HASP 2016 UNF-UND Payload Ozone Sensors Payload and its Applications (OSPA)

Monthly Status Report for February 2016

UNF Team Faculty Advisor: Dr. Nirmal Patel Email: <u>npatel@unf.edu</u> Phone: 904-620-1670, Cell: 904-200-2855

UND Team

Faculty Advisor: Dr. Ron Fevig Email: <u>rfevig@aero.und.edu</u>, Phone: 701-777-2480, Cell: 520-820-3440

UNF-UND Students Team:

	Name	Gender	Ethnicity	Race	Status	Disability
University of North Florida Students Team						
1	Brittany Nassau	Female	Non-	Caucasian/White	UG-	No
	Cell: 904-495-1765		Hispanic		Electrical	
	Brittany.Nassau@gmail.com					
2	Ken Emanuel	Male	Non-	Caucasian/White	UG-	No
	Cell: 904-614-2117		Hispanic		Electrical	
	kennecom@gmail.com		-			
3	Joseph Thomas Silas	Male	Non-	Caucasian/White	UG-	No
	Cell: 904-520-1605		Hispanic		Mechanical	
	Cruiser_9482@yahoo.com		1			
4	Matthew Linekin	Male	Non-	Caucasian/White	UG-	No
	Cell: 904-631-8575		Hispanic		Mechanical	
	N00601480@ospreys.unf.edu		Ĩ			
5	Jesse Lard	Male	Non-	Caucasian/White	UG-	No
	Cell: 850-348-3510		Hispanic		Physics	
	jesselard@gmail.com		-		-	
6	Chris Farkas	Male	Non-	Caucasian/White	UG-	No
	Cell:904-413-6047		Hispanic		Electrical	
	N00965140@ospreys.unf.edu		_			
University of North Dakota Student						
1	Chris Follette	Male	Non-	Caucasian/White	G-Space	No
	christopher.follette@my.und.edu		Hispanic		Studies	

UNF-UND Teams did the following work during February 2016:

- (i) Team received two comments on HASP 2016 proposal from Mr. Michael Stewart earlier. We are sincerely thankful to him and all reviewers for their useful comments to improve our work. We already replied the answers of two comments last week.
- (ii) Chris started working with Ken for all modifications on the PCB and hardware.
- (iii)Jesse started discussing with Dr. Patel for fabrication of sensors using a thermal deposition method and a high vacuum system, testing of sensors and payload body.
- (iv) Dr. Patel worked with Mr. Joe Klingfus, Engineer from Raith America, Inc and successfully installed an electron beam lithography (Raith make) with a scanning electron microscope (FEI make, Quanta 200D). The electron beam lithography will be used to reduce the size of our ozone sensors from millimeter size to nano size in order to improve the performance of ozone sensors. Dr. Patel is learning this electron beam lithography technique and then he will give training to Jessie and Chris for fabrication of nano size ozone gas sensors. The electron beam lithography attached with SEM and EDAX is shown in following figure 1.



Figure 1 Electron beam lithography attached with SEM and EDA