

Proposal



IEEE SoutheastCon 2017 *“The Internet of Smart Ideas”*

North Carolina Council

Charlotte/Concord, North Carolina
Proposed Conference Dates & Location:
March 30, 2017 through April 2, 2017
Embassy Suites Charlotte/Concord



**EMBASSY SUITES
HOTEL®**

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Executive Summary

The NC Council proposes that SoutheastCon 2017 be held at the Charlotte-Concord, NC Embassy Suites and Convention Center. The events will be held from Thursday, March 30 to Sunday, April 2, 2017. The conference will include the standard sub-conferences (Technical, Student, and Region 3). The primary goals will be to engage as many students as possible by making the student registration as affordable as possible, without financially burdening the Region 3 and Technical attendees.

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1 Conference Overview

1.1 Goals

The SoutheastCon 2017 committee established the following goals:

- Create an affordable conference for all students, including conference registration, accommodations, and food;
- Create a conference for undergraduate students where they can demonstrate their skills in contests, attend professional development workshops, and talk with company recruiters;
- Create a conference for graduate students where they can gain experience in writing for and presenting at an IEEE Conference;
- Create a conference for professionals where they can present relevant research or development results and attend professional development workshops;
- Create an environment conducive for the Region 3 leadership to conduct their semi-annual meeting;
- Assist in the increase in membership in the Region through a registration structure that encourages membership applications;
- Encourage communications and mentoring between the 2017 team and the 2016 and 2018 (and beyond) teams; and
- Generate a modest surplus for the organizations sponsoring the conference.

1.2 Proposed Date

The proposed dates for the conference are March 30 through April 2, 2017. These dates are clear of any major events that could occur in Charlotte, like basketball tournaments, car shows, or NASCAR races. The date avoids Easter and Palm Sunday (April 16 and 9), so it also avoids K-12 holidays for the area (and likely the Region). There is a possibility that this will fall on the week of some schools' spring break holidays, but this cannot be avoided. The dates do not conflict with any UNC Charlotte events, spring break, or holidays.

1.3 Proposed Venue

After investigation into space other areas (including the Greenville, SC area for the Piedmont Section), it was decided to hold the event at the Charlotte-Concord Embassy Suites Hotel and Conference Center. This hotel was the site of IEEE SoutheastCon 2010 and was conducive to holding a very successful conference that year. The hotel currently has over 300 rooms. This hotel currently has over 40,000 sq. feet of convention space.

The cost of a room is a flat rate of \$159 per night (plus local taxes) and can accommodate up to four students comfortably. Some of the amenities offered as a concession to the IEEE is free breakfast for all attendees, free evening manager's reception, and free wired and wireless Internet connectivity.

1.4 Proposed Theme

The proposed theme for IEEE SoutheastCon 2017 is “*The Internet of Smart Ideas.*” This theme builds on the extensive development done in the surrounding area in Smart Cars, Smart Power, and the Internet of Things.

1.5 Benefits of Charlotte/Concord as a Site

Charlotte is the largest city between Atlanta and Washington, DC. It is the 21st largest in the US and one of the fastest growing. The Charlotte metropolitan area is home to the headquarters of Duke Energy, Wachovia Bank, Bank of America, Family Dollar, Goodrich Corporation, Lowe’s Hardware, many NASCAR teams, and many other businesses.

Charlotte’s airport serves as a hub for American Airlines (formerly US Air). Nearly all Region 3 cities with an airport have a direct flight to Charlotte on at least one airline. Interstate 85 and 77 run through the city, and Interstate 40 is forty miles north of the conference site. Economy Carrier Allegiant Airlines is beginning service to Concord Regional Airport, only three miles from the hotel.

The metropolitan area has many activities available for visitors, including some of the largest tourist attractions in central NC (Concord Mills Mall – ½ mile away from the conference site), Lowes motor Speedway (½ mile away from the conference site), the NASCAR Hall of Fame, the US Whitewater Center, and numerous museums.

1.6 General Organization (volunteers)

The following volunteers will form the core of the SoutheastCon 2017 team. A full list of volunteers is still being recruited.

- General Chair: Charles Lord (c.j.lord@ieee.org) (Western NC Section, NC Council Chair, SoutheastCon 1995 Chair)
- Vice Chair: Silvia Middleton (SoutheastCon 1993 Chair)
- Treasurer: Brian Kowald (WNCS)
- Registration Chair: Mark Stokes (SoutheastCon 2001 Chair)
- Mentors: R3 Dir Jim Conrad / Sean Haynes (SoutheastCon 2016 Chair)
- Technical Conference Chair: Tom Habetler (R3 Conferences Chair)
- Student Conference Chair: Rodney Radford (ENCS) / Pat Donohoe (R3 RSAC)
- Exhibits / Sponsors Chair: Lee Stogner

2 Location Details

2.1 City

Charlotte is the largest city in the state of North Carolina and the 17th largest city in the United States. It has a 2014 estimated population of approximately 809,958. According to 2006 estimates, Charlotte is the 5th–fastest-growing among large U.S. cities as well as the fastest-growing city on the East Coast and the largest metro area between Atlanta and Washington, D.C.

As of 2014, the Charlotte metropolitan area had a population of 2,380,314. The city of Charlotte is actually almost twice as large as the city of Atlanta, although the Atlanta metro area is twice the size of the Charlotte metro area (Jacksonville, FL is the largest city proper at 853,000).

The city's economy has and is continuing to mature starting in the 1990s and continuing through the 2000s to become dominated by financial services, as well as retail commerce and power industries. Charlotte is also a major center in the US motorsports industry, with NASCAR having multiple offices in and around Charlotte. Approximately 75% of the industry's employees and drivers are based within two hours of downtown Charlotte. Charlotte is also the home of the NASCAR Hall of Fame.

“The average March high temperature is 64 degrees F, and the average low is 42 degrees F.”

2.2 Transportation

The proposed site for IEEE SoutheastCon 2017 is The Charlotte-Concord Embassy Suites Hotel Spa and Golf Resort. This hotel is located less than a mile from Exit 49 on I-85 and 19 miles (22 minutes) from Charlotte Douglas International Airport (CLT) and 3 miles from the Concord Regional Airport (JQF). This location is also near to intersections with both I-77 and I-40, making the hotel quite accessible by car from most of Region 3. There is shuttle bus service from CLT to the hotel for those who wish to arrive by air. The committee will be negotiating for a favored rate for this shuttle service the week of the conference.

2.3 Venue and Amenities

The Embassy Suites Charlotte-Concord was host to the 2010 conference and has retained most of the staff from that time period. They are therefore familiar with the complex structure and operation of IEEE SoutheastCon. They feature many favorable amenities: nice room layout, coffee shop and bar, in-house spa, exercise facilities, and indoor pool / hot tub. Breakfast and an evening Manager's reception are included in the sleeping room price for all participants, up to 4/room to accommodate students. Internet connectivity and parking are free.

The adjacent conference facility is operated by the Embassy so it is part of the hotel contract. The Embassy also has a full-service restaurant open for lunch and dinner, a bar, and Starbucks coffee shop that also offers a light menu of salads, sandwiches, and pastries.

2.4 Other Local Hotels and Restaurants

The Embassy Suites has over eight hotels and forty restaurants within a mile of the property. Restaurants include most major fast food chains (McDonalds, Arby's, Wendy's KFC, Bojangles), barbecue and sandwich shops (Subway, Quiznos, Sonny's BBQ), and sit down restaurants (Cracker Barrel, Bob Evans, Ruby Tuesdays, Olive Garden, On the Border, Texas Roadhouse, TGI Fridays, Japanese Steak House). The Embassy also has a full-service restaurant open for lunch and dinner, a bar, and coffee shop that also offers a light menu of salads, sandwiches, and pastries. The 2017 committee will establish an arrangement with one of the local hotels for overflow accommodation. This hotel is close to a mile away and will offer shuttle services if the overflow space is used, but is far enough away to help curtail attrition of room block due to 'shopping'.

3 Conference Details

3.1 Region 3 Meeting

The Region 3 meeting portion of IEEE SoutheastCon 2017 will be set up to accommodate the needs of the Region 3 committee and executive committee (excom). We will arrange for a minimum of:

- Tutorials on Thursday
- Leadership and R3 organizational meetings on Friday
- Area/council meetings Friday evening
- SPC Dinner and Meeting Friday
- Typical meetings Saturday including Fincom breakfast meeting and a minimum of three breakouts
- Awards Banquet Saturday evening
- Region 3 meeting Sunday morning

General Chair Charles Lord has been charged with coordinating the meeting needs with the Region 3 Delegate/Director Jim Conrad and providing what resources are needed.

3.2 Technical Conference

The technical conference portion of IEEE SoutheastCon 2017 will be comprised of tutorial sessions, technical paper sessions, and poster sessions. This arrangement serves the diverse needs of this regional conference, while fulfilling IEEE missions in education and professional development. In addition, the proposed format supports the technical, professional, and developmental needs of industry, academia, and students.

Following the precedent of prior SoutheastCon conferences, the bulk of the technical conference is planned to take place on Friday and Saturday. However, tutorial sessions will be planned for Thursday (and possibly Friday), and a block of rooms will be available for those who want to arrive Wednesday night (Note that the vast majority of tutorials are attended by local (NC/SC) people). Technical paper sessions will be primarily take place on Friday afternoon and all day Saturday. Poster sessions will be conducted in parallel with the technical paper sessions, providing attendees a rich technical conference experience.

The technical paper sessions will follow a rigorous peer review under supervision of a technical committee. As is appropriate for this regional conference, a wide range of diverse topics will be solicited, such as topics in Circuits and Devices, Communications and Information Systems, Engineering in Medicine and Biology, Intelligent Systems and Control, Networks and Distributed Systems, Nanotechnology and Microelectronics, Computing, Electronic, Electrical, and Computer Engineering, General Engineering and Industrial Applications, Education, Technology, and Globalization, Financial Planning in Engineering Profession. Prior SoutheastCon technical innovations will be considered for adoption in support of the paper submission and review process. Abstracts of un-refereed papers will be solicited for poster sessions.

The technical program will use the same proven registration and paper submission system used for the last four SoutheastCon conferences.

3.3 Student Conference

Hardware Contest: The hardware competition, the centerpiece of the student conference, will be allocated ample room for the competition as well as for practice/repair. We will arrange with the Region 3 meetings to allow all to observe the hardware finals. For this year, we are using a non-student team of robotics experts to design and manage the contest, meaning that ALL schools in Region 3 will be eligible to compete.

Software Contest: The team will organize and run the programming competition. We will ensure it adheres to the guidelines of the IEEE Computer Society competition.

Other Contests: We will hold the Webpage, Ethics, T-Shirt, and Technical Paper Competitions, similar to previous years.

Professional Development: We are considering several profession development workshops on Friday and Saturday specifically for students. Several practicing engineers will talk about various technologies, business practices, and experiences as a young engineer.

Career Fair: Another highlight, in conjunction with the exhibits, is a student career fair. We will carry on the tradition planned by previous IEEE SoutheastCons and have a career fair solely for undergraduate and graduate students.

3.4 Guest (Spouse's) Program

The area surrounding the proposed site of IEEE SoutheastCon 2017 offers a plethora of activities and attractions for young and old, male and female alike. Lowes Motor Speedway, the Concord Mills mega-mall including an Outdoor World superstore, a luxurious spa within the hotel, and an adjacent golf course provide a wealth of activities. The guest program is anticipated to include organized visits to many of these locales. This will be organized from a staffed hospitality suite in the hotel. We are currently working on the group to host this function.

4 Project Management Plan

The conference will adhere to the professional practices identified in the Project Management Institutes Project Management Body of Knowledge. This means that this effort will be planned, controlled, and monitored like an industry-based project. Our mentor, Director Conrad, is a PMP and will keep us on schedule and under budget.

4.1 Finances

Seed Money: The initial seed money for IEEE SoutheastCon 2017 will be a maximum of \$10,000 divided as follows:

- North Carolina Council \$5000.00
- Region 3 \$5000.00

Commitments have been already made by the NC Council for providing the above funding upon request.

IEEE Sponsorship: IEEE SoutheastCon 2017 will be sponsored equally by the following:

- North Carolina Council 50%
- Region 3 50%

Sponsorship: The IEEE SoutheastCon 2017 committee has already been discussing involvement of local industry in the conference. Several companies that indicated interest in 2010 will be approached, including the anticipation of participating in exhibits, participating in the student job fair, and in sponsorships. Companies that have expressed an interest in 2010 include: Microsoft (sponsorship, perhaps the Saturday dinner), Duke Energy, AREVA, EPRI, and Schweitzer Engineering Labs. Lee Stogner is already soliciting sponsors and exhibitors and we anticipate garnering at least as much financial support as we did at the successful 2010 conference.

Registration Fees: The registration fees will be structured to encourage as many students as possible to attend (and to become IEEE members, if they are not already). The entire fee structure will be highly dependent on the success of our sponsorship efforts. We have already started these efforts and are optimistic we will be able to secure a minimum of \$30,000 in sponsorships, exhibit registrations, and student job fair registrations.

Budget: The IEEE SoutheastCon 2017 budget is listed in Appendix A1. We anticipate a surplus will be generated, and will take fiscal steps to ensure we will not lose money with this conference. We will use the required budget forms to report status through the project.

Insurance: The required IEEE insurance policy will be secured for this conference.

4.2 Communications/Reporting

One additional operating goal will be to have close communications with the preceding and following conference organizing committees. Already the IEEE SoutheastCon 2017 general chair will be an active observer/participant in IEEE SoutheastCon 2016 and has been involved with most SoutheastCons since 1989 (and was General Chair in 1995). The IEEE SoutheastCon 2017 Technical chair is also the Region 3 Conferences Chair and will be an active participant on the IEEE SoutheastCon 2016 technical committee. It is our goal to involve IEEE SoutheastCon 2018-2020 participants in the same way so there is consistency and continuity between each conference.

The organizing committee will take advantage of IEEE Collabratec, and has already created its own Collabratec private group for communications and document repository. Reports of the IEEE SoutheastCon 2017 efforts will be reported regularly to the Region through the existing reporting process.

Regular teleconferencing meetings will be held using Collabratec and Google Hangouts as well as WebEx. These mechanisms will allow organizers to meet in a “virtual” environment using webcams, microphones, their own PCs, and the Internet without communication expenses. The committee will hold occasional live meetings, most likely in Charlotte.

4.3 Work Breakdown Structure and Schedule

Like all good project plans, a comprehensive Work Breakdown Structure and Schedule will be created. We have the advantage of having the plans from previous IEEE SoutheastCons. We will modify and augment this plan to ensure we account for all major and minor tasks that must be performed. This plan will be made available to all future IEEE SoutheastCons. The committee will track their progress to the plan. Another goal of this conference is to fully document the entire process in the Region 3 SoutheastCon Conference Manual.

4.4 Risk Assessment

The IEEE SoutheastCon 2017 committee will use established good project management principles as practiced by recent SoutheastCon committees to limit financial exposure and maximize use of available funds.

4.5 Website and Advertising

Consistent with recent years, the IEEE SoutheastCon 2017 website will be hosted at the domain www.southeastcon.com/.org, with the root directory at www.southeastcon.com/2017. Separate areas will be set up for student activities and internal committee management purposes (paper management, reporting, etc). For consistency, we will use a similar format and the same registration system as 2016.

Advertising for IEEE SoutheastCon 2017 will consist of:

- Call for papers, distributed at IEEE SoutheastCon 2016 in Norfolk
- Call for papers, sent through Region 3 e-notice and newsletter (electronic edition)
- Call for papers, sent through the technical society e-notice mailing lists
- Publishing through IEEE Conference listing
- Distribution to all Region 3 colleges and universities
- Distribution to colleges and universities outside of Region 3
- Calendar posting in major periodicals wherever possible at no cost
- Two-page ad in the Region 3 Newsletter (paper edition) to be published in Dec 2016/Jan 2017
- Cross-linked web ads when possible at no cost
- Direct contact with major employers in R3
- Other opportunities as identified

4.6 Registration

IEEE SoutheastCon 2017 will use the same proven registration system that has been used the last four years for our conference. Mark Stokes has agreed to take on the registration duties for our conference. He has been in charge of registration for a number of SoutheastCons since 2000. Our current target is to have the registration system set up by IEEE SoutheastCon 2016 (with the exception of the tutorials, which will be set up by January 15, 2017). The registration system, from xcdsystem.com, allows for the efficient management of paper submission, student competitions, and tutorials as well as registration for attendees and even free passes for hardware competition observers. Meal tickets are also managed, allowing for efficient meal planning.