — the Laboratory had not modernized any of its common spaces since they were created in the 1950s to 1970s. That situation changed dramatically and for the better this year when we opened the new RLE Conference

Center, the centerpiece of a new, ongoing effort to upgrade common spaces throughout RLE. Comprising two conference rooms — each equipped with modern projection and networking capabilities — that can be joined into a single large space, this facility doubles the size of RLE's previous conference room.

I am especially pleased that the MIT Corporation approved my request to name the new rooms after two individuals who made profound contributions to the intellectual life and success of RLE: Professors Jonathan Allen and Hermann Anton Haus. Moreover, at the May 14th dedication of these rooms — with the Allen and Haus families in attendance — I announced the creation of two named funds: the Jonathan Allen Junior Faculty Fund, an endowment to strengthen faculty career development in RLE; and the Hermann Anton Haus Fund, a resource to support a visiting lecturer program in RLE. I invite you to learn more about these funds at www.rle.mit.edu/allenfund and www.rle.mit.edu/hausfund, and to join us in continuing the missions that were so important to these two RLE innovators and leaders.

While physical and financial resources are surely important to the life of RLE, their value pales in comparison with that of our human capital: the Laboratory's faculty, research staff, and students. This past year, Professor Daniel Kleppner stepped down from his post as Associate Director, having served in that capacity since 1985. His contributions, in setting the direction for physics research within RLE, have been outstanding, and thus his replacement, Professor David Pritchard will have big shoes to fill. I am happy to say that Professor Kleppner will continue to be very active with his RLE research and as Director of RLE's Center for Ultracold Atoms.

At the other end of the experience spectrum, RLE continues to be blessed by an influx of new faculty. This year, Professors Karl Berggren, Vivek Goyal, and Vladan Vuletic joined the Laboratory, adding strength to our efforts in nanofabrication, signal processing, and atomic physics, respectively. As has always been true, RLE is about the future, and the future will belong to these young faculty, their students, and the many others who will join the Laboratory in the years ahead.

Jeffrey H. Shapiro
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