



Arman ASGHARPOOR
Tehran, Iran | +98 919 609 7597
A.Asgharpoor@ut.ac.ir
[github](#) | [linkedin](#)
[researchgate](#) | [website](#)

RESEARCH INTEREST

- DEEP SPACE EXPLORATION AND SPACE MISSION DESIGN
- SPACECRAFT DESIGN
- ASTROPHYSICS AND ASTRODYNAMICS
- SENSOR FUSION

EDUCATION

UNIVERSITY OF TEHRAN M.SC. SPACE ENGINEERING GPA = 4/4 • Ranked 1st Universities in Iran based on UsNews	2019-2021(exp)
ACADEMIC CENTER FOR EDUCATION, CULTURE AND RESEARCH (ACECR) HEALTHCARE-MBA GPA = 4/4	2019-2020
AVIATION INDUSTRY TRAINING CENTER (AITC) B. ENG. AVIONICS TECHNOLOGY ENGINEERING GPA 3.8/4	2016-2019
CIVIL AVIATION TECHNOLOGY COLLEGE (CATC) A.E.T. AIRCRAFT AVIONICS	2013-2016

SELECTED COURSES

UNIVERSITY OF TEHRAN ADVANCED ORBIT MECHANICS 3.57/4 SPACECRAFT SYSTEM DESIGN 3.3/4
ACADEMIC CENTER FOR EDUCATION, CULTURE AND RESEARCH (ACECR) PROJECT MANAGEMENT 3.96/4 HUMAN RESOURCE MANAGEMENT 3.84/4 PROBLEM SOLVING 3.68/4
AVIATION INDUSTRY TRAINING CENTER (AITC) SAFETY MANAGEMENT SYSTEM 3.9/4 RELIABILITY IN AVIATION INDUSTRY 3.7/4
CIVIL AVIATION TECHNOLOGY COLLEGE (CATC) AIRCRAFT COMPUTER 4/4

TEACHING EXPERIENCE

AVIATION INDUSTRY TRAINING CENTER (AITC) INTERN AS ANDROID DEVELOPER INTERNSHIP INSTRUCTOR, B.ENG. AVIONICS TECHNOLOGY 2020 INTERNSHIP INSTRUCTOR, B.ENG. AIRCRAFT MAINTENANCE 2019-2020 INTERNSHIP INSTRUCTOR, A.E.T AVIONICS 2018-2020 INTERNSHIP INSTRUCTOR, A.E.T AIRCRAFT MAINTENANCE 2018-2020 LAB INSTRUCTOR, ELECTRONIC 1 2019-2020 LAB INSTRUCTOR, ELECTRONIC 2 2019-2020 LAB INSTRUCTOR, ELECTRONIC 3 2019-2020 LAB INSTRUCTOR, ELECTRONIC CIRCUITS 1 2019-2020 LAB INSTRUCTOR, ELECTRONIC CIRCUITS 2 2019-2020 LAB INSTRUCTOR, MICROPROCESSORS 2019-2020 LAB INSTRUCTOR, AIRCRAFT INSTRUMENTS 2019-2020	2018-2020
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RESEARCH EXPERIENCE

- THESIS CONSULTANT | AVIATION INDUSTRY TRAINING CENTER** 2018-2020
- DESIGN AND IMPLEMENTATION OF A 3 AXIS CNC MACHINE
 - DESIGN AND IMPLEMENTATION OF A CNC HOT WIRE
 - DESIGN AND IMPLEMENTATION OF PULSE CIRCUITS TRAINING BOARD
 - DESIGN, SIMULATE AND BUILD AN AIRCRAFT FIRE EXTINGUISHING SYSTEMS
 - DESIGN AND IMPLEMENTATION OF RETRACTABLE LANDING GEAR
- FORMER OF FUZZY LOGIC LAB INTEREST GROUP** 2020
- UNIVERSAL SCIENTIFIC EDUCATION AND RESEARCH NETWORK (USERN)
- AIRCRAFT DESIGN | SHARIF UNIVERSITY OF TECHNOLOGY (SUT)** 2020
- SHADX TEAM LEADER
 - AIAA Aircraft Design Competition
- REFeree OF RESEARCH COUNCIL** 2019-Present
- STUDENT'S SCIENTIFIC RESEARCH CENTER (SSRC)
- THREE DEGREES OF FREEDOM TESTBED FOR CUBESAT | UNIVERSITY OF TEHRAN (UT)** 2019
- ATTITUDE DYNAMICS, DETERMINATION, AND CONTROL
 - Using LabView to control and monitor the satellite attitude parameter
- DESIGN AFFORDABLE 3-AXIS CNC CO2 LASER CUTTING MACHINE** 2019-2020
- CAD Design using: Inventor and SolidWorks
- DESIGN AND IMPLICATION OF REMOTE SENSING-COMMUNICATIONS CANSAT** 2019-2020
- UNIVERSITY OF TEHRAN (UT)
 - CAD Design using: Inventor and SolidWorks
 - Design and Implication of Network Communication using Arduino and ZigBee Module for TT&C
 - Use Raspberry Pi for Computer Vision and Pattern Detection
 - INS-GPS Integration for Navigation Parameter Estimation
 - Sensor Fusion for Estimating Environmental Parameters
- DESIGN AND FABRICATION OF 3-AXIS CNC MILLING MACHINE** 2019-2020
- CAD DESIGN USING INVENTOR AND SOLIDWORKS
 - USE ARDUINO AND RAMPS TO CONTROL THE CNC MACHINE
 - USE MACH3, POWERMILL, EDGE CAM, SOLIDWORKS AND GRBL AS MACHINE CONTROL AND CAM SOFTWARE
- DESIGN AND IMPLICATION OF SCIENTIFIC-EXPLORATION CANSAT** 2019-2020
- UNIVERSITY OF TEHRAN (UT)
 - CAD DESIGN USING: INVENTOR AND SOLIDWORKS
 - DESIGN AND IMPLICATION OF NETWORK COMMUNICATION USE ARDUINO AND ZIGBEE MODULE FOR TT&C
 - INS/GPS INTEGRATION FOR NAVIGATION PARAMETER ESTIMATION
 - SENSOR FUSION FOR ESTIMATING ENVIRONMENTAL PARAMETERS
- DESIGN MICRO MILLING MACHINE FOR PROTOTYPING MICROFLUIDIC DEVICES** 2019-2020
- DESIGN AND SIMULATION OF MECHANICAL STRUCTURE USING SOLIDWORKS, ANSYS AND INVENTOR
 - DESIGN AND SIMULATION OF CONTROL CIRCUIT
- RESEARCH ASSISTANCE** 2018-2020
- AVIATION INDUSTRY TRAINING CENTER (AITC)
- DESIGN AND FABRICATION OF AVIONICS SIMULATION SYSTEM** 2018-2019
- CIRCUIT DESIGN USING: ALTIUM DESIGNER, PROTEUS AND SOLIDWORKS ELECTRICAL
- WIRELESS POWER TRANSMISSION (WPT) FOR MEDICAL PURPOSE** 2018-2019
- IRAN UNIVERSITY OF SCIENCE AND TECHNOLOGY
 - Circuit Design Using Altium Designer
 - Circuit Analysis and Simulation Using ADS, Ansys and CST
 - Electromagnetic Analysis and Simulation Using COMSOL, ANSYS and CST

LAB EXPERIENCES

SPACE LAB UNIVERSITY OF TEHRAN	2019-Present
FUZZY LOGIC LAB UNIVERSITY OF TEHRAN	2020-Present
AVIONICS LAB AVIATION INDUSTRY TRAINING CENTER	2018-2020
ELECTRONICS LAB AVIATION INDUSTRY TRAINING CENTER	2018-2020
AIRCRAFT INSTRUMENT CIVIL AVIATION AND TECHNOLOGY	2014-2016

INTERNSHIPS

IRANAIR	2018
• AVIONICS INTERNSHIP	
CIVIL AVIATION TECHNOLOGY COLLEGE	2016
• AVIONICS INTERNSHIP	
AVIATION INDUSTRY TRAINING CENTER	2018
• AVIONICS INTERNSHIP I	
• AVIONICS INTERNSHIP II	

PUBLICATIONS

FORMATION CONTROL UTILIZING RECEDING HORIZON ITERATIVE LEARNING CONTROL	Under Review
• AUTOMATICA (JOURNAL OF IFAC)	
NEURAL NETWORK BASED ESTIMATION: A REVIEW	in prep
• INFORMATION FUSION	

SKILLS

PROGRAMMING LANGUAGES	Experienced: MATLAB Arduino
	Familiar: Python C++ LabView ROS Simulink LaTeX
FRAMEWORKS & LIBRARIES	Familiar: Jupyter Matplotlib Numpy Pandas Scikit-learn Keras PyTorch Tensorflow
CAD-CAM	CATIA SolidWorks Inventor Proteus Altium Designer AutoCAD
CAE	CST ADS ANSYS Workbench ANSYS Electrical Abaqus COMSOL HFSS
SOFT SKILLS	<ul style="list-style-type: none">• Time Management, Punctuality, Extremely Coordinated and Goal-Directed• Project Management, Teamwork, Team Management and Conflict Resolution• Multi-Tasking, Multi-Tasking, Flexibility and Adaptation• Problem Solving

CERTIFICATES

NIGHTSKY INSTITUTE	
• ASTRONOMY I	
• ASTRONOMY II	
UNIVERSITY OF TORONTO	Coursera
• STATE ESTIMATION AND LOCALIZATION FOR SELF-DRIVING CARS	
IRANAIR	
• AVIONICS INTERNSHIP TRAINING	
ÉCOLE POLYTECHNIQUE	Coursera
• HOW TO WRITE AND PUBLISH A SCIENTIFIC PAPER	
NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS	
• BRIDGING THE GAP TO LEADERSHIP: CONNECTING THE SKILLS YOU HAVE WITH THE SKILLS YOU NEED	
MATHWORKS	
• MATLAB ONRAMP	
IRAN MARTIAL ARTS FEDERATION	
• 3 rd GRADE COACHING	

MEMBERSHIP

- MEMBER OF RESEARCH COUNCIL** | Student's Scientific Research Center (SSRC)
- MEMBER** | International Association of Engineers (IAENG)
- MENTOR** | Space Generation Advisory Council (SGAC)
- GRADUATE STUDENT MEMBERSHIP** | American Physical Society (APS)
- STUDENT AFFILIATE** | Royal Aeronautical Society (RAeS)
- STUDENT MEMBER** | Space & Satellite Professionals International (SSPI)
- STUDENT MEMBER** | Institute of Mathematical Statistics
- E-STUDENT** | Royal Statistical Society
- MEMBER** | Art in Medical Education - Educational Development Center (EDC) - TUMS
- MEMBER** | Fuzzy Logic Lab USERN Interest Group
- MEMBER OF R&D TEAM** | USERN

WORK EXPERIENCE

- MANAGER** 2013-Present
 - ARMAN IMEN PASSARGAD, TEHRAN, IRAN
- INSTRUCTOR** 2018-Present
 - AVIATION INDUSTRY TRAINING CENTER, TEHRAN, IRAN
- EMPLOYEE** 2019-2020
 - TUCAN MAHAM FAN, TEHRAN, IRAN
- MARTIAL ARTS INSTRUCTOR** 2015-Present
 - IRAN MARTIAL ARTS FEDERATION, TEHRAN, IRAN
- ACCOUNTANT** 2013-2017
 - CHOPIN RESTAURANT, TEHRAN, IRAN
- ACCOUNTANT** 2011
 - AGAH TARAZ ARGHAM, TEHRAN, IRAN

ACADEMIC PROJECTS

- QUANTUM COMPUTER (SEMINAR)** 2020
 - QUANTUM COMPUTATION ALGORITHM
 - QUANTUM COMPUTERS IMPLICATION METHODS
- CONCEPTUAL DESIGN AND MISSION ANALYSIS OF FIRESAT** 2020
 - USING ECSS DOCUMENTS
 - CAD DESIGN, LAYOUT OPTIMIZATION, AND THERMODYNAMIC ANALYSIS
 - UNIVERSITY OF TEHRAN
- DETERMINE SATELLITE'S POSITION, VELOCITY, AND ORBIT (IN 3D)** 2020
 - USE INITIAL VECTOR (R_0 & V_0) AS INPUT IN MATLAB
 - UNIVERSITY OF TEHRAN
- MODELING AND SIMULATION OF AEROSPACE VEHICLE DYNAMICS 5 DOF SIMULATION** 2020
 - USING CADAC++
 - UNIVERSITY OF TEHRAN
- DESIGN, ANALYSIS, AND BUILD RC AIRPLANE** 2015
 - CAD DESIGN: SOLIDWORKS, CATIA, AND INVENTOR
 - CAE ANALYSIS: ANSYS, XFLR5
 - CIVIL AVIATION TECHNOLOGY COLLEGE
- ULTRA-SONIC DISTANCE MEASURING** 2014
 - CIVIL AVIATION TECHNOLOGY COLLEGE
- VLF RADIO TELESCOPE** 2013
 - CIVIL AVIATION TECHNOLOGY COLLEGE

EXECUTIVE ACTIVITIES

MEMBER OF 4th STUDENT EDUCATION DEVELOPMENT FESTIVAL	2021
• EDUCATION DEVELOPMENT CENTER (EDC) TUMS	
MEMBER OF LAB TECHNIQUES SCHOOL EXECUTIVE TEAM	2021
• UNIVERSAL SCIENTIFIC EDUCATION AND RESEARCH NETWORK (USERN)	
MEMBER OF MTALK EXECUTIVE TEAM	2021
• UNIVERSAL SCIENTIFIC EDUCATION AND RESEARCH NETWORK (USERN)	
MEMBER OF ART IN MEDICAL EDUCATION WORKING GROUP	2021
• EDUCATION DEVELOPMENT CENTER (EDC) TUMS	
THE CORE MEMBER OF PUBLICITY TEAM	2020
• UNIVERSAL SCIENTIFIC EDUCATION AND RESEARCH NETWORK (USERN)	
THE CORE MEMBER OF MEDIA TEAM	2020
• UNIVERSAL SCIENTIFIC EDUCATION AND RESEARCH NETWORK (USERN)	
THE CORE MEMBER OF GRAPHIC AND DESIGN TEAM	2020
• UNIVERSAL SCIENTIFIC EDUCATION AND RESEARCH NETWORK (USERN)	
THE CORE MEMBER OF IT TEAM	2020
• UNIVERSAL SCIENTIFIC EDUCATION AND RESEARCH NETWORK (USERN)	
FORMER OF CULTURAL SOCIETY KARA	2019
• FACULTY OF NEW SCIENCES AND TECHNOLOGY UNIVERSITY OF TEHRAN (UT)	
ORGANIZER OF CLIMATE CHANGE CONFERENCES	2019
• FACULTY OF NEW SCIENCES AND TECHNOLOGY UNIVERSITY OF TEHRAN (UT)	
THE 23rd CONFERENCE OF ANNUAL GENERAL MEETING	2017
• STUDENT SCIENTIFIC RESEARCH CENTER, TEHRAN UNIVERSITY OF MEDICAL SCIENCES	
• NURSING AND MIDWIFERY SCHOOL, TEHRAN UNIVERSITY OF MEDICAL SCIENCE	
WORLD ASTRONOMY WEEK	2017
• NIGHTSKY INSTITUTE MINA DOME, TEHRAN, IRAN	
ORGANIZER OF WATERROCKET COMPETITION	2015
• CIVIL AVIATION TECHNOLOGY COLLEGE	
THE 21st CONFERENCE OF ANNUAL GENERAL MEETING	2015
• STUDENT SCIENTIFIC RESEARCH CENTER, TEHRAN UNIVERSITY OF MEDICAL SCIENCES	
• NURSING AND MIDWIFERY SCHOOL, TEHRAN UNIVERSITY OF MEDICAL SCIENCE	
THE 5th INTERNATIONAL AVIATION & SPACE INDUSTRIES EXHIBITION OF IRAN	2014
• CIVIL AVIATION TECHNOLOGY COLLEGE (CATC)	
THE 20th CONFERENCE OF ANNUAL GENERAL MEETING	2014
• STUDENT SCIENTIFIC RESEARCH CENTER, TEHRAN UNIVERSITY OF MEDICAL SCIENCES	
• NURSING AND MIDWIFERY SCHOOL, TEHRAN UNIVERSITY OF MEDICAL SCIENCE	
THE 4th INTERNATIONAL AVIATION & SPACE INDUSTRIES EXHIBITION OF IRAN	2013
• CIVIL AVIATION TECHNOLOGY COLLEGE (CATC)	
ROAD URBAN DEVELOPMENT & THE RELATED INDUSTRIES EXHIBITION	2013
• CIVIL AVIATION TECHNOLOGY COLLEGE (CATC)	
THE 3rd INTERNATIONAL AVIATION & SPACE INDUSTRIES EXHIBITION OF IRAN	2012
• CIVIL AVIATION TECHNOLOGY COLLEGE (CATC)	

VOLUNTEER WORK

THE 7th INTERNATIONAL FESTIVAL OF PAINTINGS FOR PEDIATRIC PATIENTS (IFPPP)	2021
• HEALTH AND ART (HEART) USERN	
SPACE GENERATION ADVISORY COUNCIL	2020-Present
• MENTOR	
KAHRIZAK NURSING HOME FOR THE ELDERLY AND THE DISABLED	2013-Present
• PEST CONTROL	

SARAI EHSAN SOCIAL VICTIMS CENTER

2013-Present

- PEST CONTROL

VARDAVARD WELFARE

2013-Present

- PEST CONTROL

TEHRAN FOUNDATION FOR THE MENTALLY HANDICAPPED

2013-Present

- PEST CONTROL

KAMRANIYEH CHARITY FOUNDATION

2013-Present

- PEST CONTROL

AWARDS & HONORS

APPRECIATED PRESENTER

2021

- USERN MINIATURE TALK

MARTIAL ARTS FEDERATION - NATIONAL COMPETITIONS

- GOLD MEDALIST | 2019
- GOLD MEDALIST | 2018
- GOLD MEDALIST | 2012
- GOLD MEDALIST | 2011
- SILVER MEDALIST | 2015
- BRONZE MEDALIST | 2019
- BRONZE MEDALIST | 2016

NEARU MARTIAL ARTS

2019

- BLACK BELT DAN 2nd