

Dr. Walid Saber El-Deeb

PhD University of Calgary, AB, Canada,
Associate Professor,
Department of Electronics and Communications Engineering,
Faculty of Engineering, Zagazig University, Zagazig, Egypt,
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Curriculum Vitae

Personal Details	
• Marital status	Married
• Nationality	Egyptian
• Languages	Arabic, English
• Date of Birth	1975
Positions History	
<u>Feb. 2020 - Onwards</u> Head of Electronics and Communications Engineering Dept. Zagazig Higher Institute of Engineering and Technology, Zagazig, Egypt	
<u>Apr. 2019-Till Now</u> Associate Professor Department of Electronics and communication Engineering, Faculty of Engineering, Zagazig University, Egypt.	
<u>Aug. 2011-Apr. 2019</u> Assistant Professor Department of Electronics and communication Engineering, Faculty of Engineering, Zagazig University, Egypt.	
<u>Apr. 2011-July. 2011</u> Post-Doctoral Fellow Department of Electrical and Computer Engineering, Schulic School of Engineering, University of Calgary, Calgary, AB, Canada.	
<u>Jan. 2011-Apr. 2011</u> Teaching Assistant and Lab Instructor Microwave lab, Department of Electrical and Computer Engineering, Schulic School of Engineering, University of Calgary, Calgary, AB, Canada.	
<u>Jan. 2007-Mar. 2011</u>	

PhD Student and Research Assistant

iRadio lab, Department of Electrical and Computer Engineering, Schulic School of Engineering, University of Calgary, Calgary, AB, Canada.

Sept. 2004-Jan. 2007**Assistant Lecturer and Lab Instructor**

Department of Electronics and communication Engineering, Faculty of Engineering, Zagazig University, Egypt.

Dec. 1998-Aug. 2004**Teaching Assistant and Lab Instructor**

Department of Electronics and communication Engineering, Faculty of Engineering, Zagazig University, Egypt.

Educational Qualifications**Doctor of Philosophy (Ph.D.)**

Electrical and Computer Engineering, University of Calgary, Calgary, Alberta, Canada
Thesis Title: A Multi-Port Measurement System for Large-Signal Characterization of Microwave Devices
Period: 2007-2011

Master of Science (M.Sc.)

Electronics and Communications Engineering, Zagazig University, Zagazig, Egypt
Thesis Title: Analysis and Design of Microwave Transistor Amplifier
Period: 2000-2004

Certificate in University Teaching

Faculty of Graduate Studies, Zagazig University, Zagazig, Egypt
Year: 2003

Bachelor of Science (B.Sc.)

Electronics and Communications Engineering, Zagazig University, Zagazig, Egypt
Very Good with Honor, Rank 3rd of the Class
Period: 1993-1998

Research**Research Interests**

- Design of low-profile, electrically small and reconfigurable antennas
- Design of ultra-wideband antennas
- Design of low-SAR antennas for mobile communications and medical applications
- Characterization of RF & Microwaves Devices, Circuits and Systems
- Microwave Imaging and Non-destructive Testing
- Applications of RF & Microwaves Engineering in Industrial and Medical Applications

- Design of High-Performance Microwave Amplifiers and Digital Predistorter
- Design of Intelligent RF Transceivers for Multi-Antenna Applications
- RF & Microwave Instrumentation and Measurements
- Wireless Sensors Networks
- Radio Frequency Identification (RFID)
- Computational Electromagnetics
- SAR Reduction Techniques
- Optical Communications Systems

Research Contributions:

- A new simplified procedure to design a fourth-order coupled-resonator filter has been introduced for sub-six 5G applications. The designed filter was fabricated and measured for verification.
- A dual-band circularly polarized patch antenna has been designed, fabricated and measured for mobile communications.
- A compact high-gain multi-layers UWB DRA with dual-band notch characteristics has been designed, fabricated and measured for wireless applications.
- A low-SAR MIMO antenna of six folded-dipole antennas with multi-coupled sections has been designed, fabricated, and measured to be suitable for 5G Communication systems.
- Two different techniques have been proposed to determine the surface and sub-surface cracks in concrete using Rayleigh Waves.
- A multi-port measurement system has been developed and verified for the small- and large-signal characterization of N-port microwave devices.
- The developed measurement system shows the capability of measuring the effect of the crosstalk for dual branch amplifiers on the overall performance of the DUT in terms of power efficiency and signal distortion.
- An on-wafer calibration algorithm for absolute power de-embedding has been proposed and verified using the developed measurement system.
- Two waveform calibration algorithms for relative and absolute waveform measurements have been proposed and verified using the developed system. The waveform reconstruction is based on the measurements of incident and reflected waves for the fundamental frequency and a number of harmonics at the DUT ports.
- Analysis and design of microwave transistor amplifiers, Low noise amplifiers and switching mode power amplifiers.

Metrics



Walid El-Deeb

FOLLOW

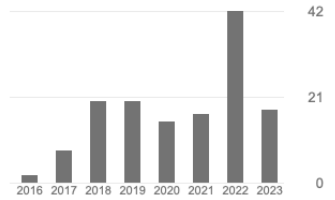
Associate professor, Zagazig University, PhD, University of Calgary, Canada
Verified email at ucalgary.ca

Microwave Engineering RF instrumentation and Me...

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Co-authors

[EDIT](#)

<input type="checkbox"/>	TITLE	CITED BY	YEAR
<input type="checkbox"/>	Simplified Design Procedure for Fourth-Order Coupled-Resonator Bandpass Filter MA Salah, EM Eldesouki, A Attiya, WS El-Deeb Progress In Electromagnetics Research C 132, 11-21		2023
<input type="checkbox"/>	A Compact Dielectric Resonator Antenna for Ultra-Wideband Applications WS El-Deeb The Egyptian International Journal of Engineering Sciences and Technology 42 ...		2023
<input type="checkbox"/>	Design and performance evaluation of vehicular visible light communication system under different weather conditions and system parameters ES El-Mokadem, NI Tawfik, MH Aly, WS El-Deeb Opto-Electronics Review, e145580-e145580	1	2023
<input type="checkbox"/>	Analysis and Design of Substrate Integrated Waveguide Bandpass Filter for 5G		2022

Google Scholar

<https://scholar.google.com/citations?user=Wj-4P5MAAAAJ&hl=en>

Supervision

Completed Theses:

1. Nagwan Ibrahim Tawfik Ibrahim, "*Modelling and Analysis of Fiber Bragg Grating*", Electronics and Communications Engineering Dept., Faculty of Engineering, Zagazig University, M.Sc., Jan. 2016.
2. Yassmin Kareem Abd El-Maksoud Al Rayk, "*Analysis of Biomedical microwave photonic crystal sensor*", Electronics and Communications Engineering Dept., Faculty of Engineering, Zagazig University, M.Sc., Apr. 2016.
3. Mohamed Tosson Mohamed Ali, "*Compensation for Linear and Nonlinear Impairments in Optical Communication Systems*", Electronics and Communications Engineering Dept., Faculty of Engineering, Zagazig University, M.Sc., July 2017.
4. Abdallah Salam, "*Structural Damage Detection Using Acoustic Waves*", Structural Engineering Dept., Faculty of Engineering, Zagazig University, Ph.D, Aug. 2017.
5. Nada Alaa Mohammed Ali, "Study and Analysis of the Reduction Techniques for the Effects of Electromagnetic Waves on Human Body", Electronics and Communications Engineering Dept., Faculty of Engineering, Zagazig University, M.Sc., Mar. 2018.
6. Omar Zakaria, "*Multi Input Multi Output (MIMO) Radio Frequency (RF) Transceivers Design*", Electronics and Communications Engineering Dept., Faculty of Engineering, Zagazig University, M.Sc., Mar. 2018.

7. Mahmoud A. Mohamed, " *A Proposed Protocol to Enhance the Performance of Wireless Sensor Networks Based on the Reduction of Power Consumption*", Electronics and Communications Engineering Dept., Faculty of Engineering, Zagazig University, M.Sc., July 2019.
8. Rasha Ali, " *Mobile Handset Antennas with Low SAR in Human Head*" Electronics and Communications Engineering Dept., Faculty of Engineering, Zagazig University, M.Sc., Apr. 2020.
9. Shima Emad, " *Detection of Stresses in Structures using Acoustic Waves*", Structural Engineering Dept., Faculty of Engineering, Zagazig University, Ph.D., March. 2020.
10. Alaa Hedaya, " *Design of high-efficiency low-SAR antenna for mobile communications*", Electronics and Communications Engineering Dept., Faculty of Engineering, Zagazig University, M.Sc., May 2022.
11. Mona Abdel Ghany, " *A Compact Dielectric Resonator Antenna for Ultra-Wideband Applications*", Electronics and Communications Engineering Dept., Faculty of Engineering, Zagazig University, M.Sc., March 2023.

In Progress Work:

1. Mahmoud I. Refaie, " *Graphene as Shielding for Data Cables in Communication Systems*", Electronics and Communications Engineering Dept., Faculty of Engineering, Zagazig University, M.Sc., in progress.
2. Mohammed Abdel-Wahab, " *Lidar Data Compression*", Electronics and Communications Engineering Dept., Faculty of Engineering, Zagazig University, Ph.D., in progress.
3. Yassmin Kareem Abd El-Maksoud Al Rayk, " *Design and Analysis of Highly Efficient Photonic Polarization Handling Devices*", Electronics and Communications Engineering Dept., Faculty of Engineering, Zagazig University, Ph.D., in progress.
4. Saeif Adel Zaghlol, " *Optimum Design of Visible Light Communications System Under Pure and Salty Water*", Electronics and Communications Engineering Dept., Faculty of Engineering, Zagazig University, Ph.D., in progress.
5. Nagwan Ibrahim Tawfik Ibrahim, " *Performance Enhancement of Vehicular Visible Light Communication Systems (V2LC)*", Electronics and Communications Engineering Dept., Faculty of Engineering, Zagazig University, Ph.D., in progress.
6. Magi Soror, " *The Internet of underwater things (IoUT) operates with a novel class of hybrid acoustic-optical underwater sensor network (AO-UWSN)*", Electronics and Communications Engineering Dept., Faculty of Engineering, Zagazig University, M.Sc., in progress.
7. Nancy Amer, " *Analysis and Design of Multidirectional MI antenna Underwater Communications*", Electronics and Communications Engineering Dept., Faculty of Engineering, Zagazig University, M.Sc., in progress.

8. Mai Abdelfattah, "*Analysis and Design of Microwave Filters for 5G Systems*", Electronics and Communications Engineering Dept., Faculty of Engineering, Zagazig University, M.Sc., in progress.
9. Nadia Salah, "*Wearable Antenna System for Wireless Body Area Network*", Electronics and Communications Engineering Dept., Faculty of Engineering, Zagazig University, M.Sc., in progress.
10. Mahmoud A. Mohamed, "*Design of Reconfigurable Antenna for 5G Applications*", Electronics and Communications Engineering Dept., Faculty of Engineering, Zagazig University, Ph.D., in progress.
11. Nada Alaa, "*High-Performance Millimetric-Wave Antenna System for 5G Wireless Communications*", Electronics and Communications Engineering Dept., Faculty of Engineering, Zagazig University, Ph.D., in progress.
12. Alaa Hedaya, "*Microwave Imaging for Tumor Detection*", Electronics and Communications Engineering Dept., Faculty of Engineering, Zagazig University, Ph.D., in progress.

Training Courses

- **Teaching Fundamentals “Preparing of Academic Staff”** from June 21st to July 10th, 2003.
- **Scientific Research Skills** from July 31st to Aug. 3rd, 2005.
- **Profession Ethics and Manners** from Aug. 4th to Aug. 7th, 2005.
- **Effective Interactive Communication Skills** from Sept. 8th to Sept. 12th, 2005.
- **Intellectual Thinking Skills** from Sept. 27th to Sept. 28th, 2005.
- **Using Modern Technology in Teaching** from Oct. 2nd to Oct. 3rd, 2005.
- **Calibration and Error Correction Techniques for Network Analysis, IEEE Expert Now course** on April 9th, 2008.
- **Dynamically Adaptive Power Supply Circuits for Radio-Frequency (RF) Power Amplifier (PA) Applications, IEEE Expert Now course** on April 16th, 2008.
- **Manners and Behaviours of Profession in University** from Aug. 30th to Aug. 31st, 2015.
- **Time and Meetings Management** from Sept. 1st to Sept. 2nd, 2015.
- **International Publication of Scientific papers** from Sept. 13st to Sept. 14st, 2015.
- **Effective Interactive Presentation Skills** from Sept. 15th to Sept. 16th, 2015.
- **Quality Standards in the Educational Process** from Sept. 20th to Sept. 21st, 2015.
- **Teambuilding for Teamleaders, DAAD Kairo Akademie** on 12th, 2016.
- **Self-Management, DAAD Kairo Akademie** on November 23rd, 2016.

- **Self-Marketing**, DAAD Kairo Akademie on November 24th, 2016.
- **Financial and legal aspects of university business** from July 18th to July 20th, 2023.
- **Communication skills in different educational styles** from Aug. 1st to Aug. 3rd, 2023.
- **Preparing competitive projects to finance scientific research** from Aug. 8th to Aug. 10th, 2023.
- **Anti-Corruption** from Aug. 15th to Aug. 17th, 2023.
- **Dealing with international databases** from Aug. 22nd to Aug. 24th, 2023.

Quality Assurance and Accreditation of Education

- **Strategic Planning for Higher Educational Institute** from Oct. 7th to Oct. 8th, 2015.
- **Self-evaluation of higher education institutions** from Nov. 28th to Nov. 30th, 2023.

Teaching Experience

- **Teaching the following courses for the Undergraduate students:**
 - at **Zagazig Higher Institute of Engineering and Technology, Zagazig, Egypt**, from (Apr. 2020 till Now).
 - at **Zagazig University, Egypt** from (Mar. 2000 to Jan. 2007) and from (Sept. 2011 till Apr. 2020).
 - at **University of Calgary, Canada** from (Jan. 2007 to May 2011).
 1. Antenna & Wave Propagation ECE423
 2. Electromagnetic Waves ECE325
 3. Wave Diffusion & Antennas ECE436
 4. Microwaves Engineering ECE432 and ECE 323
 5. Applications of Electronics ECE423
 6. Electronics System Design ECE435
 7. Selected Topics in Electronics ECE437
 8. Satellite Communication Systems ECE438
 9. Analysis and Design of Microwave Devices ECE411
 10. Electrical Engineering ECE121, ECE221, ECE126, ECE226
 11. Digital Electronic Circuits ECE301
 12. Electrical Measurements ECE313
 13. Electronics Engineering ECE315
 14. Electronic Circuits ECE321
 15. Communications Engineering ECE302
 16. Digital Communication Systems ECE401
 17. Integrated Circuits ECE314
 18. Measurements & Testing ECE422a
 19. Satellite Communication Systems ECE438

- **Teaching the following courses for the Graduate students** at Zagazig University, Egypt from (Sept. 2011 till Apr. 2020)

1. Principles of Antenna and Wave Propagation ECE541
2. Electromagnetic Waves ECE535
3. Microwave Engineering ECE545
4. Antenna Engineering ECE546
5. Theory of Wave Propagation ECE608
6. Waveguides Theory and Application ECE612

- **Lab instructor** at Zagazig University, Egypt and University of Calgary, Canada with the following duties:

- Delivered lectures/tutorials for the following courses:
 1. Measuring Devices (1st year course)
 2. Electromagnetic Waves (2nd year course)
 3. Electronics Engineering (2nd year course)
 4. Microwave Engineering (3rd year course)
 5. Antennas and Wave Propagations (4th year course)
 6. Digital Communications (4th year course)
- Demonstrated the use of the lab equipment's (Vector Network Analyzer, Vector Signal Analyzer, Anechoic Chambers, Digital Oscilloscope, and Milling Machines for PCBs)
- Trained the teaching assistants in the use of specialized software (ADS, HFSS and Microwave Office)
- Wrote the laboratory manuals
- Assigned the duties of teaching assistants
- Acted as a consultant for students in regards to graduation projects

Honors and Awards

- Graduate Scholarship for excellence in research for 2009 and 2010, by the department of electrical engineering, University of Calgary, Canada, for high number of publications in reputed journals and conferences.
- International Graduate Scholarship from the Egyptian Ministry of Higher Education to pursue a PhD degree in Canada from 2007 to 2011.
- Certificate in University Teaching, Faculty of Graduate Studies, Zagazig University, Egypt, 2003.
- Third rank among B.Sc. students of Electronics and Communication Engineering Dept. Zagazig University, Egypt. 1998.

Professional Affiliations and Memberships

- Member, IEEE Instrumentation and Measurements Society.

- Member, IEEE Communications Society.
- Member, Egyptian Engineers Syndicate.

Special Skills

IT Skills

Skill	Proficiency Level
Microsoft OS and Macintosh OS	Excellent
Programming with C++ and Visual C++	Good
Programming with Visual Basic	Good
Matlab Programming	Very Good
Computer Hardware	Excellent
Computer Networking	Excellent

RF Design Tools

Simulation Tool	Proficiency Level
Microwave Office	Excellent
Agilent - ADS	Excellent
Ansoft - HFSS	Good
Zeland – IE3D	Very Good
CST Studio	Excellent

Instrumentations and Measurements

Lab Instrument	Proficiency Level
Vector Network analyzer (VNA)	Excellent
Spectrum Analyzer	Excellent
Focus Load-Pull measurement system	Very Good
Microwave Transition Analyzer (MAT)	Excellent
High Speed Oscilloscopes	Excellent
Milling machines for PCB	Good

Seminars and Presentations

- 1- “Multi Standard Receivers: A Literature Review,” iRadio lab, University of Calgary, Calgary, Alberta, Canada, July 16, 2007.
- 2- “S-Parameters measurements using Microwave Transistor Analyzer,” iRadio lab, University of Calgary, Calgary, Alberta, Canada, Feb. 16, 2008.
- 3- “A de-embedding Technique for On-wafer Simultaneous Impedance and Power Flow measurements,” iRadio lab, University of Calgary, Calgary, Alberta, Canada, May 8, 2008.

- 4- "A de-embedding Technique for On-wafer Simultaneous Impedance and Power Flow measurements," *IEEE Instrumentation and Measurement Technology Conference, I2MTC 2008*, Victoria, BC, Canada, 12-15 May 2008.
- 5- "Automated Multi-Port Measurement System for Frequency/Time Domain Characterization of Linear/Non-Linear Microwave Devices" iRadio lab, University of Calgary, Calgary, Alberta, Canada, Nov. 13, 2008.
- 6- "An Automated Multi-Port Measurement System for Linear and Non-Linear Characterization of N-Port Microwave Devices," in *IEEE Instrumentation and Measurement Technology Conference, I2MTC 2009*, Singapore, Singapore, 5-7 May 2009.
- 7- "Dynamic Distortion Characterization of Multi-Port RF PAs Using MTA-Based Multi-Port Measurement Setup," in *Workshop on Integrated Nonlinear Microwave and Millimetre-Wave Circuits, INMMiC 2010*, Goteborg, Sweden, 26-27 Apr. 2010.
- 8- "On-Line Waveform Monitoring System for the Design and Characterization of Mimo RF PAs," in *24th IEEE Canadian Conference on Electrical and Computer Engineering (CCECE'2011)*, Niagara Falls, ON, Canada, 8-11 May 2011.
- 9- "A Multi-Port Measurement System for Large-Signal Characterization of Microwave Devices," iRadio lab, University of Calgary, Calgary, Alberta, Canada, Mar. 21, 2011.
- 10- "Simulation Analysis of Dispersion Compensation in High-Speed Optical Links using Different topologies of DCF," *The International Conference of Engineering Sciences and Applications - (ICESA)*, Aswan, Egypt, Jan. 28-31, 2016.
- 11- "Chromatic Dispersion Compensation in Long Distance Optical Fiber Using Fiber Bragg Grating," *The International Conference of Engineering Sciences and Applications - (ICESA)*, Aswan, Egypt, Jan. 28-31, 2016.
- 12- "Effect of Shielding with Electromagnetic Absorbing Materials on Specific Absorption Rate Reduction," *IEEE International Japan-Africa Conference on Electronics, Communications and Computations (JAC-ECC)*, Alex., Egypt, Dec. 16-18, 2018.
- 13- "Enhanced Digital Predistorter Based on Normalized Least Mean Square and Particle Swarm Optimization Algorithms," *IEEE International Japan-Africa Conference on Electronics, Communications and Computations (JAC-ECC)*, Alex., Egypt, Dec. 16-18, 2018.
- 14- "A Study of Using Graphene Coated Microstrip lines for Crosstalk Reduction at Radio Frequency", *IEEE 35th National Radio Science Conference (NRSC)*, MIU, Cairo, Egypt, March 20-22, 2018.
- 15- "New Design of High-Efficiency Low-SAR Coupled Folded Antenna for 5G Applications", *IEEE International Japan-Africa Conference on Electronics, Communications and Computations (JAC-ECC)*, (Online Virtual Conference), Egypt, Dec. 14-15, 2020.

List of Publications

Journal Papers

1. Yassmin K. A. Alrayk, B. M. Younis, and **Walid S. El-Deeb**, Mohamed Farhat O. Hameed, S. S. A. Obayya, "THz dual-core liquid photonic crystal fiber with high negative dispersion" *Optical and Quantum Electronics*, vol. 55, no. 13, pp. 1180, Oct. 2023.
2. Mai A. Salah, Eman M. Eldesouki, Ahmed Attiya, and **Walid S. El-Deeb**, "Simplified Design Procedure for Fourth-Order Coupled-Resonator Bandpass Filter," *Progress In Electromagnetics Research C*, vol. 132, pp.11-21, 2023, doi:10.2528/PIERC23020604.
3. Mai Fouad Ahmed, Mona A Mohamed, Abdel A Meneam Shaalan, **Walid S. El-Deeb**, "A Compact Dielectric Resonator Antenna for Ultra-Wideband Applications," *The Egyptian International Journal of Engineering Sciences and Technology*, vol. 42, no. 3, pp. 65-71, 2023, doi: 10.21608/EIJEST.2022.153305.1172.
4. Eslam S. El-Mokadem, Nagwan I. Tawfik, Moustafa H. Aly, and **Walid S. El-Deeb**, "Design and performance evaluation of vehicular visible light communication system under different weather conditions and system parameters," *Opto-Electronics Review*, vol. 31, no. 3, pp. 1-14, Apr. 2023, doi: 10.24425/opelre.2023.145580.
5. Mai A. Salah, Eman M. Eldesoki, Ahmed M. Attiya, and **Walid S. El-Deeb**, "Simplified Design Procedure for Fourth-Order Coupled-Resonator Bandpass Filter," *Progress In Electromagnetics Research C - (PIER C)*, vol. 132, pp. 11-21, Apr. 2023, doi:10.2528/PIERC23020604.
6. N. Alaa, R. A. Elsayed, K. F. A. Hussein and **W. S. El-Deeb**, "Dual-Band Millimeter-Wave Circularly Polarized Antenna for Mobile Communications," in *IEEE Access*, vol. 10, pp. 82119-82131, 2022, doi: 10.1109/ACCESS.2022.3196345.
7. Mai Fouad Ahmed, Mona A Mohamed, Abdel A Meneam Shaalan, **Walid S. El-Deeb**, "A Novel Compact Dual Notch with High-Gain Multi-Layer Dielectric Resonator Antenna for Ultrawide-Band Applications," *Progress In Electromagnetics Research M - (PIER M)*, vol. 112, pp. 127-137, Jul. 2022, doi:10.2528/PIERM22061204.
8. Alaa M Hediya, Ahmed M Attiya, and **Walid S. El-Deeb**, "5G MIMO Antenna System Based on Patched Folded Antenna with EBG Substrate," *Progress In Electromagnetics Research M - (PIER M)*, vol. 109, pp. 149-161, Mar. 2022, doi:10.2528/PIERM22020101.
9. Alaa M Hediya, Ahmed M Attiya, and **Walid S. El-Deeb**, "Reduction of Specific Absorption Rate: A Review Article," *The Egyptian International Journal of Engineering Sciences and Technology*, vol. 39, pp. 80-96, Jun. 2022, 10.21608/EIJEST.2022.108455.1117.
10. Yassmin K. A. Alrayk, B. M. Younis, and **Walid S. El-Deeb**, Mohamed Farhat O. Hameed, S. S. A. Obayya, "MIR optical modulator based on silicon-on-calcium fluoride platform with VO₂ material" *Optical and Quantum Electronics*, vol. 53, no. 559, pp. 1-16, Aug. 2021.
11. Atef Eraky, Shimaa Emad, and **Walid S. El-Deeb**, "Theoretical and Experimental Study of Wave Propagation in Stressed Plate" *Tobacco Regulatory Science*, vol. 7, no. 5, pp. 2275-2285, Sept. 2021.
12. Alaa M Hediya, Ahmed M Attiya, and **Walid S. El-Deeb**, "Multiple-Input Multiple-Output

- Antenna for Sub-Six GHz 5G Applications Using Coupled Folded Antenna with Defective Ground Surface” *Progress In Electromagnetics Research C - (PIER C)*, vol. 114, pp. 13-29, Mar. 2021.
13. Rasha Ali, A. Shaalan, and **Walid S. El-Deeb**, and "A Low-SAR Planar Monopole Antenna for Mobile Communications," *East African Scholars Journal of Engineering and Computer*, vol. 3, no. 2, pp. 30-36, 2020.
 14. Rasha Ali, **Walid S. El-Deeb**, and A. Shaalan, "SAR Calculations of Novel Dual-band PIFA for Mobile Phone Applications," *Current Journal of Applied Science and Technology-(CJAST)*, vol. 36, no. 1, pp. 1-8, 2019.
 15. Atef Eraky, Rania Samir, **Walid S. El-Deeb**, and Abdallah Salama, “Determination of Surface and Sub-Surface Cracks Location in Beams Using Rayleigh Waves,” *Progress In Electromagnetics Research C - (PIER C)*, vol. 80, 233–247, Jan. 2018.
 16. **Walid S. El-Deeb**, Mahmoud A. Mohamed, and Mahmoud I. Abdullah “A Proposed Protocol to Enhance the Performance of Wireless Sensor Networks Based on the Reduction of Power Consumption,” *Progress In Electromagnetics Research C - (PIER C)*, vol. 78, pp. 225-239, Oct. 2017.
 17. Nada Alaa, **Walid S. El-Deeb** and Adel Zaghloul “A Comparative Study of the SAR Reduction Techniques for the Effects of Electromagnetic Waves on Human Head,” *British Journal of Applied Science & Technology - (BJAST), SCIENCEDOMAIN International*, vol. 20, no. 2, pp. 1–13, Apr. 2017.
 18. Nada Alaa, **Walid S. El-Deeb** and Adel Zaghloul, “A Comparative Study of the SAR Reduction Techniques for the Effects of Electromagnetic Waves on Human Head,” *British Journal of Applied Science & Technology - (BJAST), SCIENCEDOMAIN International*, vol. 20, no. 2, pp. 1–13, Apr. 2017.
 19. **Walid S. El-Deeb**, “Optimization of DCF Position for the Compensation of Chromatic Dispersion in High Speed Optical Links,” *Menoufia Journal of Electronic Engineering Research (MJEER)*, Vol. 26, No. 2, July 2017.
 20. **Walid S. El-Deeb**, M. Tosson, and A. E. Abdelnaiem, “Analysis of the Nonlinear Impairments on the DWDM Optical Communication Systems,” *The Egyptian International Journal of Engineering Sciences and Technology (EIJEST)*, vol. 22, no. 1, pp. 19-26, Jan. 2017.
 21. Mohamed Farhat O. Hameed, Yassmin K. A. Alrayk, A. A Shaalan, **Walid S. El-Deeb** and S. S. A. Obayya, “Novel Design of highly sensitive multichannel bimetallic photonic crystal fiber biosensor,” *Journal of Nanophotonics*, vol. 10, no. 4, pp. 046016(1-14), Dec. 2016.
 22. **Walid S. El-Deeb**, “Wide-Range Waveform Measurement System with Load-Pull Capability for the Characterization of RF Devices,” *International Journal of Advanced Research in Computer and Communication Engineering - (IJARCCE)*, vol. 4, no. 9, pp. 1–4, Sep. 2015.
 23. M. Tosson, **Walid S. El-Deeb**, and A. Abdelnaiem, “Dispersion Compensation Techniques for

- DWDM Optical Networks,” *International Journal of Advanced Research in Computer and Communication Engineering - (IJARCCE)*, vol. 4, no. 8, pp. 1–6, Aug. 2015.
24. M. Tosson, **Walid S. El-Deeb**, and A. Abdelnaiem, “Comparison of Chromatic Dispersion Compensation in Optical Fiber with Fiber Bragg Grating (FBG) and Dispersion Compensation Fiber (DCF) for 10 Gbps and 40 Gbps,” *International Journal of Scientific Engineering Research - (IJSER)*, vol. 6, no. 6, pp. 1284–1289, Jun. 2015.
 25. N. Tawfik, **Walid S. El-Deeb**, M. El-Mashade, and A. Abdelnaiem, “Optimization of Uniform Fiber Bragg Grating Reflection Spectra for Maximum Reflectivity and Narrow Bandwidth,” *International Journal of Computational Engineering Research - (IJCER)*, vol. 5, no. 2, pp. 53–61, Feb. 2015.
 26. M. El-Mashade, A. Abdelnaiem, **Walid S. El-Deeb**, and N. Tawfik, “Analysis of Weak and Strong Fiber Bragg Grating,” *British Journal of Applied Science & Technology - (BJAST)*, vol. 10, no. 6, pp. 1–17, Jan. 2015.
 27. **Walid S. El-Deeb**, M. S. Hashmi, N. Boulejfen, and F. M. Ghannouchi, “Systematic Calibration of Two-Port Network Analyzer for Measurement and Engineering of Waveforms at Radio Frequency,” *Progress In Electromagnetics Research C - (PIER C)*, vol. 28, pp. 209– 222, 2012.
 28. **Walid S. El-Deeb**, M. S. Hashmi, N. Boulejfen, and F. M. Ghannouchi, “Small-signal, complex distortion and waveform measurement system for multiport microwave devices,” *IEEE Transactions on Instrumentation and Measurement*, vol. 14, no. 3, pp. 28–33, 2011.
 29. **Walid S. El-Deeb**, S. Bensmida, N. Boulejfen, and F. M. Ghannouchi, “An impedance and power flow measurement system suitable for on-wafer microwave device large-signal characterization,” *International Journal of RF and Microwave Computer-Aided Engineering*, vol. 20, no. 3, pp. 306–312, May 2010.
 30. **Walid S. El-Deeb**, N. Boulejfen, and F. M. Ghannouchi, “A Multiport Measurement System for Complex Distortion Measurements of Nonlinear Microwave Systems,” *IEEE Transactions on Instrumentation and Measurement*, vol. 59, no. 5, pp. 1406–1413, Mar. 2010.
 31. **Walid S. El-Deeb**, M. S. Hashmi, S. B. Smida, N. Boulejfen, and F. M. Ghannouchi, “Thru-less calibration algorithm and measurement system for on-wafer large-signal characterization of microwave devices,” *IET Microwaves, Antennas & Propagation*, vol. 4, no. 11, pp. 1773–1779, 2010.

[Conference Papers](#)

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