



Southcon®/2006

Education for Engineering Applications

March 7-9, 2006

Orange County Convention Center
Orlando, FL

Preview Program

*Targeting the Needs of
Today's Engineer*

www.southcon.org

Featuring

Exhibits

IEEE Conference Program

Earn CEU's at a low cost

"Blue Ribbon Panel Discussion"
on How to Survive Outsourcing
and Off Shore Design &
Manufacturing

Co-Locating with **AmCon**
American Contract Manufacturers Show

**Free Admission
to Exhibits and
Exhibitor Workshops**



Southcon®/2006

Education for Engineering Applications

Today's New Products . . . Tomorrow's Innovative Solutions

Southcon, Florida's leading OEM electronics event, has long been the industry event where engineering and purchasing professionals come to see, touch, compare *and* learn about new cutting-edge products and innovative solutions. Southcon/2006 will feature product demonstrations, vendor exhibits and a high-quality conference program offering answers and solutions for the entire design, manufacturing and test team.

Co-Locating with AMCON

Your Southcon badge also gains you free access to the American Contract Manufacturers Show (AMCON).

When and Where?

Orange County Convention Center

West Complex - Hall F
9800 International Drive
Orlando, Florida 32819

Exhibit Hours	Conference Hours
Tuesday, March 7 9:30am-4pm	Tuesday, March 7 9am-5pm
Wednesday, March 8 9:30am-4pm	Wednesday, March 8 9am-5pm
Thursday, March 9 9:30am-1pm	Thursday, March 9 9am-5pm

Why Attend Southcon?

- **Reduce Product Costs – Find New Sources of Supply**
- **Product Knowledge – Directly from the Manufacturer**
Get answers to technical questions directly from the people who have the answers.
- **Earn CEUs at a Low Cost**
IACET CEUs are awarded for all tutorials.
- **Learn What's Happening in Your Industry**
Stay in touch with your industry...learn about the trends, changes and opportunities that will impact your professional career.
- **Save Time and Money**
Southcon's exhibits and engineering tutorials take place in one location – minimizing the amount of time away from the office. No other event offers the convenience and value of Southcon.
- **Meet Engineer-to-Engineer in a Creative Environment**
Meet face-to-face with your peers – exchange information and share ideas.

For more information on Southcon

www.southcon.org

(310) 937-1006 • Fax (813) 996-4460

Email southcon@ieee.org

Southcon is sponsored by the Florida Council and Region 3, Institute of Electrical & Electronics Engineers  and the Florida Sunshine Chapter of Electronics Representatives Association (ERA) 

Exhibit Hours		9:30-4		9:30-4		9:30-1	
Day Planner		Tues. 3/7		Weds. 3/8		Thurs. 3/9	
		AM	PM	AM	PM	AM	PM
Conference Hours		COST		9-5		9-5	
Blue Ribbon Panel Discussion (1:00 to 3:00 pm)							
K1	How to Survive Outsourcing and Offshore Design/Manufacturing	N/C					
Engineering Application Tutorials (Include Lunch)							
T1	EMC Printed Circuit Board Design Practices (6 Hrs.)	\$315					
T2	ESD Design & Test (3 Hrs.)	\$165					
T3	High-Frequency Digital Design & PCB Layout (12 Hrs.)	\$700*					
T4	IEEE 802.15.4 & ZigBee - What's the Buzz? (6 Hrs.)	\$315					
T5	Manufacturing Implications of Lead-Free (3 Hrs.)	\$165					
T6	MIL-STD-461E & MIL-STD-464A Evaluation & Compliance (6 Hrs.)	\$315					
T7	Wireless Protocols - An Introduction and Overview (6 Hrs.)	\$315					
T8	Wireless Security (4 Hrs.)	\$195					
Exhibitor Workshops (1 Hour Each) – No Charge to Attend							
Workshop titles to date: Using Technology to Grow Your Business; Use More Than 10% of Microsoft Office; Streamline Business Processes with Microsoft Business Solutions							

* Includes Textbook

Technical Conference

Southcon's industry-relevant, affordable technical tutorials address issues that concern design, manufacturing and test departments. Instructors are leading experts in the topics they present.

Tutorial fees include lunch.



CEUs are awarded for all tutorials. (The IEEE is an authorized CEU Sponsor

Member of the International Association for Continuing Education and Training.) IEEE membership is not required to receive CEUs.

Tuesday, March 7

Application Engineering Tutorial - T3

Fee: \$700 (Includes Book) - 1.2 CEUs will be Awarded

Tuesday & Wednesday - March 7 & 8, 2006 - 9:00 am - 5:00 pm

High-Frequency Digital Design & PCB Layout (2 Days)

Mr. Robert Hanson, Americom Seminars, Inc.

This tutorial is for the serious digital designer who wants the design to meet SI the first time. Causes and elimination of the high-speed concerns (ground bounce, metastability, Q CKT ringing, reflections, cables, crosstalk, bypassing, EMI/EMC problems with connectors, split planes (analog fidelity) and differential noise/crosstalk/jitter) will be explored. Methods for design and layout of 4, 6 and 10-layer PCB stackups to control characteristic impedance and crosstalk also will be discussed.

Application Engineering Tutorial - T6

Fee: \$315 - .6 CEUs will be Awarded

Tuesday - March 7, 2006 - 9:00 am - 5:00 pm

MIL-STD-461E and MIL-STD-464A Evaluation and Compliance (6 Hrs.)

Mr. Ronald W. Brewer, NCE, Consultant

The primary MIL-STD-461E design and measurement requirements will be explored along with an overview of MIL-STD-461E contractual and CDRL items. Practical EMC design methodology will help attendees understand major Control Plan requirements. Because of the DOD's strong emphasis on COTS equipment, FCC and EU EMC test/evaluation methods will be summarized and compared with MIL-STD-461E, followed by an overview of the MIL-STD-461E conducted and radiated emission and susceptibility tests most frequently required by military procurement specifications.

Application Engineering Tutorial - T7

Fee: \$315 - .6 CEUs will be Awarded

Tuesday - March 7, 2006 - 9:00 am - 5:00 pm

Wireless Protocols - An Introduction and Overview (6 Hrs.)

Mr. Charles J. Lord, P.E., CQ Manager, QA Engineer, Inlet Technologies, Inc.

The various wireless communications protocols that are currently being designed into products or under discussion will be overviewed. Presented from an applications engineering viewpoint, we will examine the strengths, weaknesses and limitations of all popular formats. Protocols to be covered will include the IEEE 802.11 (a-n), 802.15.1 (bluetooth), 802.15.4 (including ZigBee) and various others. Participants will gain a good understanding of how to select a protocol for developing their application and how to weigh the trade-offs involved in making that selection.

Wednesday, March 8

Application Engineering Tutorial - T1

Fee: \$315 - .6 CEUs will be Awarded

Wednesday - March 8, 2006 - 9:00 am - 5:00 pm

EMC Printed Circuit Board Design Practices (6 Hrs.)

Mr. Ronald W. Brewer, NCE, Consultant

PCB design practices to reduce RF emission and susceptibility (immunity) will be explored. Both analog and digital PCBs will be discussed, but EMC design practices for high-speed logic circuits requiring transmission line techniques will be emphasized.

Application Engineering Tutorial - T4

Fee: \$315 - .6 CEUs will be Awarded

Wednesday - March 8, 2006 - 9:00 am - 5:00 pm

IEEE 802.15.4 and ZigBee - What's the Buzz? (6 Hrs.)

Mr. Charles J. Lord, P.E., CQ Manager, QA Engineer, Inlet Technologies, Inc.

The IEEE 802.15.4 low-speed/low-power communications protocol and the implementation of that protocol by the ZigBee Alliance for Worldwide Interoperability will be explored. Able in some applications to work from a single battery for years, 802.15.4 devices show promise for enabling "set and forget" sensors and controls in places that previously required running wires or changing batteries often. Presented from the perspective of an embedded systems developer, hardware applications as well as code development for devices at all complexities from a simple control layer of only 4K of code, through the 802.15.4 protocol, to a full ZigBee-compliant network will be demonstrated.

**For Expanded Conference
Information and Registration
visit
www.southcon.org**

Thursday, March 9

Thursday, March 9

Application Engineering Tutorial - T2

Fee: \$165 - .3 CEUs will be Awarded

Thursday - March 9, 2006 - 9:00 am - Noon

ESD Design for Electronic Systems, Subsystems and Equipment (3 Hrs.)

Mr. Ronald W. Brewer, NCE, Consultant

This tutorial will provide techniques for properly handling ESD susceptibility (immunity) control problems in electronic systems, with emphasis placed on ESD protection design of high-speed, logic-based systems.

Application Engineering Tutorial - T5

Fee: \$165 - .3 CEUs will be Awarded

Thursday - March 9, 2006 - 9:00 am - Noon

Manufacturing Implications of Lead-Free (3 Hrs.)

Mr. Robert Hanson, Americom Seminars, Inc.

This tutorial will emphasize practical application and information, and will show you how to resolve the business and technical issues (principles as well as practice) for an effective implementation of lead-free at lower cost and higher yield.

Application Engineering Tutorial - T8

Fee: \$195 - .4 CEUs will be Awarded

Thursday - March 9, 2006 - 9:00 am to 1:00 pm

Wireless Security (4 Hrs.)

Mr. Charles J. Lord, P.E., CQ Manager, QA Engineer, Inlet Technologies, Inc.

The design and implementation of security measures in a wireless network will be explored from a system designer's perspective. An overview of all basic wired and wireless network methods and protocols will be followed by concentration on the wireless security methods for 802.11 (wi-fi) as well as 802.15 (bluetooth, 802.15.4 and ZigBee). With the growing popularity of these protocols, all sharing the same radio spectrum, there is an ever-increasing need for tighter security, particularly in applications involving financial, identity or mission-critical data.

BLUE RIBBON PANEL TO DISCUSS OUTSOURCING AND OFF SHORE MANUFACTURING

Tues, March 7 – 1:00 pm – 3:00 pm – Fee: No Charge

Please join us for this Blue Ribbon Panel Discussion – "How to Survive Outsourcing and Off Shore Design and Manufacturing" - Moderating a panel of manufacturers, contract manufacturers, and design engineers, Butch Shadwell, member of the Board of Directors of Southcon and a design engineer, will explore the issues facing Design and Manufacturing today. As Southcon is co-located with AmCon (American Contract Manufacturers show), this discussion promises to be a lively and productive event.

Sign up using the registration form in this preview.

FREE Admission to Exhibits



FREE VIP Registration

Save \$25/Fax Back to 813-996-4460

Priority Number

9-90101

How to Register

Mail Deadline - February 3, 2006

Southcon 2006
1514 First Street
Manhattan Beach, California 90266

FAX Deadline - March 3, 2006

813-996-4460
Please do not both fax and mail

Electronically www.southcon.org

After February 17, 2006 badges will be held for pick-up at the Orange County Convention Center.

On-Site

Bring this form with you to Southcon/2006 for FREE admittance.

First Name		Last Name	
Job Title		E-mail	
Company			
Mailing Address		Mail Stop	
City	State	Zip	Country
()	()		
Telephone		Fax	

Register Early: Prices shown are effective through February 24, 2006. Beginning on February 25, the cost of "T" events will increase by \$50 each.

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|--|-----------|
| _____ Southcon Exhibits (Tues., Wed., Thurs., Mar. 7-9, 2006) | No Charge |
| _____ Blue Ribbon Panel Discussion (Tues., Mar. 7, 1 to 3:00 PM) | No Charge |

Application Engineering Tutorials (include lunch)

- | | |
|---|--|
| _____ T1 - \$315 - EMC Printed Circuit Board Design Practices | _____ T5 - \$165 - Manufacturing Implications of Lead-Free |
| _____ T2 - \$165 - ESD Design for Electronic Subsystems & Equipment | _____ T6 - \$315 - MIL-STD-461E & MIL-STD-464A... |
| _____ T3 - \$700 - Highfrequency-Digital Design & PCB Layout | _____ T7 - \$315 - Wireless Protocols - An Introduction & Overview |
| _____ T4 - \$315 - IEEE 802.15.4 and ZigBee - What's the Buzz? | _____ T8 - \$195 - Wireless Security |

10% discount for IEEE & ERA members or companies sending more than three attendees IEEE/ERA Discount \$ _____
IEEE Membership # _____.

Special Assistance: If you require special assistance covered under the Americans with Disabilities Act, please call (310) 937-1006 by January 31, 2006.

Grand Total \$ _____

Cancellation: No refunds after February 4, 2006. However you may send a colleague in your place.

Method of Payment

- _____ Check (payable to Southcon 2006).
_____ I agree to pay the total amount according to my credit card issuer (circle one)

VISA MC AMEX Card # _____ Expiration Date _____

Name appearing on card (Printed) _____ (Signature) _____

Billing address of card _____
(Street/City/State/Zip)

Persons under 18 years of age not admitted. Students 18 or older admitted on Thursday, March 9, only.

For Complete Conference Information and Registration visit www.southcon.org

Southcon and Amcon Exhibit Floor & Conference Companies Partial List as of 11-1-05.

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|--------------------------------------|-----------------------------------|---------------------------------|-------------------------------------|--------------------------------------|
| A.M. Metal Finishing, Inc. | Comus International* | Gemstar Manufacturing | Network Engineering Solutions, Inc. | Sibex, Inc. |
| A.P.P.I. | Conductive Technology | Gowanda* | Newman Machine | Soldering Technology International |
| AAK Corporation* | Connecticut Spring & Stamping | Gross Publications | Noah Industries, Inc. | Somtec Corp. |
| Able Systems Limited* | Constellation Technology Corp. | Hallmark Technologies, Inc. | North Penn Technology, Inc. | Soneticom* |
| Ablerex* | Cost Cast, Inc. | Harmony Castings, Inc. | Northwest Automatics | Southern Spring & Stamping, Inc. |
| Acme-Monaco Corporation | Crane Connectors* | HFA, Inc. | Nu-Way Industries, Inc. | SSI Electronics, Inc. |
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| Advanced Input Systems* | Current Solutions, Inc. | Hitachi Computer Products, Inc. | Optical Polymers International | Steinel* |
| Advanced Machining | Da-Tech Corporation | Intech LCD Group Ltd.* | Ozark Circuits, Inc. | Sun Rep |
| Advanced Machining Tech | Da/Pro Rubber, Inc. | Integrated Power Designs* | P&M Industries | Surehold* |
| AJ's Power Source* | Data Graphics | J. Royal Company | PCM Products, Inc. | Surface Finishes Co., Inc. |
| AJL Mfg. | Dayton Rogers Manufacturing | Johanson Dielectrics* | Performance Tech 2000, Inc. | Swanstrom Tools USA* |
| Alpha Power* | Dazor* | KAI - Tropical Assemblies, Inc. | Peter Parts Electronics | Sypris Test and Measurement |
| Aluminum Alloys | Deco Products Company | Kolver USA* | Phoenix Components, Inc. | T.L. Fahringer Co. |
| American Aluminum Casting Co. | Dee Van* | Kurt Manufacturing | Piher International* | Technical Specialties Co., Inc. |
| American Plastic Molding Corp. | Dictaphone - EMS* | Lamothermic Corporation | Plastic Concepts & Design, Inc. | Technical Systems Integrators, Inc. |
| AFEM Components* | DyCast Specialties | Lee Spring Co. | Power-Sonic Corp.* | Time-Compression Technology |
| Applied Manufacturing Concepts, Inc. | Dyna-Graphics | Lishen* | Powerstax plc.* | Tocos America* |
| APX Technologies, Inc.* | Dyna-Tech Corp. | Loda* | Precision Metal Industries | Tri-Mag* |
| Arlink* | E&T Plastics | Machine Specialties, Inc. | Precision Resistive Products, Inc.* | Tropic Fasteners |
| Armstrong Mold Corp. | EAC* | MAJR Products | Profab Electronics | Truex, Inc. |
| ASH Industries | EBM Industries | Materials Converting | Progressive Technologies, Inc.* | UDT Sensors* |
| B.A. Precision | EDAK* | Memtron Input Components* | ProSource Industries | Universal Sales Company |
| Bardane Aluminum Foundry | EDM Technologies | Metal Form, Inc.* | Quaker Plastic Corporation | US Tech |
| Bare Board Group | Electronic Film Capacitors, Inc.* | Metalade N.Y., Inc. | Rapid Product Solutions | Vaga Industries |
| Bartlett Manufacturing Company* | Ellsworth Adhesives | Micro-Accessories | Rapis Sheet Metal, Inc. | Weber Manufacturing & Supplies, Inc. |
| C-MAC Microelectronics* | EMS, Inc. | Micro Care Corp.* | Renco Electronics, Inc. | Williams Soud* |
| CET Technology | ETA-USA* | Micro Commercial* | RMI-F, Div. of Rotronics | Wilsons Machine Products, Inc. |
| Challenge Electronics* | Exeltech* | Mid-West Spring & Stamping | Rubycon* | Wisconsin Tool & Mold |
| Chapman Tool & Mold | Extech* | Midgard, Inc. | Saint-Gobain | Wrico Stamping Co. |
| Cincinnati Sub-Zero Products | Fab Masters Co. | Mnemonics | Sanyou Relays* | You Eal* |
| Cincon Electronics* | Flat Display Technology* | Morrissey, Inc. | Sealing Devices, Inc. | |
| Clairson Plastics | Fort Walton Machining | Mueller Electric, Co.* | Seaway Plastics Engineering | |
| CLOW Stamping* | Fujipoly* | NADO Inc. | SRC Devices* | |
| CompuLink Cable Assembly, Inc. | Gaston Electronics | Nemco Elect* | Shoulder Electronics Group* | |

*Products shown through representative or distributor.