

Geng Niu

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3D printed concrete, Low-density Concrete, Zero-net

EDUCATION

Southeast University

- M.S. in Material Science and Engineering 2021 - present
(Advisor: Prof. Yamei Zhang) (Average Score: 89.35)
- B.S. in Material Science and Engineering 2017 - 2021
(GPA: 3.7/4.0, Average Score: 88.55)

RESEARCH EXPERIENCES

Jiangsu Key Laboratory of Construction Materials, Southeast University 12/2018 – present

Advisor: Prof. Yamei Zhang

Research Topics: 3D printed concrete^[2]^[4], Low-density Concrete^[1]^[3]

Prof. Peigen Zhang's Lab, Southeast University 12/2019 – 10/2020

Advisor: Prof. Peigen Zhang

Research Topics: MAX-Diamond Complex

PUBLICATIONS

Journal Articles († indicates co-first author, * indicates correspondent author)

1. Liu, Chao, Yuning Chen, Zedi Zhang, **Geng Niu**, Yuanliang Xiong, Lei Ma, Qi Fu, Chun Chen, Nemkumar Banthia, & Yamei Zhang*. (2022). Study of the Influence of Sand on Rheological Properties, Bubble Features and Buildability of Fresh Foamed Concrete for 3D Printing. *Construction and Building Materials*, 356, 129292.
2. Ma, Lei, Qing Zhang, Hélène Lombois-Burger, Zijian Jia, Zedi Zhang, **Geng Niu**, & Yamei Zhang*. (2022). Pore Structure, Internal Relative Humidity, and Fiber Orientation of 3D Printed Concrete with Polypropylene Fiber and Their Relation with Shrinkage. *Journal of Building Engineering*, 61, 105250.

Manuscripts Drafted and Under Preparation

3. **Geng Niu**, Liu Chao, & Yamei Zhang*. (manuscript drafted). Excess Paste Thickness, Rheology and EPS Distribution of 3D-Printed EPS Lightweight Concretes with Varying Densities.
4. **Geng Niu**, & Yamei Zhang*. (in prep). Influencing Factors and Analysis of Excess Paste Layer.

HONORS & AWARDS

- Changwen Miao Scholarship, Southeast University 2019 – 2020
- Excellent League Member, Southeast University 2018

PROFESSIONAL EXPERIENCES

Teaching Assistant

- Cement Chemistry 2022

Equipment Operator & Data Analyst

- Y.CT precision, X-ray tomography scanner, Southeast University 2022 - present
- Zeiss Xradia 510 Versa, 3D X-ray microscope, Southeast University 2022 - present

Additional Information

GRE Overall Score: 330 (March 2023)

- Verbal: 160, Quantitative: 170, Analytical Writing: 3.5

TOEFL Overall Score: 94 (July 2023)

- Reading: 28, Listening: 23, Speaking: 19, Writing: 24