Project Assistant Professor Position in Computational Materials Science for GaN Power Devices
Center for Innovative Integrated Electronic Systems (CIES), Tohoku University, Japan

1. Position
Project Assistant Professor (1 position)

2. Affiliation
Center for Innovative Integrated Electronic Systems (CIES), Tohoku University

3. Research Field and Responsibilities
We invite applications for a Project Assistant Professor position in computational materials science for GaN (gallium nitride) power devices under the MEXT-supported COPELNIX research project.
The successful candidate will conduct theoretical and computational investigations of atomic-scale and electronic mechanisms governing the performance and reliability of GaN power devices.
Research topics include:

- Atomic structures and electronic properties of impurities, point defects, and defect complexes in GaN
- Defect formation and thermal stability associated with ion implantation
- Electronic properties of GaN interfaces and charge-trapping mechanisms
- Theoretical investigations of materials properties relevant to high-performance and highly reliable GaN power devices
- Collaboration with experimental researchers to connect atomistic simulations with device development

The specific research topics will be determined in consideration of the successful candidate's background and interests.

4. Qualifications
Applicants should:

1. Hold a Ph.D. degree or possess equivalent research qualifications.
2. Have a research background in physics, materials science, computational science, applied physics, or a related field.
3. Be motivated to conduct theoretical and computational research in collaboration with experimental researchers.

Prior experience in density functional theory (DFT) or first-principles calculations is not required.
Applicants with backgrounds in condensed matter physics, computational physics, theoretical physics,

particle physics, or related fields are particularly welcome.
The successful candidate will have opportunities to acquire the necessary skills in first-principles calculations after joining the research group.

5. Starting Date
April 1, 2027 (preferred; negotiable).

6. Term of Appointment
Three years.

7. Salary
Approximately JPY 5,000,000 per year.
Salary and employment conditions will be determined in accordance with Tohoku University regulations, taking into account the candidate's qualifications and experience.

8. Location
Center for Innovative Integrated Electronic Systems (CIES), Tohoku University, Sendai, Japan

9. Application Materials
1. Curriculum vitae
2. List of publications and research achievements
3. Summary of previous research (approximately two A4 pages)
4. Statement of research interests and future plans (approximately one A4 page)
5. Names, affiliations, and contact information of two references

10. Selection Process
Candidates will be selected based on document screening and interviews.
Interviews may be conducted online.

11. Application Deadline
December 28, 2026 (Monday)

12. Application Submission and Inquiries
Prof. Kenji Shiraishi
Center for Innovative Integrated Electronic Systems (CIES)
Tohoku University
E-mail: kenji.shiraishi.c2@tohoku.ac.jp
Application documents should be submitted electronically by e-mail.