# spectrum





COVER, CLOCKWISE FROM TOP LEFT: GLENN ZORPETTE; DAVID GOLDMAN/AP PHOTO: EMILIO MORENATTI/AP PHOTO: PAULA BRONSTEIU GETTY IMAGES; EROS HOAGLAND/REDUX; JEROEN OERLEMANS/PANOS PICTURES; MARKO DIURICA/ REUTERS; JOAO SILVA/THE NEW YORK TIMES/REDUX

THIS PAGE, CLOCKWISE FROM TOP: LCPL. PAIGE J. BRAY; VIKTOR KOEN; ROBERT BOSCH; ANATOMY BLUE



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# Of Whales and Wind Turbines

When you think wind turbines, you probably don't think whales. But by incorporating some structures inspired by humpback whale fins, one firm has built much more efficient turbines. And by copying the way fish swim in schools, a separate research team has figured out how to



pack more turbines into wind farms. Such biomimicry could contribute to more affordable renewable energy.

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e-mail filters, spam has become an annoying part of our daily lives. But a group of researchers has found a way to help cut down on e-mail junk—by hitting spammers where it hurts most: their wallets.

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10 YEARS It's been a decade since IEEE launched its job site for members, and the service has never been so needed. There are all sorts of features to help members find a job. And more than 5000 employers use the site to post open positions-about 1300 every month.

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20 October: Plasma Modeling With COMSOL Multiphysics

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27 October: Simulation of Vacuum **Electronics Devices Using VORPAL** 

Requirements Management's Key Role in the Nuclear Industry

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