



# Corona



Cedar Rapids Section - Institute of Electrical and Electronic Engineer  
Serving Engineering Professionals in Eastern Iowa

## Cedar Rapids Section Elections are Commencing Soon!

October 2015

### by Gary Bishop, Past Section Chair

Our section depends upon dedicated volunteers so we may remain a vital and thriving organization. Our annual elections are in the fall, with an electronic voting process starting in November. Every year, we need to elect three positions: Vice-Chair, Secretary, and Treasurer.

The Vice-Chair serves for one year, then assumes the role of Chair the subsequent year. Both the Secretary and Treasurer are one year terms. A small amount of training would be needed for the Treasurer position, but the other positions need no special training. However, there are many beneficial advancement and development opportunities available. You can also depend upon the rest of the Executive Committee for assistance.

For each position, your guidance and ideas will be sought at our monthly Executive Committee meetings. In the next few weeks I will be contacting many of you to ask for your help in leading our section. Please consider helping as a way to give back to your fellow IEEE members.

### Who was Ted Hunter?

#### by Gary Bishop

We confer an annual award to the member or members that have provided outstanding service to our section. That award is called the Ted Hunter Award, but who was Ted Hunter? I acknowledge the help of other authors that produced some of the following material.

During 1944 Ted Hunter became the driving force behind the formation of the Cedar Rapids Section of the Institute of Radio Engineers (the predecessor of the IEEE). He was primarily responsible for the rapid growth and solid organization of this section. He served as section Chairman and was the first FallCon Chairman. FallCon was a conference that brought vendors, prospective customers, students and other interested parties together. He was the first Region 5 Director, a Vice President of IRE and was a Fellow of the Institute.

Born in Dike, Iowa on December 5, 1890, Ted received his Bachelor of Science Degree in Electrical Engineering and the Master Degree of Physics in 1924 and the Professional E.E. Degree in 1931 - all from the University of Iowa. He worked for both Northwestern Bell Telephone Company and Crossley Radio Company. He taught physics at both the University of Pittsburgh and at Rose Poly-Technic Institute. In 1940, he joined Collins Radio Company. He developed the Navy TCS Transmitter that was used extensively in World War II. Ted was an advocate for communications with students, and initiated the IRE Student Quarterly in 1955. A recount of the struggles surrounding his first issue are here:

<http://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=4055296>

Ted originally sought support from the IRE board, but was initially turned down. Undaunted, he proceeded to publish a IRE student magazine himself, with assistance from Collins Radio. Once this publication was shown to the IRE board, they quickly reversed themselves and voted to officially support the IRE student quarterly, with Ted as its editor. A recount of his persistence is here:

<http://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=6499536>

Additional background information is available here:

[http://ethw.org/IEEE\\_Cedar\\_Rapids\\_Section\\_History](http://ethw.org/IEEE_Cedar_Rapids_Section_History)

Ted and Dr. Al Bradley were the founding members of the Eye Bank Network, a group of Amateur radio operators that volunteered to match up available eye tissue with transplant recipients in 1963.

See: <http://pages.suddenlink.net/w8gn/>

As you can see, Ted was an outstanding IRE/IEEE supporter, a community minded and selfless volunteer for the causes he believed in. The Cedar Rapids Section is proud to have him as our founder, and equally as proud to confer an award in his honor.

**PLEASE, CONSIDER HELPING EXCOM!  
PARTICIPATE, VOTE AND DON'T FORGET TO  
RENEW YOUR MEMBERSHIP!**

## Upcoming Events

<a href="#">Mobile Handset PA Performance</a>	October 15, 2015
<a href="#">PrISUm Solar Car Presentation</a>	October 22, 2015
<a href="#">UofI Microfabrication Facility</a>	
<a href="#">Open House</a>	October 23, 2015
<a href="#">Quantum Computing (Dawn or Yawn)</a>	October 26, 2015
Excom Meeting	October 28, 2015

Our next Excom in on October 28, 2015. All are welcome. Please Contact **Raman Aravamudhan** to attend or visit <http://www.ieee-cr-section.org/> for more details.

The Cedar Rapids Section of the IEEE is actively seeking volunteers! If you're interested in volunteering in any capacity please contact one of the 2015 officers.

The Cedar Rapids Section is now on LinkedIn! Click to joint.



Corona is published quarterly and is an official newsletter of the IEEE Cedar Rapids Section. Newsletter website:

<http://www.ieee-cr-section.org/category/corona/>

Newsletter is produced by Elizabeth Kleiman.

To submit your announcement to Corona, email:

[Elizabeth.Kleiman.US@ieee.org](mailto:Elizabeth.Kleiman.US@ieee.org)

Submissions for next edition are due January 5 .

## Mobile Handset PA Performance: ET vs. APT & GaAs HBT vs. SOI/CMOS

Co-sponsored by Skyworks

Thursday, Oct 15th @ 5:15pm @ Skyworks



Both Silicon and GaAs PAs have been battling to gain market share for the Mobile Phone handset business. New technology such as Envelope Tracking has helped to improve silicon PA performance. This presentation will explain how to fundamentally compare the performance of linear and envelope tracking PAs and their performance in GaAs or Si technologies. Conclusions will be made regarding the best technology now and into the future for the Mobile Phone PA market.

# UI MICROFABRICATION FACILITY'S OPEN HOUSE

FRIDAY, OCTOBER 23 • 1PM  
ROOM 104, IOWA ADVANCED TECHNOLOGY LABS (IATL)  
FREE EVENT • OPEN TO THE PUBLIC

Fabrication technologies to manufacture structures 10,000 times smaller than the width of human hair

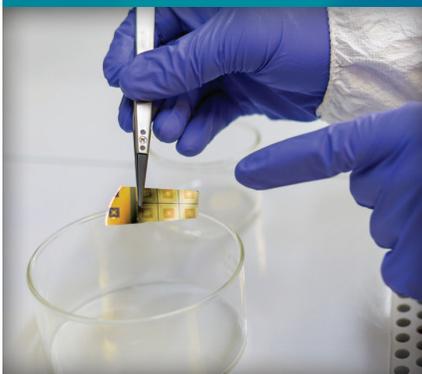
- Hands-on operation on **one-of-a-kind** nanotool in **Iowa**—Raith Voyager Ebeam to sculpt nanostructures.
- See in action the manufacturing technologies involved in the next generation of nano-devices, from DNA sequencing chips, sensors for cancer cells detection, drug delivery devices to LED lights, solar cells, transistors and smart phones.
- Participate in hands-on demonstrations on several state-of-the-art nanotools in a dust-free facility.

INTRODUCTION  
1-1:30PM

NANOTOOL DEMOS  
1:40-5PM

Mask aligner • Nanoimprint • Reactive Ion Etcher  
Atomic layer deposition • Sputterer coater  
EBeam evaporator • EBeam nanolithography

For more information, visit:  
[bit.ly/UIMFopenhouse](http://bit.ly/UIMFopenhouse)



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Individuals with disabilities are encouraged to attend all University of Iowa sponsored events. If you are a person with a disability who requires an accommodation in order to participate in this program, please contact OSTC in advance at 319-353-2342.

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