

उत्तर प्रदेश UTTAR PRADESH

FG 955957



**MEMORANDUM OF UNDERSTANDING FOR INSTITUTIONAL  
COLLABORATION  
BETWEEN  
GLA UNIVERSITY, MATHURA  
AND  
CSIR-CENTRAL ELECTRONICS ENGINEERING RESEARCH  
INSTITUTE (CSIR-CEERI)**

This Memorandum of Understanding (hereinafter referred to as "MoU") entered into on this .....<sup>26th</sup> day of December 2020 by and between:

GLA University, Mathura, (hereinafter referred to as "GLAU"), is approved and recognized by University Grants Commission (UGC), NCTE and Pharmacy Council of India. It has been accredited by the National Assessment and Accreditation Council (NAAC) with 'A' Grade and is located at 17km Stone, NH-2, Mathura-Delhi Road P.O. Chaumuhan, Mathura-281 406 (U.P.) India.

Registrar

GLA University,

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2020

26 DEC 2020

राष्ट्रीय प्रशासन

राशि रु 100

का नाम व पता: राजकुमार सो विजय नगर

*[Signature]*

REKLA मंगल 20

पुस्तकालय, लोक सेवा  
संस्था विकास समिति



22 MAY

*[Handwritten mark]*

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 – 333 031, 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.

1. 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



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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. A faculty member, Department of Electronics and Communication, GLAU shall be the Coordinator of the CSIR-CEERI &GLAU Collaboration and will coordinate with a scientist from CSIR-CEERI for the implementation of this initiative.
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.



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U. Chaumuhan, Mathura-281405 (UP), India



IN WITNESS WHEREOF, the institutions here to have offered signatures:

For: **GLA University, Mathura**

Registrar:

Name: Mr. Ashok Kumar Singh

Signature: 

Date: \_\_\_\_\_

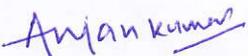
Seal:   
Registrar  
GLA University,  
17 Km Stone NH-2, Mathura-Delhi Road  
O. Chaumuhan, Mathura-281403 (UP), India

Witness:

Signature: 

Name: Dr. Vinay K. Desha

Designation: H.O.D. ECE

Signature: 

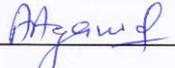
Name: Anjan Kumar

Designation: Asst Professor

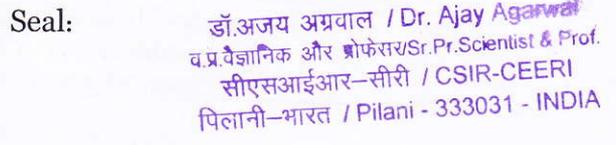
For: **CSIR-Central Electronics Engineering Research Institute, Pilani**

Director: Head, TBD

Name: Dr. AJAY AGARWAL

Signature: 

Date: 04 Jan 2021

Seal:   
डॉ. अजय अग्रवाल / Dr. Ajay Agarwal  
व.प्र.पैज्ञानिक और प्रोफेसर/Sr.Pr.Scientist & Prof.  
सीएसआईआर-सीरी / CSIR-CEERI  
पिलानी-भारत / Pilani - 333031 - INDIA

Witness:

Signature: 

Name: Dr. SUCHANDAN PAL

Designation: प्रमुख पी.एम.ई. / Head PME  
सीएसआईआर-केन्द्रीय इलेक्ट्रॉनिकी अभियान्त्रिकी अनुसंधान संस्थान  
CSIR-Central Electronics Engineering Research Institute  
पिलानी, राजस्थान / Pilani, Rajasthan-333031

Signature: 

Name: PRAMOD KR TANWAR

Designation: Postdoctoral Scientist

## Annexure 1

MoU between GLA University, MATHURA and CSIR-CEERI

Areas from GLAU ( <i>but not limited to</i> )	Areas from CSIR-CEERI ( <i>but not limited to</i> )
1. Semiconductors & MEMS Design	1. VLSI Design, Embedded Systems and Real Time Embedded and IoT Applications
2. VLSI Design and CAD	2. MEMS and Microfluidics based Sensors
3. Machine Learning	3. Nano-sensors, Nano-devices and Advanced Packaging
4. Sensor Design	4. GaN-based Optoelectronic Devices and Photonics Crystal based Structures and Devices
5. Imaging and Multimedia	5. RF MEMS based Switches, Filters and Devices
6. IoT and Smart Embedded systems	6. Computer Vision, Machine Learning and Artificial Intelligence Algorithms
7. Energy Harvesting Systems	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 GLA offers Electronics courses with semiconductor, CMOS, VLSI Design and related fields as their constituents. Students from GLA 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 GLA. A calendar of the courses and programs would be made available to the institutes. GLA will proliferate it and motivate the target students to take maximum advantage of these facilities.

UG, PG and PhD students enrolled at GLA University 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, GLA and CSIR-CEERI would coordinate joint Faculty Development Programs for the engineering teachers.



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