

Memorandum of Understanding (MoU)

Between

Defence Geoinformatics Research Establishment (DGRE)

Defence Research and Development Organization (DRDO)

Ministry of Defence

Him Parisar, Sector 37-A,

Chandigarh - 160036, India

and

National Institute of Technology Sikkim

Ministry of Education (MoE)

Ravangla Campus

Barfung Block, Ravangla

South Sikkim - 739139, India

On

**Installation of Doppler Weather Radar (DWR) and Radiometer at NIT Sikkim
Campus and information sharing on Research and Development**

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Dila

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- a. Parties to the MoU:**
1. Defence Geoinformatics Research Establishment (DGRE), an establishment under the Defence Research and Development Organization (DRDO), Ministry of Defence, Government of India is situated in Chandigarh, India (here in after referred to as DGRE)
 2. National Institute of Technology Sikkim, Ravangla, Ministry of Education, Govt. of India (here in after referred to as NIT Sikkim)

have mutually agreed to cooperate as brought out in this MoU for the mutual benefits of both.

b. Purpose/ Objectives of MoU:

The purpose of this MoU is to provide for the conduct of an institutional co-operation agreement between **DGRE and NIT Sikkim** as mentioned below in the term and conditions here in after set forth.

Broad objectives of common interest of both the institutions are given below:

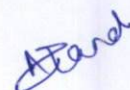
- (i) Provision of land for installation of Doppler Weather Radar (DWR) and Radiometer at NIT Sikkim.
- (ii) Usage of DWR and Radiometer data for mountain weather forecast over Sikkim.
- (iii) Information sharing for research and development.
- (iv) Communication link between DGRE and NIT Sikkim for data sharing.
- (v) Developing new applications for mutual benefits.

c. Scope of MoU or project:

The scope of the institutional cooperation scheme between DGRE and NIT Sikkim is outlined below:







1. NIT Sikkim will Provide suitable land for the installation of Doppler Weather Radar (DWR) and Radiometer and creation of office facility within its campus. By the time, suitable office setup for housing instruments for DWR and Radiometer comes up, NIT Sikkim to provide temporary store room facility for keeping the instruments. The details of requirements for the establishment of DWR and radiometer is given in Annexure I.
2. One DWR and One Radiometer along with the Office facility will be installed / created at NIT Sikkim. The budget for the same will be provided by DGRE. However, the charges for water will be borne by NIT Sikkim. One site Engineer and three technicians may be outsourced by the DGRE for the smooth functioning of the facility.
3. The data collected will be used for developing various algorithm and models for weather forecast over Sikkim. The data will also be shared with NIT Sikkim as per the DGRE data policy for various R&D work by the students and faculty research of NIT.
4. NIT Sikkim and DGRE will work together to develop new applications for the mutual benefits and for the benefits of the users. Students (UG and PG) and faculties of NIT Sikkim will be associated with R&D work related to DWR and Radiometer as a part of their research work as per the IPR rule of DRDO.

d. Effective date of MoU:

This agreement shall come into force from the date of its signature.

e. Period / Duration of MoU:

MoU will be valid for the period of 05 years from the date of signature of parties and can be extended with mutual consent depending upon the scope of ongoing and future work. If extended, all the terms and conditions of the MoU will be remain same as previous.

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f. Brief of Partners:

National Institute of Technology Sikkim (NIT Sikkim), Ravangla, Sikkim is a premiere academic Institute to generate scientific knowledge in various field of science and technology.

Defence Geoinformatics Research Establishment (DGRE) Chandigarh, a laboratory of Defence Research and Development Organization (DRDO) under the Ministry of Defence, Govt. of India is working on Mountain Meteorology and associated hazard related study over Indian Himalaya.

g. Project Site / Place of MoU:

The project site will be at NIT Sikkim. The data collected from DWR and Radiometer will be processed and modelling studies will be carried out at DGRE, Chandigarh.

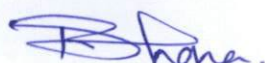
h. Responsibilities of each Party of MoU:

DGRE will be responsible for the installation and commissioning of DWR and Radiometer along with required infrastructure at NIT Sikkim. All the running and maintenance cost of the facility will be borne by DGRE. One Engineer and three technicians may be outsourced by the DGRE for the smooth functioning of the same at NIT Sikkim.

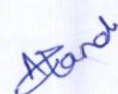
NIT Sikkim will provide suitable land for the creation of the facility and will remain the custodian of the same till its existence. Other amenities viz. electricity, water, internet connection etc. required for smooth functioning of the facility will be arranged by NIT Sikkim. The budget for the same will be borne by DGRE except the charges for water which will be borne by NIT Sikkim.

i. General terms of Co-Operation:

1. The Institutional cooperation will primarily result in providing campus facility to DGRE for installing DWR and Radiometer and also enhancing the scientific understanding.







2. The cooperation scheme is expected to provide a platform for mutual exchange of ideas and development of understanding on mountain meteorology and atmospheric science.
3. This cooperation agreement will be monitored through joint periodic reviews every six months either at NIT Sikkim, or at DGRE, Chandigarh through physical meetings or video conferencing. The review will cover the following aspects:
 - (i) Measure the progress of the activities and the achievements against the work plan.
 - (ii) Evaluate the quality of work completed and advise on the methodology to be applied for future work.
 - (iii) Identify and assess factors affecting the progress and quality of the work.
 - (iv) Identify corrective measures to remove hurdles related with the implementation of the program.

j. Cost and their Considerations:

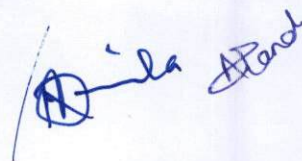
The two institutions will provide funding to their own personals from general budget which will include funds for travel to the other Institute, depending upon availability of funds. However, all the non-recurring and recurring expenses to run the facility will be borne by DGRE. The charges for water will be borne by NIT Sikkim. The funds used at respective institutes will be subjected to accounting procedures of respective institutions.

k. Security/ Non-disclosure of confidential information of the parties:

The facility / task carried out under the MoU will be restricted in nature as per DRDO policy and the dissemination / publication of research work will be as per IPR points as discussed in subsequent section.

l. Protection of IPR: In broad terms, the IPR issues will be based on the following principles:





(i) All equipment and instruments installed in NIT Sikkim campus under the MoU shall be owned by DGRE. However, the custodian of the same as mentioned above will be the NIT Sikkim.

(ii) All research results and Foreground Information as well as Foreground Intellectual Property Rights, generated during the Joint Research Work, whether or not legally projected, shall be owned jointly by DGRE and NIT Sikkim.

(iii) NIT Sikkim shall consult DGRE before publishing any research results and Foreground Information generated during the Joint Research to ensure that no proprietary Information is released and that Foreground Intellectual Property rights are not jeopardized.

(iv) NIT Sikkim shall not disclose any research result and foreground Information, carried out under the MoU, to any third party without seeking prior written permission from DGRE.

m. Right / Obligation of each party:

The designated personnel of each party shall meet as and when required to plan the activities and review the progress of the work. The parties shall also discuss their mutual concern, if any, and shall arrive at a broader consensus in formulating the modalities for carrying out the work relating to the agreement.

n. Termination of MoU:

This agreement shall remain in force for period of five years from the date of its signature. The terms of the agreement may be amended at any time subject to mutual written agreement. Both parties may agree to exit with mutual consent in case the desired objectives could not be achieved.

o. Arbitration/Dispute Resolution among Parties:

In the event of any dispute arising among the parties, the parties shall make possible efforts to resolve the same amicably, failing which the same shall be referred to the Head of the Institutions of the parties, whose decision shall be final and binding on the parties.





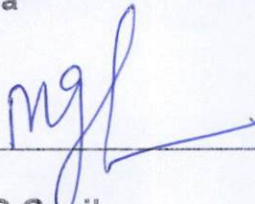


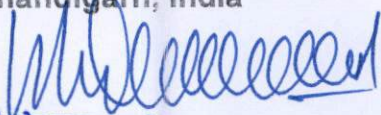
IN WITNESS WHEREOF the undersigned representatives of the contracting parties being duly authorized to do so, have signed this agreement

Done at _____ on _____ 2021 in two originals in the English language.

National Institute of Technology
Sikkim, India

Defence Geoinformatics Research Esst.
(DGRE) DRDO, Chandigarh, India

By: 

By: 
डॉ प्रमोद कुमार सात्यवाली / Dr. Pramod Kumar Satyawali
निदेशक / Director

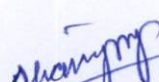
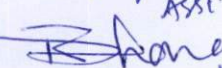
Prof M C Govil
Director
NIT SIKKIM, Ravangla

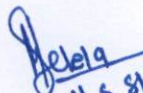
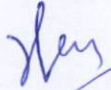
विभागाध्यक्ष / Director
रक्षा भू-सूचना विज्ञान अनुसंधान प्रतिष्ठान
Defence Geoinformatics Research Establishment
आर. डी. ओ., रक्षा मंत्रालय / DRDO, Ministry of Defence
सेक्टर 37-ए, चण्डीगढ़ / Sector 37-A, Chandigarh

Ravangla: 12/05/ 2021

Chandigarh: _____ 2021
09.11.2021

Witness:

1.  12/5/2021
Asst. Professor - NIT Sikkim
2.  12.05.2021
Asst. Professor -
NIT Sikkim

1. 
N S Shekhan
Sc-'F', DGRE
2. 
(Kalpana Kalra)
Sc-'E', DGRE

Requirements from NIT Sikkim for the establishment of DWR and Radiometer at NIT Sikkim campus

- Suitable land of 80 feet by 50 feet (4000 ft²) approx. The land should be preferably flat and there should not be any immediate obstructions near the land.
- By the time, suitable office setup for housing instruments for DWR and Radiometer comes up, temporary store room facility for keeping the instruments.
- Water, electricity and internet facility nearby.
- Suitable guest house accommodation for DGRE personnel visiting NIT Sikkim for MoU related work.

Bills *[Signature]* *A. Tanet*