

MEMORANDUM OF UNDERSTANDING

BETWEEN



**CSIR-CENTRAL ELECTRONICS ENGINEERING RESEARCH INSTITUTE,
PILANI, RAJASTHAN, INDIA**

AND



**SANT LONGOWAL INSTITUTE OF ENGINEERING & TECHNOLOGY,
LONGOWAL (SLIET LONGOWAL)
DISTRICT SANGRUR (PUNJAB), INDIA**

MEMORANDUM OF UNDERSTANDING FOR JOINT COLLABORATION ON RESEARCH AND DEVELOPMENT, FACULTY AND STUDENT EXCHANGE

This MEMORANDUM OF UNDERSTANDING is made on this 19th day of September 2017.

BETWEEN:

1. CSIR-Central Electronics Engineering Research Institute, Pilani-333031

(hereinafter referred to as "CSIR-CEERI, Pilani" and where the context so admits includes its successors and assigns) of the one part;

CSIR-Central Electronics Engineering Research Institute (CSIR-CEERI), Pilani is a premier research Institute in the field of Electronics, established in 1953 under the aegis of **Council of Scientific & Industrial Research (CSIR)**. It is devoted to R&D activities in three areas, namely: (1) Advanced Electronic Systems: Image processing and DSP, Internet of Things (IoT), Embedded Systems Design, Electronic Instrumentation, Industrial Control & Automation, Power Electronics, Robotics, etc.; (2) Advanced Semiconductor Electronics : MEMS, Micro-sensors, VLSI Design (Digital, Analog, Mixed Signal), Opto-electronic Technologies, Photonic Devices and Sub-systems, Nano-electronics etc.; (3) Microwave Tubes: Klystron, Magnetron, Travelling Wave Tubes, Gyrotron, Plasma Tubes, Tera Hertz devices etc. CSIR-CEERI also has a Centre at Chennai.

AND

2. SANT LONGOWAL INSTITUTE OF ENGINEERING & TECHNOLOGY, LONGOWAL (SLIET, LONGOWAL), DISTRICT SANGRUR (PUNJAB)

(hereinafter referred to as "SLIET, Longowal" and where the context so admits includes its successors and assigns of the other part.

Sant Longowal Institute of Engineering & Technology (SLIET), Longowal established by Ministry of Human Resource and Development (MHRD), Govt. of India in the year 1989 and was formally inaugurated on 20th December 1991. Accepting the new challenge of new education policy, SLIET was established, with a vision to act as an international podium for the development and transfer of technical competence in academics. It is committed to provide best possible technical education and to cater to the technical manpower requirements with emphasis on practical training in industry.

NOW IT IS HEREBY AGREED as follows:

PART I

SCOPE OF COOPERATION

The areas of cooperation include, subject to mutual consent, as felt desirable and feasible on either side, or that both sides contribute to fostering and development of the cooperative relationships between the two institutions. The assistance to be provided by each of the parties will be teaching, research, exchange of faculty and students, cultural exchange and staff development, as deemed beneficial by the two institutions.

PART II

GENERAL AREAS OF COOPERATION

Assistance shall be carried out subject to the availability of funds and the approval of the Director, SLIET, Longowal and the Director, CSIR-CEERI Pilani through such activities or programmes as:

- 1) Joint Sponsored Research and Consultancy Projects within the specified areas of cooperation.
- 2) Organisation of Joint Conferences/ Workshops/ Courses.

- 3) Joint supervision of M.Tech. students and Ph.D. scholars.
- 4) The exchange of academic and research material and publications.
- 5) Cooperation in project proposals and research activities of mutual interest
- 5) Sharing of facilities of labs through students and faculty.
- 7) Publication of research papers in international scientific journals and in the conferences
- 8) Student level interaction/ training including summer/winter internships
- 9) Exchange of faculties for academic purpose.
- 10) Publication of Intellectual properties (IPs) developed jointly through project/research collaboration. Such IP would acknowledge joint inventorship of personnel/students belonging to both the organizations, as applicable.
- 11) Writing books/booklets jointly in the areas listed below or in any other area of mutual interest.

The areas of cooperation include avenues in the department of Electronics and Electrical Engineering, Applied Physics: Image Processing, VLSI Design and Technology, High Speed Vision Systems, Digital System Designs, Internet of Things, Wireless Communications, Reconfigurable Computing, Microwave Engineering, Nanotechnology, Instrumentation and Control, Power Electronics, MEMS, RF-MEMS etc.

PART III

INTELLECTUAL & TECHNICAL PROPERTY RIGHTS

In the course of collaboration between SLIET, Longowal and CSIR-CEERI, Pilani participation individuals using proprietary materials and technologies

acquired by either institution must adhere to intellectual property (IP) and technical property (TP) protection (e.g. material transfer agreement (TS) or license) pertaining to the relevant technologies and material.

Protection of innovations, research products and other IP/TP (through patents, knowledge production rights, or other means) accruing from joint collaboration between, SLIET, Longowal and CSIR-CEERI, Pilani shall be done jointly following consultations with the relevant institutional IP/TP organs/ panels on proprietary science and technology,

All TP/IP resulting from the collaboration shall be jointly owned and managed by SLIET, Longowal and CSIR-CEERI, Pilani.

For purposes of this collaboration, Intellectual property right (IPR) related aspects of the outcome of joint research will be decided on case basis by mutual consent. If the main inventor from CSIR-CEERI files the patent, the CSIR-CEERI will own the first right of license and vice versa.

PART IV

DISPUTE & SETTLEMENT

Both parties hereby undertake to use their best efforts to mutually resolve any dispute[s] that may arise as between them from the interpretation and enforcement of this agreement.

PART V

GOVERNING LAW

This Agreement shall be governed by Law of India.

PART VI

FORCE MAJEURE

Neither Parties to the agreement shall be liable failure or delay in its performance under this agreement due to acts of God, flood, earthquake, war, rebellion, revolution, riot, strikes or lockouts etc. The Parties hereto shall make all reasonable efforts to minimize, reduce, and mitigate the effect of any delay occasioned by an event of force majeure.

PART VII

IMPLEMENTATION OF THE MOU

Specific details on the implementation of each area of collaboration shall be detailed in an "Agreement" done in writing. Such *Addenda* will include the specific activities to be conducted; responsibilities of each Party; participation, time and resources required; implementation procedures; and other details as necessary. The two parties agree that they will be free to participate in such projects acting either individually, or collectively.

PART VIII

RENEWAL, TERMINATION AND AMENDMENT

This agreement shall remain in force initially for a period of 05 years from the date of the last signature, with the understanding that either party giving notice of 30 days to the other party in any year may terminate it. The agreement may be extended by mutual consent of the two parties.

This agreement may be amended by the exchange of letters between the two institutions. Such amendments, once approved by both institutions, will become part of this Memorandum of Agreement.

IN WITNESS WHEREOF, the parties hereto have offered signatures:

For: SLIET, Longowal, District Sangrur (Punjab), India	For: Central Electronics Engineering Research Institute , Pilani, India
Signature: <u><i>V K Jain</i></u> 19/9/17	Signature: <u><i>Santanu Chaudhury</i></u> 19/9/17
Prof. V K Jain Director	Prof. Santanu Chaudhury Director
Date: _____	Date: _____
Witness: Name: <i>Dr J S Chhlu</i> Signature: <u><i>[Signature]</i></u> Designation: <i>Professor (ECE)</i> Date: <i>19/9/17</i>	Witness: <u><i>[Signature]</i></u> 19/9/17 Name: <i>KOTA SOLOMON RAJU</i> Signature: _____ Designation: <i>Principal Scientist</i> Date: <i>19/9/2017</i>