



## Okinawa Institute of Science and Technology

### (Postdoctoral Scholar Position in Cognitive Neurorobotics Research Unit)

The Okinawa Institute of Science and Technology Graduate University (OIST; see [www.oist.jp](http://www.oist.jp)) is a dynamic new graduate university of science and technology in Okinawa Prefecture, Japan. The university is located on 85 hectares of protected forestland overlooking beautiful shoreline and coral reefs. The campus is striking architecturally, and the facilities are outstanding ([OIST campus video tour](#)). There are no academic departments, which facilitates multidisciplinary research. Outstanding resources and equipment are provided and managed to encourage easy access and collaboration. English is the official language of the University, and the university research community is fully international, with more than 50 countries represented. OIST is rapidly gaining recognition in the worldwide academic community as a model for excellence in education and research.

#### **Position summary:**

We are looking for postdoctoral scholars who are interested in the following research topics:

1. Studies of various types of robot learning using recurrent neural network (RNN) models based on predictive coding and active inference frameworks. This could include investigation on more theoretical aspects in these frameworks.
2. Studies on developmental robotics with focusing on the problem of generalization through stages of development. We hope that developmental processes during life-time learning spanning for months to years can be observed. This study may use reinforcement learning as well as predictive coding and active inference framework. We are also interested in conducting synthetic neurorobotics modeling studies on developmental disorders including schizophrenia and ASD.
3. Studies on developmental social cognition with focusing on the problem of perception of self and others under experiment setup in human-robot or robot-robot contextual, enactive, and multimodal interaction. This study may also incorporate with research outputs from (1) and (2)
4. Studies on development of general intelligence by modeling the higher-order cognitive brain mechanism of executive control and working memory usage.

#### **Position:**

Postdoctoral Scholar

Cognitive Neurorobotics Research Unit



**Working Location:**

1919-1 Tancha, Onna-son, Okinawa, Japan 904-0495

**Qualifications:**

1. Ph.D. or equivalent with strong backgrounds in the related fields.
2. Good knowledge in neural computation, complex adaptive systems, statistical physics, or nonlinear dynamics with sufficient programming skills in Python, C++, or others.
3. Proficiency in written and spoken English.
4. Highly motivated and with strong social skills.

**Report to:**

Professor Jun Tani / Cognitive Neurorobotics Research Unit

**Starting Date:**

After 1 November 2019

**Term & Working hours:**

Term: Full time, fixed term appointment for 1 year contract with possibility to renewal up to 3 years.

Working hours: 9:00-17:30 (Discretionary)

**Compensation & Benefits:**

Compensation in accordance with the OIST Employee Compensation Regulations

Benefits:

- Relocation, housing and commuting allowances
- Annual paid leave and summer holidays
- Health insurance (Private School Mutual Aid <http://www.shigakukyosai.jp/> )
- Welfare pension insurance (kousei-nenkin)
- Worker's accident compensation insurance (roudousha-saigai-hoshou-hoken)

**How to Apply:**

Apply by emailing your Submission Documents to:

**tomoe.furuya[at]oist.jp**



(Please replace [at] with @ before using this email address)

**Submission Documents:**

1. Curriculum vita including a list of publications
2. Research statement
3. Names and contact information of 3 referees, one of which should be a previous employer

\* Please be sure to indicate where you first saw the job advertisement.

**Application Due Date:**

Applications deadline will continue until the position is filled.

(Applications will be screened upon arrival)

\* OIST Graduate University is an equal opportunity, affirmative action educator and employer and is committed to increasing the diversity of its faculty, students and staff. The University strongly encourages women and minority candidates to apply.

\* Information provided by applicants or references will be kept confidential, documents will not be returned. All applicants will be notified regarding the status of their applications.

\* Please view our policy for rules on external professional activities

(<https://groups.oist.jp/acd/information-disclosure/>).

\* Further details about the University can be viewed on our website ([www.oist.jp](http://www.oist.jp)).