

University of Bridgeport
September HASP Status Report
Submitted October 27, 2016
Submitted: Jani Pallis Faculty Advisor

Team Activities:

Presentations:

Our HASP payload was on display with a continuously running PPT presentation at the Discovery Museum and Planetarium in Bridgeport, CT on Aeronautics Day, Oct. 15, 2016. Xuan “Sam” Zhang, Maheshwari Kumar Rakkappan, and Rochen Krishna Thashanath Sajeevan spent the day greeting, demonstrating and explaining our testbed and HASP experience.

Data Analysis:

Three team members Maheshwari Kumar Rakkappan, Rochen Krishna Thashanath Sajeevan and Sam Zhang are working on the final summary of data and the report is expected to be completed and submitted before Thanksgiving.

Abd Elfatah Karkory has been developing a CFD simulation to emulate the heat transfer the payload experienced on the ground and in flight.

North Carolina

Kayla Seiffert from the North Carolina HASP team contacted us. Their team believes that perhaps their payload picked up noise from the Bridgeport payload. Kayla and I have discussed; our team has provided our spreadsheet of all data. This week we have been attempting to schedule a call with Kayla so that we can explain our data and help Kayla correlate that information to North Carolina’s data. The noise could be from the servo-motor’s start-stop patterns or even perhaps the heaters coming on and off. We’re happy to assist and interested to learn if indeed North Carolina picked up Payload 11 noise!

Issues:

Milestones Achieved:

Current Team Leaders/Members, Demographics:

Student Project Manager: Bashar Alhafni (Undergraduate Student – Computer Science)
Leader Flight Computer, Data: Sam Zhang (Graduate Student – Computer Science/Electrical Engineering)
Palestine Student Team Leader: Phil Carroll (Undergraduate Student – Industrial Design)
Fort Sumner Team Leader: Josh Hauge (Undergraduate Student – Industrial Design)

Arduino Gesture Programming: Sam Zhang (Graduate – Electrical Engineering)
Structure Lead: Maheshwari Kumar Rakkappan - (Graduate Student – Mechanical Engineering).
(Graduate Student – Mechanical Engineering). Rochen Krishna Thashanath Sajeevan (ME
graduate student) and Karan Kakanur Patel (ME graduate student) joined the team.
Thermal Control: Maheshwari Kumar Rakkappan - (Graduate Student – Mechanical
Engineering). Graduate Mechanical Engineering Abd Elfatah Karkory.
Robot Gesture Range of Motion and Fabrication: Phillip Carroll (Undergraduate Student –
Industrial Design); Team Member: Josh Hauge
Power and Communications: Xuan (Sam) Zhang (Graduate Student – Computer
Science/Electrical Engineering)
Lead Faculty Advisor: Dr. Jani Macari Pallis (Mechanical and Aerospace Engineering)
Faculty Advisor Dr. Neal Lewis (Technology Management - Project Management) – resigned
from university.
Education Partner: David Mestre (Discovery Museum and Planetarium: Director of Space
Sciences, responsible for Challenger Center Mission Control)
Education Partner: Lawrence Reed: (Discovery Museum and Planetarium: Electrical
Engineering, Communications).
Engineering Volunteer: James J. Pallis (United Airlines – Mechanical Engineering Design)