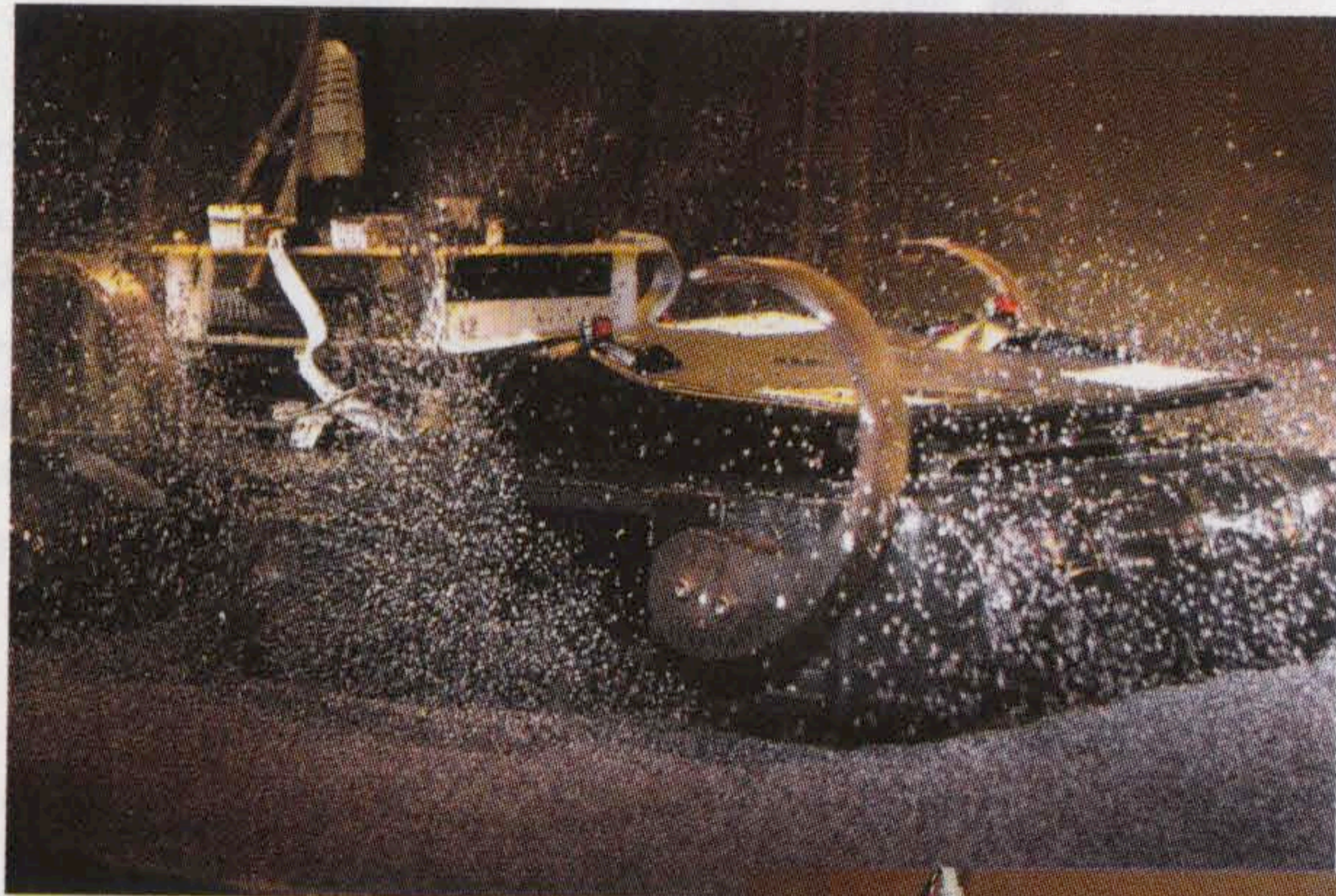


Pennsylvania.

Graduates will be qualified to work as mid-level managers or highly qualified technologists in all technology-intensive industries, says Robin Shoop, director of Carnegie Mellon's Robotics Academy and the director of the Robotics

Corridor project. David Schiebel (left) associate professor at Butler County Community College, discusses a robot aircraft project with U.S. Rep. Mike Doyle and fellow assistant professor Denton Dailey at a kickoff meeting for the new degree.

For details, visit [www.ri.cmu.edu/news\\_view.html?news\\_id=48&menu\\_id=238](http://www.ri.cmu.edu/news_view.html?news_id=48&menu_id=238).



## GEORGIA TECH

[www.physics.gatech.edu](http://www.physics.gatech.edu)

### Sand-Clawing Robots

A study published in the Proceedings of the National Academy of Sciences takes what may be the first detailed look at the problem of robot locomotion on granular surfaces. The study's recommendations include: robots attempting to move across sandy ground should move their legs more slowly, especially if the sand is loosely packed. "We have discovered that when a robot rotates its legs too fast or if the sand is packed loosely enough,

the robot transitions from a rapid walking motion to a much slower swimming motion," says Daniel Goldman, assistant professor in the School of Physics at the Georgia Institute of Technology. If limb-rotation parameters were appropriately set, the robot could walk across the sand quickly at a speed of one body length per second. The project was funded by the Burroughs Wellcome Fund and the U.S. Army Research Laboratory.