



دانشگاه صنعتی امیرکبیر
(پلی تکنیک تهران)



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Faculty research member

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works Experience

- Co-Lead of electro-optical and Mechatronic group.
- Member of pre-plan conceptual design team
- Project manager and researcher

Education

- B.Sc. in Aerospace Engineering, Science and Research branch university, Iran
- M.Sc. in Mechanical Engineering, Sharif University of Technology, Iran

Some research Activities

- Numerical simulation of particle tracking and calculating diameter of the jet circular cutoff in impactor
- Astronomical image processing
- Design and implementation of star tracking pedestals
- Communication and programming computerized
 - mounts
 - CCDs and Image
 - Electro optical
- Familiarity with optics and Electro-optical design Good and experienced
- Observational Astronomy and Astrometry techniques
- Component design and Development of algorithms for X-ray imaging and portable radiography

Summary

Senior researcher in the fields of mechatronics engineering and industrial applied systems. Developer of applied research in new scientific fields for industrialization and with product-centric capability

Skill Highlights

- Project management
- Strong decision maker
- Complex problem solver
- Creative design
- Innovative
- Applied innovation-focused

Experience

- Image processing methods for Aeronautical, space and inspection systems
- Systematic design of aerospace and X-ray imaging systems
- Professional optical observations: challenges and solutions
- Optical observations of celestial bodies and Astronomical Image Processing
- Design and technical management of advanced inspection assistance systems

Articles

- A novel Brushless Synchro: Operation principles and experimental results (ICEE2013)
- Linear array CCD as encoder (ICEE\2014)
- Numerical Investigation of Using Porous Media Combustion in a Micro thermophotovoltaic Power Generator (Combustion science and technology 2015)
- Examination of the accuracy and reliability of the electronic flit meter of two degrees of freedom (reliability Conference at Amirkabir University)
- Design, analysis and fabrication of a direct drive permanent magnet synchronous motor for precision position control (IEEE 2015)
- A new brushless synchro with look-up table error compensation (International Journal of Numerical Modelling: Electronic networks, Devices and Fields Int. j2015)
- Star Identification algorithm for Uncalibrated, wide FOV cameras, (Astronomical Journal 2015)
- Optimization of Ultrasonic Waves Application in Municipal Wastewater Sludge Treatment Using Response Surface Method(Journal of Cleaner Production2017)
- Design, Analysis, and Fabrication of a Direct Drive Permanent NdFeB Magnet Synchronous Motor for Precision Position Control(IET Electric Power Applications2020)

Patents

- Design, analysis and manufacturing brushless synchro mesh
- Design and Fabrication of hollow synchro mesh protractor
- Permanent Magnet Synchro mesh Motor Drive for precise position control
- Dynamic synchronous motor system for permanent with oriented flow control method with adaptive control coefficients
- Design and manufacture of ultrasonic water and wastewater treatment plant