■ Job Information

Subject No.	2027R-80
Job Title	Fixed Term Researcher
Department	Cybersecurity Research Institute / Security Fundamentals Laboratory
Work Contents (Research theme)	Research on the Design and Security Evaluation of Cryptographic Technologies and Protocols in Constrained Computing and Communication Environments
Detail of Work Contents	Ensuring data security in ICT systems requires not only the security of cryptographic algorithms themselves, but also the security of the overall system, including implementations, cryptographic protocols, and operation. In particular, in environments with constraints on computational capability, memory, power consumption, and communication capacity, cryptographic technologies are required to achieve both high security and implementation efficiency under limited resources. The successful candidate will conduct the following research and development on cryptographic technologies and protocols in constrained computing and communication environments: 1. Research and development on the design and security evaluation of cryptographic algorithms, including symmetric-key cryptography and authenticated encryption. 2. Research and development on the design and implementation evaluation of cryptographic technologies for various execution environments, including embedded processors and dedicated hardware. 3. Research and development on security analysis of cryptographic protocols used in practical communication systems, as well as attack methods and countermeasures. 4. Research and development on cross-layer security evaluation covering cryptographic algorithms, implementations, protocols, and operation using formal verification, computer-based experiments, and related techniques. 5. Security evaluation of cryptographic technologies and related research and development necessary for the operation of the CRYPTREC Secretariat. The Article 15(2) of the Act on the activation of Science, Technology and Innovation will be applied to this work content.
	Employees to be hired through this recruitment may apply for external competitive research fundings such as Grant-in-Aid for Scientific Research (KAKENHI) and NICT's internal research fundings.
Application requirement	1. The applicant must hold, or be expected to obtain, a doctoral degree in cryptography, information security, or a related field, or possess an equivalent level of research experience and ability. 2. The applicant must have strong knowledge and research achievements in one or more areas such as the design and analysis of cryptographic algorithms, security evaluation of cryptographic protocols, and formal verification. 3. The applicant must have strong knowledge and technical skills in computer-based experiments and software or hardware implementation required for the research and development. 4. The applicant must have experience in preparing research papers, technical reports, or other research outputs and disseminating the results domestically and internationally. 5. The applicant must be capable of preparing documents, including technical reports, required for the operation of the CRYPTREC Secretariat.
Recruiting (Number of people)	1
Contract period	hiring date ～ March 31,2028 N.B. Contract could be renewed.
The employment period in case of fully renewing	Up to 5years if certain conditions are fulfilled
Salary (basic salary)	¥516, 000/month Basic salary shall be determined by taking into account each employee's experience and task to be engaged in. 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	5days/week（7.5hours/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