

Memorandum of Understanding

between

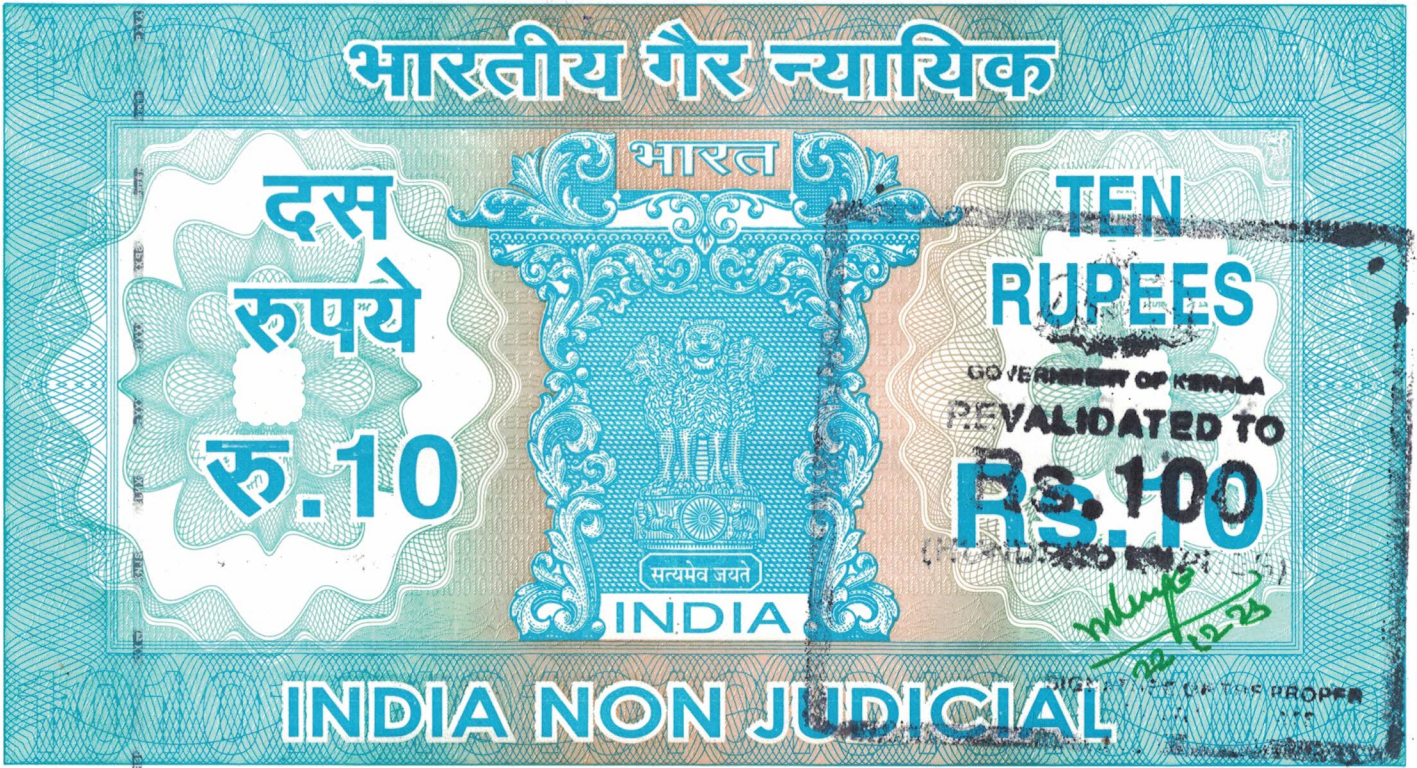


National Institute of Technology Calicut

and



**Sree Chitra Tirunal Institute for Medical
Sciences and Technology (SCTIMST)**



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32AA 223489

Memorandum of Understanding

THIS MEMORANDUM OF UNDERSTANDING is entered on the 06 day of February 2024

Between

National Institute of Technology Calicut, NITC (P.O.) PIN- 673601, Kozhikode (herein after referred to as NIT CALICUT) represented by the Director, NIT Calicut

And

The Sree Chitra Tirunal Institute for Medical Sciences & Technology Trivandrum, an Institute of National Importance established by an Act of Indian Parliament (Act No.52 of 1980) under the Department of Science and Technology, Government of India (hereinafter referred to as 'SCTIMST') represented by the Director, SCTIMST.

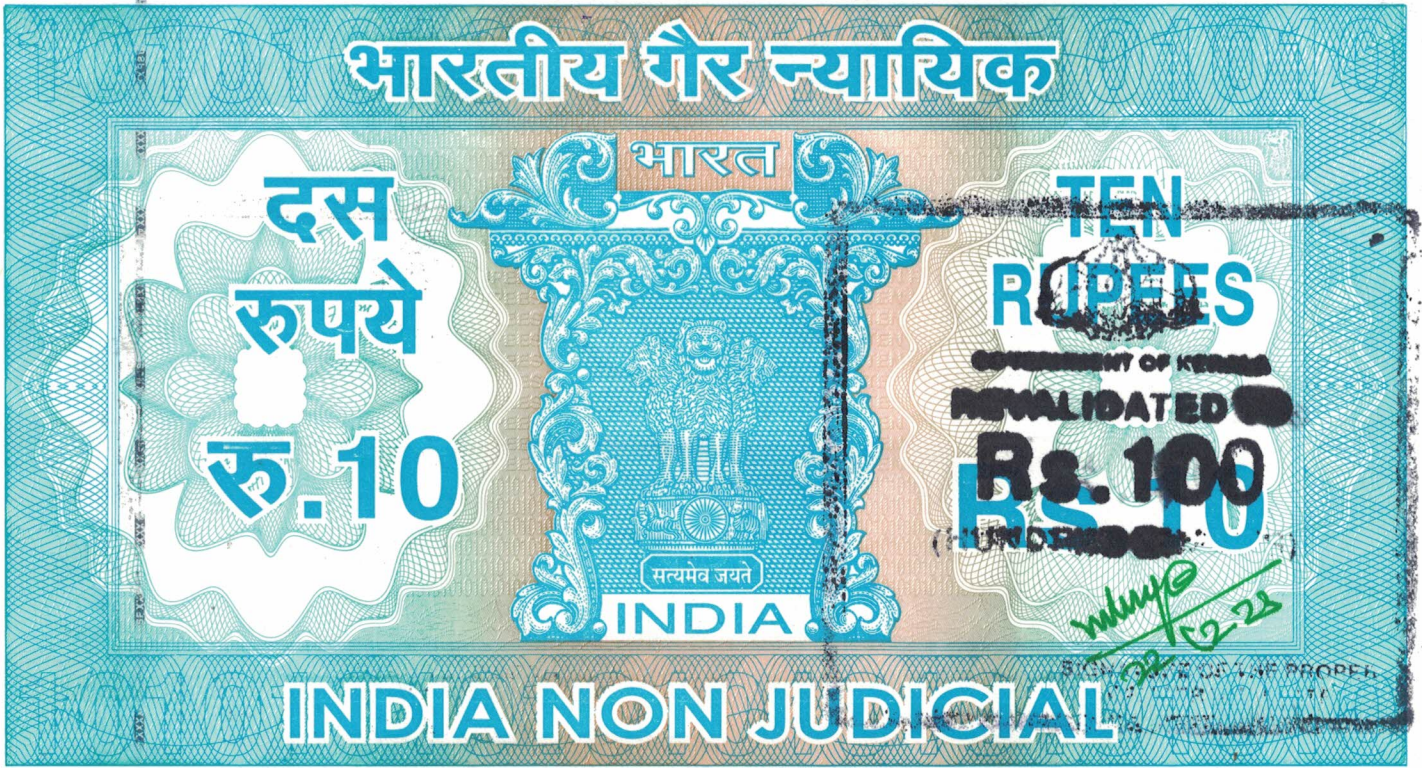
(Both the NIT Calicut and the SCTIMST are also jointly referred to herein as 'Parties' and individually as 'Party')

[Handwritten signature]



NO 33361 RS 100 / Kozhikode CHOTTAMANGALAM

Date... 02-2024
Name Sri... NIVYA. N. NIT
STAMP VENDOR, KUNNAMANGALAM
A. P. MURALEEDHARAN



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WHEREAS, National Institute of Technology Calicut, NITC (P.O.) PIN- 673601, Kozhikode, formerly known as Calicut Regional Engineering College, established in 1961, (herein after referred to as NIT CALICUT), has been conferred with the status of Institute of National importance under National Institute of Technology Act in 2007. The institute, through its various activities, takes efforts for advancement of learning and dissemination of knowledge in various front-line areas of importance for the nation. In that pursuit, NIT CALICUT would like to link with similar National Institutes and Research Organizations and collaborate in applied research and consultancy in Science, Technology, Engineering and Management and also promote academic and professional excellence of personnel, including the students.

WHEREAS, Sree Chitra Tirunal Institute for Medical Sciences and Technology (SCTIMST) is an Institute of National Importance under the Department of Science and Technology, Govt. of India. The joint culture of medicine and technology pioneered by its founders more than three decades ago, has come of age and gained unprecedented acceptance in India. The institute has the status of a university and offers excellent research and training facilities.

WHEREAS the two Parties, agree to collaborate in academic, scientific and technical research for the scope of this MoU, making use of each other's expertise for the collaborative research in the field of Magnetic Resonance Imaging (MRI).

No. 33362 / 100 / Kozhikode
 Date... 02. 02. 2024
 Name Sri. NIVYA. N.
 STAMP VENDOR, KUNNAMANGALAM
 A. P. MURALEEDHARAN



NOW, THEREFORE, in consideration of the mutual promises made herein and of good and valuable consideration, the receipt and sufficiency of which both NIT CALICUT and SCTIMST hereby acknowledge, NIT CALICUT and SCTIMST hereby agree to the following protocols and to enter into this Memorandum of Understanding (MoU).

ARTICLE-I: OBJECTIVE

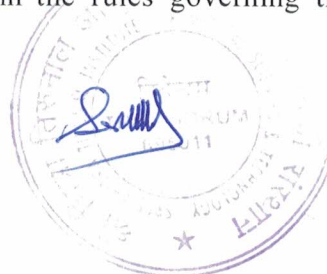
The objective of this MoU is to define and describe the modality of cooperation between NIT CALICUT and SCTIMST and to facilitate collaboration in academic, scientific research and technical fields for the development of algorithms and use of the advanced techniques and software tools in the field of Magnetic Resonance Imaging.

ARTICLE-II: TERMS OF INTERACTIONS

The two parties agree to take part in the joint research initiative as mentioned above in Article I. In this research collaboration, faculty, students and staff from the two Institutes will collaborate for accomplishing the above laid down objectives. Both the parties shall interact for understanding the clinical and engineering details relevant to the project. The NIT CALICUT shall support SCTIMST with their technical fields for the development of algorithms and use of the advanced techniques and software tools in the field of Magnetic Resonance Imaging. Similarly, SCTIMST shall support NIT Calicut with its technical and clinical expertise in Healthcare.

ARTICLE-III: SHARING OF FACILITIES

- a) NIT CALICUT and SCTIMST shall make provisions to share their respective important R&D facilities in order to carry out research projects.
- b) NIT CALICUT and SCTIMST shall permit sharing facilities in their premises required to carry out research projects, if permissible within the rules governing the two organizations.



- c) NIT CALICUT and SCTIMST shall provide access to the library facilities to personnel of both the organizations involved in the project as per the applicable rules and norms.

ARTICLE-IV: RESPONSIBILITIES OF EACH PARTY

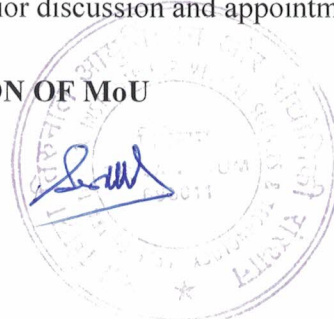
Responsibilities of SCTIMST

1. SCTIMST will provide MR data of patients to researchers in NIT Calicut, which are required to develop algorithms and systems for the data analysis.
2. SCTIMST will also provide all required support in terms of data and de-identified clinical information which will help in developing the system for MRI data analysis.
3. SCTIMST will also facilitate visits of researchers in NIT Calicut to its campus to see their clinic and the hospital settings to facilitate the research. This will be done without affecting the patient services.
4. The faculty and researchers in SCTIMST related to this research project will visit NIT Calicut campus to have discussions and periodic monitoring of the progress of the research. The mutual visits will be done with prior discussion and appointments.
5. Once the algorithm is developed it will be tested on MRI detain the hospital and necessary suggestions will be given to NIT Calicut.

Responsibilities of NIT Calicut

1. NIT Calicut will develop systems for data analysis based on the data provided by SCTIMST.
2. The software engineering process will be planned by NIT Calicut researchers in an agile development manner. Multiple iterations of design and development will be done before the delivery of final product. This includes a pre alpha, alpha, beta and final releases along with proper testing.
3. NIT Calicut will also facilitate visits of researchers in SCTIMST to its campus for interactions to facilitate the research.
4. The faculty and students in NIT Calicut related to this research project will visit SCTIMST campus to have discussions and periodic monitoring of the progress of the research. The mutual visits will be done with prior discussion and appointments.

ARTICLE-V: EFFECTIVE DATE AND DURATION OF MoU



- a) This MoU shall be effective from the date of its approval by competent authorities at both ends.
- b) The duration of the MoU shall be for a period of 5 years from the effective date.
- c) During its tenancy, the MoU may be extended or terminated by a prior notice of not less than three months by either party. However, termination of the MoU will not in any manner affects the interests of the students/faculty/scientists who have been admitted to pursue their search under this MoU.
- d) The progress of the research will be reviewed periodically and necessary measures will be taken to address the challenges and to take it forward.
- e) If any of the partner institution wishes to terminate the MOU at the end of the stipulated period (5 years) it must notify the other institution not less than three months prior to the expiry of the MOU.

ARTICLE-VI: IPR

Rights regarding publications, patents, royalty, ownership of software/design/product developed etc. under the scope of this MoU shall be decided by the two parties by mutual consent.

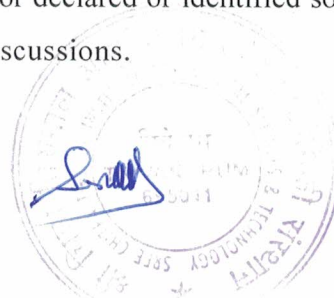
ARTICLE-VII: FUNDING

All the research projects under this MoU will be externally funded. There is no responsibility for NIT Calicut or SCTIMST to fund any of the research projects from its internal funds.

ARTICLE-VIII: CONFIDENTIALITY

During the tenancy of the MoU, both NIT CALICUT and SCTIMST will maintain strict confidentiality and prevent disclosure of all the confidential information and data exchanged under the scope of this MoU for any purpose other than in accordance with this MoU.

‘CONFIDENTIAL INFORMATION’ shall mean any proprietary information, data or facts belonging to PARTIES collectively or severally, disclosed by the disclosing party under this agreement or any subsequent agreement, whether in writing, verbal or electronically, irrespective of the medium in which such information is stored, which is marked confidential or with any other words having similar meaning by the disclosing party, or specifically agreed to be kept confidential by the parties, or declared or identified so by the disclosing party before such disclosure or during the discussions.



Confidentiality of **patient related information** will be given prime importance as suggested by the Ethics Committee (IEC) of SCTIMST. No data related to patients will be used out of the purview of this research and all patient identifiers will be masked.

Both NIT CALICUT and SCTIMST shall bind their respective personnel who come into possession or knowledge of any confidential information not to disclose the same to third parties without written approval of the disclosing party or use such confidential information for any use other than intended under this agreement or projects.

Further, both NIT CALICUT and SCTIMST shall put in place adequate and reasonable measures to keep and store confidential information secure so as to prevent any unauthorized use.

This clause shall survive the termination or expiry of this MoU

ARTICLE-IX: AMENDMENTS

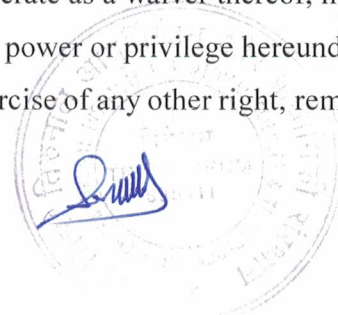
Any Article or clause of the MoU may be modified or amended by mutual agreement of SCTIMST and NIT CALICUT. Any amendment or modification to this MoU shall be in writing and signed by both the parties hereto and shall only after such execution be deemed to form part of the MoU.

ARTICLE-X: RESOLUTION OF DISPUTES

- a) This agreement shall take effect and be construed in accordance with the Laws of India.
- b) If dispute or difference whatsoever arises between Parties in relation to or in connection with this MoU, both the parties shall first try to resolve the dispute/difference amicably between themselves failing which the matter shall be resolved between the heads of the institutes.

ARTICLE-XI: MISCELLANEOUS

- a) No failure to exercise and no delay in exercising, on the part of a Party, any right, remedy, power or privilege hereunder shall operate as a waiver thereof, nor shall any single or partial exercise of any right, remedy, power or privilege hereunder preclude any other or further exercise thereof or the exercise of any other right, remedy, power



or privilege. The rights, remedies, power and privileges herein provided are cumulative and not exclusive of any right, remedies, powers and privileges provided by law.

- b) After this MoU has been signed, all the preceding understandings/negotiations and the correspondence pertaining to it shall become null and void.

IN WITNESS WHEREOF PARTIES HERE TO HAVE ENTERED INTO THIS AGREEMENT EFFECTIVE AS ON THIS DATE..... 06 February 2024

Prof. Jose Mathew
Chairperson
Centre for Industry- Institutional Relations
National Institute of Technology Calicut

Chairperson, Centre for Industry Institutional Relations (CIIR)
National Institute of Technology Calicut
Calicut, Kerala 673601, India

Witness



Suohish N. George
06/02/2024

1. SUOHISH N. GEORGE, ASSOCIATE PROFESSOR¹
DEPT. OF ECE, NITC

2. Jeevamma Jacob, Professor,
Dept. of EE, NITC

Date: 06/02/2024

Dr. Sanjay Behari 15.2.24
Dr. Sanjay Behari

Director
निदेशक / Director
SCTIMST श्री चित्रा तिरुनाल अयुर्विज्ञान और प्रौद्योगिकी संस्थान
Sree Chitra Tirunal Institute for
Medical Sciences and Technology
त्रिवेन्द्रम / Trivandrum-695011

Witness



Dr. C. Keerava Das

2. DR. C.KECAVA DAS, PROFESSOR,
SCTIMST, THIRUVA WANTHAPUKAM
- 695011

A. Prakash Nair
SCTIMST TRIVANDRUM

Date: ~~06/02/2024~~ 15/2/2024

A. Prakash Nair