

राजस्थान RAJASTHAN

AP 612698

MEMORANDUM OF UNDERSTANDING
FOR
INSTITUTIONAL COLLABORATION

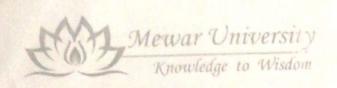
**BETWEEN** 

MEWAR UNIVERSITY, CHITTORGARH

AND

CSIR-CENTRAL ELECTRONICS ENGINEERING RESEARCH INSTITUTE (CSIR-CEERI)

Page 1 of 6





# MEMORANDUM OF UNDERSTANDING FOR INSTITUTIONAL COLLABORATION

#### BETWEEN

## MEWAR UNIVERSITY, CHITTORGARH

#### AND

## CSIR-CENTRAL ELECTRONICS ENGINEERING RESEARCH INSTITUTE (CSIR-CEERI)

This Memorandum of Understanding (hereinafter referred to as "MoU") entered into on this O1st day of December 2020 by and between:

Mewar University is an NAAC accredited autonomous university set up by the Government of Rajasthan through Act. No. 4 of 2009 passed by the Rajasthan Legislative Assembly (Government of Rajasthan), (hereinafter referred to as "MEWAR-U"), located at NH - 79 Gangrar, Chittorgarh, Rajasthan-312901.

#### AND

CSIR-Central Electronics Engineering Research Institute, (hereinafter referred to as "CSIR-CEERI") established in 1953, is a constituent establishment of the Council of Scientific and Industrial Research (CSIR), New Delhi, having its campus and administrative office in Pilani – 333 o31, Rajasthan, India. It is devoted to R&D activities in three areas, namely:(1) Advanced Electronic Systems: Image processing and DSP, Internet of Things (IoT), Embedded System Design, Electronic Instrumentation, Industrial Control & Automation, Power Electronics, Robotics, VLSI Design (Digital, Analog, Mixed Signal), etc.; (2) Advanced Semiconductor Electronics: MEMS, Micro-sensors, Opto-electronic Technologies, Photonic Devices and Sub-systems, Nano-electronics, LTCC and Advanced Packaging technologies, etc.; (3) Microwave Tubes: Klystron, Magnetron, Travelling Wave Tubes, Gyrotron, Plasma Tubes, Tera Hertz devices etc. CSIR-CEERI also has Centres at Chennai, Delhi and Jaipur.

### Collectively hereinafter referred to as "institutions"

This MoU is based on the principal of reciprocity and expresses the interest of both institutions in exchanging scholars, students, academics information and materials in the belief that the research and educational process at both institutions will be enhanced and that mutual understanding between their respective scholars and students will be increased by the establishment of such exchange programs as per CSIR Guidelines.

- The institutions agree to encourage the development of the following exchange programs based on their respective academic and educational needs:
  - Exchange of scientific staff
  - Exchange of students (undergraduate and / or graduate)
  - · Joint supervision of M.Tech, M.S and Ph.D. students
  - · Exchange of academic information and materials
  - Exchange of periodicals and other publications
  - Organization of joint research programs
  - · Organization of joint conferences
  - Organization of other academic exchanges agreeable to both institutions
  - Use of laboratory facilities on mutually agreed terms and conditions

Areas to start this collaboration are listed in Annexure 1. Both the institutions can revisit this list after mutual consultation. The above activities shall be undertaken as per CSIR guidelines.

- 2. The parties recognize that the implementation of any exchange program will depend upon the academic interests and expertise of individual staff members and upon the availability of financial resources. Accordingly, the implementation of each exchange program based on this agreement shall be separately examined and determined by both institutions. The institutions shall enter into separate agreements regarding the individual exchange programs.
- 3. Faculty/Scientists of either of the institute initiating collaborative work will take care of the usage of their institute resources and conduction of activities as per institute norms. Mr. GAURAV SHARMA, HoD, Department of ECE, MEWAR-U shall be the Coordinator of the CSIR-CEERI &MEWAR-U Collaboration and will coordinate with a scientist from CSIR-CEERI for the implementation of this initiative.

Blues. It

Page 3 of 6

4. Each institution will adhere to the intellectual laws of India. Intellectual property developed during the visit of an exchange student/researcher/faculty/staff will be governed by the rules of the host institute unless otherwise specified. The two institutions shall jointly own results of clearly defined collaborative projects and exchange programs. This joint ownership also entitles each party to explore commercialization. However, transfer of jointly developed technology and associated sharing of revenue shall be governed by a separate agreement. This cost of IP filing will be equally shared by both Institutions.

Furthermore, if one institution receives any information from the partner under a clearly defined non-disclosure agreement, necessary and reasonable care will be taken to protect the intellectual property received.

- 5. This MoU is not intended to be a legally binding document. It is meant to describe the nature and to suggest the guidelines of the cooperation described above. Nothing therefore shall diminish the full autonomy of either institution, nor will any constraints be imposed by either upon the other in carrying out the agreement. Any disputes shall be resolved through mutual discussion between the highest officials of the respective institutions.
- 6. Any addition, deletion and /or alteration to this MoU may be effected by writing. A document containing the additions, deletions and /or alterations, and signed by all Parties hereto, shall from an annexure to and be deemed to be a part of this MoU.
- 7. The agreement shall become effective on the day representatives of both institutions affix their signatures and seals, will be in force for a period of 3 years, and is subject to revision or modification by mutual agreement. It is also understood that either institution may terminate the agreement at any time, although it is assumed that such action would only be taken after mutual consultation at least six months in advance in order to avoid any possible inconvenience to the other institution.

Al. 2

### For: MEWAR UNIVERSITY, CHITTORGARH

Director

Signature:

Date:

Seal:

Witness:

Signature:

Name: Mr. H. Widhani

Designation:- O.S.D.

Signature:

Name: Dr. Ajay Kumar Sharma

Designation: Dy. Registrar

For: CSIR-Central Electronics Engineering Research Institute, Pilani

Director

Signature:

Date:

Seal:

डॉ. पी.सी. पंचारिया / Dr. PC Panchariya निदेशक / Director सीएसआईआर-केन्द्रीय इलेक्ट्रॉनिकी अनियात्रिकी अनुसंघान संख्यान

CSIR-Central Electronics Engineering Research Institute पिलानी (राज.) भारत / Pilani (Raj.) India - 333031

Witness:

Signature: Afgamel
Name: Dr Ajay Agamal

Designation: Head, TBD

Signature:

Name: Dr. SUCHANDAN PAL

Designation: Head, PME

X/1....

Page 5 of 6

## Areas from MEWAR-U (but not limited to)

- Semiconductors & MEMS Design & fabrication
- 2. VLSI Design and CAD
- 3. Machine Learning
- 4. Sensor Design
- 5. Imaging and Multimedia
- 6. IoT and Smart Embedded systems
- 7. Energy Harvesting Systems

## Areas from CSIR-CEERI (but not limited to)

- VLSI Design, Embedded Systems and Real Time Embedded and IoT Applications
- 2. MEMS and Microfluidics based Sensors
- 3. Nano-sensors, Nano-devices and Advanced Packaging
- GaN-based Optoelectronic Devices and Photonics Crystal based Structures and Devices
- 5. RF MEMS based Switches, Filters and Devices
- Computer Vision, Machine Learning and Artificial Intelligence Algorithms
- 7. Signal Processing
- 8. Instrumentation & Optimization Techniques
- 9. IoT Technology and systems
- 10. Cyber Physical Systems
- 11. Power Electronics
- 12. Microwave Devices

CSIR-CEERI has expertise in semiconductor processes, Device design and fabrication with state-of-the-art facilities and is planning to offer short duration training on same under SHILP initiative. In UG/ PG/ PhD programs MEWAR-U offers Electronics courses with semiconductor, CMOS, VLSI Design and related fields as their constituents. Students from MEWAR-U shall visit CSIR-CEERI to get a practical understanding of Semiconductor Design & Fabrication processes. This may be included, as part of their curriculum where students from each affiliated college shall get an opportunity to visit and execute semiconductor labs related training at CSIR-CEERI, as per CSIR Guidelines on chargeable basis. CSIR-CEERI shall demonstrate following to the students:

- Demonstration of Semiconductor Unit processes
- Unit process integration, to realize a devices/ device structures
- Unit Process Characterizations and
- Device characterization

CSIR-CEERI would offer a bouquet of programs with duration varying from one week to one month for UG and PG students of affiliated/ constituent institutes of MEWAR-U. A calendar of the courses and programs would be made available to the institutes. MEWAR-U will proliferate it and motivate the target students to take maximum advantage of these facilities.

UG, PG and PhD students enrolled at affiliated/ constituent institutes would be exposed to the facilities at CSIR-CEERI, in order to take suitable topics of their curriculum/ research where they can harness the facilities of CSIR-CEERI.

Under various schemes, MEWAR-U and CSIR-CEERI would coordinate joint Faculty Development Programs for the engineering teachers.

Page 6 of 6