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14. ABSTRACT
This report summarizes the travel and student paper competition support received for the 2010, 2011 and 2012 IEEE Radio and Wireless Week (RWW). The week encompasses five co-located conferences with five separate student competition supports.

15. SUBJECT TERMS
Radio and Wireless Week, Student poster contest, 2010 RWW, 2011 RWW, 2012 RWW

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Report Title

Final Report: 2010-2012 IEEE Radio and Wireless Symposium Student Awards Support Request

ABSTRACT

This report summarizes the travel and student paper competition support received for the 2010, 2011 and 2012 IEEE Radio and Wireless Week (RWW). The week encompasses five co-located conferences with five separate student competition supports.

Enter List of papers submitted or published that acknowledge ARO support from the start of the project to the date of this printing. List the papers, including journal references, in the following categories:

(a) Papers published in peer-reviewed journals (N/A for none)

Received Paper

TOTAL:

Number of Papers published in peer-reviewed journals:

(b) Papers published in non-peer-reviewed journals (N/A for none)

Received Paper

TOTAL:

Number of Papers published in non peer-reviewed journals:

(c) Presentations

2010 - 10
2011 - 6
2012 - 22

Over the years the number of invited presentations increased. These papers are not typically included in the conference proceedings.

Number of Presentations: 38.00

Non Peer-Reviewed Conference Proceeding publications (other than abstracts):

Received	Paper

TOTAL:

Number of Non Peer-Reviewed Conference Proceeding publications (other than abstracts):

Peer-Reviewed Conference Proceeding publications (other than abstracts):

Received		Paper
07/07/2015	5.00	Yazhou Wang, Yunqiang Yang, Aly E. Fathy. A reconfigurable UWB system for real-time through wall imaging applications, 2010 IEEE Radio and Wireless Symposium (RWS). 09-JAN-10, New Orleans, LA, USA. : ,
07/07/2015	7.00	Chun-Chi Lin, Chia-Chan Chang, Sheng-Chi Hsieh. Design of 40-GHz CRLH-TL chip antenna using 0.35-µm CMOS-MEMS technology, 2010 IEEE Radio and Wireless Symposium (RWS). 09-JAN-10, New Orleans, LA, USA. : ,
07/07/2015	8.00	Yan Yan, Changzhi Li, Jenshan Lin. Effects of I/Q mismatch on measurement of periodic movement using a Doppler radar sensor, 2010 IEEE Radio and Wireless Symposium (RWS). 09-JAN-10, New Orleans, LA, USA. : ,
07/07/2015	9.00	Alexander Goetz, Richard Rose, Stefan Zorn, Georg Fischer, Robert Weigel. Performance of coherent time delay estimation techniques for frequency hopping GSM signals, 2012 IEEE Topical Conference on Wireless Sensors and Sensor Networks (WiSNet). 14-JAN-12, Santa Clara, CA, USA. : ,
07/07/2015	10.00	Carlos A. Donado Morcillo, Chad E. Patterson, John Papapolymerou. Design of stripline beam-former network components for low-profile, organic phased arrays in the X Band, 2012 IEEE Radio and Wireless Symposium (RWS). 14-JAN-12, Santa Clara, CA, USA. : ,
07/07/2015	11.00	Tilman Felgentreff, Georg Fischer, Robert Weigel, Zeid Abou-Chahine. Efficiency analysis of the asymmetric 2-level outphasing PA with Rayleigh enveloped signals, 2012 IEEE Topical Conference on Power Amplifiers for Wireless and Radio Applications (PAWR). 14-JAN-12, Santa Clara, CA, USA. : ,
07/07/2015	12.00	M. Hofmann, J. C. Edelmann, A. Bolz, R. Weigel, G. Fischer, D. Kissinger. RF based feedback system for cardiopulmonary resuscitation, 2012 IEEE Topical Conference on Biomedical Wireless Technologies, Networks, and Sensing Systems (BioWireleSS). 14-JAN-12, Santa Clara, CA, USA. : ,
07/07/2015	13.00	Timothy D. Gathman, James F. Buckwalter. An integrate-and-dump receiver for high dynamic range photonic analog-to-digital conversion, 2012 IEEE Topical Meeting on Silicon Monolithic Integrated Circuits in Rf Systems (SiRF). 15-JAN-12, Santa Clara, CA, USA. : ,
TOTAL:		**8**

Number of Peer-Reviewed Conference Proceeding publications (other than abstracts):

(d) Manuscripts

Received		Paper
09/09/2011	1.00	Stefan Zorn, Matthias Maser, Alexander Goetz, Richard Rose, Robert Weigel. A Power Saving Jamming System for E-GSM900 and DCS1800 Cellular Phone Networks for Search and Rescue Applications, IEEE WiSNET (09 2011)
09/09/2011	2.00	A. Cagri Ulusoy, Gang Liu, Andreas Trasser, Sebastien Chartier, Hermann Schumacher. Analog Synchronous Receiver for Multi-Gigabit Wireless Communications, IEEE Radio and Wireless Symposium (09 2011)
09/09/2011	3.00	Chin Hsia, Donald F. Kimball, Peter M. Asbeck. Effect of Maximum Power Supply Voltage on Envelope Tracking Power Amplifiers Using GaN HEMTs , IEEE PAWR (09 2011)
09/09/2011	4.00	Paul M. Meaney, Shireen Geimer, Amir H. Golnabi, Keith D. Paulsen. Microwave Imaging for Breast Cancer Detection and Therapy Monitoring, IEEE BioWireleSS (09 2011)
TOTAL:		**4**

Number of Manuscripts:

Books

Received	Book
TOTAL:	

Received	Book Chapter

TOTAL:

Patents Submitted

Patents Awarded

Awards

In 2010, the student contest involved combining finalists from 4 conferences competing for 3 prizes. The three winners are detailed in the appendix. Many of the TPC members felt this method was biased because some of the judges may not have been able to evaluate the different topic areas.

In 2011, the contest was modified such that the 4 conferences each had a separate competition, where the poster sessions were co-located. As a result there were four sets of qualified judges to select the 1st place winners. The goal was to select five student papers as finalists to compete for 1st and 2nd place. The winners' information is detailed in the appendix.

In 2012, the student competition from The IEEE Topical Meeting on Silicon Monolithic Integrated Circuits in RF Systems was combined with (1) Radio and Wireless Symposium, (2) Topical Conference on RF/Microwave Power Amplifiers for Wireless and Radio Applications, (3) Topical Conference on Biomedical Wireless Technologies, (4) and Topical Conference on Wireless Sensors & Sensor Networks for a total of 5 co-located student poster competitions. The methodology for selecting finalists and securing qualified judges from the conference TPC was followed as in 2012. The winners' information is detailed in the appendix.

Graduate Students

NAME	PERCENT_SUPPORTED
FTE Equivalent:	
Total Number:	

Names of Post Doctorates

NAME	PERCENT_SUPPORTED
FTE Equivalent:	
Total Number:	

Names of Faculty Supported

NAME	PERCENT_SUPPORTED

FTE Equivalent:
Total Number:

Names of Under Graduate students supported

NAME	PERCENT_SUPPORTED

FTE Equivalent:
Total Number:

Student Metrics

This section only applies to graduating undergraduates supported by this agreement in this reporting period

The number of undergraduates funded by this agreement who graduated during this period: 0.00
The number of undergraduates funded by this agreement who graduated during this period with a degree in science, mathematics, engineering, or technology fields:..... 0.00
The number of undergraduates funded by your agreement who graduated during this period and will continue to pursue a graduate or Ph.D. degree in science, mathematics, engineering, or technology fields:..... 0.00
Number of graduating undergraduates who achieved a 3.5 GPA to 4.0 (4.0 max scale):..... 0.00
Number of graduating undergraduates funded by a DoD funded Center of Excellence grant for Education, Research and Engineering:..... 0.00
The number of undergraduates funded by your agreement who graduated during this period and intend to work for the Department of Defense 0.00
The number of undergraduates funded by your agreement who graduated during this period and will receive scholarships or fellowships for further studies in science, mathematics, engineering or technology fields: 0.00

Names of Personnel receiving masters degrees

NAME

Total Number:

Names of personnel receiving PHDs

NAME

Total Number:

Names of other research staff

NAME	PERCENT_SUPPORTED

FTE Equivalent:
Total Number:

Sub Contractors (DD882)

Inventions (DD882)

Scientific Progress

Technology Transfer

Scientific Progress and Accomplishments

Contents

1. Statement of the problem studied

   This grant supported three years (2010 – 2012) of student poster competitions administered at Radio and Wireless Week. The aim of the student competitions is to highlight and recognize work done by students in wireless and microwave technologies with applications towards biological and sensor systems. The funding from ARO ($9200 per year) has been used to support travel for students (2010) and competition organizers (2011), along with the purchase of prizes and certificates.

   The contests have also been supported by the IEEE through the actual conference budget and by Sonnet Software. Sonnet develops high frequency electromagnetic software and provides in-kind gifts through personal licenses for the winners.

   First place: (first author of paper, must be student) 1 year nodelocked license (from January 2012- January 2013) of Sonnet Professional, High Performance Solver edition, plus interfaces for Cadence Virtuoso, Agilent ADS and AWR MWO. Total value: $21,000 each

   Second place: (first author of paper, must be student) 1 year nodelocked license (from January 2012- January 2013) of Sonnet Level 3 Gold. Total value: $5,500 each.

   The overall value for all of the prizes provided by Sonnet combined is: $106,000.

2. Summary of the most important results

The support from ARO and Sonnet during 2010-2012 led to the success of the student competitions, which we currently experience. Over that time period, the contest evolved from one contest to support four conferences to now five separate contests to support five co-located conferences. We are able to select finalists based on the recommendations from technical program reviewers. At the annual meeting, students participate in a poster contest that highlights their work, they also present their work in a second technical session (oral or poster), which further enhances their presentation skills.

The students are recognized at the conference awards banquet and receive recognition for their accomplishments. In 2013, the National Science Foundation provided $5000 in support of the contests. We continue to receive the support from Sonnet for the students.

3. Appendixes – Summary of contest winners
    a. RWS 2010 winners
    b. Modification of contest to support all conferences
    c. RWS 2011 winners
    d. RWS 2012 winners

Final Results
Student Paper Competition
RWW 2010

Talal & Rashaunda

Conf :Wireless Sensors and Sensor Networks

Conf :Radio and Wireless Symposium

Conf :Power Amplifiers for Wireless and Radio

Conf :Biomedical Radio and Wireless Technologies, Networks and Sensing Systems

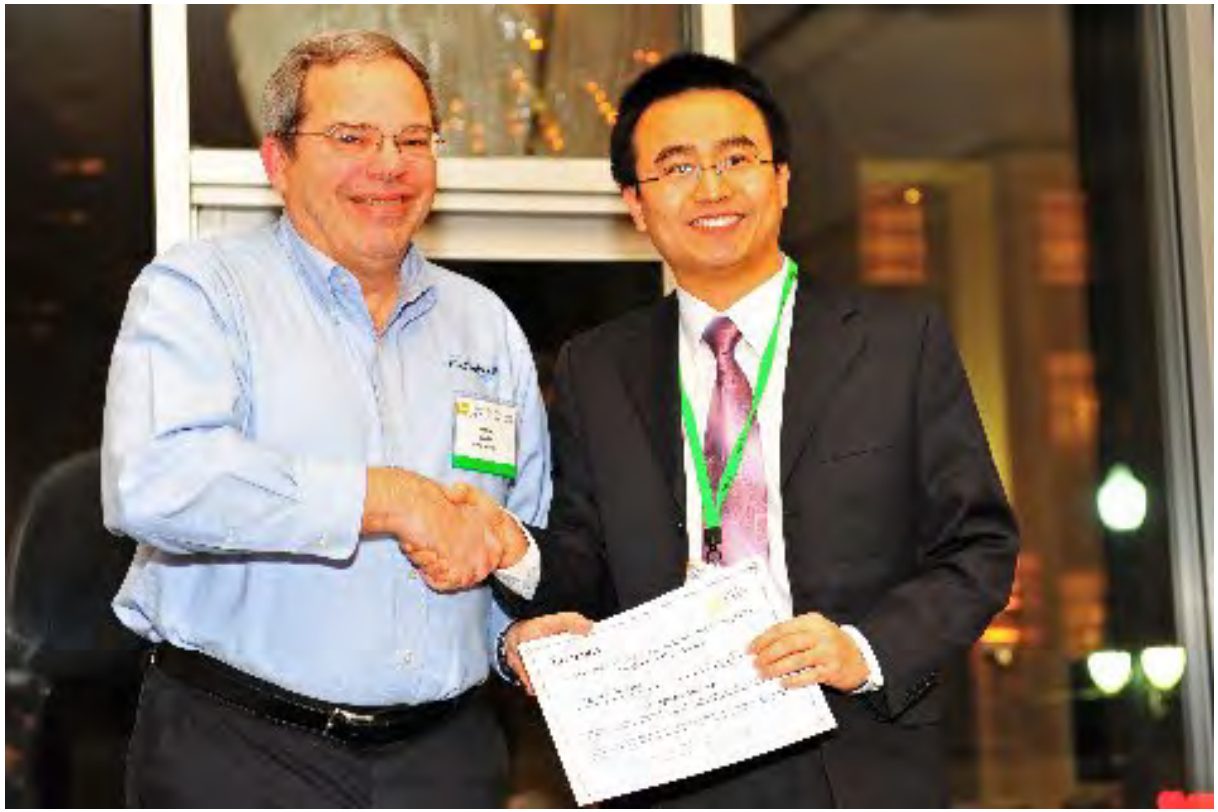
2010 IEEE Radio & Wireless Symposium

10–14 January 2010
Sheraton hotel, New Orleans, LA
http://www.radiowireless.org

Winners are from all four conferences.

1st Place

Best Paper 1st prize - Yazhou Wang (University of Tennessee), "A Reconfigurable UWB System for Real-Time Through Wall Imaging Applications"



2010 IEEE Radio & Wireless Symposium

10–14 January 2010

Sheraton hotel, New Orleans, LA

http://www.radiowireless.org

2nd prize - Chun-Chi Lin (National Chung Chen Univ., Taiwan), "Deisng of 40GHz CRLH-TL Chip Antenna Using 0.35um CMOS MEMS Technology"

2nd Place

2010 IEEE Radio & Wireless Symposium

10–14 January 2010
Sheraton hotel, New Orleans, LA
http://www.radiowireless.org

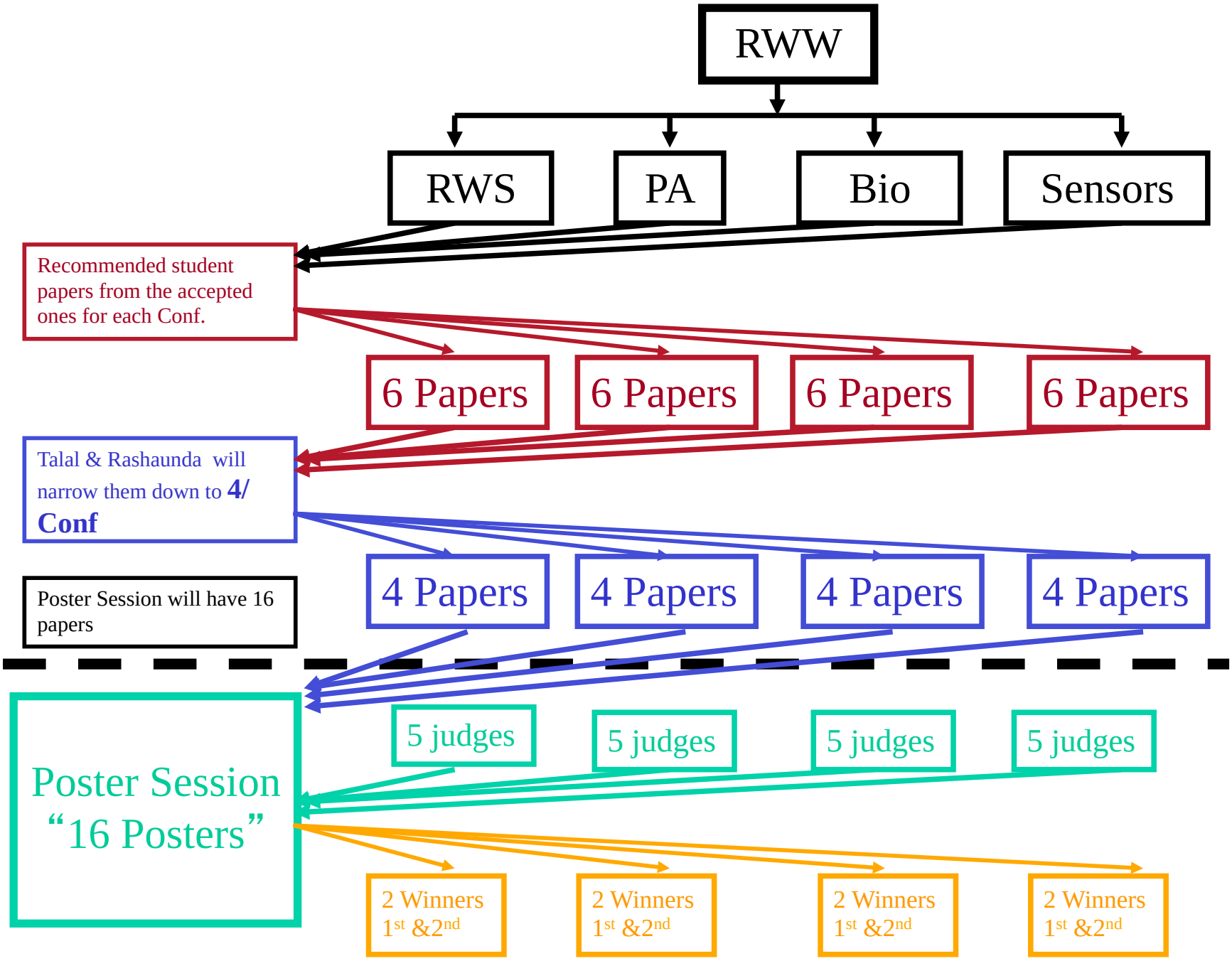
3rd Place

Yan Yan (University of Florida), "Effects of I/Q Mismatch on Measurements of Periodic Movement Using a Doppler Radar Sensor"

RWW
Student Paper Competition Plan

Prepared by:

Talal Al-Attar& Rashaunda Henderson


RWW
RWS
PA
Bio
Sensors
Recommended student papers from the accepted ones for each Conf.
6 Papers
6 Papers
6 Papers
6 Papers
Talal & Rashaunda will narrow them down to 4/ Conf
4 Papers
4 Papers
4 Papers
4 Papers
Poster Session will have 16 papers
Poster Session "16 Posters"
5 judges
5 judges
5 judges
5 judges
2 Winners 1st &2nd
2 Winners 1st &2nd
2 Winners 1st &2nd
2 Winners 1st &2nd

Poster Session

- We will need 5 judges from each conference to attend the poster session
- A total of 16 papers (4/conf) will be presented
- A total of 8 winners will be announced (2/conf)

What we will need?

- A point of contact from each conference to:
  - Provide us with the 6 student papers
  - Confirm with him/her our final decision about the 4 papers chosen for each conference
  - Provide us with the list of the judges
  - Coordinate any future issues

RWW
Student Paper Competition Rules

Student Paper Competition Co-Chair
Prof. Talal Al-Attar
Santa Clara University < Talal_Stanford@yahoo.com >

- The purpose of the student paper contest is to reward graduate students for exceptional work, and take into account a group project atmosphere as well as individual projects. The first author must be a student (a full time or a part time).

- **Number of awards**: **One first place, One second place** from each conference (RWS, BioWireless, PAWR, and WiSNet)

- **Number of authors on the paper**: No limit, including outside authors. Outside authors are defined as co-authors from industry or from other institutions (government labs, other universities, etc.).
  The outside authors are included in order to encourage group-project submissions.
  The review committee will take into account the number of authors vs. the level of work presented in the paper in order not to penalize the individual project submissions.

- **Eligibility/Advisor**: Letter from major advisor (Professor) stating that the first author is a registered full-time student or part-time student, and has done a substantial portion of the work.
  Failure to provide this letter will result in disqualification. Email responses will be accepted, but additional information on author participation may be requested.

- All students wishing to participate in the contest are required to follow the regular Symposium submission process for papers including registration.

- Student Paper Contest submissions are first evaluated by the Technical Program Committee (TPC), along with all other manuscript submissions, and receive no special consideration when being considered for acceptance to the Symposium.

- Those papers that are accepted for publication, identified as Student Paper submissions, and that meet the criteria listed above become eligible for the Student Paper Contest.

- The eligible student papers accepted for publication will be separately evaluated again by the TPC in order to select Student Paper finalists.

- Finalists will receive email notification, and receive special recognition in the RWW 2011 Program Guide. It is expected that we will have 16 finalists in the symposium (4/Conference), but the final number will depend on the total number of submissions.

Final Results for the Student Paper Competition RWW 2011

Talal & Rashaunda

Conf :Wireless Sensors and Sensor Networks

Conf :Radio and Wireless Symposium

Conf :Power Amplifiers for Wireless and Radio

Conf :Biomedical Radio and Wireless Technologies, Networks and Sensing Systems

Conf :Wireless Sensors and Sensor Networks

1st Place

Paper # 149 - A Power Saving Jamming System for E-GSM900 and DCS1800 Cellular Phone Networks for Search and Rescue Applications
Stefan Zorn, Matthias Maser, Alexander Goetz, Richard Rose and Robert Weigel
Institute for Electronics Engineering, Friedrich-Alexander University of Erlangen-Nuremberg, Germany

2nd Place

Paper # 120 - A Multilateral Synthetic Aperture Wireless Positioning Approach to Precise 3D Localization of a Robot Tool Center Point
Gang Li, Martin Vossiek
Institute of Electrical Information Technology, Clausthal University of Technology, Germany

3rd Place

Paper # 142 - 2.4GHz Energy Harvesting for Wireless Sensor Network
Hao Gao, Peter Baltus, Reza Mahmoudi, Arthur van Roermund
Mixed-Signal Microelectronics Group, Eindhoven University of Technology, The Netherlands

4th Place

Paper # 313 - Node Localization in WSN using Trigonometric Figures
Salvador Jauregui-Ortiz, Mario Siller and Felix Ramos
Electrical Engineering and Computer Science Department, CINVESTAV Unidad Jalisco, Mexico

Conf :Radio and Wireless Symposium

1st Place

Paper # 141- Analog Synchronous Receiver for Multi-Gigabit Wireless Communications
Cagri Ulusoy*, Gang Liu*, Andreas Trasser*, S´ebastien Chartier# and Hermann Schumacher*
Ulm University, Institute of Electron Devices and Circuits, Germany
 # EADS Defence & Security, T/R Modules and MMICs, Germany

2nd Place

Paper #354 - Modified-DES Encryption Algorithm with Improved BER Performance in Wireless Communication
Walid Y. Zibideh and Mustafa M. Matalgah
Department of Electrical Engineering, The University of Mississippi, USA

3rd Place

Paper # 270 - LMS Based Digital Cancellation of Second-order TX Intermodulation Products in Homodyne Receivers
Christian Lederer and Mario Huemer
Klagenfurt University, Institute of Networked and Embedded Systems, Austria

4th Place

Paper # 209 - S-parameters Extraction for Wide-band Transition from Coupled Microstrip Line to Waveguide by the LRdR method
Ziqiang Tong*, Andreas Stelzer*, #
**Institute for Communications Engineering and RF-Systems, J. K. University, Austria*
 # Christian Doppler Laboratory for Integrated Radar Sensors, J. K. University, Austria

Conf :Power Amplifiers for Wireless and Radio

1st Place

Paper #329 - Effect of Maximum Power Supply Voltage on Envelope Tracking Power Amplifiers Using GaN HEMTs
Chin Hsia, Donald F. Kimball, and Peter M. Asbeck
University of California at San Diego, USA

2nd Place

Paper #144 - A 2.5-GHz Asymmetric Multilevel Outphasing Power Amplifier in 65-nm CMOS
Philip A. Godoy, SungWon Chung, Taylor W. Barton, David J. Perreault, and Joel L. Dawson
Massachusetts Institute of Technology, USA

3rd Place

Paper #208 - A 2GHz GaN Class-J Power Amplifier for Basestation Applications
K. Mimis, K.A. Morris and J.P. McGeehan
Centre for Communication Research, University of Bristol, UK

4th Place

Paper #275 - W-Band Monolithic CPW Wilkinson CMOS Power Amplifier
Doris A. Chan and Milton Feng
Dept. of Electrical and Computer Engineering, University of Illinois at Urbana-Champaign, USA

Conf :Biomedical Radio and Wireless Technologies, Networks and Sensing Systems

1st Place

Paper #261 Microwave Imaging for Breast Cancer Detection and Therapy Monitoring
Amir H. Golnabi, Paul M. Meaney, Shireen Geimer, and Keith D. Paulsen
Thayer School of Engineering at Dartmouth College, USA

2nd Place

Paper #230 - Notched Circular Microstrip Patch Antenna Integrated with a Single Diode Rectifier for Energy-Harvesting Prosthetic Leg
C. Mikeka, H. Arai
Graduate School of Engineering, Yokohama National University, Japan

3rd Place

Paper #211 - SAR Reduction and Link Optimization for mm-Size Remotely Powered Wireless Implants Using Segmented Loop Antennas
Michael Mark, Toni Björninen#, Leena Ukkonen#, Lauri Sydänheimo# and Jan M. Rabaey*
** Berkeley Wireless Research Center, University of California at Berkeley, USA*
 # Rauma Research Unit, Department of Electronics,Tampere University of Technology, Finland

4th Place

Paper #286 - Doppler Radar Respiration Measurement for Gated Lung Cancer Radiotherapy
Changzhan Gu*, Ruijiang Li#,@, Changzhi Li*, and Steve B Jiang#,@
** Department of ECE, Texas Tech University, USA*
 # Center for Advanced Radiotherapy Technologies, University of California, San Diego, USA
@ Department of Radiation Oncology, University of California, San Diego, USA

Final Results
Student Paper Competition
RWW 2012

Talal & Rashaunda & Rick

Conf :Wireless Sensors and Sensor Networks

Conf :Radio and Wireless Symposium

Conf :Power Amplifiers for Wireless and Radio

Conf :Biomedical Radio and Wireless Technologies, Networks and Sensing Systems

Conf :Wireless Sensors and Sensor Networks

1st Place

Performance of Coherent Time Delay Estimation Techniques for Frequency Hopping GSM Signals
Alexander Goetz, Richard Rose, Stefan Zorn, Georg Fischer and Robert Weigel
Institute for Electronics Engineering, Friedrich-Alexander-University Erlangen-Nuremberg

2nd Place

Scalable Network Joining Mechanism in Wireless Sensor Networks
Hyung-Sin Kim, Jin-Seok Han and Yong-Hwan Lee
School of Electrical Engineering and INMC, Seoul National University

3rd Place

Hidden Markov Estimation of Bistatic Range From Cluttered Ultra-wideband Impulse Responses
Merrick McCracken and Neal Patwari
University of Utah, Salt Lake City, Utah, 84112, USA

4th Place

A 927 MHz Solar Powered Active Antenna Oscillator Beacon Signal Generator
Francesco Giuppi1, Apostolos Georgiadis2, Selva Via2, Ana Collado2, Rushi Vyas3, Manos M. Tentzeris3 and Maurizio Bozzi1
1University of Pavia, Pavia, 27100, ITALY
2Centre Tecnológic de Telecomunicacions de Catalunya, Castelldefels, Barcelona, 08860, SPAIN
3Georgia Institute of Technology, Atlanta, GA 30332-0250, USA

5th Place

Magnetic resonant wireless power delivery for distributed sensor and wireless systems
Brian J. Lee, Andrew Hillenius and David S. Ricketts
Electrical & Computer Engineering, Carnegie Mellon University, Pittsburgh, PA 15213

Conf :Radio and Wireless Symposium

1st Place

Design of Stripline Beam-Former Network Components for Low-Profile, Organic Phased Arrays in the X Band.
Carlos A. Donado Morcillo, Chad E. Patterson, and John Papapolymerou
School of Electrical and Computer Engineering, Georgia Institute of Technology,

Design of Stripline Beam-Former Network Components for Low-Profile, Organic Phased Arrays in the X Band ……..1

2nd Place

Electrically-Steerable Parasitic Array Radiator (ESPAR) Antenna Design for Arrays with Two and Three Parasitically-Coupled Elements
Justin J. Luther*, Siamak Ebadi, and Xun Gong
Department of Electrical Engineering and Computer Science, University of Central Florida

Electrically-Steerable Parasitic Array Radiator (ESPAR) Antenna Design for Arrays with Two and Three Parasitically-Coupled Elements …….2

3rd Place

A Dynamically Reconfigurable Architecture Enabling All-Digital Transmission for Cognitive Radios
Nelson V. Silva, Arnaldo S. R. Oliveira, and Nuno Borges Carvalho
Instituto de Telecomunicac¸ ˜oes and Departamento de Electr´onica, Telecomunicac¸ ˜oes e Inform´atica
Universidade de Aveiro, 3810-193 Aveiro, Portugal

A Dynamically Reconfigurable Architecture Enabling All-Digital Transmission for Cognitive Radios ……..3

4th Place

A 0.7V 4.1mW 850Mbps/ch Inductive-Coupling Transceiver with Adaptive Pulse Width Controller in 65nm CMOS
Takeshi Matsubara #1, Isamu Hayashi#2, Abul Hasan Johari#1, Tadahiro Kuroda#1, and Hiroki Ishikuro#1
#1Department of Electronics and Electrical Engineering, Keio University 3-14-1, Hiyoshi, Kohoku-ku, Yokohama, 223-8522, Japan matsubara@kuro.elec.keio.ac.jp #2Extremely Low Power R&D Dept., STARC, Tokyo, Japan

A 0.7V 4.1mW 850Mbps/ch Inductive-Coupling Transceiver with Adaptive Pulse Width Controller in 65nm CMOS …..4

5th Place

Ultra-Wide Band Vivaldi Antenna Array using Low Loss SIW Power Divider and GCPW Wide Band Transition
Robab Kazemi1,2, Aly E. Fathy2, and R. Ali Sadeghzadeh1
1K. N. Toosi University of Technology, Tehran, 1431714191, Iran
2University of Tennessee, Knoxville, TN, 37996, US

Ultra-Wide Band Vivaldi Antenna Array using Low Loss SIW Power Divider and GCPW Wide Band Transition ……5

Conf :Power Amplifiers for Wireless and Radio

1st Place

Efficiency Analysis of the Asymmetric 2-Level Outphasing PA with Rayleigh Enveloped Signals
Zeid Abou-Chahinex, Tilman Felgentreff, Georg Fischerx and Robert Weigelx
Nokia Siemens Networks GmbH ☐ RF Technology
Lise-Meitner-Str. 7, 89081 Ulm, Germany
xFriedrich-Alexander-Universit¨at Erlangen-N¨urnberg ☐ Lehrstuhl f¨ur Technische Elektronik
Cauerstr. 9, 91058 Erlangen, Germany

Efficiency Analysis of the Asymmetric 2-Level Outphasing PA with Rayleigh Enveloped Signals….1

2nd Place

High-Efficiency Class-F-1 Power Amplifier Design with Input Harmonic Manipulation
Lei Dong, Qi Lei, Fei You, and Songbai He
Department of circuit and system, University of Electronic Science and Tech. of China, Chengdu, 611731, China

High-Efficiency Class-F-1 Power Amplifier Design with Input Harmonic Manipulation …….. 2

3rd Place

Wideband Class AB RF Power Amplifier using CMOS compatible SOI-MESFET device on 150nm Technology
M. Reza Ghajar1, William Lepkowski1,2, Seth Wilk1,2, Bertan Bakkaloglu1,2, Trevor Thornton1,2
1Arizona State University, Tempe, AZ, 85287, USA
2SJT Micropower Inc. Fountain Hills, AZ, 85268, USA

Wideband Class AB RF Power Amplifier using CMOS compatible SOI-MESFET device on 150nm Technology……...3

Conf :Biomedical Radio and Wireless Technologies, Networks and Sensing Systems

1st Place

RF Based Feedback System for Cardiopulmonary Resuscitation
M. Hofmann*, J. C. Edelmann*‡, A. Bolz‡, R. Weigel*, G. Fischer*, and D. Kissinger*
*Institute for Electronics Engineering
University of Erlangen-Nuremberg, Cauerstr. 9, 91058 Erlangen, Germany
Email: {hofmann, weigel, fischer, kissinger}@lte.eei.uni-erlangen.de
‡ Institute for Biomedical Engineering
Karlsruhe Institute of Technology, Hertzstr. 16, 76187 Karlsruhe, Germany
Email: jan.edelmann@student.kit.edu, armin.bolz@kit.edu

2nd Place

Antenna Array Technology for Radar Respiration Measurement in Motion-adaptive Lung Cancer Radiotherapy
Changzhan Gu1, Zeeshan Salmani2, Hualiang Zhang2, and Changzhi Li1
1Dept. of Electrical and Computer Engineering, Texas Tech University, Lubbock, TX 79409, USA 2Dept. of Electrical Engineering, University of North Texas, Denton, TX 76207, USA

3rd Place

Implantable Wireless Microcoils for 7Tesla Magnetic Resonance Imaging of the Rat Brain
Magdalèna Couty, Anne Rubin, Marion Woytasik, Elisabeth Dufour-Gergam,
Univ Paris-Sud, Laboratoire IEF, UMR-8622 CNRS,
F-91405 Orsay, France