# MEMORANDUM OF UNDERSTANDING

## between

# SEMICONDUCTOR LABORATORY DEPARTMENT OF SPACE, GOVERNMENT OF INDIA SAS NAGAR

&

# INDIAN INSTITUTE OF TECHNOLOGY MANDI KAMAND MANDI

FOR

COLLABORATION ON RESEARCH & DEVELOPMENT, FACULTY, STAFF AND STUDENT EXCHANGE

## MEMORANDUM OF UNDERSTANDING

In furtherance of their mutual interests in the fields of education and research and as a contribution towards increasing national cooperation, Semiconductor Laboratory, Department of Space, Government of India having its registered address at Sector 72, SAS Nagar-160071, Punjab, India (herein after referred to as SCL) and Indian Institute of Technology Mandi, Kamand, Mandi-175005, Himachal Pradesh, India (hereinafter referred to as IIT Mandi) have entered into this Memorandum of Understanding (MOU) on this day at of April 2016 as set forth below:

#### ARTICLE - I

The MOU involves collaboration between SCL and IIT Mandi (both also referred to as institution) in related disciplines.

The two institutions shall seek to promote:

- Exchange of Faculty, Staff and Students related to academics and research for the mutual benefit
  of both institutions. During such exchange visits, the faculty, staff and students will continue to
  draw their salary from their parent institution.
- Exchange of Students for pursuing Courses Study and Academic Programmes for mutual benefit of both institutions.
- 3. Collaboration in Teaching, Research & Development (R&D) and Consultancy activities.
- 4. Exchange of Academic and Research Material & Publications/IPs.
- 5. Cooperation in Project Proposals and Research activities of mutual interest.
- Provision of cultural and intellectual enrichment opportunities for Faculty and Staff of both institutions and students of IIT Mandi.
- Collaboration in Research & Development in the areas of (i) Advanced VLSI Device
  Fabrication, (ii) MEMS Fabrication, (iii) VLSI Device/ MEMS Characterization, (iv) VLSI/
  CMOS-RF Circuit Design and (v) VLSI Device Modeling. This also includes collaboration in
  setting-up and upkeep of the relevant Infrastructure in both the institutions.
- 8. Publication of Research Papers in International Scientific Journals and in Conferences.
- 9. Exchange of Students for Summer/Winter Internships.
- 10. Publication of Intellectual Properties (IPs) developed jointly through Project/ Research Collaboration. Such IPs would acknowledge joint inventor ship of Personnel/ Students belonging to both the institutions, as applicable.
- 11. Writing Books/ Booklets jointly in the areas listed above or in any other area of mutual interest.

#### ARTICLE - II

The activities under this MOU will include:

#### 1. Faculty and Staff Exchange

Faculty & Staff exchange activities cover visits to either institution for any of the following purposes:

- Undertaking joint research
- (ii) Attachment of Faculty and Staff for purposes of Curriculum Development & Review, Attendance in Courses and Upgrading of Teaching & Research Skills
- (iii) Participation in Seminars, Colloquia and other types of academic discussions
- (iv) Contributions to teaching programme

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- (v) Co-supervision of Postgraduate Students
- (vi) Conduct Study Tours and joint Consultancy and Research Work
- (vii) Facilitation for pursuing Academic Courses(Postgraduate, Doctoral) for Department of Space and SCL Employees at IIT Mandi.

#### 2. Student Exchange

Student Exchange activities (for Undergraduate, Postgraduate and Doctoral Students) cover visits to SCL for any of the following purposes:

- (i) Participation in Research
- (ii) Internships

#### 3. Exchange of Academic Materials

Exchange of relevant Academic Materials will be carried out subject to mutual agreement of the institutions.

#### ARTICLE - III

Implementation of cooperation based on this MOU shall be dealt with between the relevant Faculties and Divisions / Departments of both institutions. Wherever necessary, a specific plan shall be workedout for each activity setting forth detailed arrangements for collaboration. Such plans shall be subject to approval of the appropriate authorities of each institution. To facilitate development of such plans, each institution shall nominate a member of its faculty or staff to coordinate activities arising under this agreement.

#### ARTICLE - IV

Both institutions agree and undertake to keep confidential, at all times, any information and/or data that may be exchanged, acquired and/or shared in connection with the area of cooperation as mentioned above in ARTICLE - I (3) unless otherwise the same information already exists in the public domain.

## ARTICLE - V

Ownership of any joint research findings shall be vested in both institutions in this MOU and any publications regarding the same shall only be possible after prior approval from both institutions.

#### ARTICLE - VI

The MOU shall remain in force for a period of 10 (TEN) years commencing from the date of signing and may be reviewed by mutual consent by serving 3 (THREE) months written notice to the other institution. Upon renewal, both institutions shall select either to proceed with the existing or new terms of understanding.

#### ARTICLE - VII

Both SCL and IIT Mandi reserve the right to terminate this MOU by either institution giving 3 (THREE) months written notice to the other. Where such termination occurs, provisions of this MOU shall continue to apply to ongoing activities until their completion.

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#### ARTICLE - VIII

Participating Faculty, Staff and Students involved in any activities under this MOU must adhere to laws of the country and rules & regulations of the respective institutions.

#### ARTICLE - IX

Any dispute that arises in the course of execution of this MoU shall be resolved by SCL and IIT Mandi in an amicable manner, through discussion. If appropriate, Director, SCL and Director, IIT Mandi shall each designate a representative to arrive at a resolution of any dispute arising. The resolution arrived at by these representatives shall be final and binding on both institutions.

#### ARTICLE - X

SCL and IIT Mandi welcome establishment of this MOU for cooperation and jointly agree to the provisions as set out above. There are two copies of this MOU equally valid, one for each institution, effective from the date of its signing.

Semiconductor Laboratory

Surinder Singhसुरिन्दर सिंड / Surinder Singh

Director

निदेशक / Director सेमी - कंडय्टर लेबोरेटरी Semi-Conductor Laboratory अंतरिक विभाग, भारत सरकार

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Witness

21/04/16

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Prof. Timothy A. Gonsalves

Director

Witness

Date: 21 4 2016