MIT solar car team places eighth in 11-day Australian race

By Paula Monte

Despite numerous breakdowns and an electrical fire, MIT's solar automobile team finished eighth out of 24 contenders in the Pen
tax World Solar Challenge held in Australia last month.

"It was a tough race," said James Worden '89, designer of the team's solar-powered automobile, Solectria IV-B. "The roads were rough, they were paved with half inch pebbles pulsing out, which caused vibra-
tion and a lot of stress on the cars. Worden explained. The So-
lectria's stiff suspension system was not designed to absorb so much stress.

The 2000 mile race began Nov.
1 in Darwin on Australia's north-
ern coast and ended 11 days later in Adelaide, on the southern coast. General Motors finished first followed by Ford and the Paul Revere, according to Worden.

Worden and four of his team-
mates, Cathedral Anderson '90, Gill Pratt G, Megan Smith G and Robert Webster G, traveled to Australia for the race.

Accidents plague the car before the race starts

The team's first mishap came four days before the race began. Wires from the solar panel accidentally touched the battery cables after a road test in Darwin. This caused an electrical spike which damaged the motor's sensors and control-
ler. Pratt, the team's electronic specialist, had to replace both the sensor and controller with backup systems reserved for the race. The controller, a major component of the solar car, regu-
lates the electric flow from the solar cells to the engine.

One day before the race a fire broke out while Worden was road testing the Solectria. "Apparently, the battery terminals were loose," explained Worden. "The replacement seat was made from foam padding.

"Cathy Anderson saved the day and probably my life," Wor-
den said. She put the fire out "with her own hands and breath by blowing and batting the fla-
rions," from his clothes and hair. Worden explained. She put the fire out by blowing and batting the flames, from his clothes and hair. Pratt pulled the seat out of the car generating further damage to the rest of the three-wheeled auto. Worden escaped unharmed, with singed hair and a scorched shirt.

"We were really bummed out over the fire," Pratt said. "It was a real hard hit to the team because we thought we might be putting our lives in jeop-
dardy," Pratt said. But after weighing possible risks and buying a fire extinguisher for the car, they decided to go ahead with the race.

Worden and Cathedral Anderson, designer of the Solectria's wheels and brakes, shared the driving. They managed to catch up with and pass many cars dur-
ing the sixth and seventh day of the race. But on the morning of the eighth day, they discovered a slow leak in a tire, according to Worden, and when Anderson was changing the tire, she acci-
dentally ruptured it with a screw-
driver. The team scrambled to find a new tire. They found one, but the repair cost them two hours.

"We finished the race with just one other problem," Worden said. "The bracing holding the solar panel snapped when the Solectria was maneuvering through a bumpy detour.

On the fifth day of the race, when the Solectria was five-tenths of the way to the finish line, offi-
cials announced the race was over.

Worden is gearing up for the next solar race, the Tour de Sol, in Switzerland next June.

Bose Foundation is sponsoring a full one-year fellowship for a first year graduate student in electrical engineering and computer science at MIT.

The fellowship is for the full amount of tuition for the fall and spring terms plus a stipend of $1000 per month for nine months (based on current tuition this approximately $23,000).

Nomination for the fellowship will be by faculty recommendation or by direct application by the student.

For more information, contact Graduate Office or
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