



**MEMORANDUM OF UNDERSTANDING  
FOR  
ACADEMIC AND RESEARCH COOPERATION/COLLABORATION  
*For facilitating Teaching, Research & Training***

**Between**



**University of Lucknow  
Lucknow-226007 (U.P.), INDIA**

**And**



**Defence Materials and Stores Research &  
Development Establishment (DMSRDE)  
Defence Research & Development Organization (DRDO)  
Ministry of Defence, Govt. of India  
G.T. Road, Kanpur-208013**

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**Memorandum of Understanding**  
**between**  
**University of Lucknow, Lucknow, Uttar Pradesh**  
**And**  
**Defence Materials and Stores Research &**  
**Development Establishment**  
**(DMSRDE), Kanpur, Uttar Pradesh**

This MoU made on this Fifteenth Day of May, 2024 i.e. 15-05-2024 between Defence Materials and Stores Research & Development Establishment (DMSRDE), DRDO, Min of Defence, Govt of India, G.T Road, Kanpur-208013, through its Director presently Dr. Mayank Dwivedi, Outstanding Scientist, duly authorized to enter into and sign MoU on behalf of (DMSRDE), Kanpur (Second Party) India, (hereinafter called DMSRDE) of the one part.

And

The University of Lucknow, Lucknow 226007, INDIA, Uttar Pradesh, India (hereinafter called LU which expression shall where the context so admits, include its successors and permitted assigns) of the other part.

The expression of **Lucknow University & DMSRDE, Kanpur** shall, however, mean and include the Institutions / Organisations, their successor, appointees, assignees etc.

**Defence Materials and Stores Research and Development Establishment (DMSRDE) Kanpur**

Defence Materials and Stores Research and Development Establishment (DMSRDE) Kanpur originated in 1929 as the Inspectorate of General Store in the Harness & Saddlery Factory, Cawnpore. DMSRDE in its present form was established in 1976 as part of DRDO by the merger of three establishments erstwhile Defence Research Laboratory (Materials); Textiles and Stores Research & Development Establishment; and Defence Institute of Stores Preservation and Packaging.

Dr. Mayank Dwivedi

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## University of Lucknow, Lucknow

WHEREAS LU is a public state university based in Lucknow, Uttar Pradesh. Founded in 1867, the University of Lucknow is one of the oldest government owned institutions of higher education in India. The University of Lucknow strives to be among leading educational institutions of the world by consistently engaging in it's endeavour through quality teaching, research and innovation rooted in the Indian value system, and working towards building an intellectual infrastructure that serves the country, its society and humanity.

Now the Memorandum of Understanding Witness the following clauses with the mutually agreed terms and conditions:

### 1. Commencement and Duration

- 1.1. This Memorandum of Understanding (MoU) shall take effect on the date of signing and valid for the period of 05 years and shall continue unless terminated in accordance with the provisions of Clause 13 (Termination). It is explicitly mentioned that this MoU is an academic in nature and STRICTLY not in any way meant to promote commercialization of any product or services by either of the parties.
- 1.2. Further, this MoU will stand cancelled with the institute or organization/University, if it has any conflict of interest.

### 2. Force of this MOU

- 2.1. The areas of agreement outlined in this MoU, under provision of clause 4 (broad area of cooperation) are to facilitate more detailed and specific negotiations between the parties to further advance the technical competencies with the objective of attaining excellence up to the level of cutting-edge technologies. For the intended technological advances on the mutually agreed area of interest, further MoUs may be signed. However, such MoUs are not intended to be of legal force. This MOU shall not create a legal relationship between the parties.

### 3. Purpose of MoU

- 3.1. The purpose of this Memorandum of Understanding between Lucknow University and DMSRDE, Kanpur is to foster collaborative training and research programme to provide advancement in scientific knowledge for the benefit of country and society by enlarge.

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- 3.2. The parties, having discussed fields of common research & academic interests and allied activities between the two institutions have decided to enter into long term collaboration for promotion of students' training and quality postgraduate and doctoral research.
- 3.3. WHEREAS, It has been considered expedient to agree in writing to participate jointly in the projects requiring expertise and logistics from both the parties on the basis of requirements and allocation of resources by concerned parties at their premises, respectively.

#### 4. Broad Areas for Cooperation

- 4.1. The Lucknow University and DMSRDE, Kanpur, recognize their strengths in research and education in the discipline of science and education and mutual interest in engaging in academic and research works. This is therefore an opportunity for Lucknow University and DMSRDE, Kanpur to work together synergistically based on the complementarities of our objectives and of our strengths to facilitate collaborative training and research. Both the parties agree to establish programmes for collaborative training and research in areas of mutual interest and in accordance with terms and conditions set for in this memorandum of understanding.
- 4.2. Vice-Chancellor and/or Directors of both the parties will be responsible to work out operational details of co-operation between the two organizations and ensure proper and effective implementation of this MoU.

#### 5. Areas of Collaboration

##### 5.1. Exchange of Research, Scientific & Technical Materials

- 5.1.1. Research as imposed on exchange of materials or in relation to others concerned areas imposed by the Indian Govt (as well as) rights of scientific officers/ staff shall be enforceable along with all the statutory requirements. Both Lucknow University and DMSRDE, Kanpur agree to explore the ways to share teaching/learning materials and others relevant literature subject to institutional policy.

##### 5.2. Collaborative Research Programs in specific fields of interest

- 5.2.1. DMSRDE-Kanpur and LU will jointly identify specific fields to conduct collaborative research programs for training of students/ researchers of mutual interest and benefit to both parties.

  
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### 5.3. Joint PhD Program

- 5.3.1. Research/Project students working at DMSRDE shall be eligible to apply for Ph.D. programs of University of Lucknow as per Ph.D. ordinance of L. The supervisor shall be a faculty member of LU and a faculty/scientist of DMSRDE will be Co-supervisor for the students.
- 5.3.2. The candidate of DMSRDE shall have to fulfil all the conditions laid down in the ordinance for Ph.D. of LU, including course work, research work and publications as applicable to any other candidate.
- 5.3.3. In case of any change in the provisions of ordinance of Ph.D., the same shall be applicable to the candidates registered for Ph.D. at LU and working at DMSRDE-Kanpur.
- 5.3.4. The permanent staff of DMSRDE may join the part time Ph.D. as per the Ph.D. ordinance of LU. They will have to participate in the admission procedure as decided by LU.
- 5.3.5. The research candidates of DMSRDE shall work in the laboratory of DMSRDE and LU, as desired mutually by the supervisors followed by the rules and regulations of LU and DMSRDE.
- 5.3.6. The research candidates of LU shall work in the laboratory of LU and DMSRDE, as desired mutually by the supervisors followed by the rules and regulations of DMSRDE and LU.

### 5.4. Internship/ Trainee/Dissertation Programs

- 5.4.1. **Internship/Trainee/Dissertation** programs for students shall be explored and conducted at DMSRDE-Kanpur in areas of mutual interest on mutually acceptable terms and conditions.

### 5.5. Sharing of Instrumentation Facility

- 5.5.1. Faculty members, scientists, conservators, research and project staff, students, and trainees from both entities shall have access to each other's instrumentation and laboratory facilities in accordance with the prevailing guidelines and procedures of their respective organizations.

## 6. Responsibility of each Party of MoU

- 6.1. Whereas the Lucknow University has the following responsibilities
  - 6.1.1. To Provide facilities for, and devise and implement programmes of, education in engineering, Science & Technology, basic and applied

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- sciences keeping in mind the current needs, anticipated changes and projected long academic, research and societal requirement to engineering and technology.
- 6.1.2. To serve as a center for fostering co-operation and exchange of ideas between the academic and research community on one hand, and the University on other, and promote entrepreneurship.
- 6.1.3. To Provide research and development and Incubation facilities for students, teachers, and others, and to provide help related Science & Technology.
- 6.2. Whereas the DMSRDE, Kanpur has the following responsibilities
- 6.2.1. To provide state-of-the-art super-specialty research facilities to all Registered research students.
- 6.2.2. To carry out basic and applied research
- 6.2.3. Capacity building for increasing trained professional in the field of non-metallic materials.
- 6.3. The First party will recognize the Second party and vice versa as an Institute for conducting research related to the thesis/experimentation/Studies/ Internships etc. of the research students for Graduation/ Post Graduation/ Doctoral Research/Research Associates. The First party will recognize Scientists of DMSRDE, Kanpur and vice versa as recommended by the Director its Vice Chancellor in accordance with the University rules and regulations for guiding students working for the said degree. The students will be placed DMSRDE for their research work/ technical activities and the degree would be awarded by Lucknow University. There would be a co-guide from DMSRDE as nominated by Director, DMSRDE.
- 6.3.1. Operational details of research effort and collaboration will be made in common research programs and/or projects restricted to specific mandated domain within the approved disciplines /divisions/technical area of common interest.
- 6.3.2. Research instrumentation facility and library facility available with the First party and the Second party will be made available to the faculties, scientists and research scholars of each other mutually agreed

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projects/technical activities and research work. However, the costs of specific consumables will be borne by the respective organizations.

6.3.3. There shall be a positioning of students by Lucknow University for research collaborations, joint publications and internship at DMSRDE for mutually agreed Projects/Technical Activities and Research work.

6.3.4. The parties will jointly organize seminars, workshops, conferences and events programs etc. within the approved disciplines of common interest.

## 7. Financial Arrangements

7.1. There will be no financial obligation on either of the parties for the activities/programs undertaken by the parties during the execution of the MoU. The two parties will incur expenditure for their respective programs from their own budget heads and remain responsible for all personnel allocations as required to accomplish programs identified under this MoU. Expenditures towards any other charges or fees besides those activities detailed above, which may arise in the course of implementation of the programs under this MoU shall be met by both institution from their own budget heads.

## 8. Intellectual Property Rights (IPR) and Its Protection

8.1. All intellectual property rights generated in approved cooperation projects shall be subject to the following provisions:

8.2. Each Party will ensure appropriate protection of Intellectual Property Rights generated from cooperation pursuant to MoU, consistent with the respective laws, rules and regulations of India.

## 9. Definitions

9.1. For the purpose of this part of MOU, the following terms shall have the indicated meanings:

9.1.1. **“Information”** means any information, knowledge or data, regardless of its form and characteristics, including but not limited to that of a scientific or technical nature, experimental and test data, designs improvements, photographs, software (including source code), reports, manuals, specifications, technical writings, sound recordings, semiconductor topography, pictorial reproductions, drawings and other graphical representations, know-how, developed products, their parts, units and components, their samples and mock – ups including their modifications.

  
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- 9.1.2. **"Intellectual Property Rights"** means legal rights in information and other intangible property protected by law, including but not limited to, patents, registered and unregistered designs, copyrights and trademarks. For the purpose of this Agreement/Memorandum of Understanding/Memorandum of Cooperation, the term 'Intellectual Property' shall, as provided in Article 1 of TRIPS Agreement, refer to all categories of intellectual property that are subject of sections 1 through 7 of Part-II of the TRIPS Agreement.
- 9.1.3. **"Background information"** means any exiting Information generated or conceived by the Parties prior to the cooperation project but which is necessary or useful to attain the objectives of the cooperation projects.
- 9.1.4. **"Background intellectual property Rights"** means legal rights in Background Information and other intangible property protected by law, including but not limited to, patents, registered and unregistered designs, copyrights and trademarks.
- 9.1.5. **"Foreground Information"** means any Information generated or conceived by the Parties during the performance of the cooperation project.
- 9.1.6. **"Foreground intellectual property Rights"** means legal rights in Foreground Information and other intangible property protected by law, including but not limited to, patents, registered and unregistered deigns, copyright and trademarks.
- 9.2. Parties agree to confer and consult prior to publication of any Foreground Information to assure that no proprietary Information is released and that Foreground Intellectual Property Rights are not jeopardized.
- 9.3. The ownership of Background Information and Background Intellectual Party Rights shall rest with the owning Party. However, the receiving Party shall have right to use such Background Information and Background Intellectual Property Rights for the purposes of the cooperation project. Use of such Background Information and Background Intellectual Property Rights for any purpose, including for purposes of sale or other forms of commercial exploitation, shall only be allowed upon the conclusion of further agreements to be negotiated between the Parties.

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- 9.4. The annual maintenance of the facility including all the instruments shall be the responsibility of each Party without any financial liability on each other.
- 9.5. Parties shall have equal rights to all Foreground Information and Foreground Intellectual Property Rights.
- 9.6. In case the collaborative research under this agreement is based on any "Biological Resource" obtained from/ occurring in India, then the necessary permission for filing any IPR must be taken from the National Biodiversity Authority, Chennai under the provisions of section 6 of the Biological Diversity Act of India, 2002.
- 9.7. The exchange of biological materials, if any, shall be governed by the applicable provisions of the Biological Diversity Act of India, 2002.
- 9.8. In case research is carried out solely and separately by the Party or the research results are obtained through the sole and separate effort of the Party, the Party concerned alone will apply for grant of IPR and once granted, the IPR will be solely owned by the concerned Party.
- 9.9. In case of research results obtained through joint activities, the grant of intellectual property rights will be sought by both the parties jointly and once granted, these rights will be jointly owned by the parties. The background IPR held by both the entities and will remain with them. Only foreground IPR under joint research will route to IPR.
- 9.10. Parties shall be deemed to have nonexclusive, irrevocable and royalty free license for the commercial development of Foreground Information as well as Foreground Intellectual Property Rights by themselves for the specific defence science and technology purposes. However, use of such Foreground Information and Foreground Intellectual Property Rights for any purpose, including for purposes of sale or other forms of commercial exploitation, shall only be allowed upon the conclusion of further agreements to be negotiated between the Parties.
- 9.11. Parties shall confer and consult each other regarding filing and prosecuting such IPR applications including patent applications covering Foreground Information., maintaining and enforcing IP rights, exploiting IP rights and allocating costs associated with these activities will be made by mutual consent by the participants.

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- 9.12. Parties agree to confer and consult prior to publication/sharing of any Foreground Information and Foreground Intellectual Property Rights with any third party to ensure that no proprietary Information is released and that Foreground Information and Foreground Intellectual Property Rights are not jeopardized.
- 9.13. The Parties agrees not to assign/transfer any rights and obligations arising out of the IPRs generated from inventions/activities carried out under the MoU to any third Party.

## 10. Confidentiality

- 10.1. All information and documents exchanged pursuant to the MoU Agreement will be kept confidential by the Parties and will be used subject to such terms as each Party may specify. The Parties will not use the information for purposes other than that specified without the prior written approval of the other Party.

### 10.2. Information Sharing

- 10.2.1. The Parties may choose any following provisions regarding "information sharing", depending upon requirements and applicability/suitability in a given situation:

10.2.1.1. Under no circumstances, restricted or confidential information will be transferred by either Party to a third party, without prior written consent of the other Party.

10.2.1.2. The information resulting from the activities from implementation of the Agreement / MoU, will be published or divulged to third Parties, only with Prior written consent by the other Party.

10.2.1.3. All confidential information shall remain the exclusive property of the providing / disclosing Party. Disclosure of the confidential information shall not be construed as license, interest or right to the recipient in respect to any Intellectual Property Right of the other Party.

10.2.1.4. Unpublished information, whether oral, in writing or otherwise, discovered or conceived by the scientists or researchers or technicians and exchanged under the provisions of this MoU will not be transmitted to a third party, unless otherwise agreed by the Parties in writing.

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## 11. Publication and use of name, logo and official emblem

- 11.1. The following suggested text may be used to cover aspects related to publication:
- 11.2. Any publication, document and / or paper arising out of joint work conducted by the Participants pursuant to this MoU will be jointly owned. The use of name, logo and/ or official emblem of the participants on any publication, document and/ or paper will require prior permission of both participants, it may however, be ensured that the official emblem and logo is not misused.
- 11.3. All Publication should be done with the mutual consent of the Parties into research and the consent should be obtained in writing.
- 11.4. If a Party intends to publish material relating to research, it must notify the other Party in writing of its intention publish, through a prior notice allowing the other Party to respond within a certain period say (30days), accompanied by a draft of the proposed publication or public disclosure.
- 11.5. On receipt of the notice, the other Party will within the Notice period, convey its views/decisions on the following:
  - 11.5.1. To allow publication: or
  - 11.5.2. Request for delay in publication (till patents are filed); or
  - 11.5.3. To allow publication of only part of information; or
  - 11.5.4. To exclude certain portions from the information being published.

## 12. Amendments

- 12.1. This MoU may be extended/ amended by mutual consent in writing by both the parties without distorting the basic nature of the present MoU specifically pertaining to confidentiality and IPR issues.
- 12.2. The Parties shall wherever necessary, enter into written agreements to facilitate collaborative activities arising from this MOU. Such agreements will specify the details of agreed activities and programs, including the contributions and responsibilities of the parties, funding intellectual property provisions, confidentiality, risk allocation and indemnity obligations of each party.
- 12.3. Both Parties shall do their utmost to ensure the smooth and efficient implementation of the program.

  
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### 13. Termination

- 13.1. Either of the parties may terminate this MOU by written notice to the other party at least six months ahead.
- 13.2. The termination of this MOU shall not affect the implementation of activities that have been undertaken prior to such termination, unless agreements pertaining to such activities explicitly provide to such termination by both the parties.


### 14. Settlement of Dispute/Arbitration


- 14.1. All disputes and differences of any kind related to this MoU shall be jointly settled between Director, DMSRDE, Kanpur and Vice Chancellor, LU. In case of any dispute and differences arising out of this MoU or in its enforcement the concerned parties to this MoU will resolve the same amicably jointly settled by mutual consent of both the parties (Director, DMSRDE, Kanpur and Vice Chancellor, LU). The Parties will use their best efforts to settle all matters in dispute amicably. However, in case the dispute remains unresolved it shall be referred to an arbitrator to be appointed by mutual consent of both the parties subject to Kanpur jurisdiction. The decision of the arbitrator shall be final and abiding upon both the concerned parties.

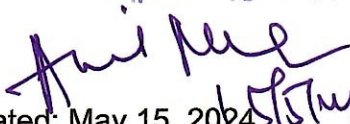
In witness whereof, the Lucknow University and Defence Materials and Stores Research & Development Establishment (DMSRDE), Kanpur have hereinto signed this MoU on the day and year first above written.

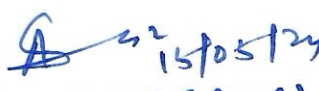
For the  
**University of Lucknow**

For the  
**DMSRDE, Kanpur**

  
 Name: **Prof. Alok Kumar Rai**  
 Title: Vice Chancellor  
 University of Lucknow, Lucknow  
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 Name: **Dr Mayank Dwivedi**  
 Title: Director  
 DMSRDE, Kanpur  
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 Dated: May 15, 2024  
 Witness signature

  
 Dated May 15, 2024  
 Witness signature

READ  
 CHEMISTRY DEPARTMENT  
 LUCKNOW UNIVERSITY