



Student Professional Awareness Conference (SPAC) (Page 6)

February 12th 5:30 - 8:30
Cedarville Univ. BTS 102

IEEE Section Meeting February 19th (Page 3)

Affiliate Societies Council's Bldg, 4801
Springfield Street
Montgomery County Education
Service Center

IEEE Dayton Banquet

April 12, 2014 (Page 3)
RSVP by April 9

RSVP to dave.perez@ieee.org
Charity Earley Auditorium at Sinclair

2014 IEEE Radar Conference (RadarCon)

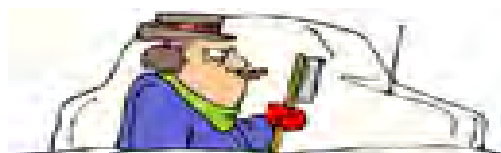
May 19-23 (Page 4)
Cincinnati, Ohio

NAECON 2014

June 25 - 27 (Page 5)

Call for abstracts & papers in Spring 2014

IEEE Conference on Computer Vision & Pattern Recognition 20 Jun - 27 Jun (Page 5)



Congratulations!

Region 2: Barbara Frantom and **Felicia Harlow** have just been elected into the IEEE Region 2 as officers, IEEE Region 2 West Area Chair and IEEE Region 2 Secretary, respectively. It has been nearly a decade since IEEE Dayton Section members have held an office in Region 2! Our congratulations to both, Barbara and Felicia, this is truly, an extraordinary deed!

New IEEE Dayton Section Fellows:

Three of our IEEE Dayton Section members, and one from the Cincinnati Section have been named a Fellow by the Institute of Electrical and Electronic Engineers (IEEE). In the previous two decades, we have only had one of our IEEE Dayton Section members, evaluated to Fellow Status. In the last two years, we have had three of our members, elected to Fellow Status, which is truly outstanding! The IEEE Grade of Fellow is conferred by the IEEE Board of Directors upon a person with an outstanding record of accomplishments in any of the IEEE fields of interest. The total number selected in any one year cannot exceed one-tenth of one-percent of the total voting membership. IEEE Fellow is the highest grade of membership and is recognized by the technical community as a prestigious honor and an important career achievement. Our congratulation to the following individuals, who will be recognized at our upcoming IEEE Dayton Section Banquet in April 2014.

Erwin Gangl, Class of 2013, Citation: For Development of Digital Avionics Intracommunication Systems and Mil-Std-1553

Robert Ewing, Class of 2014, Citation: For Contributions to Electronic System Design in Avionics

Hao Huang, Class of 2014, Citation: For Contributions in Electric Power Generation, Conversion, and Control in Aircraft

In addition, we have one New IEEE Cincinnati Section Fellow- (Our Dayton Section was part of the Cincinnati Section, until 1943, and she is the first in the last 15 years)

Yu (Jade) Morton, Class of 2014, Citation: For Contributions to the Understanding of Ionospheric Effects on Global Navigation Satellite Signals

Dayton Section Officers 2013

OFFICERS

Chair: Dr. Robert L. Ewing 937-528-8122

robert.ewing@ieee.org

Vice Chair: Dr. Charles Cerny

937-528-8248

Charles.Cerny@wpafb.af.mil

Treasurer: Barbara Frantom 528-8171

bfrantom@ieee.org

Secretary/Pace Co-chair: Stephen Hary 528-8727

stevehary@ieee.org

Past Chair: Richard J. Thomas 937-431-5954

Richard.J.Thomas@ngc.com



STANDING COMMITTEES

Affiliate Society Rep: Dr. Nils Fernelius 335-1084

Nils.fernelius@wpafb.af.mil

Awards: Dr. Michael Haas 937-255-8768

MichaelHaas@wpafb.af.mil



Banquet Chair: Dave Perez cell 307-8954

David.Perez.ctr@wpafb.mil

Communications: Robert Haller 937-367-3105

r.t.haller@ieee.org

Consultants Network: Dr. Joe Martino 937-492-4729

MVOhConsultants@aol.com

Fall Lecture Series: Jacqueline Toussaint-Barker

Fellow Nomination Chair: Dr Paul McManamon

Industry Representative: Don Scarpero 438-0361

(h) 239-1425 dscarpero@yahoo.com

Mailing List Coordinator: Robert Cooper 298-2062

Bobc9101@sbcglobal.net

Miami Valley Graduate Activities: Elena Guliants

656-9783 Elena.guliants@notes.udayton.edu

Membership: Catherine Deardorf 528-8579

Catherine.Deardorf@wpafb.af.mil

PACE Chair: Felicia N. Harlow 528-8909

fharlow@ieee.org

Publications: Frank Palazzo 434-4104

f.l.palazzo@ieee.org cell 554-2386

Science Fair Coordinator: Loria Wang

Student Activities: Joseph Natarian

Joseph.Natarian@IEEE.org

Webmaster: Barbara Moore 667-4972

bjmoore@lidaray.com



STUDENT BRANCH ADVISORS

AFIT: Dr. Kenneth Hopkinson

937-255 3636 x 4579 hopkik@yahoo.com

Cedarville: Dr. Gerry Brown 937-766-7695 (Cell 937-

532-3091 gbrown@cedarville.edu

Sinclair: Abdullah Johnson 937-512-2570

Abdullah.Johnson@sinclair.edu

U Dayton : Dr Eric Balster 937-229-3188

Eric.Balster@notes.udayton.edu

WSU: Dr. Marty Emmert 937-775-5023

marty.emmert@Wright.edu



ACTIVE CHAPTERS

AEROSPACE & ELECTRONICS SYSTEMS SOCIETY(AES)

Shaun Frost Shaun.Frost@wpafb.af.mil

Antennas & Propagation / Microwave Theory & Techniques (APS/MTT)

Andrew Terzuoli 255-3636-4717

a.j.terzuoli@ieee.org

Computer Society:

Lowell E. Reed

lowell.reed@computer.org

PEAL Society:

Dr. Hao Huang 415-0229

Hao.Huang@ge.com

Photonics (formerly LEOS) Society:

Dr. Andrew Sarangan 985-2425

asarangan@gmail.com

Signal Processing Society:

Michael Haas 937-255-8768

Michael.Haas@wpafb.af.mil



Systems, Man & Cybernetics Society & Engineering in Medicine & Biology Society (SMCS & EMBS)

Nikolaos Bourbakis

nbourbakis@woh.rr.com

Michael Haas 937-255-8768

Michael.Haas@wpafb.af.mil

IEEE Dayton Banquet — April 12, 2014

For RSVP, April 9 is the official respond date.



IEEE Dayton Section Banquet will be on April 12, 2014 at the Charity Earley Auditorium at Sinclair. Dave and Kathy Perez will again be organizing and running the banquet. We (IEEE Dayton Section) greatly appreciate their help and time on this large event!! Questions can be addressed to dave.perez@ieee.org.

For science fair winners, we will award plaques for first place winners and generate certificates for all IEEE selected winners with checks.

Dinner is at 6:30, followed by the keynote and awards program. Our Keynote Speaker will be Dr. Robert Chasnov, Department Chair, Mechanical Engineering, Cedarville University. Dr. Chasnov taught at Liberty University before joining the faculty at Cedarville in 1991 to help develop the engineering programs. He now administers the mechanical engineering curriculum. Dr. Chasnov's interests include researching climate change, and he has been a part-time consultant in material failure analysis for the past six years.



Banquet Keynote Talk:
Dr. Robert Chasnov,
Cedarville University

IEEE Dayton Section Meeting February 19th

Join Us!

Affiliate Societies Council's Building

4801 Springfield Street in the Montgomery County Education Service Center

Please attend our next Section Meeting, since next year's activities will involve both the leadership and support of our IEEE Dayton Section members.

Topics of discussion will be:

- IEEE Dayton Section Webpage Status
- 2015 IEEE Dayton Section Officer Nominations. We would like to move people up the ranks and encourage new ones.
- **Science fair Judging for West District March 22 (Central State University) and Montgomery County March (University of Dayton). We need two judges from our Dayton Section! POC: Loria Wang**
- IEEE Dayton Section History/Background Status (70 years)
- NAECON Conference, 25-27 June 2014

IEEE Technology Discounts

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IEEE Dayton Section Power & Energy Society and Industry Applications Society and Power Electronics Society Joint Chapter (PEAL)

The new Chairman of the PEAL is Dr. Dr. Xiaochuan Jia of GE Aviation Systems – Power. As Dr. Hao Huang, steps down as the Chairman, we wish to thank Dr. Huang and his past leadership in the formation of the PEAL and congratulate Dr. Jia! The purpose of this chapter is to help the IEEE members of these three societies in the Dayton area and to assist the growth of the local electrification businesses. To date, the chapter has about 80 members. They have planned at least seven major activities for 2014. Six out of seven will be technical, which include Keynote speech from IEEE Power and Energy; University of Dayton Research Institute Tour; Keynote speech of the president of General Electric Aviation – Power; Keynote speech for the Air Force Research Laboratory; MEA advancement Industry, University, Research Institute Leader Panel Discussion; General Electric’s EPISCenter Tour; and at least one professional: Student Professional Awareness Event.

IEEE Fall Lecture Series Highlights (2013)



Ms. Felicia Harlow, Event Organizer & Speaker: Dr. Jacek Zurada, University of Louisville

At the Wright Brothers Institute Tec^Edge in November 2013, the IEEE Dayton Section hosted the IEEE Fall Lecture Series on the Topic: Nonnegative Matrix Factorization and Its Application to Pattern Analysis and Text Mining. The speaker, Dr. Zurada, IEEE Fellow, has been a Distinguished Speaker of IEEE CIS. He wrote a groundbreaking book in the fields of neural networking and computational intelligence. Nonnegative Matrix Factorization (NMF) is one of the newest and most promising techniques to reduce the number of attributes of the data matrices. This presentation compares the method with other popular matrix decomposition approaches for various pattern analysis tasks. Among others applications, NMF has been also applied for clustering and latent feature extraction. Several types of the objective functions have been researched for NMF in

in the literature. Instead of minimizing the common Euclidean Distance (EucD) measure, this presentation covers an alternative method that maximizes the correntropy similarity measure to produce the factorization. Correntropy is an entropy-based criterion defined as a nonlinear similarity criterion. Following the discussion of maximization of the correntropy function, it can be used to cluster the document collections. To compare of this method with the clustering performance with the EucD-based NMF, our approach was used for the clustering of documents in the 20-Newsgrroups data set. The results show that the correntropy approach produces per average better clustering compared with other methods which use EucD as an objective function.

2014 IEEE Radar Conference (RadarCon) May 19-23 Cincinnati, Ohio

<http://www.radarcon2014.org/>



IEEE sponsors: Aerospace & Electronic Systems Society, Antennas & Propagation Society, Signal Processing Society

The Dayton-Cincinnati area is rich with aerospace heritage and provides a one-of-a-kind backdrop for RadarCon. The 2014 IEEE Radar Conference will showcase innovations and developments in radar technology. Topics will include presentations describing developments in radar systems and their implementations, phenomenology, target and clutter modeling, signal processing, component advances, etc. Advances from several disciplines have contributed synergistically to improve radar performance. However, onerous challenges imposed by harsh environments, difficult targets, and a shrinking EM spectrum correspondingly increase the demands on radar performance in terms of multi-functional and multi-modal requirements. This in turn calls for innovative approaches that enable exploitation of the inherent information from the radar returns, reflected in our conference theme FROM SENSING TO INFORMATION

Contact: Patty Woodard, 8750 Beckwith Road, Taberg NY USA 13471, +1 315 336 7069
patty@stbeventplanning.com

IEEE National Aerospace & Electronics Conference (NAECON)

25-27 June, Dayton, Ohio

Abstract Due: May 20, 2014 Paper Due: June 4, 2014

IEEE Member Cost (Early Registration): \$200, Submission Details: www.naecon.org

The 2014 National Aerospace Electronics Conference (NAECON) will be held on June 25-27 at the University of Dayton's Research Institute, Conference Center (Meyer Room), 1700 Patterson Blvd, Dayton, Ohio.



The 2014 theme is "Sensory Processing"

NAECON is a major forum for researchers, practitioners, and students interested in advanced aerospace sensors, navigation, power systems, imaging fusion, advanced materials, RFIC design, collaboration, THz & signal processing, passive and active sensing, cyber and Trust in semiconductor design.

NAECON Grand Challenge's Theme: *"Sensory Materials & Interfaces to achieve high performance, trust, reliability and improved processing"*

Sponsored by: The Aerospace & Electronic Systems Society (AESS) and The IEEE Dayton Section

Supported by: Air Force Institute of Technology, Wright State University, University of Cincinnati, The Ohio State University, University of Dayton, and Oakland University

NAECON Keynote Speakers

Wednesday – 25 June

Vic Bonneau,

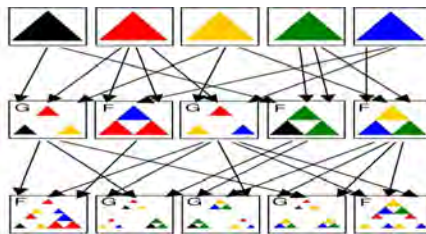
President GE Aviation Electrical Power Systems Design and Controls



Thursday-26 June

Dr. Michael Barnsley,

Department of Mathematics, Australian National University, Canberra, Australia



Topic: *V-Variable Fractals and Superfractals: Modeling a wide range of Phenomena across Science and Technology*

Friday- 27 June

Dr. Jade Morton,
Miami University



Topic: *High Sensitivity for Integrated Navigation Information Satellite Systems*

2014 IEEE Conference on Computer Vision and Pattern Recognition (CVPR)

20 Jun - 27 Jun 2014

Columbus Convention Center, Columbus, OH, USA

<http://conferences.visionbib.com/2014/cvpr-6-14-proposal.html>

IEEE Dayton Section
P.O. Box 291885
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STUDENT PROFESSIONAL AWARENESS CONFERENCE (SPAC)

February 12th, 5:30—8:30PM Cedarville University

RSVP <http://bit.ly/KvfibX>

Keynote Speaker: Dr. Jason Heikenfeld

Jason Heikenfeld received the B.S. and Ph.D. degrees from the University of Cincinnati in 1998 and 2001, respectively. Dr. Heikenfeld's university laboratory, The Novel Devices Laboratory www.ece.uc.edu/devices, is currently engaged in electrofluidic device research for beam steering, displays, and electronic paper. He is an NSF CAREER and AFOSR Young Investigator. Dr. Heikenfeld has now launched his second company, Gamma Dynamics, which is pursuing commercialization of color e-Readers that look as good as conventional printed media.

Dinner – Free for IEEE members, \$5 for non-members

Panel Discussion will Follow Keynote Speaker

Door prizes for IEEE Members: Raspberry Pi, Multi-meter, and more!

Sponsored by: IEEE PEAL Society

