# **MEMORANDUM OF UNDERSTANDING**

# **BETWEEN**



# SEMI-CONDUCTOR LABORATORY DEPARTMENT OF SPACE, GOVERNMENT OF INDIA S.A.S. NAGAR

AND



**FOR** 

COLLABORATION IN RESEARCH & DEVELOPMENT,
FACULTY AND STUDENT EXCHANGE





## MEMORANDUM OF UNDERSTANDING

In furtherance of their mutual interest in the fields of education and research and as a contribution towards increasing national cooperation, Semi-Conductor Laboratory, Department of Space, Government of India, having its registered address at Sector 72, S.A.S. Nagar – 160071, Punjab, India (hereinafter referred to as "SCL", which expression shall mean and include it's successors-in-interest, administrators, authorised representatives etc.).

## and;

MANIPAL UNIVERSITY JAIPUR, having it's Campus at Village - Dehmi Kalan, Off Jaipur-Ajmer Expressway, Jaipur-303007, Rajasthan, India, (hereinafter referred to as "MUJ" which expression shall mean and include it's successors-in-interest, administrators, authorised representatives etc.), have entered into this Memorandum of Understanding (MoU) on this 27<sup>th</sup> day of April, 2018 as set forth below:

## **ARTICLE I**

This MoU involves collaboration between SCL and MUJ (both also referred to as institution(s)) in related disciplines.

The two institutions shall seek to promote:

- Exchange of Staff and Students (Faculty & Research Scholars; Under Graduate, Post Graduate & Doctoral Students and Research Project Employees) regarding Academics and Research for the mutual benefit of both institutions.
- 2. Exchange of Students for pursuing Courses of Study and Academic Programmes for mutual benefit of both institutions.
- 3. Collaboration in Teaching, Research & Development and Consultancy Activities.
- 4. Exchange of Academic and Research Material and Publications/IPRs.
- 5. Cooperation in Projects and Research Activities of mutual interest.
- Provision of Cultural and Intellectual enrichment opportunities for the Staff and Students of both institutions.
- 7. 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 at both MUJ and SCL. This also includes collaboration in setting-up and upkeep of the relevant infrastructure in both the institutions.

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- 8. Publication of Research Papers in International Scientific Journals and in the 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 of mutual interest.

# **ARTICLE II**

The activities under this MoU will include:

# 1. Staff Exchange:

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

- (i) Undertaking Joint Research
- (ii) Attachment of 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 Programmes
- (v) Co-supervision of Post Graduate Students
- (vi) Conduct study tours, joint consultancy and research work.
- (vii) Facilitation for pursuing Academic Courses (Post Graduate & Doctoral) for Department of Space / SCL Employees at MUJ as per eligibility criteria and academic norms of MUJ.

# 2. Student Exchange:

Student exchange activities (for Under Graduate, Post Graduate & Doctoral Students) cover visits to either institution for any of the following purposes:

- (i) Participation in Research
- (ii) Internships for MUJ Students at SCL



# 3. Exchange of Academic Materials:

Exchange of relevant Academic Materials will be carried-out subject to mutual agreement of both 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 plan shall be worked-out 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 staff to coordinate activities arising under this MoU.

#### **ARTICLE IV**

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

## **ARTICLE V**

Ownership of findings of any joint research shall be vested equally in both institutions to this MoU and any publications regarding the same shall only be possible after prior written 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 MUJ reserve the right to terminate this **MoU** by either institution giving 3 (Three) months written notice to the other. Where such termination occurs, the provisions of this **MoU** shall continue to apply to ongoing activities until their completion.

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## **ARTICLE VIII**

Participating staff and students involved in any activities under this **MoU** must adhere to the law of the country (India) and the rules & regulations of the host institutions.

## **ARTICLE IX**

If any dispute/difference arises between the institutions in relation to this **MoU**, both the institutions shall resolve the dispute/difference amicably with the help of heads of both the institutions.

## **ARTICLE X**

SCL and MUJ welcome establishment of this MoU for cooperation and jointly agree to 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.

SEMI-CONDUCTOR LABORATORY

सुरिचर सिंह / Surinder Singh

निदेशक / Director Surinder-Singh लेबोरेटरी Semi-Conductor Laboratory

Director। विधान, भारत सरकार Department of Space, Govt. of India

Department of Space, Govt. of India सैक्टर-72, सा.अ.सि. नगर-160071,पंजाब, भारत Sector-72, S.A.S. Nagar-160071,Punjab,INDIA

Witness

ष्टुप प्रमुख-परियोजना नियोजन युप Group Head-Project Planning Group सेमी-कंडक्टर लेबोरेटरी

Semi-Conductor Laboratory

अंतरिक्ष विभाग, भारत सरकार Department of Space, Government of India

Date: 27.04.2018

MANIPAL UNIVERSITY JAIPUR

**Prof. Vandana Suhag** 

Registrar

Witness

Dr Amit Jain

**Director SHM & Advisor IP** 

Date: 27.04.2018