

Dr. Hamidreza Shirzadfar

Assistant Professor

Head of Electrical and Biomedical Engineering Group

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h-index in Google Scholar: 12 (<https://scholar.google.com>)

RG Score: 24 (<https://www.researchgate.net>)

Last Update: November 1, 2022

EDUCATIONS

- **Doctoral Degree (PhD), Biomedical Engineering (Bioelectronics and Biosensors), Highest Honor 2011-2014**

Institut Jean Lamour, Université de Lorraine, CNRS-UMR 7198, Nancy, France

(Corporation with Division of Biological Measurement and Applications, Institute of Nature and Environmental Technology, Kanazawa University, Kanazawa, Japan)

✚ *Dissertation: Design and evaluation of a GMR-biosensor for magnetic characterization of biological medium*

- **Master of Science, Electronic Instruments and Devices, GPA 3.95/4.00 2009-2010**

✚ *Thesis: The use of film materials as the sensitive elements of sensors nonelectric quantities*

- **Bachelor of Science, Electronic Systems, GPA 3.77/4.00 2005-2009**

✚ *Thesis: Signal-phase controlled rectifier*

ACADEMIC HONORS AND AWARDS

- Graduated with Prestigious Honors Diploma (Bachelor) among Ukrainians and International Students, 2009.
- Graduated with Prestigious Honors Diploma (Master) among Ukrainians and International Students, 2010.
- First Place Student Presentation Award Recipient in the 6th International Youth Science and Technology Conference, Sevastopol, Ukraine, 2010.
- PhD with Highest Honor from the Members of Jury, Nancy, June 2014.
- Receive an Encouragement Grade from 2 to 3 in the Assistant Professor Level at Sheikhbahae University, 2017.
- Selected as Top Researcher of Engineering Faculty at Sheikhbahae University, 2018.
- Receive an Encouragement Grade from 5 to 6 in the Assistant Professor Level at Sheikhbahae University, 2020.
- Selected as First Top Researcher between all Faculty Members of Ashrafi Esfahani University, 2022.

WORK EXPERIENCE

- Researcher at Kanazawa University, Research on Giant Magnetoresistance Sensor for Measurement and Determination of Magnetic Fluids (Ferrofluid) and Investigation of the Magnetic Properties of Ferritin, Kanazawa, Japan.
- Researcher at Université de Lorraine, Research on Giant Magnetoresistance Sensor using in Biomedical Application, Nov 2011-Apr 2012, Nancy, France.
- Researcher at Électricité de France (EDF) & Université de Lorraine, Research on Induced Fields Simulation of Entire and Partial Human Body Models for Experimental Validations, Nov 2012-Apr 2013, Nancy, France.
- International Commercial Director, Mahan Iran Holding, Jul 2014-Feb 2016, Tehran, Iran.
- Managing Director, Mahan Rakhshan Pasargad, Sep 2015-March 2016, Isfahan, Iran.
- Research on Detection of the Pathogenic Bacteria based on Smart Bionanoparticles and Biomagnetic Sensor, University of Isfahan, Aug 2014-Jan 2016, Isfahan, Iran.
- Assistant Professor, Sepahan Institute of Higher Education, Feb 2016-Apr 2017, Isfahan, Iran.
- Head of Biomedical Engineering Group, Sepahan Institute of Higher Education, Apr 2016-Apr 2017, Isfahan, Iran.
- Dean of the Faculty of Electrical and Biomedical Engineering, Sepahan Institute of Higher Education, Aug 2016-Apr 2017, Isfahan, Iran.
- Assistant Professor, Sheikhbahae University (Terminated with Grade 6 in the Assistant Professor Level), Jan 2017-August 2020, Isfahan, Iran.
- Assistant Professor, Ashrafi Esfahani University, August 2020-Present, Isfahan, Iran.
- Inter-University Cooperation & Industry Committee Member, Ashrafi Esfahani University, December 2020-Present, Isfahan, Iran.
- Head of Research and Development, Megashid Company, Feb 2021-Present, Isfahan, Iran.
- Head of Electrical and Biomedical Engineering Group, Ashrafi Esfahani University, June 2021-Present, Isfahan, Iran.

TEACHING EXPERIENCES

Undergraduate:

- Rehabilitation, *Ashrafi Esfahani University, Sheikhbahae University and Sepahan Institute of Higher Education.*
- Biosensors & Biodetections, *Ashrafi Esfahani University, Sheikhbahae University and Sepahan Institute of Higher Education.*
- Principles of Health Care Management, *Ashrafi Esfahani University, Sheikhbahae University and Sepahan Institute of Higher Education.*
- Report and Project Writing, *Sheikhbahae University and Sepahan Institute of Higher Education.*
- English for Biomedical Engineering Students, *Sheikhbahae University and Sepahan Institute of Higher Education.*
- English for Electrical and Electronic Students, *Ashrafi Esfahani University and Sheikhbahae University.*
- Medical Equipments, *Sheikhbahae University.*
- Medical Physics, *Ashrafi Esfahani University and Sepahan Institute of Higher Education.*
- Telemedicine Technology, *Sheikhbahae University and Sepahan Institute of Higher Education.*
- Electrical Circuit Lab I, *Sheikhbahae University.*

- Electrical Safety in Hospitals, *Ashrafi Esfahani University and Sheikhbahae University*.
- Physiology, *Ashrafi Esfahani University and Sheikhbahae University*.
- Physiology Lab, *Ashrafi Esfahani University and Sheikhbahae University*.
- Electrotherapy, *Ashrafi Esfahani University and Sheikhbahae University*.
- Human Anatomy, *Ashrafi Esfahani University and Sheikhbahae University*.
- Information Technologies in Medicine and Telehealth, *Ashrafi Esfahani University and Sheikhbahae University*.
- Biomaterials, *Sheikhbahae University*.
- Principles of Radiology and Radiation Systems, *Sheikhbahae University*.
- Bioelectric Phenomena, *Ashrafi Esfahani University and Sheikhbahae University*.
- Research Methods in Biomedical Engineering, *Sheikhbahae University*.
- Information Technology, *Sheikhbahae University*.

Graduate:

- Advanced Biosensors & Biodetections, *Sheikhbahae University & Sepahan Institute of Higher Education*.
- Bio-Instruments, *Sheikhbahae University*.
- Seminar, *Sheikhbahae University & Sepahan Institute of Higher Education*.
- Preparation and Editing of Scientific Manuscripts, *Sepahan Institute of Higher Education*.
- The Neuromuscular Control Systems, *Sheikhbahae University*.
- Information Technologies in Medicine and Telehealth, *Sheikhbahae University*.
- Medical Robotics, *Sheikhbahae University*.
- Advances in Telemedicine Technology, *Sheikhbahae University*.

SUPERVISION & MENTORSHIP

- Second Year Master's Student Mentor for Thesis Entitled as: Generation of Uniform Magnetic Fields Using an Ellipsoidal Coil to Characterize a GMR Sensor, *Université de Lorraine, 2013-2014*.
- Second Year Master's Student Mentor for Thesis Entitled as: GMR Sensors and Their Applications, *Université de Lorraine, 2013-2014*.
- Bachelor's Project Supervisor for Thesis Entitled as: Diagnosis of Brain Tumor Using MATLAB Software, *Sepahan Institute of Higher Education, 2014-2015*.
- Bachelor's Project Supervisor for Thesis Entitled as: Skin Cancer Detection Using Non-invasive Techniques, *2014-2015*.
- Bachelor's Project Supervisor for Thesis Entitled as: Bone Densitometry for Osteoporosis Diagnosis, *Sepahan Institute of Higher Education, 2015-2016*.
- Bachelor's Project Supervisor for Thesis Entitled as: Study of Multiple Sclerosis (MS) Disease and its Treatment, *Sepahan Institute of Higher Education, 2015-2016*.
- Bachelor's Project Supervisor for Thesis Entitled as: Computer Simulation and Filtration of the Heart Electrocardiogram Signal Using MATLAB Software, *Sepahan Institute of Higher Education, 2015-2016*.

- Bachelor's Project Supervisor for Thesis Entitled as: Designing and Manufacturing a Portable Dental Cavitron, Sepahan Institute of Higher Education, 2015-2016.
- Bachelor's Project Supervisor for Thesis Entitled as: Synthesis of Iron Oxide Chitosan Nanoparticles for Targeted Transport of Methotrexate, Sheikhabaee University, 2015-2016.
- Bachelor's Project Supervisor for Thesis Entitled as: Telemedicine Technology, Sheikhabaee University, 2015-2016.
- Bachelor's Project Supervisor for Thesis Entitled as: Brain Tumor Detection and Segmentation from MRI Images Using MATLAB, Sheikhabaee University, 2016-2017.
- Bachelor's Project Supervisor for Thesis Entitled as: Design and Modeling of an Intelligent System for Bladder Problems in Patients with Fibromyalgia, Sheikhabaee University, 2016-2017.
- Bachelor's Project Supervisor for Thesis Entitled as: Study the Dynamic Behavior of Stents for Patients with Coronary Disease, Sheikhabaee University, 2017-2018.
- Bachelor's Project Supervisor for Thesis Entitled as: Modeling and Simulation of Stromal Tumor and its Ablation Method in the Small Intestine, Sheikhabaee University, 2017-2018.
- Bachelor's Project Supervisor for Thesis Entitled as: A Simulation Model to Study the Effect of Smart Drugs on the Blood Transfusion Vessels, Sheikhabaee University, 2017-2018.
- Bachelor's Project Supervisor for Thesis Entitled as: Manufacture of Intelligent and National Bilirubin Blood Test Device for Continuous Measurement of Jaundice, Sheikhabaee University, 2018-2019.
- Bachelor's Project Supervisor for Thesis Entitled as: Smart Order Routing Design and Build a Wheelchair for the Disabled in the Area of Intervertebral Cervical Spinal Cord (C1-C7) Injury, Sheikhabaee University, 2018-2019.
- Bachelor's Project Supervisor for Thesis Entitled as: Design and Manufacture of Wearable Phototherapy Device for the Treatment of Neonatal Jaundice, Sheikhabaee University, 2018-2019.
- Bachelor's Project Supervisor for Thesis Entitled as: Simulation and Fabrication of a Trapezoidal Coil to Create a Uniform Magnetic Field for Study in Intelligent Drug Delivery Systems, Sheikhabaee University, 2018-2019.
- Bachelor's Project Supervisor for Thesis Entitled as: Design and Manufacture a Continuous Monitoring System of Intelligent Vital Signs for two-way Monitoring of Patient Conditions between the Ambulance and the Hospitals with Minimal Delay, Ashrafi Esfahani University, 2021-2022.
- Bachelor's Project Supervisor for Thesis Entitled as: Classification of 52 Hand Movements of Disabled People based on Extracting Frequency and Nonlinear Features from Surface Electromyogram Signal, Ashrafi Esfahani University, 2021-2022.
- Bachelor's Project Supervisor for Thesis Entitled as: Flexible Sensors for Monitoring Vital Signs, Ashrafi Esfahani University, 2021-2022.
- Bachelor's Project Supervisor for Thesis Entitled as: Neuroplasticity Effect of Neural Plasticity for the Treatment of Brain Diseases, Ashrafi Esfahani University, 2021-2022.
- Instructor of Medical Equipment Workshop, "National Conference on Modern Technology in Computer and Biomedical Engineering", Feb 2019, Sheikhabaee University, Isfahan, Iran.
- Master's Student Supervisor for Thesis Entitled as: Dynamic Connectivity Network Extraction in Electrode Number Optimization for Hand Movement Classification based on EMG Wavelet Decomposition and Dempster-Shafer Theory in Classifiers Fusion, Sheikhabaee University, 2019-2020.
- Master's Student Supervisor for Thesis Entitled as: Design a new Multi-functional Device to Assist and Improve the Discernment of Low Vision Patients and Blind, Sheikhabaee University, 2018- 2021.
- Master's Student Supervisor for Thesis Entitled as: Study of Intravascular Plaque removal using magnetic Field and Magnetic Nanoparticles, Sheikhabaee University, 2019- 2021.

- Master's Student Supervisor for Thesis Entitled as: Design, Simulation and Construction of a Device to Estimate the Amount of Respiration with a Strain Gauge Sensor and Induction Method, Sheikhabaee University, 2019- 2022.
- Master's Student Supervisor for Thesis Entitled as: Detection of Epileptic Seizures using the Multiple-Local Mean-based Nearest Neighborhood Classification Method Relying on Mayfly Optimization and K-means, Ashrafi Esfahani University, 2021- 2022.

QUALIFICATION & SKILLS

- Extensive Experience in Analyzing Diffusion Processes of Layers Film Systems, Strain Deformation Properties of Film Materials and Elastic-Plastic Deformation of Magnetic Materials, Structural and Phase Composition, Magnetic Properties of Films Systems, Susceptibility of Bio-Magnetic Materials Under Weak Magnetic Field, Design and Characterization of Giant Magneto-Resistance Sensors, and Detection of Bacteria by Magnetic Markers. Analyzed the Effects of External Electrical and Magnetic Fields on Pacemakers.
- Professional in analog circuit, digital logic simulation and PCB design software such as PSPICE and PROTEUS.
- Professional in Multi-Physics Software COMSOL and CST Studio Suite.
- Familiar with Computer Aided Design (CAD) Software AutoCad and Solidworks.
- Familiar with Control System Software LabVIEW.
- Professional in Data Analysis and Graphing Software Sigmaplot and Origin.
- Professional in Mathematical and Control Software Mathcad and Matlab.
- Professional in Microsoft Office Software Word, Excel, PowerPoint, and Visio.

CERTIFICATE

- Engineering Certificate, Interregional Academy of Personnel Management, Ukraine, 2004-2005.
- European Doctoriales Participant, University of the Greater Region (UGR) Project, France, 2011.
- Energie dans les Microsystemes Autonomes et Validée, France, 2011.
- Journees Maghreb-Europe Materiaux et Applications aux Dispositifs et Capteurs, Tunisia, 2012.

LANGUAGES

- Persian: Mother tongue
- French: Fluent
- Russian: Fluent
- Ukrainian: Proficient
- English: Proficient

INTERNSHIPS

- Biomedical Research on Giant Magneto-resistance Sensor for Measurement and Determination the Magnetic Properties of Magnetic Fluids (Ferro-fluid) and also Estimation the Iron Percentage of

Ferritin, Division of Biological Measurement and Applications, Institute of Nature and Environmental Technology, Kanazawa University, Kanazawa, Japan.

- European Doctoriales Participant, University of the Greater Region (UGR) Project, Oct 2011, Verdon, France.
- Energie dans les Microsystèmes Autonomes et Validée, Ecole Supérieure des Technologies Industrielles Avancées (ESTIA), Nov 2011, Bidart, France
- CST System Integrity Workshop, March 2012, Mulhouse, France.
- Les rencontres Techniques de NI Mesures et Acquisition de Données: de la Théorie à la Mise en œuvre, March 2012, Nancy, France.
- Labview Experimental Workshop, National Instruments, April 2012, Nancy, France.
- 8èmes Journées Maghreb-Europe Matériaux et Applications aux Dispositifs et Capteurs (MADICA 2012), Nov 2012, Sousse, Tunisia.
- Journée des Doctorants Lorrains en Sciences Exactes et Naturelles, Université de Lorraine, June 2013, Pont-à-Mousson, France.

ACTIVITES

- Conference Organizer & Members of the Scientific Committee, “The 1th Sepahan Meeting on Biomedical and Electrical Engineering (SMBE 2016)”, Nov 2016, Sepahan Institute of Higher Education, Isfahan, Iran.
- Members of the Scientific Committee, “National Conference on Modern Technology in Computer and Biomedical Engineering”, Feb 2019, Sheikhabaee University, Isfahan, Iran.
- Conference Organizer, “The 4th Conference on Protein and Peptide Science”, May 2019, University of Isfahan, Isfahan, Iran.
- Conference Scientific Secretary, “The First National Conference of New Achievements in Electrical Engineering, Computer and Biomedical Engineering”, Feb 2023, Ashrafi Esfahani University, Isfahan, Iran.

COLLABORATION

- Scientific Scholar Representative between Department of Applied Physics at Sumy State University (Ukraine) and Institut Jean Lamour at Université de Lorraine (France) for a Joint Project and Science Development, Europe, 2011-2015.
- Collaborative Research on Preparation, Characterization and Evaluation of Smart Drug Delivery Project, Department of Biotechnology, Faculty of Advanced Sciences and Technologies, University of Isfahan, 2015-2020.
- Collaboration for Project Entitled as: Preparation, Characterization and Fabrication of Microfluidic Biosensor to Detect the Pathogenic Bacteria and for Bioseparation, Institut Jean Lamour, Université de Lorraine, 2017-2019.

GRANTS

- Ashrafi Esfahani University Research Internal Grant, Grant Number: 1401/304, Amount: \$17,000 “Design and Manufacture a Continuous Smart Vital Signs System for two-way Monitoring of the Patient's Condition between the Ambulance and the Medical centers with Minimal Delay”, 2022-Present.

EDITORIAL BOARD MEMBER

- Journal of Bioanalysis & Biomedicine, ISSN: 1948-593X. <https://www.hilarispublisher.com/editor/hamidreza-shirzadfar-3173#>
- Journal of Nano- and Electronic Physics, ISSN: 2077-6772 (Print); 2306-4277 (Online).
- Journal of Pharmacovigilance and Pharmacotherapeutics, Gavin Publishers, ISSN: 2688-6464. https://gavinpublishers.com/journals/board_members/journal-of-pharmacovigilance-and-pharmacotherapeutics.html
- Journal of Biomedical Engineering: Current Research. <https://www.pulsus.com/biomedical-engineering/editorial-board.html>
- Journal of Biosensors and Bioelectronics Open Access, ISSN: 2577-2260. https://www.gavinpublishers.com/journals/journals_details/Journal-of-Biodevices
- Syntax Journal of Biotechnology and Bioengineering. <https://syntaxpublishers.org/journal/syntax-journal-of-biotechnology-and-bioengineering#editorial-board-members>
- Journal of Ageing and Restorative Medicine (JARM), ISSN: 2473-1943. <http://www.scitcentral.com/editorboardDetails.php?id=1517&journal=48>
- JResLit Journal of Science and Technology. <https://jreslitpublications.com/science-and-technology/editorial-board.php>
- International Journal of Biosensors & Bioelectronics (IJBSBE), ISSN: 2573-2838. <https://medcraveonline.com/IJBSBE/editorial-board>
- Austin Journal of Clinical & Diagnostic Research, <https://austinpublishinggroup.com/clinical-diagnostic-research/editorialBoard.php>

BOOK

- “Telemedicine Technologies: Information Technologies in Medicine and Telehealth” (Translated into Persian by **Shirzadfar, H.**, Taheri-Kafrani, A., Lotfi, F.,) ISBN: 978-600-417-031-4, 2017.
- “Introduction to Biomedical Engineering (Biomaterials)” (Translated into Persian by **Shirzadfar, H.**, Sehati, M., Khanahmadi, M.,) ISBN: 978-600-547-312-4, 2018.
- “Diagnostic Radiology Physics” (Translated into Persian by **Shirzadfar, H.**,) ISBN: 978-600-547-313-1, 2018.
- “Introduction to Biomedical Engineering (Bio Instruments)” (Translated into Persian by **Shirzadfar, H.**, Sehati, M., Khanahmadi, M.,) ISBN: 978-600-547-315-5, 2018.
- “Enzyme Kinetics: A Modern Approach” (Translated into Persian by Taheri-Kafrani, A., **Shirzadfar, H.**, Dehghani, P.), Published by University of Isfahan, ISBN: 978-600-110-175-5, 2019.
- “Physiological Systems Modeling” (Compiled by Sehati, M., **Shirzadfar, H.**, Sheikhi, K.,) ISBN: 978-600-547-316-2, 2019.
- “Review of Telemedicine Technologies” (Compiled by **Shirzadfar, H.**), ISBN: 978-600-547-317-9, 2019.
- “Review of Telemedicine Technologies” (Compiled by **Shirzadfar, H.**), New Version is Published by Ashrafi Esfahani University, ISBN: 978-600-945-616-1, 2020.
- “Introduction to Identify and Model Biological Systems” (Compiled by **Shirzadfar, H.**, and Sehati, M.,) ISBN: 978-622-98403-0-6, 2022.
- “Bioelectricity and Biophenomena” (Compiled by **Shirzadfar, H.**), Under preparation.
- “Bio Chemical for Biomedical Students” (Compiled by **Shirzadfar, H.**, Taheri-Kafrani, A., Mohammadi, A.,), Under preparation.
- “Rehabilitation: Orthotics and Prosthetics” (Compiled by **Shirzadfar, H.**, Dohani, S.,), Under preparation.

- “Study of COMSOL Multiphysics for Engineers” (Compiled by **Shirzadfar, H.**), Under preparation.
- “Introduction to Biomedical Engineering (Biomechanical Engineering)” (Translated into Persian by **Shirzadfar, H.**, Sehati, M.), Under preparation.
- “Introduction to Biomedical Engineering (Biomedical Signal Processing)” (Translated into Persian by **Shirzadfar, H.**, Sehati, M.), Under preparation.
- “Muscles, Nerves and Movement” (Translated into Persian by **Shirzadfar, H.**), Under preparation.

BOOK CHAPTER

- Taheri-Kafrani, A., **Shirzadfar, H.**, Tavassoli-Kafrani, E., “Dendrimers and Dendrimers-Grafted Superparamagnetic Iron Oxide Nanoparticles: Synthesis, Characterization, Functionalization, and Biological Applications in Drug Delivery Systems”, *Nano- and Microscale Drug Delivery Systems*, Elsevier, 2017, ISBN: 978-0-323-52727-9, eBook ISBN: 978-0-323-52728-6.

PEER-REVIEWED JOURNAL ARTICLES

- Ngo, T. T., **Shirzadfar, H.**, Kourtiche, D., Nadi, M., “A planar interdigital sensor for bio-impedance measurement: theoretical analysis, optimization and simulation”, *Journal of Nano- and Electronic Physics*, Vol. 6, No. 1, pp. 01011(1)-01011 (7), 2014.
- Vorobiov, S. I., Cheshko, I. V., Chornous, A. M., **Shirzadfar, H.**, Shutylieva, O. V., “The Phase Composition and Magnetic Properties of Film Systems Based on Fe(Co) and Gd(Dy)”, *Journal of Nano- and Electronic Physics*, Vol. 6, No. 2, pp. 02022 (1)-02022 (8), 2014.
- **Shirzadfar, H.**, Nadi, M., Kourtiche, D., Yamada, S., Shahabi, P., “Characterization of a needle-type giant magnetoresistance sensor for detection of Escherichia coli's magnetic marker”, *International Journal on Smart Sensing and Intelligent Systems (S2IS)*, Vol. 8, No. 1, pp. 220-234, 2015.
- **Shirzadfar, H.**, Nadi, M., Kourtiche, D., Yamada, S., “Needle-type GMR Sensor to Estimate the Magnetic Properties of Diluted Ferrofluid for Biomedicine Application”, *Innovation and Research in BioMedical Engineering (IRBM) Journal*, Vol. 36, pp. 178-184, 2015. DOI: <https://doi.org/10.1016/j.irbm.2015.01.014>
- Shirvani, P., **Shirzadfar, H.**, “Design a New Configuration of Micro Strip Rectangle Patch Antenna on Different Thickness Substrate for Telemedicine Applications”, *Journal of Nano- and Electronic Physics*, Vol. 8, No. 3, pp. 03028(1)-03028(4), 2016. DOI: [10.21272/jnep.8\(3\).03028](https://doi.org/10.21272/jnep.8(3).03028)
- **Shirzadfar, H.**, “Rapid Methods for the Detection of Bacteria via Giant Magnetoresistance Sensor and Biomagnetic Marker”, *Journal of Bioanalysis & Biomedicine*, Vol. 8, Issue. 3, 2016. DOI: [10.4172/1948-593X.1000e141](https://doi.org/10.4172/1948-593X.1000e141)
- **Shirzadfar, H.**, Shirvani, P., “Design a Novel Microstrip Rectangle Patch Antenna Utilized in Telemedicine Applications”, *Journal of Bioanalysis & Biomedicine*, Vol. 8, Issue. 5, 2016. DOI: [10.4172/1948-593X.1000e145](https://doi.org/10.4172/1948-593X.1000e145)
- **Shirzadfar, H.**, Riahi, S., Ghaziasgar, MS., “Cancer Imaging and Brain Tumor Diagnosis”. *Journal of Bioanalysis & Biomedicine*, Vol. 9, Issue. 1, 2017. DOI: [10.4172/1948-593X.1000e149](https://doi.org/10.4172/1948-593X.1000e149)
- **Shirzadfar, H.**, Mohammadi, A., Sadeghpour, Z., Sadeghi, M., “Focus on Treatment for Bladder Control Problems (Urinary Incontinence)”, *Journal of Pharmacovigilance and Pharmacotherapeutics*, J 109, 2017. DOI: [10.29011/JPPT-109.100109](https://doi.org/10.29011/JPPT-109.100109)
- **Shirzadfar, H.**, Lotfi, F., “The Evolution and Transformation of Telemedicine”, *International Journal of Biosensors & Bioelectronics*, Vol. 3, Issue 4, pp. 303-306, 2017. DOI: [10.15406/ijbsbe.2017.03.00070](https://doi.org/10.15406/ijbsbe.2017.03.00070)

- **Shirzadfar, H.**, Khanahmadi, M., Mahlouji, E., Mokhtari, S., “Wavelet Technique and Function for Noise Removal from ECG Signal”, *International Journal of Bioinformatics and Computational Biology*, Vol. 3, No. 1, pp. 1-5, 2018.
- **Shirzadfar, H.**, Ghaziasgar, MS., Piri, Z., Khanahmadi, M., “Heart Beat Rate Monitoring Using Optical Sensors”, *International Journal of Biosensors & Bioelectronics*, Vol. 4, Issue 2, pp. 48-54, 2018. DOI: [10.15406/ijbsbe.2018.04.00097](https://doi.org/10.15406/ijbsbe.2018.04.00097)
- **Shirzadfar, H.**, Mokhtari, N., “Critical Review on Thalassemia: Types, Symptoms and Treatment”, *Advancements in Bioequivalence & Bioavailability*, Vol. 1, Issue 2, pp. 1-4, 2018.
- **Shirzadfar, H.**, Mohammadi, A., Sadeghi, M., “Modeling and Simulation of Bladder Problems in Patients with Fibromyalgia”, *Austin Journal of Biosensors & Bioelectronics*, Vol. 4, Issue 1, pp. 1028 (1)- 1028 (5), 2018.
- **Shirzadfar, H.**, Mohammadi, A., Sadeghi, M., “The Pathophysiology of Fibromyalgia: Diagnosis and Treatment”, *Journal of Medicine*, Vol. 4, No. 1, pp. 1-13, 2018.
- **Shirzadfar, H.**, Khanahmadi, M., “Physical Principles and Recent Advances of Medical Imaging Systems”, *Journal of Health*, Vol. 5, No. 1, pp. 21-27, 2018.
- **Shirzadfar, H.**, Vahid, F., Kiafar, F., Aledavood, S., “A Focused Review on Materials and Generations of Coronary Stents”, *Advances in Tissue Engineering and Regenerative Medicine*, Vol. 4, No. 3, pp. 478-484, 2018. DOI: [10.15406/atroa.2018.04.00081](https://doi.org/10.15406/atroa.2018.04.00081)
- **Shirzadfar, H.**, Khanahmadi, M., “Application of Biomarkers and Biosensors to Detect and Track Pathogenic Agents”, *International Journal of Analytical Techniques*, Vol. 4, No. 1, pp. 1-5, 2018. DOI: [10.15226/2577-7831/4/1/00117](https://doi.org/10.15226/2577-7831/4/1/00117)
- **Shirzadfar, H.**, Khezri, N., Khanahmadi, M., “Simulation Based Improvement Technique of Electroencephalography Signals with the LTspice”, *SciFed Journal of Bone and Spine*, Vol. 1, No. 1, pp. 1-9, 2018.
- **Shirzadfar, H.**, Hosseini Nezhad, M., Salimiyan, H., “The Medication Side Effects in the Treatment of Cancer: A Review”, *Austin Journal of Biosensors & Bioelectronics*, Vol. 4, No. 1, pp. 1031 (1)- 1031 (4), 2018.
- **Shirzadfar, H.**, Khanahmadi, M., “Measuring Blood Glucose in a Non-Invasive Manner based on Near-Infrared and Automatically Sending Information to the Medical Center”, *Biomedical engineering: Current Research*, Vol. 1, No. 1, pp. 1-3, 2018.
- **Shirzadfar, H.**, Khanahmadi, M., “Design and Development of ECG Simulator and Microcontroller Based Displayer”, *Journal of Biosensors & Bioelectronics*, Vol. 9, No. 3, pp. 1000256/1-1000256/9, 2018. DOI: [10.4172/2155-6210.1000256](https://doi.org/10.4172/2155-6210.1000256)
- **Shirzadfar, H.**, Khanahmadi, M., “Introduction to Design and Manufacture of a Heart Signal Simulator and Graphic Displayer Based on The ATmega Microcontroller”, *Journal of Biological and Medical Sciences*, Vol. 2, No. 2, pp. 1-4, 2018.
- **Shirzadfar, H.**, Khanahmadi, M., “Current Approaches and Novel Treatment Methods for Cancer and Radiotherapy”, *International Journal of Biosensors & Bioelectronics*, Vol. 4, No. 5., pp. 224-229, 2018. DOI: [10.15406/ijbsbe.2018.04.00131](https://doi.org/10.15406/ijbsbe.2018.04.00131)
- **Shirzadfar, H.**, Mokhtari, N., Claudel, J., “Optimize the Geometrical Parameters of Interdigital Micro-Electrodes Used in Bioimpedance Sensing System”, *Journal of Nano- and Electronic Physics*, Vol. 10, No. 5., pp. 05029 (1)-05029 (4), 2018. DOI: [10.21272/jnep.10\(5\).05029](https://doi.org/10.21272/jnep.10(5).05029)
- **Shirzadfar, H.**, Khanahmadi, M., “General Review on the Properties and Applications of Magnetic Nanoparticles in Biomedicine”, *Biomaterials & Medical Applications (BMA)*, Vol. 2, No. 2., pp. 1-8, 2018. DOI: [10.4172/2577-0268.1000119](https://doi.org/10.4172/2577-0268.1000119)
- **Shirzadfar, H.**, Shahbazi, M., Ghasemi, F., “Computer Modeling and Simulation of Stromal Tumor and Its Ablation Method in the Small Intestine”, *Austin Journal of Biosensors and Bioelectronics*, Vol. 4, No. 1., pp. 1032 (1)-1032 (6), 2018.

- **Shirzadfar, H.**, Khanahmadi, M., “Review on Structure, Function and Applications of Microfluidic Systems”, *International Journal of Biosensors & Bioelectronics*, Vol. 4, No. 6., pp. 263-265, 2018. DOI: [10.15406/ijbsbe.2018.04.00137](https://doi.org/10.15406/ijbsbe.2018.04.00137)
- **Shirzadfar, H.**, Khanahmadi, M., “General Review on Cardiac Implants and Study of the Methods for Reducing Electromagnetic Interference (EMI)”, *Journal of Cardiovascular Medicine and Therapeutics*, Vol. 2, No. 4., pp. 1-8, 2018.
- **Shirzadfar, H.**, Aledavood, S., Kiafar, F., Vahid, F., “The Classification, Comparison and Behavior of Coronary Stents: A Focused Review on Materials and Clinical Studies & Complications”, *Biomedical Research and Reviews*, Vol. 1, No. 2., pp. 1-7, 2018. DOI: [10.31021/br.20181107](https://doi.org/10.31021/br.20181107)
- **Shirzadfar, H.**, Sheikhi, K., Meschian, Z., “The Epidemiologic Study of Neonatal Jaundice, Relation Between Jaundice and liver & Alternative Methods to Cure Jaundice”, *Clinical Practice (Therapy)*, Vol. 16, No. 3., pp. 1117-1125, 2018. DOI:[10.4172/clinical-practice.1000454](https://doi.org/10.4172/clinical-practice.1000454)
- **Shirzadfar, H.**, Ghasemi, F., Shahbazi, M., “A Review of Recent Application of Medical Thermography in Human Body for Medical Diagnosis”, *SCIOL (Science Open Library) Biomedicine*, Vol. 2, No. 2., pp. 102-120, 2018.
- **Shirzadfar, H.**, Arab, S., “A Simple Surface Electromyogram Signal Simulator for Testing of Measurement Equipment”, *Journal of Pharmacology and Medicinal Chemistry*, Vol. 2, No. 3., pp. 39-42, 2018.
- **Shirzadfar, H.**, Hosseini Nezhad, M., Salimiyan, H., “A Simulation Model to Study the Effect of Smart Drugs on the Blood Transfusion Vessels”, *Significances of Bioengineering & Biosciences*, Vol. 3, No. 1., pp. 1-5, 2019. DOI: [10.31031/SBB.2019.03.000552](https://doi.org/10.31031/SBB.2019.03.000552)
- **Shirzadfar, H.**, Bashiri, M., Khanahmadi, M., “Design and Manufacture a Portable Medical Instrument Based on Optical Sensor to Measure the SpO₂ and Heart Rate”, *Syntax Journal of Biotechnology and Bioengineering*, Vol. 1, No. 1., pp. 104/1-104/6, 2019.
- **Shirzadfar, H.**, Amirzadeh, P., “A Comprehensive Study on Eye Issues and Modern Developments in Visual Rehabilitation for People with Impaired Vision”, *International Journal of Biosensors & Bioelectronics*, Vol. 5, No. 2., pp. 48-54, 2019. DOI: [10.15406/ijbsbe.2019.05.00153](https://doi.org/10.15406/ijbsbe.2019.05.00153)
- **Shirzadfar, H.**, Gordoghli, A., “Detection and Classification of Brain Tumors by Analyzing Images from MRI Using the Support Vector Machines (SVM) Algorithm”, *Significances of Bioengineering & Biosciences*, Vol. 3, No. 3., pp. 1-8, 2019. DOI: [10.31031/SBB.2019.03.000563](https://doi.org/10.31031/SBB.2019.03.000563)
- **Shirzadfar, H.**, Amirzadeh, P., Hajinoroozi, M.H., “A Comprehensive Study over the Jaundice Causes and Effects on Newborns and Reviewing the Treatment Effects”, *International Journal of Biosensors & Bioelectronics*, Vol. 5, No. 4., pp. 107-112, 2019. DOI: [10.15406/ijbsbe.2019.05.00162](https://doi.org/10.15406/ijbsbe.2019.05.00162)
- **Shirzadfar, H.**, Dohani, S., Ghaedi, M., Edalati., B., “Creating the New Generation Coils to Generate a Uniform Magnetic Field using for Medical Applications: Simulation and Analysis”, *International Journal of Biosensors & Bioelectronics*, Vol. 5, No. 6., pp. 179-183, 2019. DOI: [10.15406/ijbsbe.2019.05.00174](https://doi.org/10.15406/ijbsbe.2019.05.00174)
- **Shirzadfar, H.**, Gordoghli., N., “Study the Anatomy and Physiology of Body's Urinary System and Fibromyalgia Syndrome (FMS) for the Design an Intelligent Alarm System for Monitoring of FMS”, *Journal of Clinical and Translational Urology*, Vol. 1, No. 1., pp. 72-81, 2019. DOI: [10.33702/jctu.2019.1.1.4](https://doi.org/10.33702/jctu.2019.1.1.4); 2019: 1(1)72-81
- **Shirzadfar, H.**, Edalati., B., Dohani, S., Ghaedi, M., “The Design and Manufacture of a Trapezoidal Coil to Produce a Homogeneous Magnetic Field for Use in Medical Applications”, *International Journal of Biosensors & Bioelectronics*, Vol. 5, No. 6., pp. 188-193, 2019. DOI: [10.15406/ijbsbe.2019.05.00176](https://doi.org/10.15406/ijbsbe.2019.05.00176)
- **Shirzadfar, H.**, Sheikhi, K., “Novel Design and Evaluation of an Automatic and Portable Phototherapy Device Using for Newborn Jaundice Treatment”, *Recent Research in Endocrinology and Metabolic Disorder*, Vol. 1, No. 1., pp. 22-31, 2019. DOI: [10.33702/rremd.2019.1.1.5](https://doi.org/10.33702/rremd.2019.1.1.5)

- **Shirzadfar, H.**, Gordoghli., N., “Design and Evaluation of an Intelligent Monitoring and Alarm System Based on a Noninvasive Fluid Level Sensor for Patients with Fibromyalgia”, *International Journal of Electrical and Electronic Science*, Vol. 6, No. 2., pp. 8-16, 2019.
- **Shirzadfar, H.**, Gordoghli., N., “A Comparative Study of Current Methods and Recent Advances in the Diagnosis and Assessment of Osteoporosis”, *Recent Research in Endocrinology and Metabolic Disorder*, Vol. 2, No. 1., pp. 3-17, 2020. DOI: [10.33702/rremd.2020.2.1.2](https://doi.org/10.33702/rremd.2020.2.1.2)
- Sheikhi, K., **Shirzadfar, H.**, Sheikhi, M., “A Review on Novel Coronavirus (Covid-19): Symptoms, Transmission and Diagnosis Tests”, *Research in Infectious Diseases and Tropical Medicine*, Vol. 2, No. 1., pp. 1-8, 2020. DOI: [10.33702/ridtm.2020.2.1.1](https://doi.org/10.33702/ridtm.2020.2.1.1)
- **Shirzadfar, H.**, Vtankhahan., E., Farhadpour., R., “A Study on the Dental Treatment Instruments & Equipment: Design and Manufacturing of a Portable Cavitron for Teeth Whitening”, *Journal of Clinical and Translational Dentistry*, Vol. 1, No. 1., pp. 1-8, 2020. DOI: [10.33702/10.33702/jctd.2020.1.1.1](https://doi.org/10.33702/10.33702/jctd.2020.1.1.1)
- **Shirzadfar, H.**, Sheikhi, K., “An Introduction on Different Types of Phototherapy Devices to Cure Neonatal Jaundice: Internal Structure of Light Sources & Protection System”, *Journal of Clinical and Translational Neonatology*, Vol. 1, No. 1., pp. 1-10, 2020. DOI: [10.33702/10.33702/jctn.2020.1.1.1](https://doi.org/10.33702/10.33702/jctn.2020.1.1.1)
- Shirvani, P., **Shirzadfar, H.**, “Gain Enhancement of Microstrip Patch Antenna and Array Antenna Using Different Metamaterial Structures for Telemedicine Applications”, *Journal of Nano- and Electronic Physics*, Vol. 12, No. 5, pp. 05034 (1)-05034 (5), 2020. DOI: [10.21272/jnep.12\(5\).05034](https://doi.org/10.21272/jnep.12(5).05034)
- **Shirzadfar, H.**, “The Study of Brain and Spinal Cord Disorders and Methods of Diagnosis, Treatment and Disabilities Caused”, *Journal of Current Neuropsychiatry and Clinical Neuroscience Reports (CNCNR)*, Vol. 2, No. 1, pp. 8-27, 2020. DOI: [10.33702/cncnr.2020.2.1.2](https://doi.org/10.33702/cncnr.2020.2.1.2)
- **Shirzadfar, H.**, “The Structure and Function of Nervous System and Skeletal Muscle: A Review”, *Journal of Current Neuropsychiatry and Clinical Neuroscience Reports (CNCNR)*, Vol. 3, No. 1, pp. 1-25, 2021. DOI: [10.33702/cncnr.2021.3.1.1](https://doi.org/10.33702/cncnr.2021.3.1.1)
- **Shirzadfar, H.**, Shafiei, A., Khosravi, F., “The Electricity and Foundation of Electrophysiology: Techniques and Interpretation”, *Community Medicine and Health Education Research (CMHER)*, Vol. 2, No. 1, pp. 1-8, 2021. DOI: [10.33702/cmher.2021.2.1.1](https://doi.org/10.33702/cmher.2021.2.1.1)
- Taheri-Kafrani, A., **Shirzadfar, H.**, Abbasi Kajani, A., Bassam, K. K., Mohammed, L. J., Mohammadi, Sh., Lotfi, F., “Functionalized Graphene Oxide/Fe₃O₄ Nanocomposite: A Biocompatible and Robust Nanocarrier for Targeted Delivery and Release of Anticancer Agents”, *Journal of Biotechnology*, Vol. 331, pp. 26-36, 2021. DOI: <https://doi.org/10.1016/j.jbiotec.2021.03.005>
- Lotfi, F., **Shirzadfar, H.**, Bagheri, O., “Gain Enhancement of Applied Micro Patch Antenna in Telemedicine Applications by Changing the Calculation of the Geometry”, *Journal of Nano- and Electronic Physics*, Vol. 13, No. 2, pp. 02035 (1)-02035 (5), 2021. DOI: [https://doi.org/10.21272/jnep.13\(2\).02035](https://doi.org/10.21272/jnep.13(2).02035)
- **Shirzadfar, H.**, Sehhati, M., Noursobhi, M., Jannesari, R., Bagheri, Z., “Designing and Manufacturing a Model of a Smart Wheelchair Controlled by Patients with Complete Cervical Spinal Cord Injury”, *Journal of Paramedical Science and Rehabilitation (JPSR)*, Vol. 10, No. 3, pp. 31-37, 2021, (In Persian). DOI: [10.22038/JPSR.2021.51823.2161](https://doi.org/10.22038/JPSR.2021.51823.2161)
- Dohani, S., **Shirzadfar, H.**, Anbarzadeh, S., “A Review on Recent Technologies and Various Systems to Estimate the Respiration Rates”, *Community Medicine and Health Education Research (CMHER)*, Vol. 2, No. 1, pp. 44-51, 2021. DOI: [10.33702/cmher.2021.2.1.6](https://doi.org/10.33702/cmher.2021.2.1.6)
- Dohani, S., **Shirzadfar, H.**, Anbarzadeh, S., “Design, Simulation, Implementation and Measurement of Respiration Rate by Strain Gauge Sensor and Induction Method”, *Journal of Clinical Research and Reports*, Vol. 10, No. 1, pp. 1-12, 2022. DOI: <https://doi.org/10.31579/2690-1919/215>
- **Shirzadfar, H.**, “Clinical and Physiological Studies of Jaundice in the Newborn Infants and Novel Design and Diagnostic Method for Neonatal Hyperbilirubinemia Determination”, *Archive of*

- Shafiei, A., **Shirzadfar, H.**, Anbarzadeh, S., “Qualitative Study for the Design and Fabricate of Assistive Technologies for the Visually Impaired and Blind People to Improve the Quality of Life”, *Journal of Clinical Research and Reports*, Vol. 11, No. 5, pp. 1-11, 2022. DOI: <https://doi.org/10.31579/2690-1919/260>
- Naderi, A., Tabatabaie, S., Abdollahi-D, Z., **Shirzadfar, H.**, Taheri-Kafrani, A., “Hemocompatible Superparamagnetic Chitosan Nanocarrier for Targeted Delivery of Methotrexate”, *Journal of Drug Delivery Science and Technology*, Under review.

CONFERENCE PROCEEDING & PRESENTATIONS

- **Shirzadfar, H.**, “Medical Information System”, *Young Scientists Conference at Kyiv Polytechnic Institute*, Oral presentation, April 9-10, 2009, Kiev, Ukraine.
- Synashenko, O., Saltikova, A., **Shirzadfar, H.**, “Diffusion Processes in Two-Layer Film Systems Based on Fe and Cr or Fe and Cu”, *Proceedings of 9th International Conference on Physical phenomena in solids*, Oral presentation, December 1-4, 2009, Kharkiv, Ukraine.
- Velykodnyi, D. V., Nadimzad, S., **Shirzadfar, H.**, “Measurement Technique Strain Deformation Properties Film Materials at the Elastic and Plastic Deformation”, *The 6th International Youth Science and Technology Conference*, Oral presentation, April 19-24, 2010, Sevastopol, Ukraine.
- Shabelnik, Y., **Shirzadfar, H.**, “Tensoresistive Properties of Metal Films”, *Young Scientists Conference at Sumy State University*, Oral presentation, April 19-23, 2010, Sumy, Ukraine.
- Vorobiov, S., Chornous, A., Hauet, T., Hehn, M., Mangin, S., **Shirzadfar, H.**, “Structural and phase composition and magnetic properties of three-layers films systems based on Fe and Gd”, *International Conference of Students and young Scientists in Theoretical and Experimental Physics (HEUREKA)*, Poster presentation, April 19-22, 2012, Lviv, Ukraine.
- Pazukha, I.M., Tyschenko, K.V., Shumakova, N.I., **Shirzadfar, H.**, Protsenko, S., “Electrophysical Properties of Nanodimensional Pt Thin Films”, *International Conference Nanomaterials: Applications and Properties*, Poster presentation, September 17-22, 2304-1862, pp. 1(3)03TF09(3), 2012, Alushta, Ukraine.
- **Shirzadfar, H.**, Haraszczuk, R., Nadi, M., Yamada, S., Kourtiche, D., “Detecting and Estimating Magnetic Fluid Properties by a Needle-Type GMR Sensor”, *International Conference Nanomaterials: Applications and Properties*, Poster presentation, September 17-22, 2304-1862, pp. 1(2)02NNBM29(4), 2012, Alushta, Ukraine.
- **Shirzadfar, H.**, Claudel, J., Hauet, T., Nadi, M., Yamada, S., Kourtiche, D., “Caractérisation d’un biocapteur à base de GMR pour la spectroscopie magnétique sur ferrofluide”, *Materiaux et Applications aux Dispositifs et Capteurs*, Poster presentation, November 7-9, 2012, Sousse, Tunisie.
- **Shirzadfar, H.**, Claudel, J., Nadi, M., Kourtiche, D., Yamada, S., “Analysis Sensitivity by Novel Needle-Type GMR Sensor Used in Biomedical Investigation”, *XIII Mediterranean Conference on Medical and Biological Engineering and Computing (MEDICON 2013)*, Poster presentation, September 25-28, pp. 833-836, Vol. 41, Springer International Publisher, 2013, Seville, Spain. DOI: [10.1007/978-3-319-00846-2_206](https://doi.org/10.1007/978-3-319-00846-2_206)
- Claudel, J., Ibrahim, M., **Shirzadfar, H.**, Nadi, M., Elmazria, O., Kourtiche, D., “Hybrid Microfluidic Biosensor for Single Cell Flow Impedance Spectroscopy: Theoretical Approach and First Validations”, *XIII Mediterranean Conference on medical and biological engineering and computing (MEDICON 2013)*, Poster presentation, September 25-28, pp. 841-844, Vol. 41, Springer International Publisher, 2013, Seville, Spain. DOI: [10.1007/978-3-319-00846-2_208](https://doi.org/10.1007/978-3-319-00846-2_208)
- Lytvynenko, Ia. M., Pazukha, I.M., **Shirzadfar, H.**, Bibyk, V.V., “Influence of Annealing Temperature on the Phase State of Thin Films Alloy Based on $fe_{20}ni_{80}$ and co”, *The 14th International*

Young Scientists Conference Optics and High Technology Material Science (SPO 2013), Poster presentation, October 24-27, 2013, Kiev, Ukraine.

- **Shirzadfar, H.**, Nadi, M., Kourtiche, D., Yamada, S., “Characterization of a Needle-Type Probe GMR sensor for Biomedical applications”, *IEEE SENSORS 2013*, Poster presentation, November 4-6, pp. 298-301, Sensors 2013 IEEE Publisher, 2013, Baltimore, MD, USA. DOI: [10.1109/ICSENS.2013.6688198](https://doi.org/10.1109/ICSENS.2013.6688198)
- Ngo, T. T., **Shirzadfar, H.**, Bourjilat, A., Kourtiche, D., Nadi, M., “A method to determine the parameters of the double layer of a planar interdigital sensor”, *International Conference on Sensing Technology (ICST 2014)*, Poster presentation, September 2-4, pp. 348-351, *International Journal on Smart Sensing and Intelligent Systems*, 2014, Liverpool, United Kingdom.
- Shafiei, A., **Shirzadfar, H.**, Anbarzadeh, S., “Study the Most Common Eye Diseases with the Highest Potential in Causing Blindness and Presenting a Novel Method to Help the Blind”, *5th International Conference on Electrical, Electronic Engineering and Smart Grids*, Poster presentation, May 12, 2021, Tbilisi, Georgia.
- Dohani, S., **Shirzadfar, H.**, Anbarzadeh, S., “Design, Simulation and Construction of Breathing Apparatus for Estimating the Rate of Strain Sensor and Induction Method”, *Sixth International Conference on Electrical Engineering, Computer Science and Information Technology*, Poster presentation, Feb 3, 2022, Hamedan, Iran.

SEMINAR

- **Shirzadfar, H.**, Nadi, M., Kourtiche, D., Yamada, S., “Measurement of Ferritin by GMR Sensor”, *European Doctoriales*, Poster presentation, October 16-21, 2011, Ventron, France.
- **Shirzadfar, H.**, Claudel, J., Kourtiche, D., Nadi, M., El Mazira, O., “Mesures des propriétés électriques et magnétiques du vivant”, *Renaissance Nancy*, Oral presentation, 24 May-2 June, 2013, Nancy, France.
- **Shirzadfar, H.**, Nadi, M., Kourtiche, D., Yamada, S., “Characterization of Needle-Type GMR Sensor for Detecting the Nano Magnetic Particles in Medical Applications”, *2nd edition of DocSciLor*, Poster presentation, June 6, 2013, Pont-à-Mousson, France.
- **Shirzadfar, H.**, “Rapid Detection of Escherichia coli O157:H7 using GMR Sensor and Biomagnetic Marker”, *Research Week at Sheikhabaee University*, Oral presentation, 18th December, 2017, Isfahan, Iran.
- **Shirzadfar, H.**, Sarjoghian, A., Nikofar, S., Khosravi, A., “Brain Tumor Detection and Segmentation from MRI Images Using Matlab”, *Research Week at Sheikhabaee University*, Oral presentation, 18th December, 2017, Isfahan, Iran.
- **Shirzadfar, H.**, Sheikhi, K., Meschian, Z., “The Study of Neonatal Jaundice, Relation between Jaundice and Liver & Methods to Cure Jaundice”, *Research Week at Sheikhabaee University*, Oral presentation, 15th December, 2018, Isfahan, Iran.
- **Shirzadfar, H.**, Amirzadeh, P., Mahdavi, R., “Wearable Obstacle Detectors and Location Finder: Detect Obstacle and Find Location of Blinds”, *Research Week at Sheikhabaee University*, Oral presentation, 15th December, 2018, Isfahan, Iran.
- **Shirzadfar, H.**, Gholizadeh, S., Ramezanpoor, P., “Blood Pressure Control (BPC) Home Monitoring: Continuous Non-invasive BPC Measurements”, *Research Week at Sheikhabaee University*, Oral presentation, 15th December, 2018, Isfahan, Iran.
- Shafiei, A., **Shirzadfar, H.**, Anbarzadeh, S., “Portable Design an Intelligent System for Smart Aid to the Blind”, *Research Week at Sheikhabaee University*, Oral presentation, 18th December, 2019, Isfahan, Iran.

- **Shirzadfar, H.**, Peyman, M., “Study the effect of Egg Inflatable Mattresses to Prevent Bed Sores Caused by Pressure Applied to the Soles of the Foot Suitable for Wheelchairs”, *Research Week at Sheikhbahae University*, Oral presentation, 18th December, 2019, Isfahan, Iran.
- Vatankhah, E., **Shirzadfar, H.**, Mahdavi, R., “A Study on the Dental Treatment Instruments Advancements in Bioequivalence and Bioavailability: The Design and Development of Portable Testers to Whiten the Teeth”, *Research Week at Sheikhbahae University*, Oral presentation, 18th December, 2019, Isfahan, Iran.
- Ghadamizadeh, M., **Shirzadfar, H.**, “Design and Manufacture a Smart Cardiac Massager to Create and Apply a Certain Pressure According to Heart Cortex Volume”, *Research Week at Sheikhbahae University*, Oral presentation, 18th December, 2019, Isfahan, Iran.
- Dohani, S., **Shirzadfar, H.**, “Simulation and Manufacture of a Trapezoidal Coil to Create a Uniform Magnetic Field for Study in Intelligent Drug Delivery Systems”, *Research Week at Sheikhbahae University*, Oral presentation, 18th December, 2019, Isfahan, Iran.
- Yousefian, A., **Shirzadfar, H.**, Najafabadian, B., “Dynamic Connectivity Network Extraction in Electrode Number Optimization for Hand Movement Classification Based on EMG Wavelet Decomposition and Dempster–Shafer Theory in Classifiers Fusion”, *Research Week at Sheikhbahae University*, Oral presentation, 18th December, 2019, Isfahan, Iran.
- **Shirzadfar, H.**, Gholizadeh, S., “Non-invasive Blood Pressure Measurement System: Study the Recent Monitoring Methods and Devices”, *Research Week at Sheikhbahae University*, Oral presentation, 18th December, 2019, Isfahan, Iran.