



Amirkabir University of Technology  
(Tehran Polytechnic)



**SEYED MAJID ESMAILIFAR**

Assistant Professor  
Department of Aerospace Engineering  
Aerospace Structures - Flight Mechanics

Email:  
[esmailifar@aut.ac.ir](mailto:esmailifar@aut.ac.ir)

Phone:

h-index (Scopus):  
4

Citations (Scopus):  
46

### Supervised MSc Theses

#	Thesis title	By	Date
1	fixed wing aircraft intelligent simulation in different flight conditions	Seiedmahdi Hashemi & Seyed Majid Esmailifar	October 2021
2	extraction of pixhawk autopilots architecture (software and hardware ) and perform software - in - the - loop tests	Ali Salehi Manesh & Seyed Majid Esmailifar	October 2021
3	Estimation of wind turbine wake speed using wind tunnel experiments	Seyyede Marzieh Mousavi & Seyed Majid Esmailifar	September 2021
4	cooperative control of multi-spacecraft systems for attitude consensus in presence of stochastic connections	Saba Azhand & Seyed Majid Esmailifar	June 2021
5	autopilot design for fixed wing uav in waypoint tracking mission	Mahdi Karimkhani & Seyed Majid Esmailifar	April 2021
6	Autoland system design and implementation on an electric powered fixed wing aircraft	Mohammad Ehsan Bakhtiari & Seyed Majid Esmailifar	September 2020
7	Data fusion for wind turbine control using particle filter	Mahtab Ghorbani & Seyed Majid Esmailifar	July 2020
8	Optimal Control of satellite attitude and position using on-off thrusters	Mohammad Mousavi & Seyed Majid Esmailifar	February 2020
9	Modeling and Cooperative Control of Wind Turbines in Wind Farm to Capture Maximum Energy	Reza Jahantigh & Seyed Majid Esmailifar	July 2019
10	Designing Guidance and Control of Spacecraft Docking in the Presence of Orbital Disturbances	Pegah Abdollahzadeh & Seyed Majid Esmailifar	February 2019

11	Exoatmospheric time optimal interception by divert thrusters and divert attitude control	Ehsan Tajeddin & Seyed Majid Esmailifar	February 2019
12	ONLINE QUASI - OPTIMAL REENTRY VEHICLE GUIDANCE BY LOW LIFT TO DRAG RATIO	Reza Yoosefi & Seyed Majid Esmailifar	November 2018
13	Integrated guidance and control for high altitude and velocity air defense system	Ali Chitsaz & Seyed Majid Esmailifar	September 2018
14	modeling and control of multiple aerial robots in cooperative load manipulation	Ali Golesorkh & Seyed Majid Esmailifar	September 2018
15	Flying wing MIMO control with reseat to minimums effort strategy	Mostafa Salimi & Seyed Majid Esmailifar	February 2018

## Journal Papers

### Portal Records








- 1 Amir Mohammad Moradi Sizkouhi, Mohammadreza Aghaei, Seyed Majid Esmailifar, "A deep convolutional encoder-decoder architecture for autonomous fault detection of PV plants using multi-copters", SOLAR ENERGY, May 2021 Vol. 223, Num. 223, Page 217-228, May 2021,
- 2 Pegah Abdollahzadeh, Seyed Majid Esmailifar, "Automatic orbital docking with tumbling target using sliding mode control", ADVANCES IN SPACE RESEARCH, March 2021 Vol. 67, Num. 5, Page 1506-1525, March 2021,
- 3 Amir Mohammad Moradi Sizkouhi, Mohammadreza Aghaei, Seyed Majid Esmailifar, Mohammad Reza Mohammadi, Francesco Grimaccia, "Automatic Boundary Extraction of Large-Scale Photovoltaic Plants Using a Fully Convolutional Network on Aerial Imagery", IEEE Journal of Photovoltaics, July 2020 Vol. 10, Num. 4, Page 1061-1067, July 2020,
- 4 Seyed Majid Esmailifar, Fariborz Saghafi, "Cooperative localization of marine targets by UAVs", MECHANICAL SYSTEMS AND SIGNAL PROCESSING, March 2017 Vol. 87, Num. 1, Page 23-42, March 2017,

## Conference Papers

### Portal Records

- 1 Seiedmahdi Hashemi, Reza Jahantigh, , Seyed Majid Esmailifar, "Intelligent ATC modeling by indoor navigation ", The 18th International Conference of Iranian Aerospace Society, February 2020
- 2 Reza Jahantigh, Seyed Majid Esmailifar, "Optimized wind turbine control to achieve maximum power from the wind farm using the PARK wake model ", The 18th International Conference of Iranian Aerospace Society, February 2020
- 3 Mortaza Salehian, Hamid Reza Ovesy, Seyed Majid Esmailifar, Masood Yousefi, "vibration attenuation of rotating laminated composite fan blade beam using piezoelectric patches ", 18th int. conference of iranian aerospace society, February 2020
- 4 Amir Mohammad Moradi Sizkouhi, Seyed Majid Esmailifar, Mohammadreza Aghaei, Aline Kirsten Vidal De Oliveira, Ricardo R  ther, "Autonomous Path Planning by Unmanned Aerial Vehicle (UAV) for Precise Monitoring of Large-Scale PV plants ", 2019 IEEE 46th Photovoltaic Specialists Conference, May 2019
- 5 Mona Derakhshan, Seyed Majid Esmailifar, "Simulation of a parachute landing on the surface of Mars ", 17th Int. conference of iranian aerospace society, June 2018
- 6 Reza Soltani Najad, Seyed Majid Esmailifar, "Systematic review of AHRS sensors and their calibration ", 17th Int. conference of iranian aerospace society, June 2018
- 7 Seyed Majid Esmailifar, Florian Poschke, Eckhard Gauterin, Horst Schulte, "Particle Filter Design for Effective Wind Speed Estimation of Wind Turbines ", The 2018 annual American Control Conference, June 2018

## Taught Courses

#	Course title	Description	Headlines	Date
1	Advanced Mathematics (I)	The main goal of this course is to introduce mathematical tools that are necessary for aerospace mechanics and control.		Fall 2021
2	Special Topics (Cooperative Control in Aerospace Systems)	introduction to cooperative control and its application in aerospace applications		Fall 2021
3	Flight Mechanics (I)	Performance analysis of aircrafts such as flight envelope, rate of climb, flight ceiling and etc.		Fall 2021
4	Automatic Control	The main goal of this course is to introduce linear time invariant systems which covers more than 90 percent of engineering systems and learn to design classic controllers.		Spring 2021
5	Guidance & Navigation (II)	Designing guidance laws and algorithms for flying vehicles		Spring 2021
6	Advanced Mathematics (I)	The main goal of this course is to introduce mathematical tools that are necessary for aerospace mechanics and control.		Fall 2020
7	Flight Mechanics (I)	Performance analysis of aircrafts such as flight envelope, rate of climb, flight ceiling and etc.		Fall 2020