SEUNGHYUN KO

307, Guggenheim Hall, University of Washington, Seattle, WA 98195
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EDUCATION

Ph.D. Candidate, Aeronautics & Astronautics Engineering 9/2015 - Present
University of Washington, Seattle, WA
Advisors: Professor Marco Salviato, Professor Jinkyu Yang

B.S., Aeronautics & Astronautics Engineering 6/2015
University of Washington, Seattle, WA
GPA: 3.70/4.0

AWARDS AND HONORS

S. Rao and Usha Varanasi Endowed Fellowship 2015 - 2017
Top Graduate Scholar Award 2015

Honor as Mentor

2nd Place Award, Team Research Competition, *AIAA - Region VI Student Conference*, Merced, CA, 2018, awarded to K. Chan, C. Lynch, M. Nguyen, P. Nicholas, N. Stokes, D. Wu

2nd Place Award, Undergraduate Research Competition, *AIAA - Region VI Student Conference*, San Jose, CA, 2017, awarded to C. Wanitthananon

RESEARCH EXPERIENCE

Research Assistant 6/2016 - Present
University of Washington *Seattle, WA*

· Investigate stochastic intra and inter laminar fracture mechanisms and scaling effect of discontinuous fiber composite. Develop stochastic finite element models to capture the non-linear fracture behaviors of DFCs.
· Assist FAA to develop certification process for product design guidelines and material test methods.
· Sponsors: FAA, AMTAS, Boeing, Hexcel

Research Assistant 9/2015 - 6/2016
University of Washington *Seattle, WA*

· Study crack propagation and fracture mechanism of shallow angled thin ply carbon composite
· Sponsors: Chomarat, JCATI

JOURNAL PUBLICATIONS

3. **S Ko**, S Douglass, J Davey, J Yang, M Tuttle, M Salviato, "Effect of the thickness on the fracturing behavior of discontinuous fiber composite structures", *Composite Part A*, 2019, *under review.*
2. **S. Ko**, J. Yang, M. Tuttle, M. Salviato, "Fracturing behavior and size effect of discontinuous fiber composite structures with different platelet sizes", *Composite Structures*, 2018, *under review.*
1. Y. Kim, **S. Ko**, W. Lay, J. Tian, P. Chang, S. Thielk, H. Bang, J. Yang, "Effects of shallow bi-angle, thin-ply laminates on the structural performance of composite wings", *AIAA Journal*, 55(6): 2086-2092, 2017.

CONFERENCE PROCEEDINGS

5. **S. Ko**, K. Chan, R. Hawkins, R. Jayaram, C. Lynch, R. El Mamoune, M. Nguyen, N. Pekhotin, N. Stokes, D. Wu, J. Yang, M. Tuttle, M. Salviato, "Experimental and numerical characterization of the intra-laminar fracturing behavior in discontinuous fiber composite structures", *ASC*, 2018.
4. **S. Ko**, K. Chan, R. Hawkins, R. Jayaram, C. Lynch, R. El Mamoune, M. Nguyen, N. Pekhotin, N. Stokes, D. Wu, J. Yang, M. Tuttle, M. Salviato, "Characterization and computational modeling of the fracture behavior in discontinuous fiber composite structures", *SAMPE Conference*, 2018.
3. M. Salviato, **S. Ko**, J. Yang, M. Tuttle, "Toward a probabilistic model fro fracture and scaling of discontinuous fiber composites", *Engineering Mechanics Institute Conference*, 2017.
2. M. Salviato, **S. Ko**, J. Yang, M. Tuttle, "Certification of discontinuous composite material forms for aircraft structures", *JAMS Technical Review Meeting*, 2017.
1. M. Salviato, Y. Kim, P. Chang, **S. Ko**, W. Lay, J. Tian, S. Thielk, H. Bang, J. Yang, "Effects of shallow angle, thin-ply laminates on the structural performance of composite wing", *AIAA SciTech*, 2016.

TEACHING EXPERIENCE

Substituted Lecturer
University of Washington — *Seattle, WA*

- ME 450 Introduction to Composite Materials and Design — 2/2019
- AA532 Mechanics of Composite Materials — 11/2018
- AA332 Aerospace Structure II — 5/2018
- AA532 Mechanics of Composite Materials — 11/2017

Teaching Assistant
University of Washington — *Seattle, WA*

- AA331 Aerospace Structure I — 1/2016 - 3/2016
- AA332 Aerospace Structure II — 3/2016 - 6/2016

Mentoring
University of Washington — *Seattle, WA*

- Minh Nguyen (Masters, Aerospace Engineering) — 9/2018 - present
- Kathryn Tidwell (Masters, Aerospace Engineering) — 9/2018 - present
- Troy Nakagawa (Masters, Aerospace Engineering) — 9/2018 - present
- Rohith Jayaram (Masters, Mechanical Engineering) — 9/2017 - present
- Reed Hawkins (Masters, Mechanical Engineering) — 9/2016 - 6/2018
- Reda El Mamoune (Masters, Material Science Engineering) — 9/2016 - 6/2018
- Zhenzhen Su (Masters, Material Science Engineering) — 9/2016 - 6/2017
- Peyton Wells, Joshua Huang, Caelan Wisont, Annaleigh Miller, Harpreet Singh (Undergraduate Research Project) — 9/2018 - Present
- Sam Douglass, James Davey (Summer Undergraduate Research Program) — 6/2018 - Present
- Nicholas Price, Sam Douglass, Ahrif Mckee, Julian Woo, Dickson Cheung, James Davey, Riley Nelson (Undergraduate Research Project) — 3/2018 - 6/2018
- Kenrick Chan, Christopher Lynch, Minh Nguyen, Nicholas Pekhotin, Natania Stokes, Daniel Wu (Undergraduate Research Project) — 3/2017 - 12/2017
- Chayanat Wanitthananon (Summer Undergraduate Research Program) — 6/2016 - 9/2016