

# **CURRICULUM VITAE**

## **ALIREZA SALEHI**

**Name:** Alireza Salehi,  
BSc, MSc, PhD, Senior Member IEEE, Member InstP

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### **UNIVERSITY EDUCATION:**

- |           |   |
|-----------|---|
| 1992-1995 | PhD in Microelectronics (University of Wales, College of Cardiff, UK) |
| 1988-1992 | MSc in Electronics (University of Bremen, Germany)                    |
| 1982-1986 | BSc in Electrical Engineering (FH Kiel, Germany)                      |

### **ACADEMIC EMPLOYMENT:**

- |              |   |
|--------------|---|
| 1995-present | Professor at Khajeh Nassir Toosi (K.N. Toosi) University of Technology, Tehran, Iran                              |
| 2018-now     | Director General of the office of control, evaluation and quality assurance of K.N.Toosi University of technology |
| 2016-2017    | Visiting professor at Sheffield University, Sheffield, UK   |
| 2009-2014    | Visiting Professor at Kingston University, London, UK   |
| 2011-2013    | Head of the faculty of electrical engineering, K.N.Toosi University of Technology                                 |
| 2010-2011    | Director general of the office for non-Iranian students in Iran, Ministry of Science, Research and Technology     |
| 2006- 2011   | Scientific Representative of The Islamic Republic of Iran in The UK and Ireland, based in London                  |
| 2004-2005    | Visiting Professor at University of Manchester, (former UMIST), UK  |

### **ACADEMIC AND PROFESSIONAL MEMBERSHIPS:**

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|-----------|---|
| 2018- now | Member of the university council (university board) of K.N.Toosi university of technology                     |
| 2018- now | Deputy Head of the council of control, evaluation and quality assurance of K.N.Toosi university of technology |
| 2011-2013 | Member of the committee of the scholarship department of the Ministry of Science, Research and Technology     |

2011-2017	Member of the evaluation committee for foreign degrees of the Ministry of Science, Research and Technology
2008-present	Senior Member of IEEE (SMIEEE)
2008-present	Member of The Institute of Physics (MIntP)
2000-2006	Member of the Microelectronics Committee of the Ministry of Industries of the Islamic Republic of Iran.
1998-present	1) Reviewer of the journal Thin Solid Films, 2) Reviewer of the journal Sensors and Actuators B 2) Reviewer of the journal Science and Technology, 3) Reviewer of the Journal of Engineering Science. 4) Reviewer of several international conferences.

### **PROFESSIONAL QUALIFICATION RECORDS:**

2011	Chair of the International Conference “Iran and scientific relations in the world” 11-12 June 2011, Wales, UK
2010	Chair of the first International conference in humanities, London-Tehran, 17-18 September 2010
2010	IEEE-Transforming Engineering Education: Creating Interdisciplinary Skills for Complex Global Environments, Dublin, Ireland, 6-9 April 2010
2009	Chair of the International conference “International Iranian Academics Symposium in London” UCL, London, UK 25-26 April 2009
2006	Advisor to the Ministry of Industries of The Islamic Republic of Iran-Tehran, Iran, March-September 2006
2002-2004	Deputy Head of The Faculty of Electrical Engineering, Khajeh Nassir Toosi (K.N.Toosi) University of Technology for Research Affairs, Tehran, Iran
1998-2002	Head of Electronics Group at Khajeh Nassir Toosi (KNT) University of Technology, Tehran, Iran
April, 2000	MBE and CVD workshop for depositing different semiconductor materials e.g. III-V Semiconductors, University of Science and Technology, Tehran, Iran.
1996-1998	Senior Engineer at Semiconductor Industries, R&D Division, Tehran, Iran
1993-1994	SEM analysis (University of Wales, College of Cardiff).

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| 1992      | Project management-Practical training (University of Clausthal, Germany, February-April 1992 |
| 1986-1988 | Senior Engineer and Inspector of IEI in Germany  |

## **AWARDS:**

1. Nominated researcher of the year 2003 by the Ministry of Higher Education of Iran
2. Nominated researcher of the year 2001 by the K. N. Toosi University of Technology, Tehran, Iran

## **COURSES TAUGHT:**

### **A) Courses taught at different academic years for post graduate students:**

- 1) Optical Electronics (Devices),
- 2) Semiconductor Sensors,
- 3) Solid State Electronic Devices,
- 4) Semiconductor Devices I,
- 5) Semiconductor Devices II,
- 6) Transparent Conductors,
- 7) Theory and Technology of Semiconductor Device Fabrication,
- 8) Research Methodology
- 9) Characterisation and measurement of material and semiconductor devices
- 10) Bio Sensors

### **B) Courses taught at different academic years for under graduate students:**

- 1) VLSI Design and Technology,
- 2) Modern Physics,
- 3) Solid State Electronics,

## **RESEARCH INTERESTS:**

My current research interests are design and fabrication of semiconductor devices, especially using Si- and III-V semiconductor materials. Recently I started to work on graphene and organic materials with sensor and solar cell applications towards different gases. Moreover, I have been working on transparent conductors including Indium Tin Oxide for applications in opto-electronic devices and detectors.

### **A) PhD Projects:** *During the last years I supervised more than 10 PhD students:*

### **B) MSc Projects:**

*During the last years I supervised more than 70 MSc projects.*

## **REFEREED PUBLICATIONS**

### **Peer reviewed Journal Papers:**

1. M Fallahnejad, M.Vadizadeh, A.Salehi, A.Kashaninia, F.Razaghian, "Impact of channel engineering on the high frequency noise performance of junctionless InGaAs/GaAs FET: A numerical simulation study", *Physica E: Low dimensional syssyems and nanostructures*, Elsevier 115, 6 sep 2019
2. M.Fallahnejad, M.Vadizadeh and **A. Salehi**, "Performance enhancement of field effect transistor without doping junctions using InGaAs/GaAs for analog/RF applications", *Int. J. Modern Physics B*, vol33 (2019)
3. M. Hadiyan, A. Salehi, A. Koochi-Saadi, 'Sub ppm acetone gas sensing properties of free standing ZnO nano rods', *Journal of Electroceramics*, published online 04 January 2019
4. A. Poureslami, A. Salehi, "SWNT saturable absorption application in telecom wavelength range", *J. Opt. Commun.*, 2018, pp
5. A. Poureslami, A. Salehi, "Linear and non linear optical attenuation of single wall carbon nano tubes used in fiber optic communication", *Materials Focus*, vol.7, 2018, pp.668-672.
6. A. Hasani, H. Sharif Dehsari, M. Asghari Lafmejani, **A. Salehi**, F. Afshar Taromi, K.Asadi, Soo Young Kim, "Ammonia Sensing Using a Composite of Graphyne Oxide and Conducting Polymer", *Physica Status Solidi*, RRL 2018, pp.1-7.
7. M Hakimi, **A. Salehi**, F.A. Boroumand, N.Mosleh, "Fabrication of a room temperature ammonia gas sensor based on polyaniline with n-doped graphyne quantum dots", *IEEE sensors journals* vol 18, no6 March 2018, pp.2245-2252.
8. **A. Salehi**, S. Zamani, "Increasing of the power conversion efficiency of In<sub>0.5</sub>Ga<sub>0.5</sub>P solar cell" *Journal of Energi Engineering of Kashan university*, vol7, no 4, March 2018, pp.12-19.
9. A. Hasani, J.N.Gavgani, R.Mohammadi Pashaki, S.Baseghi, **A. Salehi**, D.Heo, S.Young Kim, M.Mahyari, "Poly(3,4 ethylenedioxythiophene): Poly(styrenesulfonate)/Iron(III) Porphyrin Supported on S and N Co-Doped Graphene Quantum Dots as a Hole Transport Layer in Polymer Solar Cells" *Science of Advanced Materials*, vol.9, 2017, pp:1616-1625.
10. M.A. Eslamian, **A.Salehi**, Z.Miripour, "Comparing different ITO-metal thin film structures for ethanol and carbon dioxide sensing application", *sensor review*, Sep. 2017.
11. M.J.Kiani, **A. Salehi**, "Deposition of thin film gas sensors based on ZnO layer", *Journal of Iranian Association of Electrical and Electronics Engineers*, Vol.13, winter 2016, pp: 65- 70.
12. M. Hakimi, **A. Salehi**, F.A. boroumand, "Fabrication and characterization of an ammonia gas sensor based on PEDOT-PSS with N-doped grapheme quantum dots dopant" *IEEE sensors journal*, 2016
13. M. Hakimi, **A. Salehi**, F.A.Boroumand, "Experimental study on PEDOT:PSS conductive polymer and N-doped grapheme quantum dots for H<sub>2</sub>O<sub>2</sub> sensing", *Bulletin de la societe royale des sciences de liege*, vol. 85, 2016, pp:261-268.
14. M. Mohsennia, M. Massah Bigdeli, M.H.Khodami, **A. Salehi**, F. Akbari Boroumand, "Bulh-heterojunction polymer solar cells with polyaniline-silica nanocomposites as an efficient hole-collecting layer" *Journal of Nanophotonics*, vol.10(1), (Jan-Mar 2016), 016011(1-11).
15. J. Nasrollah Gavgani, A.H. Hassani, M. Nouri, M. Mahyari, **A. Salehi**, "Highly sensitive and flexible ammonia sensor based on S and N co-doped graphene quantum dots/polyaniline hybrid at room temperature", *Sensors and Actuators B*, volume 229, (28 Jan 2016), pp:239-248 .
16. H.Sharifi Dehsari, J.N.Gavanchi, A.H.Hassani, M.Mahyari, E.Khodabakhshi Shalamzari, **A. Salehi**, F.Afshar Taromi, " Copper (II) phthalocyanine supported on three-dimentional nitrogen doped grapheme/PEDOT-PSS nanocomposite as highly

- selective and sensitive sensor for ammonia detection at room temperature”, RSC advances (DOI:10.1039/C5RA13976G)11 Sep. 2015.
17. J. N. Gavgani, H.Sharifi Dehsari, A. Hassani, M. Mahyari, E. Khodabakhshi Shalamzari, **A. Salehi**, F. Afshar Taromi, “A room temperature volatile organic compound sensor with enhanced performance, fast response and recovery based on N-doped graphene quantum dots and poly (3,4-ethylenedioxythiophene)-poly(styrenesulfonate)nanocomposite”, RSC Advances, 5 (2015) 57559-57567.
  18. S.H. Badri, **A. Salehi**, “Realization on porous silicon multilayer bandpass filters in mid-infrared range”, Science International (Lahore), 27(3), (2015) 2177-2181.
  19. A. Hassani, H. Sharifi Dehsari, J. Nasrollah Gavgani, E. Khodabakhshi, **A. Salehi**, F. Afshar Taromi, Mojtaba Mahyari “Sensor for volatile organic compounds using an interdigitated gold electrode modified with a nanocomposite made from poly-poly and ultra large graphene oxide”, Microchimica Acta, vol. 182, issue 7-8 (2015) 1551-1559.
  20. A.H.Hassani, H.Sharifi Dehsari, A. Amiri Zarandi, **A. Salehi**, F.Afshar Taromi, H.Kazeroni, “Visible light-assisted photoreduction of graphene oxide using CdS nanoparticles and gas sensing properties”, Journal of nano materials, Hindawi publishing corporation, volume 2015, (2015)
  21. V. Nazerian, **A. Salehi**, “Room temperature hydrogen gas sensor using a Ni/Al<sub>2</sub>O<sub>3</sub>/Ni/n-Si magnetic tunneling transistor”, International Journal of Natural and Engineering Sciences, Issue 2 (2012)
  22. V. Nazerian, **A. Salehi**, “Theoretical analysis of magnetic tunnelling transistor as a novel hydrogen gas sensor based on spintronic”, International Journal of Natural and Engineering Sciences, Issue 1 (2012)
  23. H. Sadeghi, V. Nazerian, **A. Salehi**, “Improving the sensing response of SnO<sub>2</sub> hydrogen gas sensor using additive Ag as a catalyst”, International Journal of Natural and Engineering Sciences, Issue 1 (2012)
  24. **A. Salehi**, M Gholizadeh, “A highly sensitive MOSFET hydrogen sensor with transparent ITO gate electrode”, IEEE sensor Journal, vol. 11, no. 5, May 2011, pp. 1201-1205
  25. A.R.Amin, **A. Salehi**., M.H.Ghezelayagh, Y. Ghane Ghrebagh, “ 3 D experiments and simulation of the effect of the characteristics of the waves using FDTD process when submitted to electronic circuits”, Tarbiat Modares Journal on Electrical Engineering, vol. 2, pp. 61-70, May 2010.
  26. A.R.Amin, **A. Salehi**, M.H. Ghezelayagh, M.H. Rahdan, “Simulation and analysis of active transistor circuits when submitted to waves distributed by lines of a pattern circuit”, Iranian Journal of Padafand-e Novin, pp. 53-60, March 2010
  27. A.R. Amin, **A. Salehi**, M.H.Ghezelayagh, H. Khademkalan, “Design and simulation of the effect of powerful electromagnetic waves on electronic circuits”, Journal of Engineering of the Iranian Ministry of Science, Research and Technology, November 2009
  28. M Gholizadeh, M Safari Hasanabadi, **A. Salehi**, “Modelling and simulation of MOSFET gas sensor with platinum gate for hydrogen detection”, Sensors and Actuators B141 (2009).1-6

29. M Gholizadeh, M Safari Hasanabadi, **A. Salehi**, Modelling and simulation of a MOSFET hydrogen gas sensor using Pt contact, Iran J Navigation Technology and Sciences, special issue (2008),12-16.
30. **A. Salehi**, A. Nikfarjam, D. Jamshidi, "Highly sensitive humidity sensor using Pd/porous-GaAs Schottky contact", IEEE sensors journal 6 (Dec 2006)1415-1421.
31. **A. Salehi**, D. Jamshidi "Characteristics of highly sensitive Au/porous-GaAs Schottky junctions as selective CO and NO gas sensors", Sensors and Actuators, B122 (2007) 69-74.
32. **A. Salehi**, V. Nazerian, "Characterization of magnetic Ni/n-Si Schottky contact for hydrogen gas sensing applications", Sensors and Actuators B122 (2007) 572-577.
33. **A. Salehi**, A. Nikfarjam, D. Jamshidi, "Pd/porous-GaAs Schottky contact for hydrogen sensing application", Sensor and Actuators, B 113 (2006) 419-427.
34. **A. Salehi**, A. Nikfarjam, "Room temperature carbon monoxide sensor using ITO/n-GaAs Schottky contacts", Sensors and Actuators, B101 (2004) 394-400.
35. **A. Salehi**, "A highly sensitive self heated SnO<sub>2</sub> carbon monoxide sensor", Sensors and Actuators, B96 (2003) 88-98.
36. **A. Salehi**, "Preparation and characterization of implanted indium tin oxide selective gas sensors", Sensors and Actuators, B94 (2003) 173-179.
37. **A. Salehi**, M. Gholizadeh, "Gas sensing properties of indium- doped SnO<sub>2</sub> thin film with variations in indium concentration", Sensors and Actuators B89 (2003) 173-179.
38. M Salimi, S. M T Bathaee, **A. Salehi**, M. Darvish Eskandari, " A novel control method used for connection of photovoltaic converters" Iranian Energy journal May 2003.
39. **A. Salehi**, "Selectivity enhancement of indium doped SnO<sub>2</sub> gas sensors", Thin Solid Films, 416 (2002) 260-263.
40. **A. Salehi**, "Radiation damage in air annealed indium tin oxide layers", Thin Solid Films, 338 (1999) 297-200.
41. **A. Salehi**, "The effects of deposition rate and substrate temperature of ITO thin films on electrical and optical properties", Thin Solid Films, 324 (1998) 214-218.
42. **A. Salehi**, "Thermally evaporated ITO/GaAs Schottky barrier contacts", Electronics Letters, vol. 34 (1998).
43. **A. Salehi**, "Effects of thermal treatment in ITO/GaAs contacts", Electronics Letters, vol. 34 (1998).
44. D. V. Morgan, Aliyu, Bunce and **A. Salehi**, "Annealing effects on opto-electronic properties of sputtered and thermally evaporated indium tin oxide films", Thin Solid films, 312 (1998) 268-272.
45. D. V. Morgan, **A. Salehi**, Aliyu, Bunce, "Electro-optical properties of indium tin oxide films": Effects of thermal annealing, Renewable energy vol. 7, no.2 (1996), 205-208.
46. D. V. Morgan, **A. Salehi**, Aliyu, Bunce, Disket,"Radiation damage in ITO layers, Thin Solid Films, 258 (1995) 283-285.

## Reviewed Conference Papers

47. A. Poureslami, A.Salehi, "Spectroscopy study of single wall carbon nanotubes", 27<sup>th</sup> Iranian conference on electrical engineering (ICEE2019) May 2019, Yazd, Iran
48. F.Karimpour, S.Valizadeh, A.Salehi' "Effect of PET and ITO substrates on PCE of bulk heterojunction organic solar cells with P3HT:PCBM active layer", 27<sup>th</sup> Iranian conference on electrical engineering (ICEE2019) May 2019, Yazd, Iran
49. M.Hadian, S.B.Mashari, A.Koochi Saadi, **A.Salehi**, "CO gas sensing behaviour of free standing ZnO nanowires", 27<sup>th</sup> Iranian conference on electrical engineering (ICEE2019) May 2019, Yazd, Iran
50. Z.Bahrami, A.Salehi,A Mahdlu, "AMPS-1D modelling of P3HT/PCBM bilayer and BHJ organic solar cell", 27<sup>th</sup> Iranian conference on electrical engineering (ICEE2019) May 2019, Yazd, Iran
51. S.M.Mirsadeghi, S.Valijam, **A. Salehi**, "Electrical simulation of SiC/Ge Schottky diode with graphene contact", 27<sup>th</sup> Iranian conference on electrical engineering (ICEE2019) May 2019, Yazd, Iran
52. T. Ghafouri, **A. Salehi**, H.Mahmoodnia, "Investigating a novel normally on AlGaIn/GaN capped PHEMT and the effects of cap layers thickness on its gate leakage current", 26<sup>th</sup> Iranian conference on electrical engineering (ICEE2018), May 2018, Mashad, Iran
53. A. Amirpour, **A. Salehi**, S. Shams Beyranvand, "Fabrication of UV sensor using point's Schottky Pd/ZnO/Si contacts", 26<sup>th</sup> Iranian conference on electrical engineering (ICEE2018), May 2018, Mashad, Iran
54. P.Talebnia, F.A.Boroumand, **A.Salehi**, "Highly sensitive and flexible ammonia sensor based on polyaniline/SnO hybrid structure working at room temperature", 3<sup>rd</sup> International conference on sensors engineering and electronics instrumentation advances, (SEIA 2017), 20-22 september 2017, Moscow, Russia.
55. S. Zamani, **A. Salehi**, "Modelling and analysis of shadow effect on solar cells' array", 24<sup>th</sup> ICEEE, 10-12 May 2016, Shiraz, Iran
56. A. Poureslami, **A.Salehi**, "Effect of CNT structures regarding the communications filters in the range of 1300-1600 nm", 24<sup>th</sup> ICEEE, 10-12 May 2016, Shiraz, Iran
57. J. Behnejad, **A. Salehi**, H. Mahmoodnia, "Electrical characteristics enhancement of Au/n-GaAs Schottky barrier diode using sulphur passivation of GaAs surface by (NH<sub>4</sub>)<sub>2</sub>Sx sulfurization technique", 25<sup>th</sup> ICEEE, 2-14 May 2017, Tehran, Iran
58. M. A. Eslamian, Eb. Nadimi, **A. Salehi**, "Effect of humidity on gas sensing properties of tin dioxide toward carbon monoxide: A first principle study", 2-4 May 2017, 25<sup>th</sup> ICEEE, Tehran, Iran
59. M.Hakimi, **A.Salehi**, F.A. Boroumand, "Ammonia sensor using N-doped graphene quantum dots/polyaniline composite", 3<sup>rd</sup> international conference Science and Engineering Istanbul, Turkey, 2June 2016.
60. M.Hakimi, **A.Salehi**, F.A.Boroumand, "Experimental study on PEDOTT:PSS conductive polymer and n-doped graphene quantum dots for H<sub>2</sub>O sensing", International conference on electrical engineering, University of Tehran, Iran, May 2016.

61. P.Naderi, F.Akbari Boroumand, **A.Salehi**, "Hybrid Solar Cells using GaAs/Polymer", Confrence of Nano structure solar cells, Sharif University, Tehran, Iran, 17 Dec. 2015
62. M.H.Khodami, **A. Salehi**, F.Akabari boroumand, "Optimization of P3HT/C60 blend for fabrication of organic solar cells", 21<sup>st</sup> conference on optic and photonics and 7<sup>th</sup> conference on Iranian engineering and photonic technology, 13-15 January 2015, Shaeed Beheshti University, Tehran, Iran
63. M.H.Khodami, **A.Salehi**, F.Akbari Boroumand, M.Massah Bigedli, S.Ghanbari, "Improving organic solar cells based on MEH-PPV:C<sub>60</sub> heterostucture", Conference of nano structure solar cells, Sharif university, 13.11.2014, Tehran, Iran
64. V. Nazerian, **A. Salehi**, "A new hydrogen sensor based on a Ni/Al<sub>2</sub>O<sub>3</sub>/Ni/n-Si magnetic tunneling transistor", submitted to 2012 IEEE sensors conference, October 28-31, 2012, Taipei, Taiwan.
65. **A. Salehi**, V. Nazerian, "Characterisation of Ni/Al<sub>2</sub>O<sub>3</sub>/Ni/n-Si magnetic transistor as a highly sensitive hydrogen gas sensor", IEEE sensors 2011 conference, Limerick, Ireland, October 28-31, 2011.
66. V. Nazerian, **A. Salehi**, "Presentation of a new gas sensor using magnetic tunnelling transistor based on spintronic", ICEE2011, Amirkabir University, 17-19 May 2011, Tehran, Iran.
67. A.R. Amin, **A. Salehi**, M.H. Ghezelayagh, "BJT Circuits Simulation including Self-Heating Effect using FDTD Method", China, APEMC2010.
68. **A. Salehi**, M Gholizadeh, "MOSFET sensor with transparent ITO gate electrode for carbon monoxide setection", First Bio-Sensing Technology Conference, Bristol, UK (10-12 November 2009)
69. **A. Salehi**, H. Sadeghi, M. Gholizadeh, M. J. Kiani, V. Nazerian, "Design and fabrication of SnO<sub>2</sub> thin layer gas sensor using sol gel technique", 17<sup>th</sup> Iranian conference on electrical engineering (ICEE2009), Tehran, Iran (12-14 May 2009)
70. M. Gholizadeh, M S. Hasan Abadi, **A. Salehi**, "Modelling and Simulating MOSFET Gas Sensor with Pt Gate for Hydrogen Detection", 213th ECS Meeting, The Electrochemical Society, USA, Phoenix, Arizona (18 – 23 May 2008)
71. V. Nazerian, **A. Salehi**, H. Sadeghi, "Ni/Si Magnetic Schottky sensor" 15<sup>th</sup> ICEE 2007, Tehran (15-18 May 2007)
72. **A. Salehi**, M. M. Lajvardi, M Gholizadeh, " Design and fabrication of MOS gas sensors using ITO thin layer" 15<sup>th</sup> ICEE 2007, Tehran (15-18 May 2007)
73. **A. Salehi**, D. Jamshidi Kalantari, A. Goshtasbi, "Rapid Response of Au/Porous-GaAs Humidity Sensor at Room Temperature" Optoelectronic and Microelectronic Materials and Devices, 2006 Conference on Volume , Issue , 6-8 Dec. 2006 Page(s):125 – 128
74. V. Nazerian, **A. Salehi**, "Magnetic Ni/n-Si- Schottky contact as hydrogen gas sensor", IEEE, COMMAD06I,D50, Australia, 2006.
75. **A. Salehi**, S.E. Mirzaee, M. Gholizade, " Design and Fabrication of thin film gas sensors using SnO<sub>2</sub> by ultra sonic waves" 14th ICEE 2006, Tehran (16-18 May 2006)
76. **A. Salehi**, A. Nikfarjam, D. Jamshidi Kalantari, "A room temperature operated fast response humidity sensor for diagnosis of pulmonary disease" , Advanced Sensor



Technologies Conference for “NDE and structural health monitoring II” 26 Feb-2 March 2006, San Diego, California, USA.

77. **A. Salehi**, D. Jamshidi Kalantari, “A room temperature operated fast response humidity sensor based on Schottky contacts”, 10<sup>th</sup> European conference on solid state chemistry (ECSSC), Sheffield, UK, 2005.
78. **A. Salehi**, A. Nikfarjam, D. Jamshidi Kalanatri, "Pd-porous GaAs Schottky contact for hydrogen sensing application at room temperature" COMMAD2004, Brisbane, Australia, 8-10 December 2004.
79. **A. Salehi**, "Gas sensing properties of proton implanted Indium-doped SnO<sub>2</sub>/GaAs Schottky contacts", International Conference on Atomic Collisions in Solids (ICACS21), Genova, Italy 4-9, 2004, p. 87.
80. M. Salimi, M. Bathaee, **A. Salehi**, “A new control method for photovoltaic converters” 18th international conf. on elect. Eng., Tehran, Sep. 2003.
81. M. Salimi, M. Bathaee, **A. Salehi**, “The losses in semiconductor facilities of power invertors”, FACTS, Tehran, Oct. 2003.
82. **A. Salehi**, A. Bala-Rastaghi, “Design and fabrication of IR-LED as a detector using GaAs semiconductor”, International Conference on Space Applications, Isfahan, Iran, Dec. 2003
83. **A. Salehi**, M. Gholizadeh, M. S. Lotfi Mtlagh, M. Dashti “Opto electronic properties of SnO<sub>2</sub> thin film deposited by spray pyrolysis and its characteristics on gas sensors, ICEE2004 conference, Mashad, Iran, 12-14 May 2004.
84. **A. Salehi**, A. Nikfarjam, M. Hashemi, “Gas sensors using ITO/n-GaAs and Au/n-GaAs Schottky contacts”, ICEE2004 conference, Mashad, Iran, 12-14 May 2004.
85. **A. Salehi**, M. Gholizadeh, “Improvement in gas sensing properties of indium-doped SnO<sub>2</sub> thin films”, COMMAD 2002, IEEE, Sydney, Australia, Dec. 2002.
86. **A. Salehi**, M. Gholizadeh, “Design and Fabrication of thin film gas sensors by CVD method”, ICEE (2002), Tabriz, Iran, May 2002.
87. **A. Salehi**, “Effects of proton implantation on selectivity enhancement of sputter deposited indium tin oxide gas sensors”, IEEE sensors 2002, Aug. 2002, Orlando, USA.
88. **A. Salehi**, “Radiation damage in ITO/GaAs contacts”, 19th international conf. on atomic collisions, Paris (2001).
89. **A. Salehi**, “Characteristics of ITO/AlGaInP LEDs” ICEE2001, 9th Iranian Conference on Electrical Engineering, May 2001, Tehran, Iran
90. H. Babaei, **A. Salehi**, “Characterization of graphite thick film fabricated by LPCVD”, ICEE Tehran, Iran (1999).
91. D. V. Morgan, **A. Salehi**, “Post deposition annealing effects on opto-electronic properties in sputtered ITO thin films, ICEE (1998), Tehran.
92. **A. Salehi**, D.V.Morgan, R.W.Bunce, “The thermal stability of evaporated ITO/n-GaAs Schottky contacts in different atmospheres”, ICEE (1995) Tehran.
93. D. V. Morgan, D.V.Morgan, Aliyu, **A. Salehi**, R. Bunce, “Sputter induced damage in ITO/n-GaAs Schottky barrier contacts”, Workshop on compound semiconductor devices and integrated circuits, Cork, Ireland (1994).

**Patents:**

- 1) Pt-MOSFET hydrogen gas sensor, Patent No. 55359 (Iran-2009)
- 2) ITO-MOSFET hydrogen gas sensor Patent no. 55458 (Iran-2009)
- 2) Pt-MESFET gas sensor, Patent no. 57836 (Iran-2009)
- 4) ITO-MESFET gas sensor, Patent No. 57835 (Iran-2009)

**Books:**

- 1) Semiconductor Devices, Published by K.N.Toosi University of Technology, Tehran, Iran, 2004, 2015, ISBN:964-94808-9-7..
- 2) An Introduction to Semiconductor Microtechnology, Published by K.N.Toosi University of Technology, Tehran, Iran, ISBN:978-600-7867-11-2, 2002, 2015.
- 3) Study in the UK and Ireland, published by Gonbadhaye Firouzehei, Isfahan, Tehran, 2011, ISBN:978-600-90743-7-2
- 4) How to write a scientific article, published by K.N.Toosi university of Technology, 2014, ISBN:978-600-6383-60-6
- 5) Semiconductor Devices, 2<sup>nd</sup> Edition, Published by K.N.Toosi University of Technology, Tehran, Iran, 2014, ISBN:978-600-6383-58-3
- 6) Research methodology, published by K.N. Toosi university publication centre, 2014, ISBN: 978-600-6383-66-8