


Houghton, MI
 **9°F** [Extended Forecast](#)
[Find Another Location](#)
 Data provided by The Weather Channel ©

[Newspaper contacts](#) | [Submit News](#) | [Subscribe](#) | [Create an Account](#) | [Home](#)

Member Login: Email: Password: [GO](#)

Search: Local News Classified Web [GO](#)

[Community News](#) | [Obituaries](#) | [Sports](#) | [Lifestyles](#) | [Winter Visitor's Guide](#) | [Trail Report](#) | [Winter Carnival Tab](#) | [CU Galleries](#) | [Blogs](#) | [Today's Frontpage](#)
[Local Classifieds](#) | [Jobs](#)

Community News

[Features](#)
[Letters](#)
[Local News](#)
[Business](#)
[Columns](#)
[Editorial](#)
[Obituaries](#)
[Outdoors](#)
[SUBMIT NEWS](#)

Sports

[Local Sports](#)
[Sports columns](#)
[Michigan Sports](#)
[National Sports](#)
[SUBMIT SPORTS](#)

Lifestyles

[SUBMIT LIFESTYLES](#)

News Elsewhere

[Michigan News](#)
[National News](#)
[International News](#)

Special Sections

[Winter Visitor's Guide](#)
[Trail Report](#)
[Trailinfo](#)
[Winter Carnival Tab](#)

CU Galleries

Blogs

Today's Frontpage

Ads

[Local Classifieds](#)
[Michigan Classifieds](#)
[Jobs](#)
[National Ads](#)
[Place an ad](#)
 Print ads from the Mining Gazette
[Real Estate Flip Book](#)
[Professional Service Directory](#)
[Rate Card](#)

Online Extras

[Crosswords](#)
[NOAA weather](#)

Customer Service

[Newspaper contacts](#)
[Advertising](#)
[NIE](#)
[Links](#)
[Terms of Service](#)

Affiliated Sites

[Escanaba Daily Press](#)

Local News

> [Community News](#) > [Local News](#)

Tech satellite project honored

Team finishes third at national competition

By LAYLA ASLANI, DMG Writer

POSTED: February 11, 2009

[Save](#) | [Print](#) | [Email](#) | [Read comments](#) | [Post a comment](#)

HOUGHTON - Two years of work on a nanosatellite led to a third-place finish at a national competition for members of Michigan Technological University's Aerospace Enterprise.

Approximately 25 of the 75 students on the team and advisor Associate Professor Brad King traveled to Albuquerque in late January for the University Nanosat Program competition sponsored by the Air Force Research Laboratories. They competed against 10 other schools for funding and the chance to send their microwave-sized satellite, Oculus, into space. Oculus was designed to track space junk, known U.S. satellites and meteoroids using a narrow field camera and a wide field camera once in orbit.

Project Manager and mechanical engineering senior Jeff Katalenich said the satellites were judged on several aspects.

"At the flight competition review, they bring together a bunch of judges from the Air Force, industry, and NASA and then they have all the different schools give a PowerPoint presentation to everybody talking about their mission, their vehicle and what they accomplished at their educational program that they set up," he said. The judges also viewed demonstrations of the vehicle functionality, he said.

Although they did not get first overall, losing to the University of Colorado at Boulder and Washington University in St. Louis, the Tech group did win an award for the best K-12 outreach. For this aspect of the project, the students visited area schools and schools in their hometowns.

"For some of them, we just went into the classroom and did presentations and in some others we did activities," Katalenich said. For example, at Calumet High School Aerospace members helped students build and launch water bottle rockets, he said.

The Aerospace Enterprise is now looking toward the future, Katalenich said, with new students continuously joining to keep the project going after students graduate.

"We've been accepted into the Nanosat-6 program, which is the next iteration of the program," Katalenich said, noting the competition is slated for January 2011. "What we're going to do is actually continue working on the Oculus. Right now, the hardware and a lot of the software is done."

The students plan to complete the software and then do environmental testing to see whether the Oculus can survive getting to and being in space. For these tests, the satellite will be placed on a shaker table that simulates launch vibrations and also placed in a vacuum chamber with temperature variances.

"(The chamber) simulates heating and cooling cycles that it will experience in space," Katalenich said. "That will help us determine whether our vehicle is ready for space thermally."

Should work on the project continue with the same momentum it has had, Katalenich said Tech will have another strong showing at the next competition.

"I think it would most likely be the most complex and most complete vehicle that the competition has ever seen," he said. "If you look at the school that won second place at this competition, they had

Article Photos



Photo courtesy of Jason Julien
 Members of Michigan Technological University's Aerospace Enterprise are seen at a national competition sponsored by the Air Force Research Laboratories in Albuquerque in January. The team took third place overall and also won an award for the best K-12 outreach project.



Need a Sign?

jobs.
 MiningGazette.com



actually spent the last three iterations of the program on the same vehicle. We had spent two years on the project, they had spent about six."

Katalenich, who will graduate in May, said participating in the enterprise over the past two years taught him a lot.

"Being able to design and build and debug a satellite is really an incredible experience to have as an undergraduate student or even as a student in general," he said. "If you look at people out in the industry right now and in the field, no single person will have control over the design and the whole aspect of the vehicle and fabrication and deciding what the mission will be as we did."

Layla Aslani can be reached at laslani@mininggazette.com.

[Subscribe to Mining Gazette](#)

Share:

[Facebook](#) [MySpace](#) [Digg](#) [Stumble](#) [Buzz up!](#) [Mixx](#) [Fark](#) [del.icio.us](#) [LiveSpaces](#)

Member Comments

[View Comments](#) | [Post a comment](#)

No comments posted for this article.

You must first login before you can comment.

Existing Member Login

Not a Member? [Create a Member Account](#)

*Your email address:

*Password:

[Forgot Password?](#)

Remember my email address.



[Michigan Death Records](#)

Get Michigan Death Records Online Retrieve Full Death & Vital Records

[Detroit, MI Drug Rehab](#)

Highest Quality Treatment For Drug & Alcohol Abuse. Call For Consult!



Ads by Google

[Community News](#)

[Obituaries](#)

[Sports](#)

[Lifestyles](#)

[Winter Visitor's Guide](#)

[Trail Report](#)

[Winter Carnival Tab](#)

[CU Galleries](#)

[Blogs](#)

[Today's Frontpage](#)

[Local Classifieds](#)

[Jobs](#)

The Daily Mining Gazette

P.O. Box 368, Houghton, MI 49931

906-482-1500 - FAX: 906-482-2726 - Toll Free: 1-800-682-7607

© 2009 . All rights reserved. | [Terms of Service and Privacy Policy](#)