

# Job Opening for NEXTA Postdoctoral Research Fellowship

## Shimane University

1. Affiliation                      Next Generation Tatara Co-creation Centre (NEXTA)
2. Job type                        Postdoctoral research fellow (fixed period), 2 vacancies
3. Research Field                Mesoscale process simulation for metal additive manufacturing
4. Job Description                **【After employment】** (1) The new position will be embedded into the Next Generation Tatara Co-Creation Centre at Shimane University (Director: Prof. Roger Reed at University of Oxford), a newly built core institute within a national project in Shimane Prefecture aiming for “Creation of a Global Base for Advanced Metals -Next Generation TATARA Project-” , awarded by the Japan Cabinet Office since 2018. The Centre aims to conduct world-class research in superalloys for aircraft engine applications and amorphous ribbon alloys for motor applications through in-depth collaborations and partnerships with industries as well as domestic and overseas universities. It endeavors positioning the Centre as an outstanding research base actively contributing to metallic-material industries and cultivating top young professional human capital.  
  
(2) The Centre has four primary technical fields: computational modelling, processing and design, characterisation and mechanical and magnetic testing. The employed postdoctoral research fellows will be sponsored by JAXA Space Strategy Fund (Development of manufacturing machines and fundamental technologies for metal additive manufacturing for space applications). The new researchers are required to conduct cutting-edge forefront research under the supervision of Prof. Junji Shinjo (<https://scholar.google.com/citations?user=DkxYyNMAAAAJ>), and also in collaboration with industries and with other domestic and overseas universities in the field of mesoscale simulation for metal materials processing based on materials science and technology. At NEXTA, collaborative research environment is well established for producing high-impact papers on melting/solidification processes, grain growth, defect control, fume/laser interaction, data utilization and process optimization. Physical or mathematical background on thermal engineering/ fluid mechanics/ metal materials/ applied mathematics/ optimization will be encouraged. **Self-coding capability of Fortran, C, etc. is required.** Our team can exclusively use a parallel computer system with more than 2,000 cores for research.

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|---------------------------|---|
|                           | 【Scope of change】 No change   |
| 5. Starting Date          | As early as possible <b>after October 1<sup>st</sup></b> , 2025   |
| 6. Term of appointment    | Maximum two years until March 31 <sup>st</sup> , 2027. It may be extended until March 31 <sup>st</sup> , 2029.  |
| 7. Place of Work          | <p>【After employment】 1060 Nishikawatsu-cho, Matsue, Shimane</p> <p>Matsue Campus, Shimane University</p> <p>【Scope of change】 No change</p>  |
| 8. Remuneration           | <p>(1) Remuneration Annual Salary System: Salary amount is decided by the salary regulation for contract employees at Shimane University, 島根大学契約職員給与規程(only in Japanese). Various allowances are offered. The salary regulation for contract employees at Shimane University are subject to revision. Visit the Shimane University official website for the Rules (in Japanese only).</p> <p><a href="https://www.shimane-u.ac.jp/introduction/information/">https://www.shimane-u.ac.jp/introduction/information/</a></p> <p>(2) Work hours: From 8:30a.m. to 5:15p.m.</p> <p>(3) Overtime work: May be requested if necessary.</p> <p>(4) Holidays: Saturdays, Sundays, national holidays, dates between 29 December and 3 January</p> <p>(5) Vacation, etc.: Annual paid leave and other leave (paid and non-paid leave).</p> <p>(6) Insurance, etc.: The successful candidate shall enroll in the National Public Service Personnel Mutual Aid Associations, Worker' s Accident Compensation Insurance, and Employment Insurance.</p> |
| 9. Probationary period:   | Not applied   |
| 10. Employer              | National Shimane University, Japan  |
| 11. Qualifications        | The applicants are required to hold or expect having doctorate degree or to be prospected to hold it by the employed day.   |
| 12. Application documents | <p>(1) CV</p> <p>(2) Achievement list (Original article (with cited number), review article, book, patent, invited talk, external funding, and award)</p> <p>(3) Copies of the three main authored papers</p> <p>(4) Brief summary of the papers of (3)</p> <p>(5) Research background and future ambitions (one letter sheet)</p> <p>(6) Contact details of two referable persons</p> <p>(7) The applicants are required to submit a unified pdf document which</p>  |

includes above-mentioned (1) to (6) in order, to the following addressee (shown in 15) via e-mail. The submitted documents will not be returned to the applicants. Application documents will not be used for purposes other than this job posting.

13. Application due date

Until Aug 29<sup>th</sup>, 2025.

14. Screening

Results will be notified after the decision is made.

(1) 1st screening: document selection

(2) 2nd screening: Interview and research presentation by the applicants.

Shortlisted applicants in the 1st screening process will be notified of the date of the 2nd selection interviewing process via email. We are not able to provide travel or accommodation expenses for applicants to participate in interviews and research presentations.

15. Addressee of the application document

E-mail: tatara(a)office.shimane-u.ac.jp \*Please replace (a) with @ when you send e-mail.

※ Application documents in the order of (1) to (6) must be in a single PDF file.

The e-mail title should be “Application for Tatara Postdoctoral Researcher”, and the name of addressee should be “Director of Next Generation Tatara Co-creation Centre, Shimane University”

16. Selection result

The selection result will be notified to all applicants via e-mail.

17. Measures to

No smoking is allowed on campus.

Prevent Passive

Smoking

18. Additional

Information

1) Aiming to realize a gender equality society, Shimane University is working on creating a comfortable workplace environment. In accordance with the purpose of the “Basic Law for Gender Equality Society,” female candidates are strongly encouraged.

For more details, visit the Shimane University Diversity Promotion Office website.

<https://diversity.shimane-u.ac.jp/for-english-speaker/>

2) In order to help faculty members engage in their research and educational activities at the university without worrying about Japanese language barriers, the Shimane University Concierge provides tailored support for English speaking faculty.

For more details, visit the website of International Center ,Shimane University .

<https://kokusai.shimane-u.ac.jp/english/concierge/index.html>

「Work, Marriage, Child Rearing, My Home: Your Future Life in Shimane」

The Shimane Prefectural Government provides materials that promote the benefits of working and living in Shimane Prefecture in terms of environment, time, and money, in order to encourage young people to find employment in the prefecture. For details, please refer to the Shimane Prefecture website “Life in Shimane, which you may not know about.” Shimane Prefecture’s website.

[https://www.pref.shimane.lg.jp/industry/employ/koyo\\_syugyo/shien/shimane-kurashi.data/shimanegurashi2024.pdf](https://www.pref.shimane.lg.jp/industry/employ/koyo_syugyo/shien/shimane-kurashi.data/shimanegurashi2024.pdf)

**【Contact/Inquiry】**

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