



विज्ञान एवं प्रौद्योगिकी विभाग
DEPARTMENT OF
SCIENCE & TECHNOLOGY



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INDIAN INSTITUTE OF TECHNOLOGY ROPAR

AWaDH –Spoke Agreement

TECHNOVATIONS IN THE DOMAIN OF AGRICULTURE & WATER



ISLAMIC UNIVERSITY OF SCIENCE AND
TECHNOLOGY, AWANTIPORA - J & K

Memorandum of Understanding (MoU)

BETWEEN

The **IIT Ropar – Technology and Innovation Foundation** for iHub - AWaDH (Agriculture & Water Technology Development Hub)

AND

The **Islamic University of Science & Technology**, Awantipora Pulwama

This Memorandum of Understanding (MoU) is entered into on **December 21, 2021** by and between:

the IIT Ropar – Technology and Innovation Foundation for the Agriculture & Water Technology Development Hub (AWaDH) established by the Department of Science & Technology in the framework of National Mission on Interdisciplinary Cyber-Physical Systems (NM – ICPS) at the Indian Institute of Technology Ropar established by the Ministry of Education, Government of India, under the Institutes of Technology (Amendment) Act, 2011, having its office at Rupnagar – 140001, Punjab, an Institute of national importance (hereinafter referred to as “**iHub - AWaDH**”),

and

Islamic University of Science & Technology located at Awantipora Pulwama, Jammu & Kashmir, (hereinafter referred to as “**IUST**”) has been established through an Act No. XVIII of 2005 dated: 7th November 2005 passed by J&K State Legislature and notified by the State Government, through Jammu & Kashmir Government Gazette dated: 11-11-2005. The Chancellor of the University is the Governor of Jammu and Kashmir, and the executive authority of the University is its Executive Council with the Vice Chancellor of the University as its Chairman. The University is accredited by NAAC with Grade ‘B’ and is recognized by University Grants Commission (UGC) under Section 2(f) and Section 12(b) of UGC Act. There are 6 schools, 18 Departments, 3 constituent colleges and 6 research centers in the University and the University offers 45 academic programs in various fields: 10 UG, 16 PG and 19 PhD. The Technical, Nursing and Architectural programmes offered by the University are approved by All India Council for Technical Education (AICTE), Indian Nursing Council (INC) and Council of Architecture (COA) respectively. The University has the membership of Association of Indian Universities (AIU).

1. OBJECTIVES OF THE MoU

To facilitate wide range of interactions between iHub – AWaDH and IUST, and thereby lend greater strength to the activities of mutual interest aimed at serving the society through the technology and innovations in the domain of, but not limited to, sustainable agriculture and water in the framework of National Mission on Interdisciplinary Cyber-Physical Systems (NM – ICPS), **Smart City Applications through IT & IT enabled Services (ITES)**

2. AREAS OF COLLABORATION

Principal technical area of collaboration between iHub – AWaDH and IUST will be in the domain of Agriculture and Water to deploy cyber-physical systems for

- Water/industry discharge monitoring, assessment, treatment, and management,
- Advancement of land resources and farm/orchard preparation,
- Agriculture automation and precision farming with focus on Apple & Saffron Crops,
- Food Processing
- IT and IT enabled services,
- Agribusiness marketplace,
- The application of the Internet of Things (IoT) systems in the domain of Agriculture, Horticulture & Water

For IIT Ropar



For IUST



- Bioenergy and Biomaterials.
- IPR and Patents

The bilateral collaboration would capitalize on the complementary strengths of IIT Ropar and IUST in engineering, science, agriculture, and regulatory matters, respectively, for achieving the goal of technology innovation in the domain of Horticulture and Water.

3. PROPOSED MODES OF COLLABORATION

DST TIH – AWaDH and IUST propose to collaborate through the following:

- Co-operation in areas of research, academics, education, policy inputs and outreach for development and dissemination of efficient technologies for sustainable use and rejuvenation of natural resources in agriculture.
- Collaborative projects based on individual or joint funding in areas of mutual interest. These would also include targeted, short term requests from one partner to other(s) to address specific issues outside its area of strength but within the combined domain of both the partners.
- Sharing of research infrastructure, lab spaces and hostel/guest house facilities for accomplishment of the objectives of this collaboration
- Conferencing, consulting and wide-ranging intellectual exchanges to build knowledge consortia, which can offer innovative and workable solutions and provide a roadmap for sustainable development of state in areas of water and agriculture.
- Organizing joint conferences, workshops, schools in the area of interdisciplinary cyber-physical systems.
- Supervising joint project / UG/PG / PhD students for their project and thesis work.
- Writing joint projects to national and/or international funding agencies and executing joint consultancy services.
- Exchange of personnel including students, faculty members and technical staff between iHub – AWaDH and IUST for the purpose of greater integration, capacity building and facilitating a close-knit working arrangement wherever needed by the nature of task in hand.
- Any other appropriate mode of interaction agreed upon between iHub–AWaDH and IUST.
- Appropriate written agreements specific to collaborative works will be made as and when necessary.
- Internship of Engineering Students.
- Supporting and mentoring the establishment and hand-holding of Technology Business Incubation Centre (TBIC) at IUST.
- Establishment of iHub – AWaDH Spoke at IUST.

4. CONFIDENTIALITY

- Individual faculty involved at iHub – AWaDH, and IUST agree to hold in confidence all information/data designated by the parties as being confidential which is obtained from either party or created during the performance of the MoU and will not disclose the same to any third party without written consent of the other party.
- The above confidential clause under this MoU excludes information/data possessed by either party before entering this MoU or independently developed and/or information already available through public domain, or information which is required to be disclosed by any law or disclosure of such information is directed by a court, tribunal or any competent authority.

5. TERM AND TERMINATIONS

- The collaboration will be coordinated by designated persons from the two Institutions. For all issues related to finances, manpower and space and other infrastructure relevant for the collaboration, the designated individuals from both institutes would obtain necessary approvals and sanctions.
- IIT- Ropar shall establish spoke of iHub – AWaDH at IUST for which a suitable space and other requirements shall be provided by IUST.

For IIT Ropar



For IUST



- c. This MoU shall be valid for five (05) years unless extended by mutual consent of both the Parties. A Party willing to extend the MoU shall give a written notice of its intention to extend, at least 60 days prior to the expiry of this MoU, which may be accepted by the other Party within a period of 30 days from the receipt of such notice.
- d. This MoU may be amended or terminated by mutual written agreement of the parties at any time.
- e. Either party shall have the right to terminate this MoU with 60 days prior written notice to other party.
- f. The termination of the MoU whether mutual or unilateral, shall not affect obligations as of the participant under any Research Agreement. Confidentiality clause obligation as referenced in clause 5 shall survive such termination.

6. MISCELLANEOUS

- a. All intellectual properties including any patent, copyright, design, etc. (hereinafter referred to as the "IPs") which are developed jointly, or which arise out of activities undertaken jointly by the Parties under this Agreement will be owned on the basis of extent of contribution made by each party (hereinafter referred to as "Joint IPs"). In respect of joint IPs, applications can be filed for protection by joint consent only, and the expense incurred on patent filing will be borne by the parties as per the extent of ownership.
- b. Sharing of authorship in publications arising out of or in connection with joint activities shall be in accordance with their respective contributions to the publication.
- c. The signed MoU signifies only a strong intent and commitment towards the goals specified in the document. Both the institutes will have to follow all the rules/regulations and obtain appropriate sanctions for implementing all the joint activities proposed under this MoU.

7. DISPUTE SETTLEMENT

Any disputes arising out of the interpretation or implementation of the MoU shall be settled amicably by negotiation and consultation between parties.

8. COORDINATION COMMITTEE

The following will constitute the Coordination Committee to execute, monitor and review the collaborative program between iHub – AWaDH and IUST:

- a. Dr. Pushpendra P. Singh, Project Director - AWaDH or his nominee(s)
- b. Prof. A. H. Moon, Dean, School of Engineering and Technology, IUST
- c. Dr. Parvaiz Ahmad, Associate Professor & Director, CIED, IUST,

9. Indemnity Clause

Each party hereby agrees to indemnify, defend, and hold the other party harmless from any and all claims, demands, costs, liabilities, losses, expenses and damages (including reasonable attorneys' fees, costs, and expert witnesses' fees) arising out of or in connection with any claim of any claimant related to the activities covered under this MoU.

10. Force Majeure:

Neither party shall be held responsible for non-fulfillment of their respective obligations under this agreement due to exigency of one or more of the force majeure events such as but not limited to Act of God, War, Flood, Earthquakes, Strikes, Lockouts, Epidemics, Riots, Civil Commotion, etc., provided on the occurrence and cessation of any such events, the party effected thereby shall give a notice in writing to the other party within one month of such occurrence or cessation. If the force majeure conditions continue beyond six months, the parties shall jointly decide about the future course of action

For IIT Ropar



For IUST



11. SIGNED IN DUPLICATE

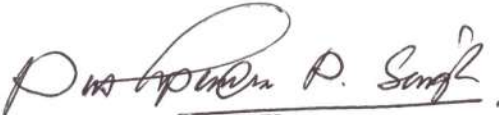
This MoU is executed in duplicate with each copy being an official version and having equal legal validity. By signing below, the parties, acting by their duly authorized officers, have caused this Memorandum of Understanding (MoU) to be executed, effective as of the day and year first above written.



Prof. Rajeev Ahuja, Director
Indian Institute of Technology Ropar
Chairperson, IIT Ropar – TIF for iHub –
AWaDH



Prof. Shakeel A. Romshoo, Vice Chancellor
Islamic University of Science and
Technology, Awantipora



Project Director
IIT Ropar – TIF for iHub – AWaDH
Indian Institute of Technology Ropar



Dean, Academics and SoE&T
Islamic University of Science and
Technology, Awantipora

----- this MoU ends here -----