Taisei **Saida**

Ph.D Student in Engineering, University of Tsukuba

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Education

Current **Apr. 2023**	**University of Tsukuba** Ph.D. in Engineering ∣ Degree Program in Engineering Mechanics & Energy	**Ibaraki, Japan**
Mar. 2023 **Apr. 2021**	**University of Tsukuba** Master in Engineering ∣ Degree Program in Engineering Mechanics & Energy	**Ibaraki, Japan**
Dec. 2021 **Apr. 2017**	**University of Tsukuba** Bachelor of Engineering ∣ College of Engineering Systems	**Ibaraki, Japan**

Experience

Mar. 2026 **Apr. 2024**	**JSPS Research Fellowship DC2** *Japan Society for the Promotion of Science*	**Japan**
Sep. 2023 **Jun. 2023**	**Lawrence Livermore National Laboratories ∣ Research Intern** [🌐] *Mentor: Dr. Aldair Ernesto Gongora*	**CA, US**
Sep. 2021 **Sep. 2021**	**Research Intern** [🌐] Taisei Company Technology Center	**Kanagawa, Japan**
Sep. 2021 **Aug. 2021**	**Research Intern** [🌐] NTT Access Network Service Systems Laboratories	**Ibaraki, Japan**
Current **Jun. 2021**	**Research Assistant** [🌐] AIS Lab in University of Tsukuba	**Ibaraki, Japan**
Dec. 2022 **May. 2019**	**Research Assistant** [🌐] National Agriculture and Food Research Organization	**Ibaraki, Japan**

Journal Papers

[4] **TL-GPRSM: A python software for constructing transfer learning Gaussian process regression surrogate model with explainability** [doi]
Taisei Saida, Mayuko Nishio
Software Impacts. 2023; 16; 100515. (2022 IF = 2.1) [ELSEVIER SIMPA'23]

[3] **Transfer learning Gaussian process regression surrogate model with explainability for structural reliability analysis under variation in uncertainties** [doi]
Taisei Saida, Mayuko Nishio
Computers & Structures. 2023; 281; 107014. (2021 IF = 5.372) [ELSEVIER CAS'23]

[2] **CNN-based segmentation frameworks for structural component and earthquake damage determinations using UAV images** [doi]
Taisei Saida, Muhammad Rashid, Yudai Nemoto, Shota Tsukamoto, Takehiko Asai, Mayuko Nishio
Earthquake Engineering and Engineering Vibration. 2023; 22(2); 359-369. (2021 IF = 2.810) [SPRINGER EEEV'23]

[1] **CONSTRUCTION OF GAUSSIAN PROCESS REGRESSION SURROGATE MODEL FOR NONLINEAR SEISMIC RESPONSE ANALYSIS USING ARD KERNEL (in Japanese)** [doi]
Taisei Saida, Mayuko Nishio
Journal of Japan Society of Civil Engineers, Ser. A2 (Applied Mechanics (AM)). 2021; 77(2);I_93-I_104. [JSCE AM'21]

Conference Papers

[3] **Gaussian Process Regression Surrogate Model for Seismic Vulnerability Assessment of Highway Bridge Structure System** [doi]
Taisei Saida, Muhammad Rashid, Mayuko Nishio
Proc. EVACES. 2023; 433; 520-529. [EVACES'23]

[2] **Digital twin framework for real-time dynamic analysis visualization with detecting dynamic changes in structures properties using PINN** [doi]
Toko Okuda, Taisei Saida, Mayuko Nishio
Proc. SPIE. 2023; 12486; 1248616. [SPIE'23]

[1] **Gaussian process regression surrogate model for dynamic analysis to account for uncertainties in seismic loading** [doi]
Taisei Saida, Mayuko Nishio
Proc. SPIE. 2023; 12486; 1248610. [SPIE'23]

Awards and Grants

Japan Society for the Promotion of Science (JSPS) Research Fellowship for Young Scientists (DC2), 2024-2026 | 200,000 JPY / month & 1,600,000 JPY [◎]
This fellowship is the most famous in Japan, with only the top 20% of PhD students in the country selected.

Japan Science and Technology Agency (JST) SPRING : Support for Pioneering Research Initiated by the Next Generation Home, 2023-2026 | 200,000 JPY / month & 1,500,000 JPY [◎]

JASSO Scholarship for Top 10% Excellent Master Students from Japan Student Services Organization, 2023 | 2,112,000 JPY [◎]
This is a system in which students who have received a scholarship loan at a graduate school and who have been recognized by the JASSO as having made particularly outstanding achievements during the period of the loan are exempted from paying back the full amount or half of that scholarship.

Meikeikai Award, Meikeikai in University of Tsukuba, 2023 [◎]
This award is given to those who have done outstanding research.

Honorable Mention in the 2nd International Competition for Structural Health Monitoring, ANCRiSST, 2022 [◎]

Applied Mechanics Presentation Award. The 24th Symposium on Applied Mechanics. Japan Society of Civil Engineers. 2021 [◎]