

شناسنامه علمی و پژوهشی

نام و نام خانوادگی: سعید حراستی

تحصیلات:

دکتری: مهندسی مکانیک ، گرایش نانو مکانیک – دانشگاه نیو ساوت ولز ۱۳۹۳ - ۱۳۸۸
کارشناسی ارشد: مهندسی مکانیک، گرایش طراحی کاربردی – دانشگاه علم و صنعت ایران ۱۳۸۰ - ۱۳۷۸
کارشناسی: مهندسی مکانیک، گرایش جامدات – دانشگاه شیراز ۱۳۷۸ - ۱۳۷۳

عنوان پایان نامه دکتری: مدل سازی خواص الاستیک مواد مرکب غیر پیوندی نانو تیوبهای تک جداره با ماتریس پلیمری

عنوان پایان نامه ارشد: بهینه سازی وزن ورقهای کامپوزیت الیافی تحت اثر نیروی جانبی

عنوان پروژه کارشناسی: طراحی و ساخت موتور استرلینگ

زمینه های تحقیقاتی:

- نانو مکانیک مواد مهندسی
- مکانیک مواد مرکب
- روباتهای صنعتی جوشکار
- موتورهای دیزل مدرن با کنترل الکترونیکی
- خودرو های هیبریدی
- تبدیل انرژی خورشیدی

دروس تدریس شده کاردانی و لیسانس:

- رسم فنی و نقشه کشی صنعتی
- دینامیک ماشین
- طراحی اجزاء
- ارتعاشات مکانیکی
- درس و کارگاه ماشین ابزار
- مقاومت مصالح

- اتو مکانیک

دروس تدریس شده تحصیلات تکمیلی:

- مکانیک نانو سازه ها
- مکانیک سازه ها هوشمند

فعالیت های اجرایی در دانشگاه یاسوج:

- مدیریت گروه مکانیک ب مدت سه سال (از بهمن ۱۳۸۱ تا ۱۳۸۴)
- راه اندازی کارگاه اتو مکانیک
- همکاری در راه اندازی دستگاه تست کشش DMG
- برگزاری کارگاه آموزشی نرم افزار Mathematica

فعالیت های پژوهشی در دانشگاه یاسوج:

- راهنمایی بیش از ۵۰ پروژه دانشجویی
- طرح پژوهشی موتور دیزل با انژکتور الکتریکی
- ساخت روبات جوشکار

سخنرانی های علمی:

۱. سعید حراستی، موتورهای دیزلی مدرن با کنترل الکترونیکی، سخنرانی در هفته پژوهش - دانشگاه یاسوج ۷ و ۸ خرداد ۱۳۸۳

۲. سعید حراستی، استفاده از روش دینامیک مولکولی (Molecular Dynamics) جهت تعیین خواص مکانیکی مواد نانو کامپوزیت، سخنرانی علمی دانشکده مهندسی دانشگاه یاسوج، ۱۸ اسفند ۱۳۹۳

3. L.C. Zhang and S. Herasati, Composites with carbon nanotubes: some problems and solutions, UNSW Mechanical Engineering Research Seminar series, 4 May 2012

- Nejad, M.Z., Taghizadeh, T., Mehrabadi, S.J., **Herasati, S.**, Elastic analysis of carbon nanotube reinforced composite plates with piezoelectric layers using shear deformation theory. *International Journal of Applied Mechanics* 2017. (Accepted)
- **S. Herasati** and L.C. Zhang, Interphase effect on the macroscopic elastic properties of non-bonded single-walled carbon nanotube composites, *Composites Part B*, 2015; 77, PP 52-58
- **S. Herasati** and L.C. Zhang, A new method for characterizing and modeling the waviness and alignment of carbon nanotubes in composites, *Composites Science and Technology*, 2014; 100, 136-142.
- **S. Herasati**, H.H. Ruan and L.C. Zhang, A new method for characterizing the interphase regions of carbon nanotube composites, *International Journal of Solids and Structures*, 2014; 51, PP 1781-1791
- **S. Herasati** and L.C. Zhang, Elastic properties of single-walled carbon nanotube clusters: Dependence on hydrostatic pressure, *Computational Materials Science*, 2014; 86, PP 93-98
- **S. Herasati**, H.H. Ruan and L.C. Zhang, Effect of chain morphology and carbon-nanotube additives on the glass transition temperature of polyethylene, *Journal of nano research*, 2013;23, PP 16-23
- B. Farshi, **S. Herasati**, Optimum weight design of fiber composite plates in flexure based on a two-level strategy, *Composite Structures*, 2006; 73(4), PP 495-504
- بهروز فرشی و سعید حراستی، بهینه سازی وزن ورقهای مرکب الیافی تحت اثر بار گذاری عمود بر سطح ، نشریه پژوهشی انجمن مهندسان مکانیک ایران ، بهمن ۱۳۸۱، سال چهارم، شماره دوم

- **S.Herasati**, Molecular dynamics simulation of nanomachining: capabilities and challenges, in: *Proceedings of the 13th Iranian Conference on Manufacturing Engineering -ICME2016*, Bandar Abbas, Hormozgan, Iran, 2016
- **S.Herasati**, Effect of carbon nanotube interphase on the overall elastic properties of their composites, in: *Proceedings of the 24th Annual International Conference on Mechanical Engineering-ISME2016*, Yazd University, Yazd, Iran, 2016
- **S. Herasati** and L.C. Zhang, Effect of carbon nanotube additions on the mechanical properties of composites, in: *Proceedings of the 8th Australian Congress on Applied Mechanics (ACAM 8)*, Melbourne, Australia, 2015.
- **S. Herasati** and L.C. Zhang, The effect of hydrostatic pressure on the elastic properties of single-walled carbon nanotube clusters, in: *Proceedings of the Second International Conference on Advanced Materials, Energy and Environments (ICMEE-13)*, Yokohama, Japan, 2013.
- **S. Herasati**, H.H. Ruan and L.C. Zhang, Effect of chain morphology and carbon-nanotube additives on the glass transition temperature of polyethylene, in: *Proceedings of the 15th International Conference on Advanced Materials (AMPT. 2012)*, Wollongong, Australia, 2013.
- **S. Herasati**, Modern diesel engines with digital control, *Proceeding of the First Conference of mechatronic*, Ghazvin, Iran, 2003

Saeed Herasati

Education and Qualifications

PhD	Mechanical Engineering <i>The University of New South Wales (UNSW), Sydney, Australia</i>	2010-2014
MSc	Mechanical Engineering <i>The Iran University of Science and Technology, Tehran, Iran</i>	1999-2001
BSc	Mechanical Engineering <i>The Shiraz University, Shiraz, Iran</i>	1994-1999
Diploma	Machine Tools <i>Shiraz- Iran</i>	1990-1994

Honors and Awards

- PhD scholarship awarded by Iranian's government 2010-2014
- Best lecturer in school of mechanical engineering selected by students 2005
- Fifth ranking out of 60 undergraduate students 1998
- Top student of region 1990

Employments and Teaching Experiences

Assistant Professor

Jan. 2015 - Present

School of Mechanical Engineering, Yasouj University, Iran

- Teaching of postgraduate courses
- Teaching of undergraduate courses
- Supervising postgraduate thesis
- Supervising undergraduate final projects
- Research activities

Lecturer

Feb. 2002- Feb. 2010

School of Mechanical Engineering, Yasouj University, Iran

- Teaching of undergraduate courses
- Supervising undergraduate projects
- Research activities
- Administrative duties

Teaching Courses

Undergraduate

- Mechanics of composite materials
- Machine dynamics
- Mechanical vibration
- Machine element design
- Engineering drawing
- Machine tools workshop
- Auto mechanics

Postgraduate

- Mechanics of Nanostructures
- Mechanics of Smart Structures

Selected Projects Under my Supervision

- Stirling Engine
- Making a puma robot with five degree of freedom
- Platform of sample hybrid electric vehicle
- Making solar energy collectors
- Constructing a model airplane
- Test bed equipment for diesel injection system

Administrative Experiences

- Head of the School of Mechanical Engineering, Yasouj University (2002-2005)
- Supervising auto mechanic workshop and machine dynamic laboratory

Research Projects

- Small hybrid electric vehicle; designing and making (2004)
- Palm trees climbing machine (Patented) (2008)
- Diesel injector test bed (2005)
- Stirling Engine (1999)
- Newton telescope: design and manufacturing (1997)
- Solar oven by parabolic collector (1996)

Current Research Interests

- Advanced material characterization
- Nanomechanics of nanomaterials
- Mechanical properties of nanocomposites
- Development of Stirling engines for solar applications

Other Skills

Computer

- Expert in powerful atomistic simulation software such as Material Studio and LAMMPS
- Skilled in mathematical packages specially Mathematica and Matlab
- Experienced in engineering software such as ANSYS, Solid work, Catia, Working Model and AutoCAD
- Familiar with computer programming languages (e.g. C++, Fortran and Perl)
- Expert in Microsoft Office

Manufacturing

- Skilled in manufacturing process and machine tools

Teaching

- Advanced teaching methods and lecture note preparation

Languages

- Persian (native)
- English (professional working proficiency)

Publications

Journal Papers

- Nejad, M.Z., Taghizadeh, T., Mehrabadi, S.J., **Herasati, S.**, Elastic analysis of carbon nanotube reinforced composite plates with piezoelectric layers using shear deformation theory. *International Journal of Applied Mechanics* 2017. (Accepted)
- **S. Herasati** and L.C. Zhang, Interphase effect on the macroscopic elastic properties of non-bonded single-walled carbon nanotube composites, *Composites Part B*, 2015; 77, PP 52-58
- **S. Herasati** and L.C. Zhang, A new method for characterizing and modeling the waviness and alignment of carbon nanotubes in composites, *Composites Science and Technology*, 2014; 100, 136-142.
- **S. Herasati**, H.H. Ruan and L.C. Zhang, A new method for characterizing the interphase regions of carbon nanotube composites, *International Journal of Solids and Structures*, 2014; 51, PP 1781-1791
- **S. Herasati** and L.C. Zhang, Elastic properties of single-walled carbon nanotube clusters: Dependence on hydrostatic pressure, *Computational Materials Science*, 2014; 86, PP 93-98

- **S. Herasati**, H.H. Ruan and L.C. Zhang, Effect of chain morphology and carbon-nanotube additives on the glass transition temperature of polyethylene, *Journal of nano research*, 2013; 23, PP 16-23
- B. Farshi, **S. Herasati**, Optimum weight design of fiber composite plates in flexure based on a two level strategy, *Composite Structures*, 2006; 73, 495–504

Conference Proceedings

- **S. Herasati**, Molecular dynamics simulation of nanomachining: capabilities and challenges, in: *Proceedings of the 13th Iranian Conference on Manufacturing Engineering -ICME2016*, Bandar Abbas, Hormozgan, Iran, 2016
- **S. Herasati**, Effect of carbon nanotube interphase on the overall elastic properties of their composites, in: *Proceedings of the 24th Annual International Conference on Mechanical Engineering-ISME2016*, Yazd University, Yazd, Iran, 2016
- **S. Herasati** and L.C. Zhang, Effect of carbon nanotube additions on the mechanical properties of composites, in: *Proceedings of the 8th Australian Congress on Applied Mechanics (ACAM 8)*, Melbourne, Australia, 2015.
- **S. Herasati** and L.C. Zhang, The effect of hydrostatic pressure on the elastic properties of single-walled carbon nanotube clusters, in: *Proceedings of the Second International Conference on Advanced Materials, Energy and Environments (ICMEE-13)*, Yokohama, Japan, 2013.
- **S. Herasati**, H.H. Ruan and L.C. Zhang, Effect of chain morphology and carbon-nanotube additives on the glass transition temperature of polyethylene, in: *Proceedings of the 15th International Conference on Advanced Materials (AMPT. 2012)*, Wollongong, Australia, 2013.
- **S. Herasati**, Modern diesel engines with digital control, *Proceeding of the First Conference of mechatronic*, Ghazvin, Iran, 2003