

STATEMENT OF INTENT TO COOPERATE
BETWEEN
THE ENGINEERING LABORATORY OF
THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY OF
THE UNITED STATES OF AMERICA
AND
THE CONVERGENCE TECHNOLOGY DEVELOPMENT DEPARTMENT OF
THE KOREA ATOMIC ENERGY RESEARCH INSTITUTE OF
THE REPUBLIC OF KOREA
CONCERNING
RESEARCH COOPERATION IN ROBOTIC TECHNOLOGIES FOR NUCLEAR HAZARD
RESPONSE APPLICATIONS

Article I. Scope and Objectives

- A. The purpose of this Statement of Intent to Cooperate (hereinafter referred to as the “Agreement”) is to provide a mechanism for cooperation in research for robotic technologies in nuclear hazard response applications between the Engineering Laboratory’s Intelligent Systems Division within the National Institute of Standards and Technology (NIST) and the Convergence Technology Development Department within the Korea Atomic Energy Research Institute (KAERI) (hereinafter referred to as the “Participants”)
- B. This Agreement details the Participant’s intent to facilitate the exchange of scientific and technical knowledge services, and the augmentation of scientific and technical capabilities of the Participants, with respect to robotic technologies in nuclear hazard response applications.
- C. This Agreement details the intent of the Participants to work together as described and is not intended to be legally binding upon the Participants. NIST enters into this Agreement under the authorities provided by Title 15 United States Code Section 272(b)(10) and (c)(5).

Article II. Forms and Areas of Cooperation

- A. Cooperative activities under this Agreement may consist of exchange of technical and administrative information; standards consultations; exchange visits; cooperative research in disciplines within the scope of programs of the Participants and other forms of cooperative activities as may be mutually determined.
- B. Forms of cooperation may include, but are not limited to, areas of mutual interest such as:
 - 1. Assignments of guest scientists to each other’s laboratories for periods to be mutually determined by the Participants, as permitted under existing policies and programs of each institution;
 - 2. Cooperative research projects carried out partially in each institution;
 - 3. Comparisons of data collected using standard test methods and procedures;
 - 4. Participation in seminars, workshops, and training courses in each other’s laboratories;
and
 - 5. Exchange of publications.

- C. Areas of cooperation may include, but are not limited to:
- a. Inter-laboratory experiments using ASTM standard test methods for robotic technologies in test facilities;
 - b. Leveraging existing performance test methods for robotic technologies in nuclear hazard response applications;
 - c. Collaboration on research towards the development of ASTM standard test methods for robotic technologies used in extreme events such as earthquakes, storms or large fires;
 - d. Application of ASTM standard test methods for robotic technologies for specifying the capabilities of robots in nuclear hazard response applications;
 - e. Application of ASTM standard test methods in the commissioning and operation of robotic technologies in nuclear hazard response applications;
 - f. Use of ASTM standard test methods to help advance innovation and industrialization of robotic technologies in nuclear hazard response applications; and
 - g. Other areas of cooperation as determined by the Participants

Article III. Financial Issues

Cooperative activities under this Agreement are subject to and dependent upon the availability of appropriated funds, personnel, and resources. Nothing in this Agreement should be interpreted to constitute an obligation of funds. Each Participant should pay all its own expenses and costs related to activities pursued under this Agreement, unless some other arrangement is to be mutually decided upon in advance in writing. Any financial arrangements should be negotiated on a case by case basis, as permitted by relevant law and regulation of each country and institution, and should be detailed in separate written agreements.

Article IV. Intellectual Property

- A. Background Inventions. No rights to Background Inventions are to be conveyed by this Agreement.
- B. Publication. The Participants are to be encouraged to make publicly available the results of their research.
- C. Agreement Inventions. Ownership, patenting, and licensing rights to inventions created under this Agreement, if any, should be determined in consultation between the Participants at the time the invention is made and in accordance with laws, regulations and treaties applicable to the owning Participant(s).

Article V. Planning and Review of Activities

- A. The Participants should name a Principal Coordinator to serve as the main point of contact and coordinator for all activities pursuant to this Agreement.
- B. The Principal Coordinator will assist in disseminating information; arranging of contacts; and facilitating discussions between the two sides.

The Principal Coordinator for implementation of these activities for NIST is to be Adam Jacoff or designee in the Intelligent Systems Division and for KAERI is to be Young Choi in the Convergence Technology Development Department.

Article VI. Duration of Agreement and Discontinuation

This Agreement is to commence on the date of the last signature for a period of five (5) years, unless discontinued earlier by either Participant. A Participant should endeavor to provide advance notice of its intent to discontinue its participation in the Agreement.

This Agreement may be modified by mutual written consent of the Participants. The Participants may review and decide to continue their cooperation at regular intervals.

Article VII. Non-Binding

This Agreement is a statement of intent and is not legally binding upon the Participants. This Arrangement is not binding under international law.

Done in duplicate in English with each of the copies being equally authentic.

In witness whereof, the undersigned, being duly authorized by their respective Participants, have signed this Arrangement.

For the
Engineering Laboratory of the
National Institute of Standards and Technology
of the United States of America

For the
Convergence Technology Development
Department of the
Korea Atomic Energy Research Institute of the
Republic of Korea





Dr. Howard Harary
Director
Engineering Laboratory
National Institute of Standards and Technology
100 Bureau Drive
Gaithersburg, Maryland 20899
United States of America

Dr. Suhn Choi
Vice President of KAERI
Convergence Technology Development
Department
Korea Atomic Energy Research Institute
989-111 Daedeok-daero, Yuseong-gu
Daejeon 305-535, Republic of Korea

Date: 9/16/15

Date: 10/08/15