

NCCAVS Joint Users Group Technical Symposium
“Process, Materials, and Technology Innovation for Smart Devices, Displays, and
Internet of Things”
Hosted by: CMPUG, JTG, PAG and TFUG

*Held in conjunction with the NCCAVS 39th Annual Equipment Exhibition
and 7th Annual Student Poster Session*

Holiday Inn San Jose-Silicon Valley
1350 N. First Street
San Jose, CA
Thursday, February 22, 2018
10:00 a.m. – 7:00 p.m.

*****FREE TO ATTEND; Parking Validation*****
[REGISTER NOW!](#)
(includes exhibit attendance)

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COMMITTEE:

Chair: Susan Felch, sfelch@sbcglobal.net

Exhibit Chair: Chris Malocsay, chris_malocsay@avs.org

Poster Session Chair: Renee Sully, hsully@ucsc.edu

CMPUG: Gautam Banerjee

JTG: Michael Current

PAG: Lucia Feng, Kamatchi Subramanian

TFUG: Cesar Clavero, Zoran Misetich, Michael Oye, Sean Seefeld, Sing-Pin Tay, Paul Werbaneth

FINAL AGENDA:

10:00-10:05am Introduction and Welcome, Susan Felch

Session Chairs: Cesar Clavero, Michael Oye

10:05-10:45am **Plenary Speaker, Milena Vujosevic**, “Reliability for the 21st Century: Meeting Challenges of New Technologies and New Markets”

10:45-11:15am **Patricia Beck, Thin Film Electronics**, “Development and R2R Scale up of a Hybrid Printed CMOS Silicon TFT Process”

11:15am-11:45pm **Duane Bingaman, Kurt J. Lesker Company**, "Tool Design Considerations for Advanced Atomic Layer Deposition"

11:45-1:30pm FREE LUNCH In Exhibit Hall – Visit Equipment Exhibition

Session Chairs: Sing-Pin Tay, Michael Current

1:30-2:00pm **Andre Anders, Lawrence Berkeley National Laboratory, Leibniz Institute of Surface Engineering**, "Electron Heating in Sputtering Magnetrons"

2:00-2:30pm **George Guo, Ascentool Inc.**, "Plasma-based Thin Film Depositions: Applications, Limitations, Our Improvements, and Case Studies in Battery, Photovoltaic, Non-volatile Memory, and Medical Devices Applications"

2:30-3:00pm **Guowen Ding, Labforinvention Corp.**, "A New Materials Innovation Methodology in Thin Film Optical Coating Applications"

3:00-3:20pm BREAK

Session Chairs: Paul Werbaneth, Susan Felch

3:20-3:50pm **Frank Papa, Gencoa**, "A Quantitative Approach to Optical Emission Spectroscopy"

3:50-4:20 **Ernest Demaray, Demaray LLC**, "Thin Film Roadmap for Solid State Li Metal Batteries"

4:20-4:35pm **Robert Cormia, Foothill College**, "Foothill College Electron Microscopy Training and Nanoscience Program"

4:35-4:45 Closing Remarks

4:45-6:15pm STUDENT POSTER SESSION

Poster Session Chair – Renee Sully

Judges: Michael Current, Susan Felch, Yanika Snider, and Wenonah Vercoutere

Michael Roders, UCSC, "Characterization of Charge Transport Networks in Non-fullerene Bulk Heterojunction Thin Films"

Ryan Robinson, San Jose State University, "Thin Filmed PbSe Colloidal Quantum Dot Semiconductors with Passivated Oleic Ligands for High Efficiency Photovoltaics"

Michael Pham, Oak Grove High School, "The Development of a Solid State Fixed Wing Aircraft Powered by an Electro-Aerodynamic Thruster"

Martina Morelli and Andrea Cruz, UCSC, "Pseudocapacitive Materials for Low Temperature Supercapacitance"

David Fryauf, UCSC, "Scaling Atomic Layer Deposition to Astronomical Sizes: Low Temperature Aluminum Oxide Deposition in a 0.9 Meter Chamber"

Renee Sully, UCSC, "X-ray Absorption Studies of Doped Semiconductor Quantum Dots"

Brian Giraldo, UCSC, "Atomic Layer Deposition of Non-conformal Low Dimensional ZnO Thin Films"

John Davenport, UCSC, "Directly Probing Quantum Hall Physics in Graphene with Tunneling Transistors"

Faiza Anjum, UCSC, "Study of off-stoichiometric aluminum nitride thin films: A simple method of fabricating Distributed Bragg Reflector for ultraviolet A by RF magnetron sputtering"

Sponsorship

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