Nov. 15th , 2013 Fri.
9:00 A.M. to 3:30 P.M.
SMTA Members/Non Members $35/$55
Student members/Non-members $5/$10
Lunch Included, please respond to
bcrane@bird-technologies.com

The Connector

SMTA
Surface Mount Technology Association
Ohio Valley Chapter

Challenges Of Today's Printed Circuit Boards

**The Ohio Valley Chapter,
and the Richard Desich SMART Commercialization Center for Micro-systems has it's next meeting organized. The agenda is as follows**

**9:00am—9:30am
Registration**

Bob Veale from Rockwell Automation presenting:

"The Effect of Airborne Contamination on Electronic Assemblies"

Andy Smithers from SPEA America will be presenting:

Using Flying Probe systems as a complete ICT replacement solution

Steve Marks from Test Research USA, Inc, TRI:

A Low Cost Alternative to In-circuit Test

LUNCH

We are looking to add one more speaker, As this firms up we will assign time slots

Also!

Sign up as a new member and get your 1st meeting Free!!

Lorain County Community College

The Richard Desich SMART Commercialization Center for Microsystems at 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

President	Gregory Vance	Rockwell Automation	440-646-3246	gjvance@ra.rockwell.com
Vice President	William Timms	WB Timms	330-416-6993	bill@timmssales.com
Secretary	Brett Crane	Bird Electronic Corporation	440-519-2309	bcrane@bird-technologies.com
Treasurer	Bill Miller	EMS Provider .	440 774-1616	millerwmr@frontier.com
Technical Programs	Robert McGarry		234-380-2523	rmcgarry@neo.rr.com
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

Andy Smithers

Abstract:

Using Flying Probe systems as a complete ICT replacement solution.

For In Circuit Test every net needs access for a test probe to make contact to. Without this test access NO TEST can be performed on ANY of the components on this net. This means there may be short circuits, wrong values, wrongly oriented components, open pins or any combination of these and these faults WILL proceed to the next stage. The next stage may be functional test or your customer!

Traditionally ICT machines have been the gold standard for verifying product quality prior to system level test but the combined forces of miniaturization and RF content have conspired against testpads that are mandated for this type of test. The latest Flying Probe test machines suffer from no such limitation and can offer a complete one-step test solution even for production test volumes.

Bio:

Andy Smithers is the North American Sales Manager for SPEA America.
Born and educated in England, Andy obtained his Electronic Engineering Qualification at Chichester College, England.
In 1980 Andy joined the startup ATE company, ATE Systems Ltd as a Test Development Engineer.
Andy has been in the ATE industry ever since, joining SPEA(UK) in 1990 and then re-locating to Tyler, Texas in 2001 to help launch the USA subsidiary of the highly successful European company.

Bob Veale

The Effect of Airborne Contamination on Electronic Assemblies

Electronic controls and equipment are applied in a wide variety of polluted environments. Atmospheric contaminants can react with electronic materials creating reliability risks. This presentation will describe how particulate and gaseous pollutants can lead to failure of electronic circuits. Implementation of the RoHS initiative has increased the susceptibility of electronic modules to corrosion failures.

Bio:

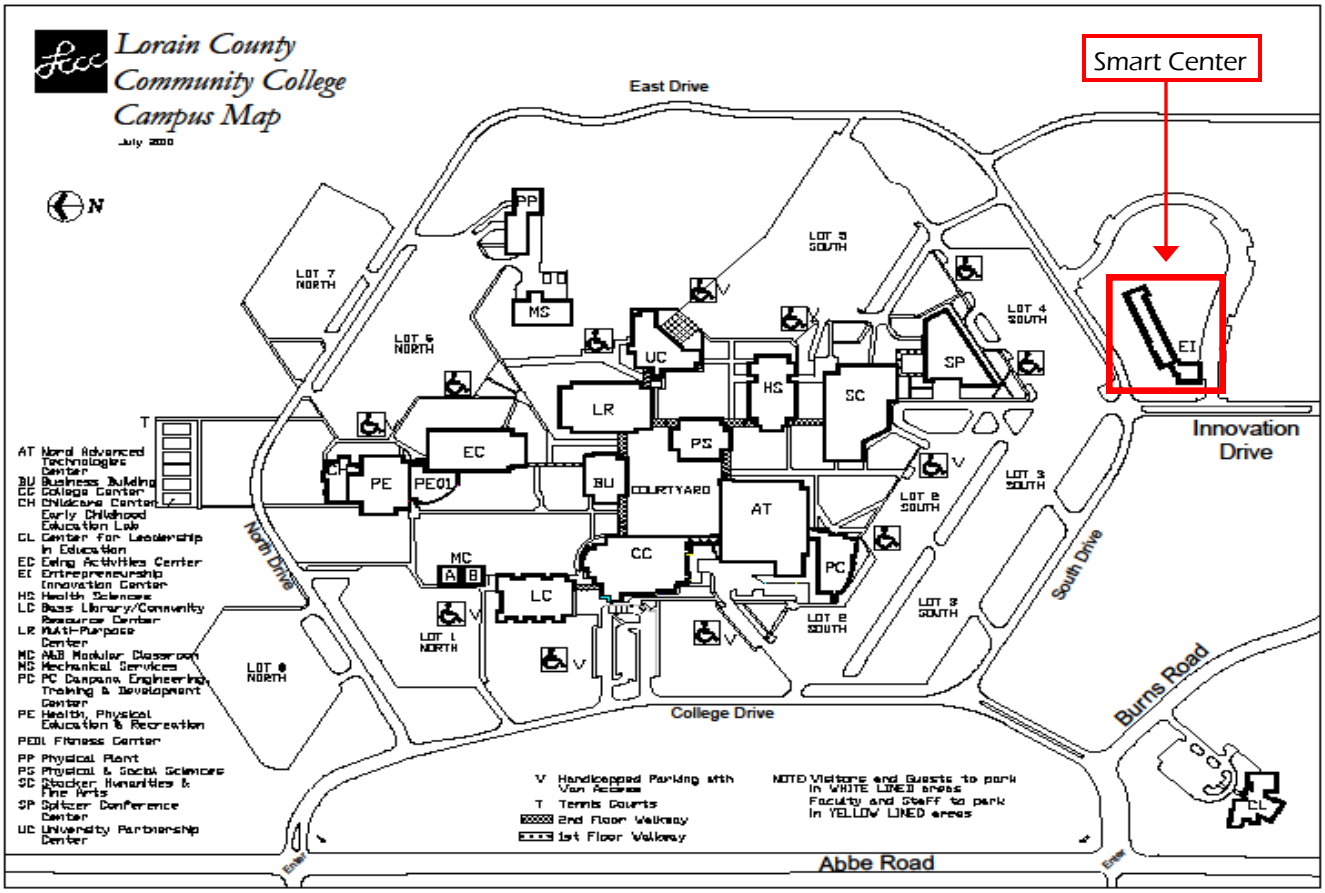
Bob Veale is a Sr. Project Engineer at Rockwell Automation. In his 32 years with Rockwell Automation, Bob has performed evaluations on electronic materials and components. More specifically, he has done failure analysis and reliability studies on both active, passive components and soldered assemblies. One of Bob's areas of expertise is the effects of airborne contamination on electronic assemblies especially as found in industrial environments.

Steve Marks

A Low Cost Alternative to In-circuit Test

Bio:

Currently the Managing Director of North America for Test Research USA, Inc. I have been with the company for 4 years and have responsibility for all sales and service related activities. Prior to Test Research, I worked for HP, Agilent and Verigy as both an Applications Engineer supporting the ICT products and as an Account Manager for sales of SMT Test and Inspection solutions as well as Semiconductor solutions. I worked at HP, Agilent and Verigy for 16 years and have been in the Manufacturing Test and Inspection market for over 20 years.


Lorain County Community College
Campus Map
July 2008
Smart Center
East Drive
Innovation Drive
Burns Road
College Drive
Abbe Road
North Drive
South Drive
LOT 7 NORTH
LOT 6 NORTH
LOT 5 SOUTH
LOT 4 SOUTH
LOT 3 SOUTH
LOT 2 SOUTH
LOT 1 NORTH
LOT 8 NORTH
PP
MS
UC
LR
HS
SC
SP
EI
EC
PE
PE01
BU
COURTYARD
PS
AT
CC
PC
MC
A B
LC
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 Eating 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
PEDI 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.