Curricular Vitae of ***Amit Chaudhry***
University Institute of Engineering and Technology
Panjab University, Sector-25, Chandigarh, India
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+91-172-2633627(Home)
Email:*amit_chaudhry01@yahoo.com, chaudhry@tchequimica.com*

Personal Details

Sex : Male

Marital Status: Married

Date of birth: 3rd September, 1976

Place of birth: Ambala City, India

Research interest

Nanoelectronics: Physics, Modeling and Simulation of Metal Oxide Semiconductor Field Effect Transistors.

On-going Research

- Modeling and simulation of various electrical parameters in MOS devices on alternative high-mobility substrates.
- Modeling quantum mechanical effects in surface potential based compact models for nanoscale MOSFETs.
- Temperature effects on inversion layer quantized nanoscale MOSFETs on silicon and alternative high mobility substrates.
- Effects of wave penetration effects on the various parameters of unstrained and strained MOS structures.

Education

2010

Panjab University, Chandigarh, India **Ph.D. (Microelectronics)**,

Dissertation Title: ***Modeling of Quantum Mechanical Effects in Nanometer Scale MOSFETs***

	Ph.D Supervisor: ***Dr. J.N. Roy, Vice President (R&D), Solar Semiconductor Pvt. Ltd, Hyderabad, India.***
2000	Punjab Engineering College (Panjab University, Chandigarh, India- **M.E (Electronics)**
1998	Punjab Engineering College (Panjab University, Chandigarh, India- **B.E (Honors)(Electronics and Electrical Communication)**

Professional Experience

2009 – Till now	**University Institute of Engineering and Technology, Panjab University, Chandigarh, India** Post held: Senior Assistant Professor (Microelectronics)
2002–2009	**University Centre of Instrumentation and Microelectronics, Panjab University, Chandigarh, India** Post held: Lecturer (Microelectronics)
1999-2002	**HPGCL, Panchkula, Haryana, India** Post held: Assistant Engineer

Honors

- ***Member, Scientific Board***, Carpathian Journal of Electronic and Computer Engineering, Romania
- ***Member, Scientific Committee***, Acta Technica Napocensis, Romania.
- ***Member, Editorial Advisory Board***, Journal of Scientific Research, Rajshahi University, Bangladesh.
- ***Member, Advisory Council, Applied technologies and innovations***, Czech Republic
- ***Member, Scientific Advisory Committee & Board,*** *Acta technica corviniensis – Bulletin of engineering, R*omania
- ***Member, Advisory Board***, KSU Journal of Engineering Sciences, Turkey

- ***Member, Advisory Board***, University of Pitesti - Scientific Bulletin Series: Electronics and Computer Science, Romania
- ***Member, Scientific Committee***, Lámpsakos es la Revista Digital de la Facultad de Ingenierías de la Fundación Universitaria Luis Amigó, Colombia
- ***Member Advisory Board*** international research publishing support project – PIEB RSP, Prague, Croatia
- ***Member, International Advisory Board*** of internet Journal of Engineering and Technology, Slovakia
- ***Member International Advisory Board***, Journal of Engineering and Technology for Young Scientists, Slovakia
- ***Executive Secretary*** , Materials, Methods & Technology, Bulgaria
- ***Member Advisory Panel***, Journal of the Institution of Engineers, Malaysia
- ***Member External Scientific Commission***, Egitania Sciencia, Guarda, Portugal
- ***Member Advisory Board and Scientific Board***, International Journal on Technical and Physical Problems of Engineering (IJTPE)
- ***Member Advisory Committee***, La revista "Avanzada Científica, Cuba.
- ***Editorial Article "***Current Challenges in Scaling of MOS Technology" for Journal of Electrical and Electronics, USA, 2012
- ***Roll of Honor*** in Indian National Mathematical Olympiad, 1993
- ***Honors*** in B.E (Electronics and Electrical Communication), 1998.

Membership of Technical Societies (10)

1.Life Member, *Indian Science Congress Association*, Calcutta, India
2.Life Member and Member Executive, *Indian Microelectronics Society*, Chandigarh, India
3.Life Member, *Biosensor Society of India*, Mysore, India
4.Life Member, *High Energy Material Society of India*, Pune, India
5.Life Member, *International Association of Engineers (IAENG),* Hongkong
6. Life Member, *International Association for Engineering and Management Education (IAEME)*
7.Life Member, *The Society of Digital Information and Wireless Communications* (SDIWC)
8.Associate Member, *Institute of Nanotechnology*, UK
9. Member Micro-Nano Group, *Association of LASER users* (AILU,UK)
10. Senior Member, *International Association of Computer Science and Information Technology (IACSIT)*, Singapore

Reviewer of International Journals(93)

1.Journal of Semiconductors, **China** (IOP, UK)
2.Journal of Electronics Science and Technology, **China** (IOP, UK)
3.Journal of Computers, **Finland** (**Academy Publisher**)
4. Telekomnika Journal, **Indonesia**.
5.Makara Seri Teknologi, **Indonesia**
6.Radioengineering Journal, **Czech Republic**.
7.Scientific periodical "Advances in Electrical and Electronic Engineering", **Czech Republic**.
8. Journal of Telecommunication and Information Technology, (JTIT) **Poland**.
9.Bulletin of Polish Academy of Sciences: Technical Sciences, **Poland**
10. Eksploatacja i Niezawodnosc - Maintenance and Reliability, **Poland**
11. Journal of Microelectronics and Electronic Packaging, **USA**.
12. Journal of Electronic Materials, **Springer, USA**
13**.** IEEE Transactions on Electron Devices, **USA**
14. The Journal of Nano Research (JNanoR), **USA**
15. IEEE Electron Device Letters, **USA**
16. Electronics and Telecommunication Research Institute Journal (ETRI) ,**South Korea**.
17. Journal of Electrical and Electronics Engineering Research (JEEER), Academy Publishers, **Kenya.**
18. European Physical Journal, **France** (EDP Sciences)**.**
19**.**. International Journal of Computer Engineering and Technology (IJET), **Singapore**
20. International Journal of Computer and Electrical Engineering (IJCEE), **Singapore**
21. Journal of Iran Association of Electrical and Electronics Engineers, **Iran**.
22. Majlesi Journal of Electrical Engineering, **Iran**
23**.** Journal of Low Power Electronics and Applications, **Switzerland**
24.Materials, **Switzerland**
25. Nanomaterials, **Switzerland**
26**.** Journal of Automatic Control, **Serbia**
27. International Journal of Nanoscience (IJN), **World Scientific Publishers**
28. The Bulletin of the Polytechnic Institute of Iasi, **Romania**.
29. Studies in Informatics and Control Journal, Romania.
30**.** Revista de Investigación Nova Scientia*, Mexico*
31. Journal of Advanced Research, **Elsevier**
32. Acta Polytechnica Hungarica, **Hungary.**
33 Journal of Scientific and Mathematical Research.
34. Journal of Nanophotonics (JNP), **SPIE.**
35. Journal of Engineering Science & Technology (JESTEC), **Malaysia**
36.Tehnički Vjesnik-Technical Gazette, **Croatia**
37.International Transaction Journal of Engineering, Management, & Applied Sciences & Technologies, **Thailand**
38. International Journal of Electrical Engineering Education, **Manchester, UK (Ingenta Connect)**
39. Computer Science and Information Systems , **Serbia**
40.International Journal of Simulation Systems, Science & Technology, **UK**

41 International Journal of Electronics, (Taylor and Francis), **UK**.
42.Electronics , **Bosnia and Herzegovina.**
43**.**Journal of Microwaves, Optoelectronics and Electromagnetic Applications, **Brazil.**
44. Physica Status Solidi, (PSS) Wiley-VCH, **Germany**
45**.** Turkish Journal of Physics, **Turkey**
46**.** Ingeniare Revista Chilena de Ingeniería, **Chile**
48. Journal of Bangladesh Academy of Sciences**, Bangladesh**
49. Journal of Engineering and Computer Innovations, **Academy Publishers**
50.Serdica Journal of Computing, **Bulgaria**
51. Computers & Electrical Engineering, **Elsevier**
52. International Journal of Mechanical and Materials Engineering
Malaysia
53. Revista Técnica de la Facultad de Ingeniería University of Zulia, **Venezuela**
54. Solid State Electronics, **Elsevier**
55**.** Moscow University Physics Bulletin: Moscow, **Russia**
56. Instruments and Experimental Techniques, **Springer**
57. Ukrainian Journal of Physics, **Ukraine**
58. Science Bulletin, **URSI**
59. Applied Physics Research, **Canada**
60. Microelectronics Reliability, **Elsevier**
61. Nano materials and Nanotechnology, INTECH, **Croatia**
62.International Journal of Microwave and Wireless Technologies,
Cambridge University Press
63**.** Journal of Physics D: Applied Physics, **IOP, England**
64. Journal of Circuits, Systems, and Computers (JCSC), **World Scientific**
65. Bulletin of the Lebedev Physics Institute, **Moscow, Russia**
66. Materials Science – Medziagotyra, **Lithuania**
67. Chinese Physics Letters, **Chinese Academy of Sciences, Beijing, China**
68. Journal of Nanoengineering and Nanosystems, **UK**
69. International Journal of Applied Electromagnetics and Mechanics, **IOS Press**
70. Iranian Journal of Electrical and Computer Engineering, **Tehran, Iran**
71. IEEE Journal of Quantum Electronics, **USA.**
72. Microelectronics Journal**, Elsevier, UK**
73. Applied Mathematics and Mechanics (AMM), **China**
74. Journal of Theoretical and Applied Physics, **Iran**
75. Journal of Semiconductor Technology and Science (JSTS),**Korea**
76. Journal of Experimental and Theoretical Physics (JETP) Letters**, Russia**
77. Revista Cubana de Fisica, (The Cuban Physics Journal), **Cuba**
78. Journal of Electrostatics, Fundamentals, Applications and Hazards, **Elsevier**
79. Engineering, Technology & Applied Science Research (ETASR), **Greece**
80. Microwave Review, **Serbia**
81. Indonesian Journal of Physics, **Indonesia**
82. Central European Journal of Physics, **Versita, Poland.**
83. Surface Engineering and Applied Electrochemistry, **Springer**
84. Sri Lankan Journal of Physics, **Srilanka**

85. Journal of Intelligent Material Systems and Structures, **USA**
86. Romanian Journal of Precision Mechanics, Optics and Mecatronics, **Romania**
87. Scientific Bulletin of UPB, **Romania**
88. Mehran University Research Journal of Engineering & Technology, **Pakistan**
89. International Journal of Electronics, Computer and Communications Technologies (IJECCT), **Malaysia**
90. IEEE Transactions on Circuits and Systems-Part II, **USA**
91.AEU- International Journal of Electronics and Communications, Elsevier
92. International Research Journal of Engineering Science, Technology and Innovation, **Nigeria**
93. International Journal of the Physical Sciences, Academy Publishers.

Reviewer /Member of International Conferences(6)

1. Mixed Design of Integrated Circuits and Systems (**IEEE-MIXDES**), **Poland**
2.Banat Masharka, **Jordan**
3.**Member, Organizing Committee** of 51st International Conference of RTU in section: Electronics and Telecommunications, Oct,2011, Riga, **Latvia**
4. **Member, Programme Committee,** 2nd IEEE International Conference on Networked Embedded Systems for Enterprise Applications (NESEA 2011) at Fremantle, Perth, Australia , 8th - 9th Dec, 2011.
5. 2nd International Conference on Electronics and Optoelectronics, (ICEOE 2012), Shenyang, China, July 27 - 29, 2012.
6. Organizing committee member, Material Science-2012 conference, 22-24 October 2012,USA

Editorial Work For International Journals (48)

1. *Central European Journal of Engineering*, **Versita.**
2.*Journal of Electrical and Electronics Engineering Research (JEEER), Academy Publishers*, **Kenya.**
3. *The Journal of Electrical Engineering*, **Slovakia**
4. *Slaboproudy obzor*, **Czech Republic**
5**.** *Turkish Journal of Electrical Engineering & Computer Sciences*, **Turkey**
6. *Journal of Engineering and Computer Innovations*, **Academy Publishers**
7.*International Round of Industrial and System Engineering (RISE) Committee*, **Slovakia**
8. *Scientific Journal of Riga Technical University. Series 7: Telecommunications and Electronics*, **Riga**, **Latvia**.
9.*Revista Energía y Computación*, **Coloumbia**
10.*International Journal of Nano and Biomaterials (IJNBM),* **Canada**
11. **Technical Editor**, *Research Journal of Applied Sciences, Engineering and Technology*, **Maxwell Science Organization**.
12. Member, Editorial Advisory Board, *Journal of Research Papers of Faculty of Materials Science and Technology Slovak University of Technology*, **Slovakia**

(2011-2015).
13.*Applied Physics Research*, **Canada**
14. **Associate Editor**, *Nano Biomedicine and Engineering*.
15. *Radioengineering Journal*, **Czech Republic.(2012-2013)**
16. *International Journal of Engineering, Science and Technology (**IJEST**),* **Nigeria.**
17. *Research Bulletin of NTUU KPI (Naukovi Visti NTUU KPI*), **Ukraine**
18. **Associate Editor**, *International Journal of Computer Applications* (IJCA), **USA.**
19. *International Journal of Simulation Systems, Science & Technology*, **UK.**
20. *Electrotehnică, Electronică, Automatică (EEA),* **Romania.**
21. *Theoretical and Applied Informatics (TAAI),* **Gliwice, Poland.**
22. *International Journal of Micro and Nano Systems*.
23. *Journal of Research in Physics*, **Serbia**.
24. *Member International Editorial Board, Journal of Nano and Electronic Physics (JNEP),**Ukraine***
25. *Revista Ingenierías Universidad de Medellín*, **Colombia**
26. *International Journal of Research and Reviews in Applied Sciences*, **ARPA Press**
27**.** *Sensor Electronics and Microsystem Technologies*, **Ukraine**
28. *Exacta*, Uninove, **São Paulo, Brazil**
29. *Engineering, Technology & Applied Science Research (ETASR*), **Greece**
30. *Journal of Electrical & Electronics* , **OMICS Publishing, USA**
31. *Elektrika: Journal of Electrical Engineering*, **UTM, Malaysia.**
32. *Journal of Communications and Computer Engineering*
33. *Journal of Material Sciences & Engineering*, **OMICS Publishing, USA**
34. *Journal of Nanomedicine& Nanotechnology*, **OMICS Publishing, USA**
35. *International Journal of Design, Analysis and Tools for Integrated Circuits and Systems* **(IJDATICS)**
36. *Continental Journal of Engineering Sciences*, **Nigeria**
37. *Acta-Electrotehnica, **Romania***
38. *The Journal of American Science*, **USA**
39. *International Journal of Multidisiciplinary Research*, **Phillipines**
40. *Development Education Journal of Multidisiciplinary Research*, **Phillipines**
41. *JPAIR Multidisciplinary Research Journal*, **Phillipines**
42.*LICEO Journal of Higher Education Research*, **Phillipines**
43.*International Journal of Research and Reviews in Computing Engineering* (IJRRCE)
44. *Journal of Computational Science & Engineering,* (American Computational Science Society)**USA**
45. *International Journal of Nanoelectronics and Materials*, **Malaysia**
46**.** *Tchê Química Journal*, **Brazil**
47. *Journal of Computing*, **USA**

Participation in Workshops (12)

a) Four week ***62nd Orientation Course*** conducted by the academic staff college, Panjab University, Chandigarh, India, June, 2004

b) Three week ***Refresher Course in Environment Studies (Interdisciplinary)*** conducted by the Academic Staff college, Panjab University, Chandigarh, India, March, 2005.

c) The 5th DST workshop on "***Sensors for industrial and agricultural applications***" held from 20.09.2004 to 01.10.2004 at the Department of Physics, Dibrugarh University, Dibrugarh, Assam, India.

d) The 6th DST workshop on "***Prospects of Biosensors in Modern Biology and Biotechnological Applications***" held from 25.10.2004 to 06.11.2004 at Panjab University, Chandigarh, India.

e) Workshop on "***Challenges and Opportunities in Analog and Mixed Signal Design***" held from 22.02.2010 to 23.02.2010 at Kurukshetra University, Kurukshetra, India.

f) Two week training course on ***210MW Power Plant Simulator*** conducted by the National Power training institute, Western region, Nagpur, India from 29.01.2001-09.02.2001.

g) Eight week training course on ***Power Plant Familiarization*** conducted by Regional Power Training Institute, New Delhi, India from 17.05.99-09.07.99.

h) Chandigarh symposium on Microelectronics on "***Trends in VLSI and Embedded Systems***" held at Panjab Engineering College, Chandigarh, India in August, 2007.

i) Indian Microelectronics Society Conference "***Microelectronics Education and Research***" held at Kurukshetra University, Kurukshetra, India in February, 2006.

j) Chandigarh symposium on Microelectronics on "***RF Design and Technology***" held at Panjab University, Chandigarh, India in February, 2005.

k) Chandigarh symposium on Microelectronics on "***Embedded Systems***" held at Panjab University, Chandigarh, India in February, 2003

l) ***MEMS Business Meet*** at SCL, Mohali, Punjab, India in December, 2003.

Supervision of Post Graduation Research (20)

S.No.	***Name of the student***	***Title of the M.Tech (Microelectronics) Thesis***	***Year***
1.	Yadvinder Singh	*Modeling of charge handling capacity of a CCD*	2005
2.	Gurmohan Singh	*Simulation and optimization of on chip amplifier in CCDs*	2005
3	Deepankar Sagar	*High gain sense amplifier for semiconductor memories*	2007
4.	Rajesh Kumar Gupta	*Design/layout/verification/characterization of control block of low power SRAM for*	2007

		single chip mobile TV system using 90nm CMOS technology	
5.	Sanjeev Kumar	*Low power two stage op-amp design*	2007
6.	Manjeet Kaur	*Verilog implementation of UART with BIST (Built in self test) capability*	2007
7.	Gomita Verma	*Low power high speed current sense amplifier*	2007
8.	Pushpinder Singh	*Design and accurate modeling of high value resistor used in VLSI*	2008
9.	Suneel Kumar	*Low power SRAM cell design*	2008
10.	Md. Ehsan Ul Haque	*Electrical model of phase change memory*	2009
11.	Sandeep kumar	*MOSFET modeling at low and high temperature range*	2009
12.	Brinderjit Singh kalian	*Modeling and simulation of ferroelectric random access memory*	2009
13.	Kulwant Singh	*Radiation hardened low power sense amplifer for SRAM applications*	2009
14.	Parveen Kumar	*Gate oxide tunneling modeling*	2010
15.	Meenakshi	*Radiation effects on MOSFETs*	2010
16.	Rajkumar	*Design of a VCO*	2010
17.	Harkirat Singh	*Design of a PLL*	2010
18.	Sonu Sangwan	*Modeling of mobility in stressed silicon*	2011
19.	Pragya Khushwaha	*Design of low power SRAM memories*	2011
20.	Vandana	*Fabrication and Characterization of a gas sensor*	Pursuing

Workshops Organized as a workshop convener (3)

1. Organized Indian Microelectronics Society Workshop on the topic "***Nano-electronics and VLSI Developments***" on 18th October, 2008 at UCIM, Panjab University, Chandigarh, India.
2. Organized Indian Microelectronics Society Workshop on the topic "***Advances in Microelectronics and Embedded Systems***" on 23rd March, 2010 at UIET, Panjab University, Chandigarh , India.
3. Organized Indian Microelectronics Society Workshop on the topic "***Advances in Electronics***" on 31st March, 2012 at UIET, Panjab University, Chandigarh , India.

Departmental Academic Activities

1. Paper setter for OCET entrance examination for M.Tech(Microelectronics) for the past seveal years
2. Have been teaching subjects on MOS modeling, Semiconductor memory design, VLSI design for the past many years

3. Involved in departmental decision making bodies such as Board of Studies in Microelectronics for past many years
4. Board of Studies, Electronics and Communication Engineering, PTU, Kapurthala.

Invited Lectures Delivered (33)

1. **Delivered Six** expert lectures in ***VLSI Testing and High level Digital System Modeling*** at NITTTR. Chandigarh, India in January, 2010.
2. **Delivered Six** expert lectures in ***VLSI Testing and High level Digital System Modeling*** at NITTTR. Chandigarh, India in Dec, 2010 to Jan,2011.
3. **Delivered Two** invited lectures on ***Physics of Semiconductor Devices and Basic Transistor theory*** at KV-47, Chandigarh, India,Dec,2010.
4. **Delivered Six** expert lectures in ***VLSI Testing and High level Digital System Modeling*** at NITTTR. Chandigarh, India in February, 2011.
5. **Delivered Six** expert lectures in ***VLSI Testing and High level Digital System Modeling*** at NITTTR. Chandigarh, India from July-September, 2011.
6. Delivered an invited guest lecture on " ***Challenges in MOSFET Scaling: From Micron to Nano scale levels***" at Sachdeva College of Engineering for Girls, Gharuan, Kharar, Punjab on 24th of January,2012.
7. Delivered an ***expert lecture*** *in* ***Recent trends and challenges in MOS technology with emphasis on nanometer scale*** at NITTTR. Chandigarh, India on 15th, February, 2012.
8. Delivered ***Three expert*** lectures in a short term course (STC) on ***FPGA based digital system design*** at NITTTR, Sector-26 Chandigarh, India from 27th of Feb,2012 to 29th of Feb,2012.
9. Delivered ***Two expert*** lectures in a short term course (STC) on ***FPGA based digital system design*** at NITTTR, Sector-26 Chandigarh, India from 12th of March,2012 to 13th of March,2012.
10. **To deliver a** keynote address in ICEOE, 2012, Shenyang, China in July,2012.

Research Projects (1)

Co-Investigator in the Department of Information Technology (DIT), (Government of India) project on ***Modeling and Simulation of Nanoscale MOSFETs at Room Temperature (RT) and Classical MOSFET at Liquid Nitrogen Temperature*** (**LNT**). The project was completed in 2010.

Foreign Countries Visited (3)

1. **Visited,** ***Malaysia*** **for 5 days** upon invitation by the **IEEE-Regional Symposium on Microelectronics and Nanoelectronics** for oral presentation and attending an international conference in the areas of microelectronics and nanoelectronics at Hotel Renaissance, **Kota Bharu, Kelantan, Malaysia**. The conference was held from 08th of

August to 12th of August, 2009. Prof. (Dr). Shabudin Shari, a well known international scientist was the main organizer of the conference.

2. **Visited *Venezia, Italy* for 5 days** upon invitation by the World Academy of Science and Technology (**WASET**) in its conference on **International conference on microelectronics, optoelectronics and nanoelectronics** (**ICMON, 2009**) for oral presentation in the areas of microelectronics and nanoelectronics at **Hotel Elite Residence, Via forte Marghera, Venice Mestre, Venezia, Italy.** The conference was held from 28th of October to 30th of October, 2009. Prof. (Dr). Ardill and Prof. James Neilson were the main organizers of the conference.
3. **Visited, *Kathmandu, Nepal* for 5 days** upon invitation by the *Alexander Von Humboldt foundation workshop organized by* **Kathmandu Humboldt Kolleg (KHK) Nov,15–18, 2010 on collaborative Research as an Integrative Tool for strengthening Science and Technology in South Asia**.

Computer Skills

1. Basic technical computing programming skills (MATLAB)
2. Front end and back end design tools
3. Process/device simulation packages

Research Work

Book

Author: **Amit Chaudhry**

1. Title: **Fundamentals of Nanoscale Field Effect Transistors (Under Preparation for Springer Publications)**
2. Invited to write a book chapter **"III-V MOSFETs FOR POST SILICON CMOS TECHNOLOGY"** for Bentham Science Publishers (Under Preparation) Editor: Yarob al Douri, Malaysia

International Peer Reviewed Indexed Journal Papers 27 (Twenty seven)

2012 (4)

27. **Amit Chaudhry** and Sonu Sangwan, "Modeling of Threshold Voltage and Drain Current of Uniaxial Strained MOSFETs", ***Solid State Electronics (Elsevier)*** (Under Review).
26. **Amit Chaudhry** and Sonu Sangwan," An Analytical Hole Mobility Model for Biaxial Strained-Si-p-MOSFET"**,** ***Journal of Computational and Theoretical Nanoscience, (American Scientific Publishers)***(***Accepted***).

25. **Amit Chaudhry** and J.N. Roy, **"**Analytical Modeling of Energy Quantization Effects in Nanoscale MOSFETs", ***International Journal of Nanoelectronics and Materials,*** Vol.5, No.1, pp.1-9, 2012**. (Malaysia)**

24. **Amit Chaudhry and** J.N. Roy, "Quantum Mechanical Direct leakage currents in a sub 10nm MOSFET: A Rigorous Modeling Study", ***International Journal of Nanoelectronics and Materials,*** Vol.5, No.1, pp.37-45, 2012. (**Malaysia**)

2011 (12)

23. Pragya Kushwaha and **Amit Chaudhry, "**A Comparative Study of Single and Dual Threshold Voltage SRAM Cells", ***Journal of Telecommunication and Information Technology, (JTIT),*** Vol.4, pp. 124-130, Dec, 2011. (**Poland)**

22. **Amit Chaudhry**, Sonu Sangwan and Jatindra Nath Roy, "Modeling of Some Electrical Parameters of a MOSFET under Uniaxial Stress", ***Journal of Computational Electronics,*** (**Springer**) Vol.10, No.4, pp. 437-442**,** Dec, 2011.

21. **Amit Chaudhry**, Sonu Sangwan and Jatindra Nath Roy, "Mobility Modeling in a p-MOSFET Under Uniaxial Stress", ***Elektrotehniski Vestnik,*** Vol. 78, No. 5, pp. 298-303, Dec, 2011, (**Slovenia**).

20. **Amit Chaudhry** and Jatindra Nath Roy, "Analytical Modeling of Gate Capacitance of an Ultra Thin Oxide MOS Capacitor: A Quantum Mechanical Study", ***Journal of Electron Devices***, Vol. 10, pp. 456-463, 2011 (**France**)

19. **Amit Chaudhry** and Jatindra Nath Roy, "A Quantum Mechanical Model of Gate Oxide Direct Current Density in high-k dielectrics for Nanoscale MOS applications", ***Elektrica-Journal of Electrical Engineering*****,** Vol. 13, No. 1, pp.1-6, 2011, (**Malaysia**)

18. **Amit Chaudhry**, S. Sangwan and Jatindra Nath Roy, "Mobility Models for Unstrained and Strained Silicon MOSFETs: A Review", ***Contemporary Engineering Sciences*****,** Vol. 4, No. 5, pp.229–247, 2011, (**Bulgaria**).

17. **Amit Chaudhry**, S. Sangwan and Jatindra Nath Roy, "Analytical Modeling of Threshold Voltage for a Biaxial Strained-Si-MOSFET", ***Contemporary Engineering Sciences*****,** Vol. 4, No. 6, pp.249–258, 2011 (**Bulgaria**).

16. **Amit Chaudhry** and Jatindra Nath Roy, "Threshold Voltage Modeling in (100), (110) and (111) Oriented Nanoscale MOSFET Substrates", ***Serbian Journal of Electrical Engineering*****,** Vol. 8, No 1, pp.147-154, May, 2011. (**Serbia**)

15. **Amit Chaudhry** and Jatindra Nath Roy, "Analytical Modeling of Gate Oxide leakage Tunneling Current in a MOSFET: A Quantum Mechanical Study", ***Micro-nano-electronic Technology***, Vol.48, No.6, pp.357-364, June, 2011 **(China).**

14. **Amit Chaudhry** and Jatinder Nath Roy, "Gate Oxide Leakage in Poly-depleted Nanoscale-MOSFET: A Quantum Mechanical Study", ***International Journal of Nanoelectronics and Materials,*** Vol. 4, No. 2, pp.93-100, 2011. (**Malaysia**)

13. **Amit Chaudhry**, J.N. Roy and S. Sangwan, "A SPICE Compatible Analytical Electron Mobility Model for Biaxial Strained-Si-MOSFETs", ***Journal of Semiconductors,*** Vol. 32, No. 5, pp.1-6, May, 2011 (**IOP,UK**) **.**

12. **Amit Chaudhry** and J.N. Roy, "Comparative Study of Energy Quantization Approaches in Nanoscale MOSFETs", ***Journal of Electronic Science and Technology,*** Vol. 9, No. 1, March, 2011, pp.51-57. (**China**)

11. **Amit Chaudhry**, Sonu Sangwan and Jatindra Nath Roy, "Threshold Voltage and Drain Current Modeling of Uniaxial Strained p-MOSFETs", ***Journal of Nano and Electronic Physics,*** Vol.3, No.4, pp.27-31, 2011(**Ukraine**)**.**

2010 (9)

10. **Amit Chaudhry**, Garima Joshi, J.N. Roy and D.N. Singh, "Strained Silicon MOSFET Structures for Nanoscale Applications: A Review", ***Acta Technica Napocensis - Electronică şi Telecomunicații***, Vol.51, No.3, pp.15-22, 2010. (**Romania**).

9. **Amit Chaudhry** and J.N. Roy, "Inversion layer Quantization in Arbitrarily Oriented Substrates: An Analytical Study", ***Elektrica-UTM Journal of Electrical Engineering*****,** Vol.12, No 1, pp.1-6, 2010. (**Malaysia**)

8. **Amit Chaudhry** and J.N. Roy, "A Comparative Study of Hole and Electron Inversion layer Quantization in MOS Structures", ***Serbian Journal of Electrical Engineering*****,** Vol. 7, No 2, pp. 185-193,Nov,2010. (**Serbia**).

7. **Amit Chaudhry** and J.N. Roy, "Analytical Modeling of Source-to-Drain Tunneling in Nano scale Silicon MOSFET", ***Journal of Electronic Science and Technology*** ,Vol.8, No.4, pp.346-350,Dec,2010. (**China**)

6. **Amit Chaudhry** and J.N. Roy, "Mathematical Modeling of MOS Capacitance in the presence of Depletion and Energy Quantization in Poly Silicon Gate", ***Journal of Semiconductors,*** Vol.31, No.11, pp. 400-1-400-4, Nov,2010.(**IOP,UK**).

5. **Amit Chaudhry** and J.N. Roy, "An Analytical Modeling for Quantum Mechanical Tunneling in Nano-p-MOSFETs", ***Electronics***, Vol. 14, No.2, pp.86-89, Dec,2010. (**Bosnia and Herzegovina**)

4. **Amit Chaudhry,** J.N. Roy and Garima Joshi, "Nanoscale Strained-Si MOSFET Physics and Modeling Approaches: A Review", ***Journal of Semiconductors,*** Vol.31, No.10, pp.400-1-400-6, October, 2010. **(IOP,UK).**

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