IIIT-H Media Release
June 22, 2011

IIIT-H Wins World Third Place at CanSat 2011
– a NASA Sponsored International Aerospace Competition

IIIT-H’s team Mission Gaganyaan has won the Third Place at the finals of the global aerospace competition CanSat 2011, which has seen participation from many premier Universities from across the world, at Abilene, Texas, USA, on June 12, 2011.

Like last two years, Mission Gaganyaan is the only team from India to qualify for the finals of this prestigious international contest this year.


About CanSat Competition
CanSat is a NASA sponsored international competition, organized, each year, by American Astronautical Society. The contest allows student teams, from colleges and Universities around the world, to design, build, and fly, according to the criteria spelled out the organizing committee, an aerospace system called CANSAT.

While most space-related competitions are paper design competitions, the CanSat competition is designed to reflect, on a small scale, a typical real world aerospace program. CanSat provides students involvement with the end-to-end life cycle of a highly complex engineering project, from conceptual design through integration and test to actual launch of the system, concluding with a post-mission summary and debrief.

Winning teams require multiple competencies including in telemetry, firmware programming, communications, aerospace engineering, software application development, and hardware fabrication.

Teams are scored throughout the competition against real-world deliverables like schedules, design reviews, and flight demonstrations. For more details, check http://www.cansatcompetition.com/Main.html

CanSat 2011 – Mission
- To develop and deploy an autonomous CanSat (= micro-satellite) that will have two parts - a carrier and a lander, which will have independent electronic, descent control, and data handling subsystems
- The carrier and lander must separate from each other during flight, at a height of 500 meters from the ground.
- The lander will carry one large raw egg of a hen intact, for the entire duration of the flight – from launch to landing.
- During the flight and descent, telemetry data should be transmitted once every five seconds to a self-build ground station.
- The telemetry data should enable the ground station to accurately predict the landing coordinates.
- Finally, the CanSat / lander should land without damaging the egg.

Check http://www.cansatcompetition.com/Mission.html
**CanSat 2011 – Word Finals**
A total of 20 leading Universities from around the world, including the University of Michigan, Virginia Tech, Istanbul Technical University, University of California, Ryerson University, Michigan Technological University (MTU), University of Nebraska, University of Alabama, and Queen's University, qualified for the Finals.

By this incomparable accomplishment at the premier international aerospace competition, Mission Gaganyaan has undoubtedly made India mighty proud. IIIT-H is glad to have contributed to growing India’s global brand in the area of science and technology (S&T) research.

A unique feature about the team is it consisted entirely of undergraduate students, reflecting IIIT-H’s commitment to offering the best and research intensive education to the bachelors’ students.

“IIIT-H encourages and makes it possible for even the undergraduate students to do research – an opportunity unprecedented in India. The current milestone is yet another outcome of the leading edge research opportunities for bachelor’s students at IIIT-H,” Prof. Rajeev Sangal, Director, IIIT-H.

Credit for the team’s uncommon achievement is also due in large measure to the outstanding efforts, technical guidance, and mentorship of Prof. KS Rajan, Head of IIIT-H’s Lab for Spatial Informatics (LSI).

**Mission Gaganyaan (Team IIIT-H) at CanSat 2011**
The IIIT-H team, ably led by Prof. KS Rajan, comprised of 10 undergraduate students from the electronics and communications engineering (ECE). The team worked very diligently for the last six months on various aspects of the design, fabrication, and testing of the micro-satellite - IIIT-H’s CanSat - to compete with some of the best teams from around the world.

The team has worked on all the components in the design of the system - sensors, communication, body design, descent mechanisms, and ground control station.

The team has been much appreciated for its robust design and innovative approach during the Preliminary Design Review (PDR), Hardware Review, and Critical Design Review (CDR), which are the earlier stages of the CanSat competition.

For details, visit [http://iiit.ac.in/cresearch/lsi/cansat_html/index.html](http://iiit.ac.in/cresearch/lsi/cansat_html/index.html)

**Sponsorship Support - Progress Software and AMD**
IIIT-H and, in particular, Mission Gaganyaan are highly grateful to Progress Software [www.progress.com](http://www.progress.com) and AMD [www.amd.com](http://www.amd.com), both Silver Sponsors, for enabling this achievement by lending partial financial support for the team’s participation.
Mission Gaganyaan - Members

Team Guide, Mentor, and Faculty Advisor
Prof. KS Rajan, Associate Professor & Head, Lab for Spatial Informatics (LSI), IIIT-H

Team Members
1. Nikhil Soni, undergraduate, pre-final year, ECE
   Student Team Leader
2. Palash Jain, undergraduate, pre-final year, ECE
   Deputy Student Team Leader
3. Neeraj Pradhan, dual-degree, ECE, third-year
4. Varun Ramchandani, dual-degree, ECE, third-year
5. Roopak Dubey, dual-degree, ECE, third-year
6. Abhishek Bhatia, undergraduate, ECE, third-year
7. Jasmeet Singh, undergraduate, ECE, third-year
8. Prahal Ghai, undergraduate, ECE, second-year
9. Ramakrishna Vedantam, undergraduate, ECE, second-year
10. Aashit Verma, undergraduate, ECE, second-year

Pictures of Mission Gaganyaan 2011:
Check http://iiit.ac.in/cresresearch/lsi/cansat_html/photo.html

Mission Gagayaan at Earlier Editions of CanSat

CanSat 2010 (at Amarillo, Texas, USA; June 13, 2010)
- Ranked World FIRST
- First ever team from Asia to win World Finals
- Only team from India to qualify for World Finals
- Sponsors: Rockwell Collins IDC (Platinum) and Infosys (Silver)
- Check http://cansatcompetition.com/2010_Winners.html

CanSat 2009
- Finished 8th at World Finals.
- Only team from Asia to qualify for World Finals.
- First ever team from India to qualify for CanSat.
- Check http://www.cansatcompetition.com/2009_Winners.html

Media Contact for Details
For more details of Mission Gaganyaan or technical details of IIIT-H’s CanSat, contact Prof. KS Rajan, on 040 6653 1276 or rajan@iiit.ac.in.