



The Materials Information Society

LONG ISLAND CHAPTER

METALLAGRAM



Volume 60 Issue 3

Chapter website: <http://DoL1.eng.sunysb.edu/asm/>

Next Meeting Wednesday, November 14, 2018

Where Curry Club, East Setauket, NY ←←←Note the change!!!

******* 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!

Pasta and Eggplant Rollatini. Cash Bar.

RSVP to Joann Toye Joann.Toye@stonybrook.edu ←←←Note the change!!!

WELCOME TO THE CHAPTER!

Robert Harmon, Oerlikon Metco David Karayof, Ronkonkoma. Lisa Ann Prayor, Hempstead
Marcin Kielkerwicz, Oerlikon Metco Patricia Reid, AMETEK Colin Rojas, Oerlikon Metco

All new members, including those who have transferred in from another Chapter, are invited to dine free at a regular meeting of their choice. Please take us up on this offer - come along to the meeting and introduce yourself. This is an excellent way to meet with other Chapter members and to establish new business and social relationships in the area.

The Presentations

BAC Alert Watch

John Gomez, Angela Hui, Jakob Reilly, Monika Singh

Roughly a quarter of undergraduate students experience sexual assault throughout their college career. Over half of these cases involve the use of alcohol, by either the perpetrator, the victim, or both. A BAC alert watch, comprising of 1) a means to measure and monitor blood alcohol content (BAC) continuously, and 2) a means to alert the user and designated support systems of the BAC, is proposed to promote bystander intervention, awareness of potential dangerous situations, and reduce the number of alcohol induced sexual assault cases that occur on campus.

Pill Identifier Device

Elan Bronshtein, Promit Chowdhury, Julia Eng, Sally Phan

Poor medication adherence is an issue for independent seniors due to visual, auditory, and mental degeneration. A pill identifying device is proposed to help patients distinguish between their overabundance of easily confusable medications. This personal-use device will be able to identify a pill, and both audibly and visually communicate information about its use, dose, and side effects. The portable gadget will also be able to alert the patient about administration times to help them adhere to their medication schedule.

Eraser Magician

Pedro Arias, Sonam Tharkay, Zuhair Sattar, Fangzhou Zhang

Many professors find value in writing some concepts out during class. However, copying and erasing the board can take away valuable time from the lecture. The Eraser magician would be able to erase the board automatically without leaving any residue behind while simultaneously making sure it doesn't interfere with the class at hand. The proposed device is comprised of a rail and carriage system to guide the eraser and scanner assembly around the board. A microcontroller is integrated into the system to allow for the user to control the speed and shape the assembly moves around the board. The goal is to be able to erase and scan the whiteboards effectively and at a steady rate.



**RELIACOAT
TECHNOLOGIES, LLC**

WANHUK BRIAN CHOI, PH.D.
Chief Operating Officer

Tel: (631) 739-8818
Fax: (631) 675-2533
brian.choi@reliacoat.com
www.reliacoat.com

10 Technology Drive, Unit 1
East Setauket, NY
11733-4063, USA

CVD
Equipment
Corporation

enabling tomorrow's technologies™



631 981 7081 | www.cvdequipment.com

The Presentations (cont.)

Emergency Alert Device for the Deaf

Eric Linko, Michelle Niles, Zayyan Swaby, Md. Tahzeeb Tarique

While the average person is arguably unprepared for possibly emergency situations, said unpreparedness is exponentially higher among the deaf community. A wristband that vibrates in response to a signal sent over AM frequencies would aim to assist deaf individuals in recognizing that there is an emergency. The signal would be sent out by a predetermined authority figure, such as a school administrator or a security officer, and would trigger the device to respond by mimicking the S.O.S. Morse code signal (three dots, three dashes, three dots) through vibrations. In addition to its primary function as an AM receiver, it can also function as an AM transmitter for the purpose of transmitting an emergency signal itself. The usage of AM frequencies would be useful in places where cell phone signals are very low, intentionally restricted, or just plain nonexistent.

Conceptual LED Display

Juval Varlack, Albert Xiao, Rudgerry Ribert, Zachari Mantica

Many students pursue degrees in various STEM disciplines. For these students, visualizing 3D Concepts using 2D resources can be quite difficult. Conventional teaching methods rely heavily on planar diagrams and textbooks to study the phenomena. A true 3D visual aid is needed to support these concepts. The proposed device would display static and dynamic 3D images using a very dense LED matrix. Logic boards for input control and a protective casing which will support the display are also needed. The goal is to accurately and effectively display crystallographic and chemistry concepts using 3D images for a classroom size of 1024 square feet.

The Kinetic Charger

Emran Ghous, Nicholas Bradica, Sidhu Pathiyil, Matthew Gardner

During long distance hikes, through-hikers find the need to periodically stop and recharge their devices due to a lack of available power. A portable device is needed which utilizes kinetic motion to charge electronic devices and thus provide hikers with the ability to convert their mechanical energy into electric power. The proposed device would consist of a gear assembly encompassing retractable cables, a generator connected to the gear assembly and a battery. The goal of this device would be to reduce the number of necessary stops that hikers would need to take throughout the course of their trip.

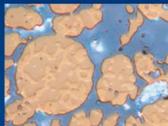
Articulated Camera Arm

Zeyu Chen, Bingxu Jin, Xuxing Zhang

Some researchers utilize macro photography as one of tools to observe samples. Macro photography requires the camera to be static in order to capture a clear image. A regular camera mount occupies much lab space, while current articulated arm mounts often generate significant vibrations during movement; the operator often needs to wait for substantial time for the camera stabilizes. The proposed device is an articulated arm mount with built-in vibration isolators that reduce the vibration transmission and help the camera to stabilize in less than ten seconds. This device is also capable of flexible positioning, ensuring the reaching angle of the camera (45 degree on each direction). Moreover, this device is compact and occupies less lab space.

Carl Zeiss... for all your state-of-the-art Microscopy & Digital Imaging needs

Offering features such as Image Archiving, Grain Size analysis, Dendritic Arm Spacing measurement, Non-Metallic Inclusion, Graphite and more...



Carl Zeiss MicroImaging, Inc.
Thornwood, NY
1.800.233.2343
micro@zeiss.com
zeiss.com/materials



We make it visible.



LAWRENCE RIPAК CO., INC.

NDT • METAL FINISHING

Since 1952

LAWRENCE RIPAК, JR.
President, CEO



Lawrence Ripak Co., Inc.
165 Field Street
West Babylon, NY 11704-1299

Office: (631) 694-1818
Fax: (631) 694-1818
Email: lridak@ripak.com

NONDESTRUCTIVE TESTING

- Magnetic Particle
- Fluorescent Penetrant
- Visible Dye Penetrant
- Contact Ultrasonic
- Immersion Ultrasonic with data acquisition
- X-Ray
- Nital Etch
- Eddy Current

CLEANING

- Passivation
- Abrasive Blasting
- Glass Bead Blasting
- Plastic Media Blasting
- Acid Pickle Cleaning
- Alkaline Cleaning
- Parts up to 20' Long

ANODIZING

- Boric-Sulfuric
- Chromic
- Sulfuric
- Parts up to 18' Long

PLATING

- Titanium-Cadmium
- Cadmium
- Brush Plating

PAINTING

- Primers
- Top Coats
- Dry Film Lubricants
- Fuel Tank Coating
- Teflon
- High Temp Primers
- Masking

SHOT PEENING

- Automatic and Manual
- Regular & Hard Cast Steel
- Glass Bead
- Ceramic
- Parts up to 8 Feet Long
- Post-Peen Cleaning

CONVERSION COATINGS

- Alodine 1200
- Phosphate Fluoride
- Sol-Gel

OTHER PROCESSING

- Stress Relieving
- Conductivity Testing
- Hardness Testing
- High Humidity Testing
- Salt Spray Testing



Denise Marcoccia
CEO

dmarcoccia@cladmetal.com
C: 631.988.0732

P: 631.666.7750 x 111 | F: 631.666.5347
1516 Fifth Industrial Court, Bay Shore, NY 11706

www.cladmetal.com



Quality Products for Metallographic
Sample Preparation & Analysis



Contact Mike Hattie
(800) 675-1118 (HQ)
(203) 751-2779 (Cell)

www.alliedhightech.com

A World of
Engineering & Testing
Under One Roof™



ATUL GOKHALE PHD

Chief Metallurgist
Engineering & Test Division

1195 Church St.
Bohemia, NY 11716

Direct: (631) 589-6300 x614
Mobile: (631) 926-0209
Fax: (631) 589-3648
E-mail: agokhale@dtb.com

www.dtb.com

FORMISANO & ASSOCIATES, INC.

EXPERT WITNESS • LITIGATION SUPPORT
WELDING ENGINEERS • CONSULTANTS
QA /QC • CERTIFIED INSPECTION

P.O. Box 324, Gardiner, NY 12525 Phone: (845) 255-8225

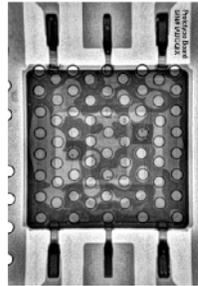
BARRY FORMISANO, PRESIDENT

Cell: (914) 388-0155

Email: formisano.assoc@att.net

WALDVOGEL METALLURGICAL, INC.

MATERIALS ANALYSIS - FAILURE ANALYSIS - MATERIALS TESTING



ELECTRONIC DEVICE FAILURE ANALYSIS
PRECISION METALLOGRAPHIC ANALYSIS
IMMEDIATE TURNAROUND

TELEPHONE: 516-564-7839

FAX: 516-485-2039

CELLULAR: 516-967-8576

E-MAIL: waldvogelmet@verizon.net

L. I. T. Labs, Inc.

Metallurgists/Analysts



Since 1985

Chemical Analysis	Mechanical Testing
Metallography	Tensile Testing
Failure Analysis	Fastener Testing
Expert Testimonies	Welder Qualifications
Hardness/Micro-Hardness	Weldability Evaluation

Rao Tipirneni, President

97 Marcus Boulevard P: 800-300-8176

Hauppauge, NY 11788 F: 631-643-5628

www.litlab.com rao@litlab.com

Accredited: Nadcap Materials Testing, ISO 17025 Compliant
Specialists in Aerospace Materials Testing

STONY BROOK

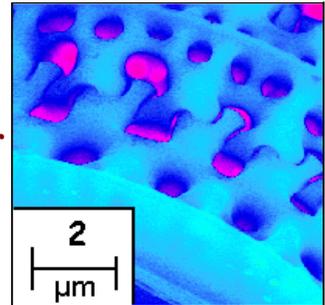
STATE UNIVERSITY OF NEW YORK

**University/Industry
Partnering Together**

Your samples-Our SEM

We also have OM, XRD,
RP, and much more.....

Dr. Jim Quinn
631-632-6663 or 8495
james.quinn@stonybrook.edu



FOR ALL YOUR METALLOGRAPHIC NEEDS SINCE 1968.



1-800-828-6866
www.metlabcorp.com

MetLab
Corporation

Directions to the Curry Club ←←← Note the change!!

**LIE/495 to exit 62/North. Take Nicolls Road to the end. Make a right unto 25A going east.
The Curry Club is immediately on your right, as soon as 25A begins.**

**Physical address: Curry Club; 10 Woods Corner Road; Setauket- East Setauket, NY 11733:
Telephone: (631) 751-4845. Web site: <http://www.curryclubeastsetauket.com/location.aspx>**



**Solutions for
Materials Preparation,
Testing & Analysis**



BUEHLER
An ITW Company
41 Waukegan Road • Lake Bluff, IL 60044
(847) 295-6500 • www.buehler.com

**For more information,
contact:**
Scott Prenovitz
(508) 361-8451
scott.prenovitz@buehler.com



Struers
Ensuring Certainty

Metallography & Hardness Testing

When it comes to your metallographic preparation and testing solutions, Struers delivers...

- Powerful Equipment
- High-Quality Consumables
- Intelligent Support
- Outstanding Service

Contact Struers Account Representative
John Rys at +1 440.986.0046
john.rys@struers.com




UNITRON®
Excellence by Design



Peter D. Indrigo
Senior Vice President
peterd@unitronusa.com

73 Mall Drive, Commack, New York 11725
www.unitronusa.com
Phone: 631-543-2000
FAX: 631-589-6975

2018-2019 CHAPTER OFFICERS

Chairman
Jim Quinn - (631) 632-6663, Stony Brook University

Vice Chairman
Ken Trelewicz - (631) 244-6238, MatEcon, Inc.

Secretary
Mike Guggenheim – (631) 643-6792
Long Island Testing Lab., Inc.

Treasurer
Peter Indrigo - (631) 589-6666. Unitron Ltd.

Executive Committee Members

Ed Gildersleeve, Stony Brook University (CTSR)

Atul Gokhale, Dayton T. Brown
(631) 926-0209 x614

Marcin Kielkiewicz, Oerlikon Metco

Konrad Kozdra, Sartorius Stedim Biotech
(631) 870-8557

Dan Migliorino, ReliaCoat Technologies
(631) 739-8818

Nick Olynik, Long Island Testing Laboratories Inc.

Collin Olson, D'Addario
(631) 439-3335

Rao Tipirneni, Long Island Testing Laboratories Inc.
(631) 643-6792,

James Waldvogel Waldvogel Metallurgical Inc.
(516) 564-7839



EXTEC®

High quality, precision supplies & equipment
for: Cutting • Mounting • Grinding • Polishing

Order online today at WWW.EXTEC.COM

See the new Extec® Labcut 5000 Advanced Composite
Plate Saw Series at www.labcut5000.com

Long Island Chapter Meeting Schedule

Nov. 14, 2018	Student Night Place: Curry Club ←←← Note the Change!!!
Dec. 12, 2018	Speaker: Likely Jeff Wasson Topic: Medieval Metal Armor Place: Pollo Rico, Centereach Joint meeting with LIANS
Jan. ??, 2019	Topic, speaker tbd

Metro NY-NJ Chapter

<http://www.asminternational.org/web/metro-nv-nj-hapter/home>