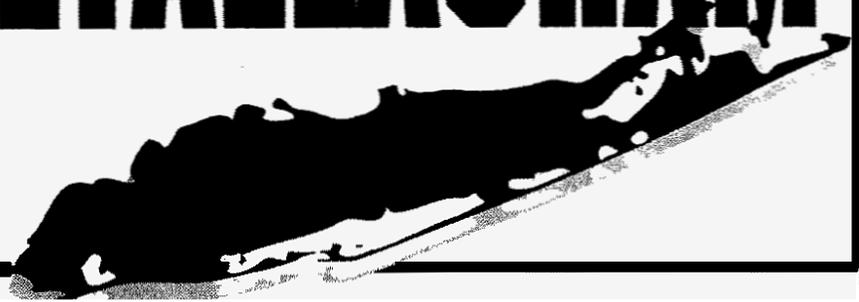




METALLAGRAM

LONG ISLAND CHAPTER



Volume 57 Issue 8

Chapter website: <http://www.matscieng.sunysb.edu/asm/>

Next Meeting Wednesday, April 20, 2016

Where Old Field Club, East Setauket, NY

******* Student Night *******

Oral and poster presentations by Stony Brook University Seniors

Joint Meeting with ESG/ESM Programs

6 pm...Posters Start 6:00-9:00 pm...Yummy Food

7:30 pm...Two Oral Presentations

Members ... FREE! Guests ... FREE! ASM 25 years ... FREE! Students ... FREE!

Cocktail-party style is three hours long. Included are seasonal fruit and international cheese display, antipasto display, pasta station, and high end passed hors d'oeuvres. Cash Bar.

RSVP to Chandrani Roy ... Chandrani.roy@stonybrook.edu

Directions to Old Field Club

From The Long Island Expressway (495) either direction, take Exit 62 N (Nichols Rd., Rte 97). Follow Nichols Rd. to the end, turn left onto Rte. 25A, go about one mile. Turn right onto Quaker Path (opposite Stony Brook LIRR Train Station) and stay on Quaker Path north 1.3 miles to fork. Stay left at fork onto Mt. Grey Rd. and follow to West Meadow Rd. Turn left onto West Meadow Rd - the Old Field Club will be on the left, after the tennis courts. Physical address: The Old Field Club, 86 West Meadow Road, East Setauket, New York 11733. Telephone: 631 751 0571. Web site: <http://www.oldfieldclub.com/>.

The Presentations

“Phennix -Autonomous Early Wildfire-Seeking Drone”

Edward Gildersleeve, Valliappan Lakshmanan, Martin Nunlee, Nicole Pasquino, Geoffery Rippy

Presently, wildfires are most often detected by manned monitoring stations, aircraft flyovers, or members of public alerting authorities. This design will allow for the detection of wildfires in the early stages of formation without the need for constant human surveillance. Using GPS guided autonomous drones, equipped with emission sensors and infrared cameras, this design will survey a preprogrammed region and report back suspected wildfire locations. This sensor package can be retrofitted to any and all drone applications presently in use for the same monitoring methods.

“DoorMann - Automated Car Door Collision Prevention System”

Albert Marciniac, Michael Andreassi, Kevin Paray, Devon Bisson, Chiranshu Bhatia

Opening a car door poses a risk of collision with unknown obstacles in the path of the door's travel. This system will detect obstacles in the path of travel via ultrasonic sensors, and apply a sufficient force to the car door to bring it to a stop before collision occurs. The completed design will be both compact and robust, and be adaptable enough to fit onto any standard car door.

“Solar Paneled Air Dispersal Extension (SPADE)”

Michelle Duong, Ieisha Hinson, Linda Jin, Donald Liu, Ammarah Zaidi

Having a car parked in the sun for long periods of time will cause the interior temperatures to rise and become uncomfortable upon entering the vehicle. Through usage of solar panels, fan units, and reflective windshields, it will be able to decrease the temperatures of the vehicle, while also limiting the amount of heat that will enter the vehicle. This extension will be ideal for use on hot days such as the Summer.

“Bottle Muncher Can Jammer”

Muyiwa Adeyeye, Andy Bertrand, Paula Brugnioni-Cobo, Yi-Hsin Chen, Jason Lai

Plastic bottle and cans have large volumes that take up a lot of space. Therefore, to maximize the number of plastic beverage bottle and cans in one recycling bin, the Bottle Muncher Can Jammer will crush them with two cylindrical rollers with teeth that will pull the bottle through a narrow slit and crush them to one eighth of their original sizes. This way, the owners can recycle more bottles and cans as well as decreasing garbage bag usage and save money in the long run.

(Cont. >)



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The Presentations (cont.)

“Vox Pump”

Skyler Cange, Robert Harmon, Arvind Mangadu, Danny Nghieu, Nicole Vogel

Most modern bicycle pumps are designed to be externally mounted onto the bicycle frame or the saddle rails, often left exposed where they can be subjected to debris, theft, and damage from impacts. The Vox Pump would reduce these instances from occurring. The Vox Pump is small enough to be mounted inside of a bicycle's seatpost for safe storage. It will have an alarm system that, when armed, will transmit an alert signal to the owner if the bicycle is moved excessively while the owner is away from the bicycle as a theft deterrent system.

“Training Block Sensors”

Yunlong Li, Natalia Popova, Thomas Quinto

Practicing sprinting starts is a time consuming process. The training block sensor system builds on existing training blocks to help the coach collect runners starting reaction time from the first steps reaction, the second steps reaction, and the runner's velocity after the third step. The system's device will collect this data and place it in a table for a quick view, and can graph certain results together for a nice view of tens of data points. The system device allows for as many profiles to match the number of runners on a team, and for quick changing time between profiles using a touchscreen. Once the sensor system is set up a coach can leave the sprinters to practice on their own.

“Good Vibrations - Audio to Haptic Feedback Device”

Isabelle Cortes, Hannah Leonard, Brian Maddock, Nicole Moro, Madeleine Unger

Hearing impaired people only recognize sound input though low frequency vibrations. Good Vibrations is a wearable product that recognizes a range of frequencies, which are put into three categories: low, medium, and high. Once the category is determined, the device will produce corresponding light and haptic feedback. This increases safety by alerting the user of danger by transforming audible alarms into vibrations and increases the quality of life by allowing a level of immersion into the surroundings that hearing impaired people may lack.

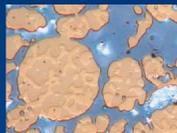
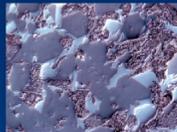
“The Everyday Wheelchair”

Thaylor Cacador, Kevin Chow, Tashi Sangpo, Brandon Shafran, Patrick Neville

The proposed design is a wheelchair which gives the user a comfortable outdoor riding experience while maintaining the great indoor functionality of current wheelchairs. The lever operation will attempt to replicate a rowing motion to utilize a natural motion for extended use. The design will include a third rear wheel with two large front wheels positioned on the frame for optimal weight balance and comfort, a hand operated lever with adjustable height to allow for individual customization, and integrated suspension in the frame positioned by the third wheel.

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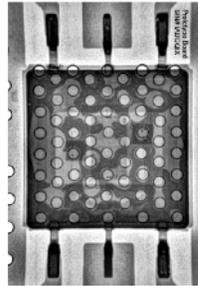
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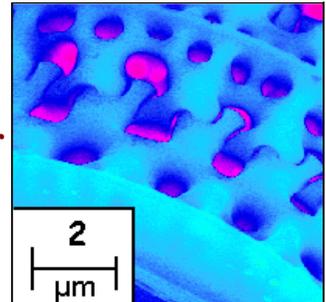
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Long Island Chapter Meeting Schedule
CLOSED FOR THE SUMMER

Metro NY-NJ Chapter
(<http://www.asminternational.org/web/metro-ny-nj-chapter/home>)

Apr. 19, 2016 Topic: History of the Long Pond Ironworks, 1765 to 1882
Speaker: Paul Frost, President, Friends of the Long Pond Ironworks
Location: Meson Madrid, Palisades Park, NJ

May ??, 2016 Plant tour – Long Pond Ironworks

American Nuclear Society – Long Island Section (<http://local.ans.org/longisland>)

Next meeting sometime in April/May
(details still to be determined)

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