Ohio Valley Chapter

Meeting date: Dec. 14th , 2012 Friday
9:00 A.M. to 3:30 P.M.
SMTA Members/Non Members $35/$55
Student Members/Non-members $5/$10
Lunch Included RSVP asap to:
bcrane@bird-technologies.com
Cash or check at the door. Or PayPal at:
http://smta.org/chapters/chapters_detail.cfm?chapter_id=29

SMTA
Surface Mount Technology Association
Ohio Valley Chapter

The Connector

The SMTA's Ohio Valley Chapter and Northern Ohio Student Chapter will host the December meeting at The Richard Desich SMART Commercialization Center for Microsystems at LCCC. The agenda is as follows:

Friday, December 14, 2012	Start	End
Registration & Coffee	9:00 AM	9:30 AM
LCCC Welcome & Overview	9:30 AM	9:40 AM
PCB Laminates Steven Sekanina - Isola	9:40 AM	10:40 AM
PCB Solder Finishes Todd Henninger - ViaSystems	10:45 AM	11:45 AM
Lunch	11:45 AM	12:45 PM
Advance Technology Susan Bagen - Endicott Interconnect	12:45 PM	1:45 PM
Continued Innovation Don Styblo - Valtronic	1:50 PM	2:50 PM
LCCC SMART Commercialization Center Tour	2:50 PM	3:30 PM

Lorain County Community College

Meeting Location:
LCCC
Entrepreneurship Innovation Center
EIC132 **AB**
151 Innovation Drive
Elyria, Ohio 44035

Detailed Campus Map page 3
West of Cleveland near I80, I90 & I480

Join the Ohio Valley SMTA and get your first meeting free!

The Richard Desich SMART Commercialization Center for Microsystems at Lorain County Community College

President	Gregory Vance	Rockwell Automation	440-646-3246	gjvance@ra.rockwell.com
Vice President	William Timms	WB Timms	330-416-6993	bill@timmssales.com
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Membership	Larry Roy	Enterprise Electronic Sales	513-733-4040	larryroy@att.net
Chapter Advisor	Michael Dickey		440-832-0822	dickeymike@aol.com
Technical Advisor	Richard Tormet	Cisco Systems Inc.	330-523-2032	rtorm@cisco.com

Steven M Sekanina 's BIO from ISOLA

2012 marks the 100th anniversary of Isola. are the worlds largest independent laminator and supplier of laminate and prepreg materials. Isola is in Chandler, AZ with factories throughout the U.S., Europe and Asia. We produce and supply materials that range from low Tg FR-4s to RF/ Microwave products. have been with Isola for 6 years where I have held several Product Management and Marketing positions. am currently in the role of Product & OEM Marketing Manager. have worked in the PWB business in various roles since 1989 and have help positions at Isola, Amphenol, Teradyne, Park Electro, Gould and Proto Circuit.

Todd Henninger's Bio from VIASYSTEMS

Todd is a Sr. Field Applications Engineer for Viasystems, covering the Midwest region. He has 22 years experience in the PCB fabrication industry, mostly associated with Pre-Production tooling processes. This presentation will cover the major PCB surface finish options, emphasizing process control for consistency and reliability. Specific properties and pros and cons of each finish will be discussed

Donald Styblo's Bio from VALTRONIC

Don has 50+ years of experience in the electronics' industry in electronic design and manufacturing utilizing technologies that include Chip-on-Board (both Aluminum and Gold wire bonding), Flip-Chip and SMT. In 1986 Don was a co-founder in establishing Valtronic USA, Inc. in the Cleveland Ohio area. Importing the advanced microelectronics packaging expertise from Valtronic SA in Switzerland. Valtronic USA, Inc. expanded from a small office and lab with three employees into an unique engineering and manufacturing facilities that encompasses 70,000 Sq.
Ft. in Solon, Ohio. Currently, Valtronic USA, Inc. successfully manufactures over 100 different Miniaturized Electronic Medical Devices and Sensors ranging in quantities from prototyping to high volumes. In the first 25 years of existence in Solon Ohio, Valtronic Technologies (USA), Inc.
has manufactured well over 350 million dollars of these devices; 72% of them are utilized in the medical industry as both in-vivo and in-vitro products. World wide Valtronic has successfully manufactured more than $2 billion dollars of Advanced Miniaturized Medical Devices and Sensors.
In 1974 Don was part of the original design team on the world's first full body CT Scanner, and holds patents on said Scanner. During a ten year period, that included the design and development of 10 CT Scanner models the Ohio Nuclear / Technicare / J & J engineering team designed, manufactured and shipped >$2B worth of CT products and by 1986 medically scanning
over 8,000 patents per day world wide.
In regards to military projects:
Don was the Lead Design Engineer on the aft body electronics, for the Navy's MARK 48 ADCAP Torpedo (ADvanced CAPability torpedo). Within 18 months Don lead his team of 7 engineers and won a $110 million dollar swim-off contract and successfully developed a counter measure force for the USSR's Project 705, 705 K (Lira) - Alfa Class sub threat. Note: The MARK 48 ADCAP Torpedo is still the Navy's number one ASW heavy weight weapon.
For additional information, recent publications and lectures: Google Donald Styblo:

Susan Bagens Bio from Endicott Interconnect Technologies, Inc.

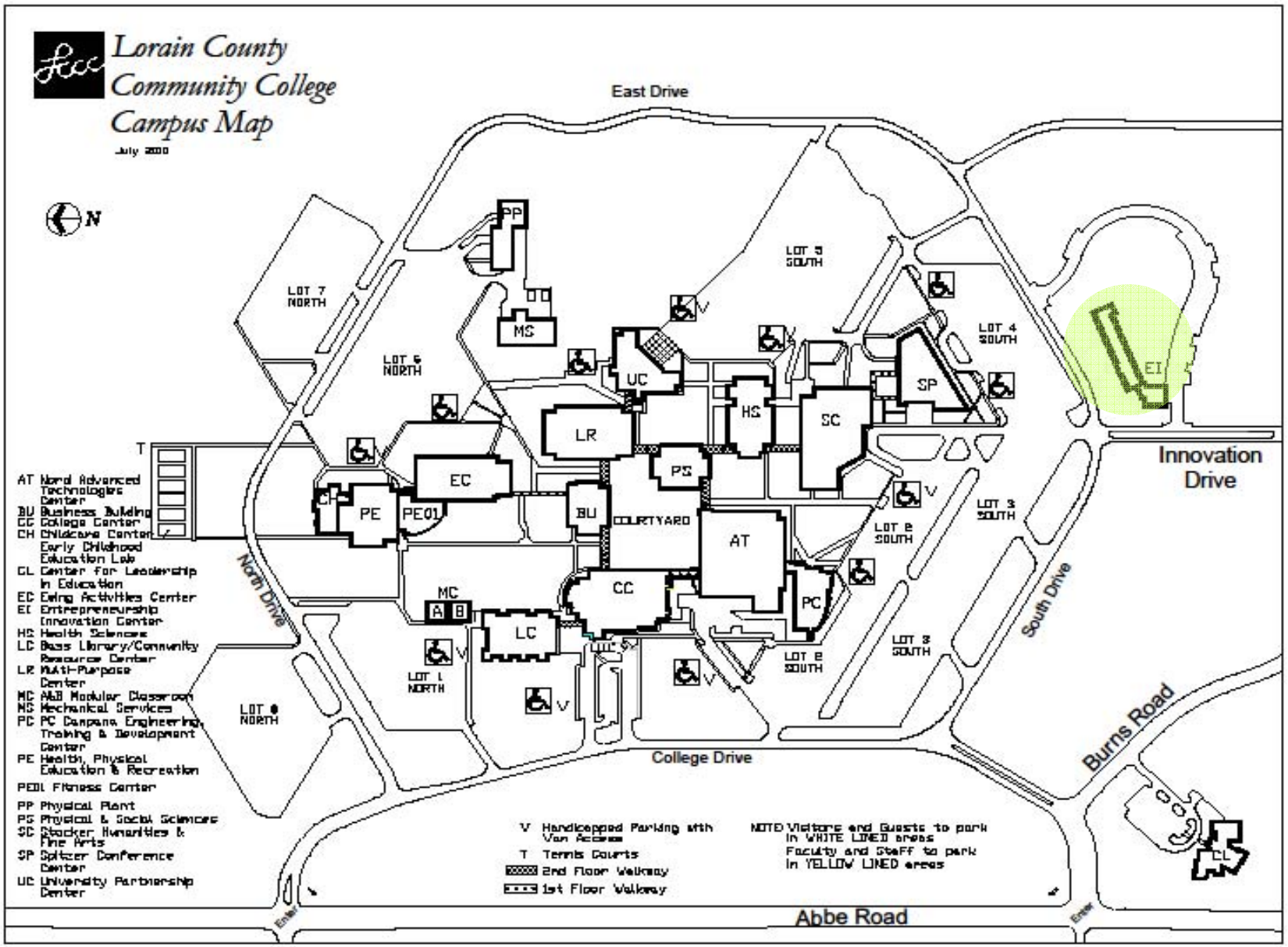
Susan Bagen currently fulfills a dual role as a Business Development Manager and Sr. Field Applications Engineer for Endicott Interconnect Technologies, Inc. where she is focused on high reliability markets including medical and military. She has 25 years experience in the development of microelectronic packaging solutions for military, medical and commercial applications. Prior to EI, Susan was an independent industry consultant for 14 years, and held positions with both Texas Instruments and Dow Chemical. She has a B.S. in Chemical Engineering from Case Western Reserve University. Susan is a licensed professional engineer in the state of Texas. She is a long-time member of technical committees for the International Microelectronics and Packaging Society and the Symposium on Polymers in Microelectronics (IMAPS), and is currently Program Chair for the IEEE EMBS (Engineering in Medicine & Biology Society) Dallas Chapter. She holds 5 U.S patents and has a number of publications

Susan's presentation will be:

Advanced Organic Substrate Technologies to Enable Extreme Electronics Miniaturization

Electronics packaging technologies for today's high reliability markets including high performance computing, military and medical are driving advancements toward increased functionality with decreasing degrees of size, weight and power (SWaP). A key enabling technology towards achieving SWaP is the substrate technology used. Standard printed circuit boards (PWBs) utilize dielectric materials containing glass cloth, which can limit circuit density and performance, as well as inhibit the ability to achieve reliable assemblies with bare semiconductor die components. Ceramic substrates often used in lieu of PWBs for chip packaging have disadvantages of weight, marginal electrical performance and reliability as compared to organic technologies. Alternative materials including thin, particle-containing organic substrates, liquid crystal polymer (LCP) and microflex enable SWaP, while overcoming the limitations of PWBs and ceramic.

This presentation will discuss the use of these alternative organic substrate materials to achieve extreme electronics miniaturization with outstanding electrical performance and high reliability. The effect of substrate type on chip-package interaction and resulting reliability will be discussed. System-in-Package (SiP) case studies of real product miniaturization for military and high performance computing applications will be presented in detail. Microflex assemblies to achieve extreme miniaturization and atypical form factors driven by implantable and in vivo medical applications will also be shown.


Lorain County Community College
Campus Map
July 2000
N
East Drive
Innovation Drive
North Drive
South Drive
Burns Road
College Drive
Abbe Road
LOT 7 NORTH
LOT 6 NORTH
LOT 1 NORTH
LOT 5 SOUTH
LOT 4 SOUTH
LOT 3 SOUTH
LOT 2 SOUTH
LOT 8 NORTH
PP
MS
UC
LR
HS
SC
SP
EI
EC
PE
PE01
BU
COURTYARD
PS
AT
CC
PC
LC
MC
A
B
T
CL
AT Nord Advanced Technologies Center
BU Business Building
CC College Center
CH Childcare Center/ Early Childhood Education Lab
CL Center for Leadership in Education
EC Ewing Activities Center
EI Entrepreneurship Innovation Center
HS Health Sciences
LC Bass Library/Community Resource Center
LR Multi-Purpose Center
MC A&B Modular Classroom
MS Mechanical Services
PC PC Campana Engineering Training & Development Center
PE Health, Physical Education & Recreation
PE01 Fitness Center
PP Physical Plant
PS Physical & Social Sciences
SC Stocker Humanities & Fine Arts
SP Spitzer Conference Center
UC University Partnership Center
V Handicapped Parking with Van Access
T Tennis Courts
2nd Floor Walkway
1st Floor Walkway
NOTE Visitors and Guests to park in WHITE LINED areas
Faculty and Staff to park in YELLOW LINED areas

Approaching LCCC from the WEST

1. If you are driving on the Ohio Turnpike, take Exit 142 (old exit 8-A), which is a one-way eastbound connector to Routes 2 and I-90.

2. If you are driving on Route 2, remain on Route 2 as it merges eastbound with I-90.

Exit Routes 2 and I-90 at route 254 (exit 148). Turn right on Route 254. Stay in the right-hand lane. Turn right at the third traffic light (about 200 yards ahead).

You are now heading south on Route 301/Abbe Road.

Move to the left (center) lane and prepare to turn left into the LCCC North Campus at the second traffic light (about 3/4 of a mile ahead).

Approaching LCCC from the SOUTH

1. If you are driving on Route 58 (from the Ashland area), go north to the Route 2 connection in Amherst. Turn right (east) onto Route 2. Remain on Route 2 as it merges eastbound with I-90.

Exit Routes 2 and I-90 at route 254 (exit 148). Turn right on Route 254. Stay in the right-hand lane. Turn right at the third traffic light (about 200 yards ahead).

You are now heading south on Route 301/Abbe Road.

Get in the left (center) lane and prepare to turn left into the LCCC North Campus at the second traffic light (about 3/4 of a mile ahead).

2. If you are driving on Route 301 (which connects with I-71 in Medina County), follow Route 301 northward to La-Grange. Continue northward on Route 301, being careful to turn eastbound on divided highway (Routes 10 and 301) several miles north of LaGrange. At the second exit eastbound, Route 301 diverges from Route 10 at the junction with Route 57 North (right).

Continue on Route 57 North/Route 301 North to Abbe Road, making a turn onto Abbe Road/Route 301. Continue two miles on Abbe Road to the south entrance of the campus.

Approaching LCCC from the EAST

1. If you are driving on the Ohio Turnpike, exit at Exit 145 (old exit 8) and head north (right) toward Lorain. You will be on Route 57, immediately passing the Exit 8 Holiday Inn and Midway Mall. Stay in the right-hand lane and exit at the third right onto Routes 2 & I-90 heading east.

Exit Routes 2 and I-90 at route 254. Turn right on Route 254. Stay in the right-hand lane. Turn right at the second traffic light (about 200 yards ahead).

You are now heading south on Route 301/Abbe Road.

Move to the left (center) lane and prepare to turn left into the LCCC North Campus at the second traffic light (about 3/4 of a mile ahead).

2. If you are driving west on Routes 2 & I-90, the first exit in Lorain County is Route 83. Drive past the Route 83 and Route 611 exits. Exit at the Route 254 interchange (exit 148). Turn left at the exit ramp onto Route 254. Turn right onto Abbe Road/Route 301 at the third traffic light.

You are now heading south on Route 301/Abbe Road.

Move to the left (center) lane and prepare to turn left into the LCCC North Campus at the second traffic light (about 3/4 of a mile ahead).

3. If you are driving west on Lake Road (Route 6) from Cleveland, continue west through Avon Lake and into Sheffield Lake. At the first traffic light in Sheffield Lake (Abbe Road/Route 301), turn left. Head south past Route 611, French Creek Road and Route 254.

Move to the left (center) lane and prepare to turn left into the LCCC North Campus at the second traffic light (about 3/4 of a mile ahead).

4. If you are driving west on I-480, continue past the Ohio Turnpike. I-480 becomes Route 10. Continue west on Route 10 to the Route 57/Route 301 exit. Drive north on route 57/Route 301 to Abbe Road (Route 301). Turn right on Abbe Road and drive north two miles to the south entrance of the campus.