■ 公募情報

Subject No.	2027R-22
Job Title	Research Assistant
Department	Quantum ICT Collaboration Center
Work Contents （Research theme)	Research on fundamental aspects and applications of quantum information and communications technologies
Detail of Work Contents	To carry out research, selecting one or more themes in the following list of eight themes. (1) Research on quantum-classical hybrid information processing using quantum computers, and semiconductor annealers and so on, including algorithms, programming, simulation methods, applications to network optimization etc.). (2) Research on quantum measurement and controls, including quantum measurement theory and its experimental verification, quantum feedback control, quantum error mitigation and so on. It may include development of detectors and control tools, or improvement of peripheral technologies such as optoelectronics. (3) Theoretical study on quantum communication including quantum repeaters. (4) Research on quantum cryptography and/or physical layer cryptography. Eithertheoretical or experimental study is acceptable. (5) Research on networks combining quantum-classical hybrid information processing, quantum cryptography, and quantum communication, including conceptual design/architecture, network control, assistance for testbed experiments, etc. (6) Free space optical communication, optical measurement, optical sensing (primarily conceptual design/architecture and development of component technologies). (7) Feasibility study or research on quantum information theory, including continuous-time quantum error correction, quantum machine learning, quantum circuit theory, tensor networks, etc. (8) Research and development of programs and tools for human resource training, and assistance of exercise and information exchange activities in NICT Quantum Camp. Research assistant is supposed to serve as a member of Young Researcher Challenge Laboratory, which consists of other research assistants who work on the above themes, and advisors of NICT and from other organizations.
	The Article 15(2) of the Act on the activation of Science, Technology and Innovation will be applied to this work content.
Application requirement	1. Ph.D holders or the equivalents (soon-to-be doctors can also apply) 2. The positions require basic knowledge of quantum communicaton, quantum computation, quantum sensing, R&D experiences of quantum communication (not mandatory but a strong motivation is required for research on novel computing and network technologies based on quantum technologies). 3. Some of the following R&D backgrounds are desired (the more the better): (1) Experiences of theoretical or experimental research on quantum computer. (2) Experiences of dynamics and noise control technology of quantum system. (3) Programming including Python.
Recruiting (Number of people)	7
Contract period	hiring date ～ March 31,2028 N.B. Contract will not be renewed.
Contract period	Up to March 31,2028 if certain conditions are fulfilled
Salary (basic salary)	1,690JPY ～ 2,370/hour 1,690 yen per hour for undergraduate students, 2,090en per hour for first semester doctoral students, and 2,370 yen per hour for second semester doctoral students. However, as a basic salary is compliant with government employees' wages, it shall be changed when a basic salary is changed after labor union and the like of NICT agreed under a revision to the government employees' wages.
Work Place	Headquarters (Koganei-shi, Tokyo)
Working frequency	4days/week (4hours/day)

* Scope of change in work and workplace : No changes are expected in general
* The expressions used in "Work Contents (Research theme)" and "Detail of Work Contents" and the names of "Department" and "Work Place" may be subject to change due to organizational restructuring or other reasons.

NICT Fixed Term Positions Job Announcement: https://www.nict.go.jp/en/employment/index-e-top.koubo.html