Such side-by-side problem-solving is the norm at the School of Engineering and Applied Sciences (SEAS), where approximately one-third of engineering courses include an experiential component. In "Engineering Problem Solving and Design Project," the approximate equivalent of a junior tutorial, students act like management consultants, taking on real-world puzzles with no clear solution or even problem definition; similarly, in "Medical Device Design," a physician might ask how to improve a clumsy surgical tool—leaving students to formulate the problem in engineering terms and design possible solutions. Faculty members act more like coaches than traditional instructors—in many cases, they do not have the answers, either. "That, of course, is real life," says SEAS dean Cherry Murray. "Engineers never have a rote situation that's really trivial and just involves applying an equation."

One year, students were instructed to help Massachusetts law-enforcement officers find new ways to deal with a gang problem. "Students spent numerous hours with the Springfield police, following them around, being able to be in helicopters over Springfield—actually experiencing what the police were experiencing," says Murray. Through an iterative process, they worked with the police to define problems and design potential solutions—for instance, a software platform that used police data to map and analyze crime—and gained new skills along the way. "It's very important," says Murray, "that you have the confidence to address problems and not be afraid that you don't have the background." A major goal of the SEAS campaign is to fund more such hands-on experiences, she says, and to create "design studios" with equipment and space for students to take on larger projects like building robots and cars. An SEAS faculty committee advising on the design of the school's new quarters in Allston focused at length on the reconceived teaching spaces required to support this kind of learning (see **http://www.harvardmagazine.com/allston-14**).

In the humanities, new spaces are allowing students to participate in art-making practices. Some artistic applications are coincidental—last year, the SciBox hosted a dramatic production—while

HARVARD PORTRAIT

Rohini Pande

You become interested in things you've seen a lot of, says Rohini Pande; for her—growing up in India—issues of poverty and gender were "first-order." The Kamal professor of public policy witnessed protests demanding more women political candidates during her studies at Delhi University; they triggered questions about representation and inequality that still dominate her work. She uses economic approaches to study the design of democratic institutions and regulatory structures, seeking to measure the effect of initiatives like voter information campaigns, microfinance, and market-based mechanisms for environmental regulation. She has found, for instance, that gender quotas in village councils raise local girls' career aspirations and educational progress. Outside work, she says, "I spend a lot of time climbing, badly." Her family (her mother is a journalist, her father a public administrator, and her sister a doctor) is from the Lower Himalayas, and Pande began climbing—"more like snow-plodding"—as a child; a recent climb had her clinging to the sea cliffs of Cornwall. She is no stranger to England: the Rhodes Scholar earned a master's at Oxford and a Ph.D. from the London School of Economics; she arrived at Harvard from Yale in 2006. She returns often to India to conduct field experiments, gathering evidence to shape policy design and implementation as part of the Evidence for Policy Design initiative she co-founded in 2008. The "craft" of a good field experiment, she says, lies in isolating specific effects that speak generally to human behavior. From policies to regulations to elections, "I'm curious to look for explanations that help link the design of a policy to its subsequent impact."

Photograph by Jim Harrison