Purdue-Technion Quantum Postdoctoral Fellowship
Purdue University

Job Title	Purdue-Technion Quantum Postdoctoral Fellowship
Department	College of Engineering https://engineering.purdue.edu/Engr
Institution	Purdue University West Lafayette, Indiana
Date Posted	Jun. 2, 2025
Application Deadline	Open; Please click to apply.
Position Start Date	Jan. 12, 2026
Job Categories	Post-Doc
Academic Field(s)	Physics - General Sciences - General
Job Website	https://engineering.purdue.edu/Engr/Academics/Graduate/Purdue-TechnionFellowships
Apply Online Here	https://purdue.ca1.qualtrics.com/jfe/form/SV_aXgoq7Vix1ktqLQ?_ga=2.137709680.1722671275858187920.1748454142
Apply By Email	

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Job Description

Purdue-Technion Quantum Postdoctoral Fellowship

About

The Purdue-Technion Quantum Postdoctoral Fellowship seeks top applicants to conduct quantum-focused, fundamental research projects under joint mentorship from principal investigators (PIs) from Purdue University and the Technion – Israel Institute of Technology. Awardees will split their time equally at each institution. Key topics of interest in Quantum Science and Engineering include but are not limited to:

- Quantum metrology: study of making high-resolution and highly sensitive measurements of physical parameters using quantum theory to describe the physical systems,?particularly exploiting quantum entanglement and quantum squeezing.?
- Quantum materials: materials that present strong?electronic correlations?(or some type of electronic order) such as?superconducting?or magnetic orders, or whose electronic properties are linked to?non-generic?quantum effects –?topological insulators,?Dirac electron systems; systems whose collective properties are governed by genuinely quantum behavior, such as?ultra-cold atoms, cold?excitons,?polaritons.
- Quantum devices: solid-state systems for advancing quantum computation, communication, and sensing.
- Quantum simulations/cold atom research: study of a?quantum system?in a programmable fashion to solve specific physics?problems; experimental platforms may include systems of? ultracold quantum gases, polar molecules, trapped ions, photonic systems, quantum dots, and superconducting circuits.
- Quantum Information: quantum computing, quantum communication, quantum information processing.?

Eligibility

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Individuals must be able to start the postdoctoral research before January 12, 2026. Applicants must have already completed their Ph.D. or be able to complete it before they start the program.

Purdue University is an EOE/AA employer. All individuals, including minorities, women, individuals with disabilities, and veterans are encouraged to apply.

Program Structure

Awardees will have two primary co-advisors, one a faculty member at Purdue and one a faculty member at the Technion. Additional co-advisors from either university may also participate in the project as appropriate.

Awardees will be guaranteed two full years of support on a full-time Postdoctoral Fellowship. Fifty percent placement at each university is required, most likely sequential one-year terms, but alternate options are possible depending on the needs of the joint research project.

Research Project Topics

Applicants can (a) propose their own innovative research proposal and list potential co-advisors, or (b) choose to develop their proposal based on research descriptions already posted by faculty on the program website. All proposals must have a quantum-related focus. In both cases, postdoctoral candidates are strongly encouraged to work with potential co-advisors to develop their research plan. Letters of support are required from both Purdue and Technion PIs as part of the application.

Potential faculty co-advisors are invited to submit brief 200 word descriptions and information for their proposed topics.

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Benefits

Awardees are appointed for a two-year term and receive a competitive stipend and benefits. A $10,000 grant is also provided for travel and relocation-related expenses.

Application

Application materials must include the following items:

1.

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Cover letter

2. Curriculum Vitae including list of publications.

3. One-page research statement that includes goals and significance of proposed research and lists potential Purdue and Technion faculty members who can serve as co-advisors.

4. Two (2) letters of recommendation, in addition to letters of support from each of the potential co-advisors at Purdue and the Technion.

Applications will be assessed by a committee composed jointly of Purdue and Technion faculty.

Awardees will be accepted based on overall excellence. Total number of awards will be dependent on the quality of candidates and available funding.

Apply at https://purdue.ca1.qualtrics.com/jfe/form/SV_aXgoq7Vix1ktqLQ.

EEO/AA Policy

Purdue University is an EOE/AA employer. All individuals, including minorities, women, individuals with disabilities, and veterans are encouraged to apply.

Contact Information

Please reference Academickeys in your cover letter when applying for or inquiring about this job announcement.

Contact

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