Curriculum Vitae

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Nasser Masoumi

Professor,

Affiliation:

Adjunct Professor, Faculty of Entrepreneurship, University of Tehran.

Professor, Department of Electronics, School of Electrical and Computer

Engineering, College of Engineering, University of Tehran (UoT).

Contact Information:

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Address 2: School of Electrical and Computer Engineering, College of Engineering, North Kargar Ave, Tehran, Iran, P.O. Box: 14395-515.

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Education:

- **Ph.D.:** 1997-2001. Electrical and Computer Engineering, University of Waterloo, Canada.
  Thesis Title: "Fast and Efficient Modeling Methods for Substrate Coupling in VLSI Circuits"

- **M.Sc.:** 1988-1990. Electrical and Computer Engineering, University of

Tehran, Iran.

Thesis Title: Design and Implementation of a Microprocessor-Based System for Environmental Simulation and Control.

- **B.Sc.:** 1984-1988. Electrical and Computer Engineering, University of Tehran.

  Thesis Title: Analysis, Design, and Implementation of a Doppler TR.

Research Interests:

Part A. Electronics

1. Smart environments: Internet of Things (IOT), Smart Home, Smart Sensors, Smart Grid, Home/Body Area Network (HAN/BAN) Electronic Systems.

2. Interconnects in VLSI/Nano Systems, Wires in PCBs: Modeling, Delay, Power, Crosstalk, Crosstalk Reduction, Signal/Power Integrity, Test and Testability, CNTs, and Wires in Nano/Bio Electronics.

3. EMI/EMC, IC Packages, PCB: EMI/EMC in Electronic Systems/PCBs and Optimization, Shielding, Packaging, Susceptibility, Novel Methods/PCBs for EMI Protection, Design and Test based-on EMC Test Standards.

4. RF and Analog: Components, Circuits, Systems, Phase Arrays, WSNs, Wireless/Wired Transceivers/Communications Systems, Consumer Electronics, Spiral Inductors

5. VLSI 2D and 3D: High Performance and Low Power IC/ASIC Design/Implementation, Modeling and Optimization for Delay/Energy/Performance, FPGAs, Power Management, CAD Tools for VLSI.

6. Nano Electronics, Nano ULSI Circuits, Nano Systems, Nano Array-Based Architectures (ABA), Bio-Nano Electronics and Bionics.

7. Substrate Coupling, Substrate Crosstalk Reduction Techniques, Power Supply Noise.

Part B. Entrepreneurship, Business and Enterprises

1. Entrepreneurship: Fundamentals, Individual and Organization Entrepreneurship, Innovation Strategies, Technology Development and Transfer, New Product Development, Spin-off Labs.

2. Business and Enterprise: Design and Engineering, Organization, Management, Commercialization, Market Development.

3. Science and Technology Parks: Incubators, Accelerator/Pre-Accelerator and Innovation Centers, Startups/Spinoff Companies.

4. Knowledge Management: Knowledge Management, Documentation Models/Standards, Competency Based Education and Research

Teaching:

Under Graduate Courses:

- Electronics I
- Electronics II
- Electronics III

Graduate Courses:

- Advanced VLSI
- Interconnects and Nano Wires in VLSI Circuits and Nano Systems
- RF IC Technology

Graduate Entrepreneurship Courses:

- New Product Development (Co-Teaching)
- Technological Entrepreneurship (Co-Teaching)

Graduate Students:

PhD Students:

	Name	Thesis Title	Date (Hijri)
1	Milad Mehri	The Susceptibility Analysis of Electronic System PCBs due to External Electromagnetic Waves	1395/10
2	Mohammad Reza Ashraf	Study and Efficient Design of Thermal Energy Harvesting Circuits for Implantable Pacemakers	1394/3
3	Somayyeh Mohammadi	Fabrication of Graphene Nano Robins from Carbon Nano Tubes and Their Characterization	1393/10
4	Morteza Gholipour	Modeling of Graphene Nano-Ribbon Field Effect Transistors for the Implementation of the Nano-Crossbar Arrays	1393/6
5	Mohammad Moghaddam Tabrizi	Design and Implementation of Highly Efficient and Linear CMOS Power Amplifiers for WiMAX Applications	1391/12
6	Ahmad Atghiaei	Design Based on Well-Behaved Interconnects and Density Functions in VDSM ICs and Nano-Systems	1390/11
۷	Mostafa Savadi Oskouei	Design of Continuous-Time Low-Pass Filters with Cutoff Frequency and Gain Tuning Capability for Multi-Standard Radios	1389/06

M.Sc. Students:

	Name	Thesis Title	Date (Hijri)
1	Kanan Sehat	Logarithmic amplifier design for spectrum analyzer application	95/10/27
2	Yas Hosseini Tehrani	Design and Implementation of Frequency Synthesizer with Linear Sweep Capability for Portable Spectrum Analyzer Application	95/5/23

3	Yasser Mohammadi	Investigation of Shielding and Enclosure Effects on Electronic Systems against External EM waves	1394/06
4	Mohsen Maleki	EMI Passive Filter Design for I/O Lines of Digital Circuits for CAN Protocol in Automotive	1394/06
5	Javid Ramezani	Study and Improvement of Reflected Power Cancellation in FMCW Radars	1394/06
6	Mohammadali Mokri	Design of a Voltage Controlled Oscillator in C-band for FMCW Applications	1394/06
7	Ali Sadr	An Investigation into PCB Power Integrity Degradation due to Digital Switching Noise	1394/03
8	Motahhareh Samadi	EMC Analysis and Modeling External Electromagnetic Fields on PCBs	1393/06
9	Samira Ebazadeh	Design and Implementation of frequency detector for wide-band receivers	1393/05
10	Amir Reza Baghban Behrouzian	Analytical Methods of Obtaining Exact Solutions for Transient Response of High-Speed Interconnects in Nano-Systems	1392/06
11	Marzieh Mohhammdi	Analysis, Modeling, and Test of Interconnects-Induced Faults in Nano-Systems	1392/06
12	Atefehsadat Seyedalhoseini	Extraction of Parameters of Crosstalk Noise Waveform and Calculation of Consumed Power for Interconnects in Nano Systems	1392/02
13	Javad Soltani Soufianei	Design and Optimization of Switch Boxes for 3D FPGA in Nano Technologies	1391/07
14	Ahmad Rahati Belabad	Design and Analysis of a High Power RF Power Amplifier in CMOS Process for WiMAX (802.16e) Applications	1391/06
15	Kambiz Nanbakhsh	Circuit Techniques for Designing Low-Power Analog-to-Digital Data Converters in Nano-Scale CMOS	1390/07
16	Hossein Sheikh Asadi	Evaluation and Modeling of Delay and Crosstalk Noise in Carbon Nanotubes as Interconnects	1390/06
17	Zohreh Farjad	Analysis and Optimization of Delay and Power in Global Interconnects for Nano-systems	1390/04
18	Anahita Bagheri	Analysis of the Impact of Various Routing Architectures in FPGAs on Interconnects Propagation Delay and Power Consumption	1390/04
19	Golnaz Fattah	Analysis and Development of Crosstalk Reduction Techniques in VLSI Circuits in Nano Scale Technologies	1390/04
20	Sajjad Shiei Ali Saleh	Introducing an Efficient Method to Improve Phase Noise of Ring Oscillators	1389/12
21	Iman Madadi	Design and Simulation of a Low Noise Analog Front End for Bio-Signals Processing Application in CMOS Technology	1388/12

22	Mohhamd Mehdi Tohidi	Power and Delay Optimization of Interconnects in FPGAs	1388/12
23	Mahmoud Zanghaneh	Analysis and Reduction Techniques for Delay and Crosstalk in Interconnects for VDSM Technologies	1388/12
24	Fahime Sadat Hoseini	Interconnects Modeling Techniques for VLSI Circuits in Sub-Micron Technologies for Accurate Estimation of Delay in Clock Distribution Networks	1387/07
25	Seyyed Mohammad Reza Dibaj	Analysis, Design, and Implementation of Arithmetic Analog Code	1387/07
26	Sorayya Aghnoot	Investigation and Modeling of Parasitic Effects and Substrate Noise in LNA and VCO at 5GHz	1387/05
27	Roghaye Saiedi	Design of a 5GHz Mixer and a Low Phase Noise VCO for IEEE802.16a Standard	1386/06
28	Seyyed Mahbod Tavalaei	A New Assessment of Science and Technology Parks with an Overview of the IT Master Plan in the Science and Technology Park of the University of Tehran	1385/12
29	Fatemeh Kalantari	Design of a 5GHz Low Noise Amplifier for IEEE 802.16a Front End	1385/06
30	Soodeh Aghli Moghaddam	Optimization Techniques of Interconnect Structures for Crosstalk Reduction in VLSI Circuits	1384/06
31	Mohsen Hatami Yazd	Design of a Smart Array Antenna for IEEE 802.11a Wireless LAN Applications	1383/12
32	Mohammad Moghaddam Tabrizi	Design of High Efficiency 5 GHz Power Amplifier for IEEE802.11a	1383/12

B.Sc. Students:

	Name	Thesis Title	Date (Hijri)
1	Masoud Ghorbandoust	Software Design and Implementation of BMS communication module compatible with KNX standard and the test of the KNX hardware	1392/04
2	Maryam Moaddeli	Design of a Transceiver in X-Band for FMCW Application	1392/06
3	Hassan Kiani Nezhad	Design and Implementation of Continues Wave Altimeter	1392/04
4	Behnaz Rezvani	The Study of Various Applications of Backward Wave Oscillators and Different Electron Beam Emission Methods	1392/06
5	Fatemeh Vafaei Zonouz	The Study of Electromagnetic Compatibility (EMC) Standards and its Equipment	1392/06

6	Seyyedeh Shirin Montazeri	Space Definition Algorithm for Metal Structures and its Application in Double-π Circuit Model of Spiral Inductors	1392/04
7	Mohhamad Hassan Kharrazi	The Study, Implementation, and Setting up of a BMS Network Based on the KNX Communication Protocol	1392/04
8	Zahra Shariati	Analysis of IBIS Models for I/O Terminals in Integrated Circuits	1392/03
9	Ali Kiaghaderi	The Study and Investigation of Optimum On-Board Routings and Its Design and Implementation Challenges	1391/06
10	Mehrad Salemi	The Analysis of On-Chip Transformers and Optimum Model-Based Synthesizes	1391/04
11	Arghavan Modiri	The Study and Investigation of Different Communication Systems used in Smart Grid Networks	1391/04
12	Maryam Dezfouli	Optimization of Spiral Inductances Using the Space Mapping Method	1390/06
13	Ehsan Roudghar	The Study and Analysis of Delay and Crosstalk Noise in Multilayer Multilevel On-Chip Interconnects	1390/06
14	Shiva Jamali Zavvareh	Analysis of On-Chip Spiral Inductors and Extraction of their Fundamental Parameters Using 3-D simulations of Field Solver Software Tool	1390/06
15	Mohammad Takbiri	The Design and Simulation of an Automatic Gain Controller Circuit for the Zigbee Standard	1390/06
16	Siamak Beigh-Mohhamadi	Derivation of Frequency Independent Circuit Models for On-Chip Spiral Inductances	1390/06
17	Mohammad Hossein Mazaheri	An Investigation into the Effects of Crosstalk on 3D VLSI Circuits	1389/06
18	Melika Ebrahimian Peyvand	The Study and Simulation of Various Topologies of VCOs for WiMAX Applications	1389/04
19	Elham Tabatabaei	Synthesizes of On-Chip Spiral Inductances	1389/06
20	Amin Salari	Design of an Optimal Envelope Amplifier for WiMAX Power Amplifiers	1389/06
21	Razieh Dehghani Poudeh	Implementation of Spiral Inductors Software for On-Chip Applications	1389/05
22	Mahdie Amouzghar	Analysis of Substrate Noise influence on High Frequency Circuits	1388/06
23	Souroush Moallemi	The Study of Design Methods of Oscillators for High Frequency Circuits with Emphasis on WIMAX Applications	1388/06
24	Mohhamad Khosh Akhlagh	A Study and Investigation of Wireless Sensor Networks and Their Applications	1388/05
25	Milad Mehri Soukhtehkouhi	Simulation and Analysis of Delay and Crosstalk Noise in Interconnects	1388/06

26	Hossein Nili Ahmad Abad	The Study and Modeling of Spiral Inductors	1388/11
27	Ebrahim Bahrololoum	A Study of Combination of Voltra Series and the Method of DPI-SFG for Analysis of Harmonic Distortion in High Frequency Circuits	1388/06
28	Mohhamad Mehdi Salehi	A Study and Investigation of Lab-on-Chip Integrated Systems	1388/04
29	Mohammad Sadegh Jalali	The Study and Design of an Oscillator for WiMAX Applications	1387/04
30	Zahra Hosseini Doust	The Study and Analysis of CNT Characteristics and their Modeling Methods	1387/11
31	Amon Jam Zad	Introducing and Study of Modern Nano Technologies and their Comparison with the Traditional CMOS Nano-Scale Technologies	1386/04
32	Abdol Reza Asadpur	An Investigation into the Influence of Interconnect Parasitic on the Propagation Delay	1386/06
33	Fatemeh Sadat Sa'addati	System Level Design and Simulation of a Radar Transceiver in 9GHz	1386/10
34	Shahaboldin Moazeni	The Design of a Wide-Band Low-Noise Amplifier in 90nm Technology	1386/04
35	Atefeh Gholi-Pour Malek-Shah	A Study and Modeling of Spiral Inductors at High Frequencies	1386/06
36	Amir Ra'na Hoseini	The Software Development and Implementation of a Custom Design Thermostat for 3-Turn Fan-Coils	1386/04
37	Reza Vahid-Nia	The Study of Standards and development of Test Methods for Direct Current Motors	1385/03
38	Alireza Zargar Ershadi	Design and Fabrication of Thermal Controller Using AVR	1385/12
39	Fatemeh Taher Sima	An Investigation into the OPC Standard and Development of a Monitoring Software Tool	1384/08
40	Rabe'e Majidi	Design and Implementation of Monitoring Systems for Research Greenhouses	1384/11
41	Nafise Gholam Pour	Design and Implementation of a Software Tool for Analysis And Design of Spiral Inductors	1384/11
42	Mehdi Noroozi	Automation of Wireless Data Collection Process for 10 Centers	1383/11
43	Roghaye Saeidi	The Study of Various Identification Methods Based on Biological Characteristics With Emphasis on The IRIS Characteristics	1383/07
44	Hamed Hagh Jariani	Fabrication and Test of a Wireless Transceiver System for Recording EEG Signals	1383/03

45	Soheil Servati	Design of a Wireless Transceiver System for Recording EEG Signals	1383/03
46	Hadi Ghazzaghi	Design and Fabrication of a Digital Thermostat for Water-Based Air Conditioner	1383/03
47	Mohammad Javad Sofal-manesh	Design and Fabrication of PC Controllable Power Supply and The Digital Interface (Keyboard and Display)	1383/11
48	Soroush Afkhami	Design and Implementation of an intelligent Control System for Research Greenhouses	1383/11
49	Sanaz Zarei	The Study of Application of Short Range Wireless Communications for EMG Signals	1383/03
50	Bahman Tavassoli	The Study and Analysis of Automatic Meter Reading System for Power (AMR)	1382/03
51	Maryam Dabardani	An Investigation Into The Design of Transceiver ICs and The Spread Spectrum Techniques for Power Line Communication Systems (PLC)	1382/03
52	Mahboobe Khakbazan-Far	The Study of Design Methods of Modems for Power Line Communications and The Application of OFDM Techniques in PLC	1382/03
53	Elahe Rahmani	The Analysis and Design of Transceiver Structures for Power Line Communications	1382/03

Work History: Academic and Professional Positions and Experiences:

2015 (1394)-Present: Adjunct Professor, Faculty of Entrepreneurship, University of Tehran

1991 (1370)-Present: Professor, Faculty Member, Department of Electronics, School of ECE, College of Engineering, University of Tehran

2012 (1391)-Present: The Head of "High Frequency Circuits and Systems and Test Lab", School of ECE, College of Eng., University of Tehran.

2002 (1381)-Present: The Head of "Advanced VLSI lab", School of ECE, College of Eng., University of Tehran.

	Position	Duration	
1	The Head of "High Frequency Circuits and Systems and Test Lab", School of ECE, College of Eng., University of Tehran.	2012/6 1391/03/27	Now
2	The Head of "VLSI lab", School of ECE, College of Eng., University of Tehran.	2002/10 1381/07/21	Now Now
3	Consultant to Vice-President for Research and Technology, University of Tehran	2016/1 1394/10/7	Now
4	Member of Policy making Council for Science and Technology, University of Tehran	2015/12 1394/9/24	2018/12 1397/9/24
5	Senior Expert in Admission and Assessment Committee, Science and Technology of University of Tehran	2015/12 1394/9/1	2017/12 1396/9/1
6	Head and Member of Policy Making Council for Research and Technology of Universities and Research and Technology Centers (Region One)	2013/8 1394/06/15	
7	The Head of Strategic Committee for Research and Technology Ethics of University of Tehran	2013/8 1394/06/04	
8	Member of the Research workgroup for Research and Technology Committee of Higher Education deploy Council	2015/6 1394/03/30	2017/6 1396/03/30
9	Member of Committee for implementation of the MOU between Mazandaran Province and University of Tehran	2015/6 1394/03/25	2020/6 1399/03/25
10	The Head of Committee No.1 for Laboratory Network of MSRT in Tehran Province	2015/7 1394/03/02	
11	The Head of University of Tehran Exhibition for Research and Technology Findings and Achievements	2015/3 1393/12/12	
12	Member of the Steering Committee for Natural Gas Institute of University of Tehran	2015/3 1393/12/11	2017/3 1395/12/10
13	Member of the Committee for Natural Gas Institute of University of Tehran	2015/3 1393/12/11	2017/3 1395/12/10
14	Member of the Committee for Celebration of the 80th year of Foundation of University of Tehran	2014/8 1393/05/18	2015/6 1394/03/01
15	Vice-president for Research and Technology, University of Tehran	2014/8 1393/05/04	2015/11 1394/08/05
16	The dean of Research Center at the University of Tehran	2014/8 1393/05/04	2015/11 1394/08/05
17	"Member of Recruitment and Hiring Committee" of School of Electrical and Computer Engineering (ECE), College of Eng., University of Tehran.	2013/11 1392/08/06	2015/11 1394/08/06
18	"Associate Chair for Research and Graduate Studies", School of Electrical and Computer Engineering, College of Eng., University of Tehran.	2013/10 1392/07/27	2014/11 1393/08/07
19	"Chairman of the Microelectronics Strategic Committee", University of Tehran.	2013/10 1392/07/22	2015/10 1394/07/22

20	"College of Engineering Representative" on Issues Pertinent to Research Cooperation with Iranian Oil Terminals Company, College of Eng., University of Tehran.	2012/3 1390/12/27	2014/3 1392/12/27
21	Plenipotentiary Representative of University of Tehran Research Vice-Chancellor in Microelectronics Technology Development Staff with the Purpose of Communication with the Vice President for Science and Technology	2012/2 1390/11/08	2015/2 1393/11/08
22	The Head of Department of Digital Systems, School of ECE, College of Eng., University of Tehran.	2011/12 1390/09/12	2013/12 1392/09/12
23	The Head of Department of Electronics, School of ECE, College of Eng., University of Tehran.	2009/9 1388/06/03	2013/9 1392/06/03
24	Committee Member of Policy Making, Development Plans, and Space Allocation for the School of Electrical and Computer Engineering, School of ECE, College of Eng., University of Tehran.	2010/3 1389/01/22	2012/3 1391/01/22
25	Committee Member of Policy Making for Development of the School of Electrical and Computer Engineering, College of Eng., University of Tehran.	2009/9 1388/07/25	2011/9 1390/07/25
26	Member of Microelectronics Committee of the Research Vice Chancellor, University of Tehran.	2009/4 1388/02/23	2012/1 1390/11/08
27	Member of Book Review/Referee of Jihad Daneshgahi Publishing Organization, Jihad Daneshgahi, University of Tehran	2008/5 1387/03/28	2010/5 1389/03/28
28	Member of Professional and Scientific Committee on Entrepreneurship, Center of Entrepreneurship, Science and Technology Park, University of Tehran.	2007/4 1386/02/08	2009/4 1388/02/08
29	The Dean of the "Center for Studies, Development of Ideas and Future Researching", Science and Technology Park , University of Tehran	2005/5 1384/03/30	2006/6 1385/04/17
30	University of Tehran Vice-Chancellor at the Entrepreneurship Committee and the Member of the Entrepreneurship Committee, University of Tehran	2005/5 1384/03/07	2006/6 1385/04/17
31	Chairman and Member of the Central Council of Incubator Start-up Companies, The Incubator Center, Science and Technology Park, University of Tehran.	2005/5 1384/03/07	2006/6 1385/04/17
32	Authorized for Discretion, Commitment, and Financial Transactions, Science and Technology Park, University of Tehran.	2005/4 1384/02/28	2006/6 1385/04/17
33	The President of University of Tehran Science and Technology Park, University of Tehran.	2005/4 1384/02/20	2006/6 1385/04/17
34	Advisor Professor for the Students of Electrical and Computer Engineering, College of Eng., University of Tehran.	2005/2 1383/12/22	2010/8 1389/06/31

35	Member of The Student Disciplinary Appeals Committee, University of Tehran.	2003/9 1382/07/09	2006/6 1385/04/17
36	Member of Supervisory Board of University of Tehran	2003/5 1382/03/07	2006/11 1385/09/30
37	Authorized for Discretion, Commitment, and Financial Transactions, Electrotechnique Institute, University of Tehran.	1993/11 1372/09/22	1996/12 1375/09/30
38	Executive of Building Development Projects at the Electrotechnique Institute, University of Tehran.	1996/7 1375/04/14	1996/12 1375/09/30
39	Supervisor of Electronics I Laboratory, School of ECE, College of Eng., University of Tehran.	1996/1 1374/10/27	1996/12 1375/09/30
40	Deputy of Administration and Financial for Department of Electrical and Computer Engineering, UoT	1993/11 1372/08/01	1996/12 1375/09/30
41	"The Head of Finance Committee, and the Member of Organizing Committee of the Iranian Conference on Electrical Engineering", School of ECE, College of Eng., University of Tehran.	1995/5 1374/02/16	1996/12 1375/09/30
42	The Head of Finance and Treasury for the Construction of Mosque in Campus 2, College of Eng., University of Tehran.	1994/4 1373/01/14	1996/12 1375/09/30
43	The Head of the Committee of Graduation Celebration (Convocation), College of Eng., University of Tehran.	1993/4 1372/01/31	1994/3 1372/12/28
44	The Head of Department of Electrical Engineering at The Academic Center for Education, Culture, and Research (ACECR), University of Tehran.	1988 1367	1994 1373

Work Experiences and Positions in R&D Companies

1391-Present: Chairman of the Board and Senior Consultant in NDP, Organization, and Market Development at SEDNA Engineering Company.

1386-1388: Senior Consultant at BOSHRA Engineering Company

1381-1390: Chairman of the Board and Senior Consultant at Farayand Tadbir San'at Engineering Company.

1367-1373: The Academic Center for Education, Culture, and Research (ACECR, University of Tehran): Head of Department of Electrical Engineering, Senior Project Supervisor, and Circuit Designer.

Foundation of Research Laboratory and Institute

- **2013 (1392):** Co-Founder of "*Nano-Bio-Electronic Research Center*", School of ECE, College of Eng., University of Tehran.
- **2011 (1390):** Founder of "High Frequency Circuits and Systems and Test Lab", School of ECE, College of Eng., University of Tehran.
- **2003 (1382):** Founder of "Advanced VLSI lab", School of ECE, College of Eng., University of Tehran.
- **2005 (1384):** Founder of Science and Technology Park, University of Tehran.

Co-Foundation of Knowledge-Based Companies :

- Rahpooyan Safir Mehr Company
  - Field of activity: Smart Systems/Platforms for Management, Planning, and Scheduling in Education, Studies, and General Purpose Daily Tasks
- SEDNA Engineering Company
  - Field of activity: Design and manufacturing of smart energy management systems and networks.
- BOSHRA Engineering Company
  - Field of activity: Design and manufacturing of high frequency circuits and systems.
- Farayand Tadbir San'at Engineering Company
  - Field of activity: design and manufacturing of control systems.

Industry Projects (Project Manager):

- 2017 (1396) Design and Fabrication of L and S Band Power Amplifiers.
- 2017 (1396) Design and Fabrication of L and S Noise Generator.
- 2016 (1395) Design and Fabrication of Instantaneous Frequency Measurement System (IFM) 2-18GHz.
- 2016 (1395) Design and Fabrication of a 2-to-1 Optical Fiber Convertor for Bidirectional Optical Communications.

- 2015 (1394) Design and Fabrication of Anechoic Test Chambers.
- 2014 (1393) Design and Fabrication of Magnetic Sensor Network System.
- 2014 (1393) Feasibility Study of Design and Fabrication of Secure Tablet.
- 2015 (1394) Design and Fabrication of Smart Thermostats.
- 2013 (1392) Study, Analysis, Simulation, Test, and Measurement of Automotive Electronic System Susceptibility due to Electromagnetic Interferences, and Protection and Immunization Methods.
- 2013 (1392) Design and Fabrication of Doppler Transceiver.
- 2013 (1392) Design, Fabrication of an Altimeter Tester, 1392 ().
- 2012 (1391) The Study of Standards and Test Methods for MT Electronic Devices, and Feasibility Study for a Test Lab Center.
- 2009 (1388) Design and Implementation of Interconnect-Centric Predictive and Intelligent Software Tool for Extraction of Performance Parameters of VLSI Circuits.
- 2007 (1385) Analysis and Modeling of Crosstalk Noise in Interconnects, and the Study of Application of CNTs as Interconnects.
- 2005 (1384) Design, Implementation, and Fabrication of EEG Transceivers.

Patenting:

	Invention Title	Duration	
1	Smart Light Switch with Programing and Energy Monitoring Capability	28/9/2015	28/9/2035
2	Timer-Thermostat for Evaporative Cooler with Capability of Residual Current Circuit Breaker (RCB, to Prevent Electric Shock) and Two-Pole Breaker	27/6/2015	27/6/2035
3	Energy Monitoring Thermostat with Weekly Programing Capability and Welfare Scenarios for Energy Saving	21/4/2014	21/4/2034
4	Touchable and Graphical User Interface for Control and Monitoring of HVAC and Lighting Systems	11/3/2014	10/3/2034

	Industrial Design Title	Duration	
1	Thermostat and Lighting Controller Packaging	16/3/2014	16/3/2019
2	Built-in Mold for Thermostat	5/2/2014	5/2/2019
3	Rectangular Case in the form of Two Parts Mold for Thermostat and Lighting Controller	4/2/2014	4/2/2019
4	Built-in Mold for Thermostat and Smart Lighting	3/2/2014	3/2/2019

Referee for Assessment and Admission of Industrial Projects and Startups

- Referee of University of Tehran Center of Intellectual Property
- Referee for Assessment of Industrial Projects
- Referee for Admission and Assessment of Startup Companies
- Referee for Research and Technology Foundation (INSF)
- Member of the Referee Committee for inventions, "National Foundation for the Talented" (1389-1391), 2010-2011.

Referee for Scientific Journals and Conferences:

- Microelectronics Journal
- Seasonal Journal of Electronic Industries
- Iranian Conference on Electrical Engineering (ICEE), (Annual Conference)
- An Integrated Model for Management of University Science and Technology Parks(Book)
- International Symposium on Telecommunications
- International Journal of Electronics.
- Iranian Journal of Science and Technology, Transactions of Electrical Engineering (IJSTE), 2013.
- The International Conference of "KGCM", 2010.

- Member of the Scientific Committee of "The Second Conference of Intelligent Electrical Networks", 2011.
- Member of the Scientific Committee and Chair Session of "The 16th Iranian Conference on Electrical Engineering (ICEE2008)", 2008.

Member of Scientific Councils:

- Member of founders' board for "Iranian Engineering Electromagnetic Scientific Council", 2013 (1392).
- Member of "Iranian Microelectronics Association", 2013 (1392).
- Member of "Iranian Society of Smart Grid", 2012 (1391).
- Member of IEEE (Since 1987)

Awards and Honors:

- "Distinguished Graduate PhD. Student", Awarded by the Ministry of Science, Research, and Technology, 2002 (1381).
- "Nomination of the Ph.D. Thesis for *Alumni Gold Medal*", University of Waterloo, 2001 (1380).
- "Nomination of the Ph.D. Thesis for *Governor* General's Academic Gold Medal", University of Waterloo, 2001 (1380).
- "Awarded ECE Faculty Prize (7 times)", University of Waterloo, 1375-1377 (1996-1998).
- "Ranked as a Distinguished Student in the Nation-Wide University Entrance Exam", 1983 (1362).
- "Ranked First in the Final Exams of the Last Year of High School", Khoy, West Azarbaijan Province, 1981 (1360).

Cultural Activities:

	Title	Date
1	Cooperation with the Cultural Activities Office, College of Engineering, University of Tehran	1390- Present
2	Member of Board of Trustees in "Yavaran Eitam" (Orphan Aids) Charity Institute	1384-Present
3	Member of Parents and Teachers' Council at Roozbeh Cultural and Educational Institute, Tehran.	1383- Present
4	Co-founder, Member of Board of Trustees, and Member of Board of Directors at Bagherol-Uloum Charity Organization, University of Tehran.	1383- Present
5	Cooperation with the Cultural Activities Main Office, University of Tehran	1380-1385
6	Co-founder, Member of Board of Trustees, and Head of Board of Directors at Noor Charity Organization, School of ECE, University of Tehran.	1372-Now

Abilities and Skills for Management and Entrepreneurial:

- Entrepreneurship Development
- New Product Commercialization and Production
- Foundation, Organization, and Mentoring of Startup Companies
- Design, Establishment, and Organization of Science and Technology Park
- Management and Consulting of Industrial Projects

Languages:

- Persian: Native Speaker
- English: Very Good
- Turkish: Native Speaker

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