Prof. S. El-Rabaie (Senior Member, IEEE'1992-MIEE-Chartered Electrical Engineer) Was Born in Sires Elian (Menoufia), EGYPT in 1953. He Received the B. Sc. Degree With Honors in Radio Communications From Tanta University, EGYPT, 1976, the M. Sc. Degree in Communication Systems From Menoufia University, EGYPT, 1981, and the Ph. D. Degree in Microwave Device Engineering From the Queen's University of BELFAST, 1986. He Was a Postdoctoral Fellow at Queen's (Dept. of Electronic Eng.) Up to Feb. 89. In his Doctoral Research He Constructed a CAD Package Used in Nonlinear Circuit Simulations Based on the Harmonic Balance Techniques. Since Then He Has Been Involved in the Development of GaAs FET Doublers, Triplers and Oscillators From X to K band. He Was Invited in 1992 as a Research Fellow in the North Arizona University (College of Engineering and Technology) and in 1994 as a Visiting Prof. in Ecole Polytechnique de Montreal (Quebec), Canada. Prof. El-Rabaie Has Authored and Co-authored More Than *70 Papers* and Technical Reports, *Twelve Books* Under the Titles (Computer Aided Simulation and Optimization of Nonlinear Active Microwave Circuits, The Whole Dictionary for The Computer and the Internet Terminologies, Basics and Technologies of Data Communications in Computer Networks, Technologies and Internet Programming, The Distance Learning and its Technologies on the Third Millennium, Computer Principles and Their Applications in Education, Software Engineering (1,2), Management of Computer Networks, Advanced Internet Programming, Data-base Principles, Building of Compilers). In 1993, He Was Awarded the Egyptian Academic Scientific Research Award (Salah Amer Award of Electronics) and in 1995, He Received the Award of the Best Researcher on (CAD) from Menoufia University. He Has Shared in Translating the First Part of the Arabic Encyclopedia. Now He is the Head of the Communication Engineering Department, Faculty of Electronic Engineering, Menoufia University.

e-mail:- **srabie1@yahoo.com**   srabie1@hotmail.com

Prof. EL-Sayed M. EL-Rabaie

**Head of the Communication Engineering
Department, Faculty of Electronic Engineering
Menoufia University**

Publications

1)Full Journal Papers
2)International Conference Proceedings
3)Internal Conference Proceedings
4)Internal Electronic Engineering Bulletins
5) Books

1) **Full Journal Papers**

No	Authors	Paper Title	Journal Name
(1)	E. El-Haussini and S. EL-Rabaie	**Performance Improvement of SSB-FM Suboptimum Demodulators**	*IEEE Trans. on Communications Technol., Vol. COM-32, pp. 848-850, July 1984.*
(2)	T. Brazil, S. El-Rabaie E. Choo, V. Fusco and C. Stewart	**Large Signal FET Simulation Using Time Domain and Harmonic Balance Methods**	*Pt. H, Microwave Antennas and Propagation, Special Issue on CAD of Microwave Circuits, Proc. IEE, pp. 363-367, June 1985.*
(3)	S. El-Rabaie, V. Fusco and C. Stewart	**Harmonic Balance Evaluation of Nonlinear Microwave Circuits a Tutorial Approach**	*IEEE Trans. on Education, Vol. 31, No. 3, pp. 181-192, August 1988.*
(4)	S. El-Rabaie	**Simulation of Nonlinear Circuits Using the Modified Harmonic Balance Techniques**	*Microwave and Optical Technology Letters, Vol. 3, No. 1, pp. 13-17, January 1990.*
(5)	S. El-Rabaie	**A CAD Package for Microwave Integrated Circuit Design**	*Microwave Journal, Vol. 33, pp. 275-282, April 1990.*
(6)	S. El-Rabaie and I. Saad	**Modelling DC Characteristics of GaAs MESFET Devices Using a Simple Accurate and Analytic Tool**	*Electronic Letters* (Vol. 26, No. 22; 25th October 1990), pp. 1992-1893.
(7)	I. Saad, S. El-Rabaie and N. El-Rabaie	**A Novel and Accurate Compact DC Model for Large Signal Computer Calculations**	*Electronic Letters*, Vol. 27, No. 7, pp. 609-611, March 1991.
(8)	S. El-Rabaie, V. Fusco and C. Stewart	**Computer Aided Study of the Broad Band Small-Signal Equivalent Circuit of GaAs MESFET**	*Int. J. Electronics*, Vol. 70, pp. 863-874, 1991.
(9)	S. El-Rabaie and J. Seeger	**Comments regarding details of the research note entitled by,"Modelling the DC Characteristics of GaAs MESFETs for CAD"**	*Int. J. of Electronics*, 1992.
(10)	S. El-Rabaie, S. Ibrahim and N. El-Rabaie	**Applying the Controlled Aliasing for Fast Prediction of the Output Response of Nonlinear Circuits Driven by Composite Signals**	*IEE Proc.-Circuits, Devices Systems*, Vol. 141, No. 2, pp. 65-68, April 1994.
(11)	G. Zhao, S. El-Rabaie and F. Ghannouchi	**The Effects of Biasing and Harmonic Loading on MESFET Tripler Performance**	*Microwave and Optical Technology Letters*, Vol. 9, No. 4, pp. 189-194, July 1995.
(12)	R. Hajji, S. El-Rabaie, A. Kouki and F. Ghannouchi	**Large Signal Temperature Dependent DC Model for Hetrojunction Bipolar Transistors**	*IEE Proc.-Microwave Antennas Propagation*, Vol. 142, No.5, pp. 417- 419, October 1995.
(13)	R. Hajji, A. Kouki, S. El-Rabaie and F. Ghannouchi	**Systematic DC/Small-Signal/Large-Signal of Heterojunction Bipolar Transistors Using a New Consistent Nonlinear Model**	*IEEE Transactions on Microwave Theory and Techniques*, Vol. 44, No. 2, pp. 233-241, February 1996.*

2) <u>International Conference Proceedings</u>

<u>No</u>	Authors	Paper Title	Conference Name
<u>(14)</u>	S. El-Rabaie, J. Mckeown, V. Fusco and C. Stewart	Optimized Microwave MESFET Nonlinear Circuits Using Harmonic Balance	*IEE Colloquium on Microwave Devices, Fundamentals and Applications*, Surrey Place, March 1988.
<u>(15)</u>	T. Brazil, S. El-Rabaie, E. Choo, V. Fusco and C. Stewart	Comparative Study of Time Domain and Harmonic Balance Methods for Nonlinear FET Simulation	*Computer Aided Microwave Engineering*, Brighten, June 1986.
<u>(16)</u>	T. Brazil, E. Choo, S. El-Rabaie, C. Stewart, V. Fusco and J. Mckeown	Analysis and Optimization of the Harmonic Output Power of the FET Amplifier	*16 European Microwave Conference*, Dublin, September 1986.
<u>(17)</u>	S. El-Rabaie, C. Stewart and V. Fusco	Large Signal Analysis and Optimization of a GaAs Frequency Doubler by the Harmonic Balance Techniques	*Automated Radio Frequency and Microwave Measurement Society (ARMS)*, University of Kent at Canterbury, September 1987.
<u>(18)</u>	S. El-Rabaie, E. Choo, C. Stewart and V. Fusco	GaAs MESFET Doublers for mm-wave Power	*International Union of Radio Service (URSI)*, 19th November 1987.
<u>(19)</u>	S. El-Rabaie, C. Stewart, et al.	Analysis Methods for Harmonic Output of FET Amplifiers	*Poster Session in the Exhibition Halls*, 3rd March 1988, MIOP, 1988 Conference.
<u>(20)</u>	S. El-Rabaie, C. Stewart, V. Fusco et al.	A Novel Approach for the Large Signal Analysis and Optimization of Frequency Doublers	*IEEE MTT, International Microwave Symposium*, 25-27 May, pp. 119-1122, 1988, New York.
<u>(21)</u>	S. El-Rabaie, E. Choo, T. Brazil, V. Fusco, J. Mckeown and C. Stewart	Nonlinear Simulation Methods for Active Microwave Circuits	*International Conference Data Communications Technology*, Department of Electrical and Computer Engineering, 21-23 Sept. 1988, pp. 72-81, NIHE, Limerick, Ireland.
<u>(22)</u>	M. Newmann, S. El-Rabaie, C. Stewart and V. Fusco.	Two Different Approaches for Quick Evaluation of Mixed Products of Nonlinear Systems Driven by Two Nonharmonically Related Input Frequencies	*6th International Symposium on Applied Informatics*, Grindelwold, Switzerland, February 1988.
<u>(23)</u>	M. Newmann, S. El-Rabaie, C. Stewart and V. Fusco	The Modified Harmonic Balance Techniques for Determination of Periodic Responses of Nonlinear Circuits	*6th International Symposium on Applied Circuits, Informatics*, Grindelwold, Switzerland, February 1988.
<u>(24)</u>	S. El-Rabaie and J. Seeger	An Automatic Way for linear and Nonlinear Circuit Partitioning Applicable to FET Devices	*IEEE-35th Midwest Symposium on Circuits and Systems, The George Washington University*, August 9-12, 1992.
<u>(25)</u>	T. Halim, S. El-Rabaie and M. Mohanna	A Simple Method For Modelling of Small Signal Broadband Microwave Device Impedance's	*Asia- Pacific Microwave Conference Proceedings*, Vol. 2, pp. 555-556, KAIST, Taejon, Korea, 1995.
<u>(26)</u>	S. El-Rabaie	Limitations of Using Compact DC Models of GaAs MESFET For Large Signal Computer Calculations	*IEEE Antennas and Propagation Society, International Symposium*, June 19-24, 1994, University of Washington, Seattle, Washington USA.
<u>(27)</u>	T. Brazil, S. El-Rabaie, V. Fusco, and C. Stewart	Comparison of Computer Methods for MESFET Intermodulation Characteristics	*1988 IEEE International Symposium on Circuits and Systems*, Helsinki University, 7-9 June 1988.

3) Internal Conference Proceedings

No	Authors	Paper Title	Conference Name
(28)	S. El-Rabaie	A Software Package for Analysis and Optimization of Nonlinear Microwave Circuits	*First Engineering Conference, Azhar University, pp. 67-82, December 1989.*
(29)	S. El-Rabaie	The Economical Considerations of Using High Power Computer Stations in Designing Nonlinear Microwave Subsystems	*The Second Conference for Small Computers in the Recent and Future of the Arabic World*, Cairo 10-12 March 1989 (Organizer; Team International Engineering and Management Consultants).
(30)	S. El-Rabaie	Microwave GaAs FET Circuit Design Using High Computer Stations	*The Second Conference for Small Computers in the Recent and Future of the Arabic World*, Cairo 10-12 March 1989.
(31)	S. El-Rabaie and C. Stewart	The Inverted Harmonic Balance, A Novel Approach for Device Characterization	*NRSC90, Seventh National Radio Conference*, Feb. 20-22, 1990, EGYPT.
(32)	S. El-Rabaie	An Exact Small Signal Model for HEMT Devices up to 40 GHz Applicable for the Harmonic Balance Techniques	*NRSC90, Seventh National Radio Conference*, Feb. 20-22,
(33)	S. El-Rabaie	Analysis and Optimization the Output Response of Highly Order Nonlinear Systems Drive by Two Nonharmonically Related Input Frequencies	*NRSC91, Eights National Radio Conference*, Feb. 19-21, 1991, EGYPT.
(34)	S. El-Rabaie and I. Saad,	A Comparative Study of Compact DC Models of GaAs FET for Large Signal Computer Calculations	*NRSC91, Eights National Radio Conference*, Feb. 19-21, 1991, EGYPT.
(35)	S. El-Rabaie and O. Oraby	Practical Model for the Delay and Multiplier Bit Synchronizer	*NRSC91, Eight National Radio Science Conference, Military Technical College,* Cairo, pp. (C23, 1-7), Feb. 1991.
(36)	T. Halim, S. Diab and S. El-Rabaie	A Simple Synthesis Procedure for the Design of Microwave Broadband Matching Networks	*Proc. of the 16th International Conference for Statistics, Computer Science, Social and Demographic Research,* Cairo, EGYPT, 2-7 March 1991, Vol. 5, pp. 53-62.
(37)	A. El-Sheakh, N. El-Rabaie, S. El-Rabaie and H. Awad	Applying Self-Tuning and Neural Networks Techniques For Regulating the Temperature of Electrical Furnace System	*Second International Conference of Artificial Intelligence Applications*, Cairo, EGYPT, January 22-24, 1994.
(38)	S. El-Rabaie	A Simple Source Code For De-embeeding the Aliasing	*19 th International Conference For Statistics, Computer Science and Social Applications*, Cairo, EGYPT,Vol. I, pp. 331-341, 9-14 April 1994.
(39)	S. El-Rabaie	Small Signal Modelling of Hetrostructure Bipolar Transistor Using the Parameter Extraction Technique	*19 th International Conference For Statistics, Computer Science and Social Applications*, Cairo, EGYPT, Vol. I, pp. 207-215, April 1994.
(40)	S. El-Rabaie	Harmonic Characterization of Negative Feedback and Push-pull Amplifier Configurations	*The Proc. of the First International Conf. on Electronics, Circuits and Systems*", Vol. 2, Cairo, Egypt, pp. 648-654, December 19-22, 1994.
(41)	S. El-Rabaie and F. Ghannouchi	A Universal Large Signal Model for GaAs MESFET and HBT Power Devices	*Proc. of the Twelfth National Radio Science Conference (NRSC'95), Alexandria,* EGYPT, March 21-23, pp. (D2. 1-7), 1995.

4) Internal Electronic Engineering Bulletins

No	Authors	Paper Title	Electronic Eng. Bulletins Name
(42)	S. El-Rabaie and C. Stewart	Computer Aided Design of Wide-Band Microwave Transistor Amplifiers on Low Dielectric Substrates	*Port-Said Scientific Engineering Bulletin*, Vol. 3, pp. 25-32, 1991.
(43)	S. El-Rabaie and O. Oraby	Some Important Peculiarities for the Fundamental Harmonic Balance Approach Applied for Small Signal Modelling of GaAs FET Devices	*Port-Said Scientific Bulletin*, Faculty of Engineering, Vol. 3, pp. 16-23, 1991.
(44)	S. El-Rabaie and N. El-Rabaie	Choosing an Optimum Approach for Analysis and Optimization of Nonlinear circuits Driven by Multi-Tone Signals	*The Electronic Engineering Bulletin, First Issue, Faculty of Electronic Eng.*, Menoufia University, Feb. 1991.
(45)	S. El-Rabaie	Solving Nonlinear Microwave Circuits Using F77 and C Languages on Different Computer Platforms	*Electronic Eng. Bulletin, Menoufia University*, No. 7, pp. 96-107, January 1994.
(46)	S. El-Rabaie, S. Ibrahim, A. El-Fishawy And N. El-Rabaie	Optimum Analysis and Design of a Harmonic Analyzer	*Electronic Eng. Bulletin, Faculty of Electronic Engineering, Menoufia University*, No. 7, pp. 57-66, January 1994.
(47)	S. El-Rabaie and G. Armstrong	Numerical Simulation of Polysilicon Emitter Bipolar Transistors	*Electronic Eng. Bulletin, Faculty of Electronic Eng., Menoufia University*, No. 8, pp. 64-70, July 1994.
(48)	S. El-Rabaie	Some Main Aspects For Writing Specialized Microwave Circuit Design Packages	*Port-Said Scientific Bulletin*, Vol. 6, pp. 163-171, 1994.
(49)	S. El-Rabaie and S. Huit.	BJT's and HBT's UP To 1993	*Port-Said Scientific Bulletin*, Vol. 6, pp. 144-165, 1994.
(50)	S. El-Rabaie	A Novel Approach For Microstrip Launcher Characterization Up To 18 GHz	*Electronic Eng. Bulletin, Faculty of Electronic Engineering, Menoufia University*, No. 7, pp. 108-115, July 1994.
(51)	S. El-Rabaie and S. Huit	Compact DC Models of BJT's and HBT's For Large Signal Computer Calculations	*Electronic Eng. Bulletin, Faculty of Electronic Eng., Menoufia University*, No. 8, pp. 46-56, July 1994.
(52)	S. El-Rabaie	Mixed Lumped and Distributed Models For HEMT Devices Up to 100 GHz	*Electronic Eng. Bulletin, Faculty of Electronic Engineering, Menoufia University*, No. 8, pp. 58-63, July 1994.
(53)	S. El-Rabaie	Prediction of Intermodulation Distortion in HBT Power Devices Using a Novel DC Nonlinear Model	*Electron Engineering Bulletin, Faculty of Electronic Engineering, Menoufia University*, No. 11, pp. 10-24, January 1996.
(54)	S. El-Rabaie	Voltage/Current Waveforms in High Power HBT's Under Large Signal Excitations Including Self-Heating and Ambient Temperature Effects	*Electronic Engineering Bulletin, Faculty of Electronic Engineering, Menoufia University*, No. 12, pp. 37-50, July 1996.
(55)	S. El-Rabaie	An Accurate Approach For Analysis and Design of Microwave GaAs MESFET Oscillators	*Electronic Engineering Bulletin, Faculty of Electronic Engineering*, Menoufia University, No. 13, pp. 62-75, January 1997.
(56)	S. El-Rabaie	CAD Tools For Simulation and Optimization of Linear and Nonlinear Microwave FET Circuits Up to 1995	*Electronic Eng. Bulletin, Faculty of Electronic Engineering, Menoufia University*, No. 13, pp. 1-22, January 1997.
(57)	S. El-Rabaie	A Proposal For A Microwave Measurement Center, on the Dept. of Communication Engineering.	Faculty of Electronic Engineering, Menoufia University", August 1997.

5) Books on CAD of Non-linear Circuits, Different Computer Science Branches and Educational Technology

1) S. El-Rabaie, "Computer Aided Simulation and Optimization of Nonlinear Active Microwave Circuits", Published Feb. 2001.

2) S. El-Rabaie, A. Dessouki and A. Al-Jobiri, "The Whole Dictionary for the Computer Networks and Internet Terminologies", Al-Obikan, 2001.

3) A. Dessouki, S. El-Rabaie and A. Al-Jobiri, "Basics and Technologies of Data Communication in Computer Networks", Al-Roshed, 2002.

4) A. Dessouki, S. El-Rabaie, "Technologies and Internet Programming", Al-Roshed, 2005.

5) S. El-Rabaie, et al, "The Distance Learning in the Third Millennium ", Al-Obikan, 2004.

6) A. Dessouki, S. El-Rabaie et al , "Computer Principles and Their Applications in Education", Al-Roshed, 2006.

7) S. El-Rabaie and A. Dessouki, "Software Engineering(l)", The Open University in Sudan, 2006.

8) A. Ragab and S. El-Rabaie, " Management of Computer Networks", The Open University in Sudan, 2007.

9) I. Fathy and S. El-Rabaie, "Advanced Internet Programming", The Open University in Sudan, 2007.

10) S. El-Rabaie and A. Dessouki, "Software Engineering(2)", The Open University in Sudan, 2007.

11) T. El-Shishtawy and S. El-Rabaie, "Data base Principles", The Open University in Sudan, 2007.

12) K. Wasef and S. El-Rabaie, "The Compilers", The Open University in Sudan, 2007.