

WHEREAS, BHEL is a premier Heavy Electrical Engineering company operating through several manufacturing units and power sectors in India and having large product manufacturing, marketing / servicing networks and a Corporate Research and Development (R&D) Division of international repute.

AND WHEREAS, BHEL has its Corporate Research and Development (R&D) Division at Hyderabad and Research and Product Development (RPDs) groups located at various manufacturing divisions engaged in R&D of steam turbines, gas turbines, hydro turbines, boilers, pulverizers, heat exchangers, turbo generators and alternators, equipment for transmission and distribution of power and industrial drives, non-conventional energy systems, transportation systems like electric locomotives and traction equipment, C&I systems etc. BHEL is equipped with extensive state of the art laboratories and pilot plant facilities for undertaking research and development projects in advanced materials for supercritical applications, nano materials, surface coatings, robotics, acoustics, noise control, turbo machinery, Computational Fluid Dynamics (CFD), High voltage substations, electrical machines, cryogenics and similar other areas of relevance to BHEL. The strength of BHEL lies in its vast reservoir of highly qualified engineers and scientists.

AND WHEREAS BHEL constantly explores and identifies technology resources to address specific science and engineering challenges. The challenges are resolved through collaborative research with academic experts / educational institutions. Specific research projects are undertaken based on the need, availability and willingness of identified knowledge experts. Usually the award of a collaborative research project follows from extensive techno-commercial discussions and agreements.

AND WHEREAS, RGIPT being one of the premier academic institutions of the country, possessing a team of highly competent, motivated scientists / engineers, engaged in teaching and carrying out basic and industrial research of significance to develop cutting edge technologies has agreed to pursue joint opportunities for research & development in areas of interest to BHEL.

AND WHEREAS BHEL and RGIPT both have agreed to cooperate & collaborate and pursue industrial/ application oriented RESEARCH PROGRAMMES promoting education, industrial research, innovation etc. through BHEL funding by supporting research programs / fellowships.

WHEREAS to pursue this co-operation and collaboration, BHEL and RGIPT both have arrived at the following general understanding on terms and conditions which would be further detailed in the project specific Memorandum of Agreement ("MoA").

NOW THESE PRESENTS WITNESS AND IT IS AGREED BY AND BETWEEN THE PARTIES HERETO AS FOLLOWS:

1. DEFINITIONS

Unless repugnant to the subject or context thereof, the following expressions with their grammatical variations herein used shall have the meanings ascribed hereunder:

- a) "Intellectual Property Rights" means the rights to patent(s), copyright(s), design(s) and other intellectual property right whatsoever (whether qualifying for registrations or not) with respect to the research work.
- b) "Back ground Intellectual Property" refers to intellectual property already created by BHEL and/or RGIPT prior to entering into this MoU.

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- c) "New Developmental Intellectual Property" refers to intellectual property developed during the research activities under this MoU.
- d) "Technical Information" means any and all information, confidential or otherwise, such as designs, drawings, data, process, know-how, software, algorithms and other information in whatsoever form, tangible or intangible, generated prior to and during the execution of this MoU.
- e) "BHEL Research Fellow" (BRF) refers to (i) Employees of BHEL selected as per the student admission guidelines of RGIPT to pursue masters degree/ research/ or post-doctoral research with RGIPT; (ii) regular research students of RGIPT (non-BHEL employees) selected to receive a BHEL Research Fellow award (scholarship) in order to pursue their post-doctoral program, research and/or masters degrees at RGIPT and (iii) Employees of BHEL deputed to RGIPT for undertaking Joint Research. All BHEL Research Fellows will abide by the guidelines in the student "hand book" of RGIPT.
- f) "Research Project" shall mean each specific research project undertaken in collaboration by BHEL and RGIPT.
- g) "MoA" shall mean Memorandum of Agreement to be executed for each Research Project jointly undertaken by BHEL and RGIPT.
- h) "Project Coordinator" shall mean representative appointed by BHEL/ RGIPT to coordinate and monitor each Research Project and perform other functions as described in this MoU and or respective MoA.
- i) "Project Investigator" shall mean representative appointed by BHEL/ RGIPT to undertake Research Project activities at BHEL/ RGIPT and perform other functions as described in the respective MoAs.
- j) "Project cost and charges" shall have the meaning as described in para 4.1.1 herein below
- k) "Project grant" shall mean external funding for the Research Project from GOI/ Government agencies/ Foreign Governments and agencies/ Indian or Foreign Corporate.
- l) "Project Review Committee" shall consist of representatives from both the Parties to review the progress of the areas covered under this MoU and respective MoA's.
- m) "Research areas" means list of mutually agreed areas of research for the Research Projects to be proposed by BHEL in consultation with RGIPT during the tenure of this MoU.

2. OBJECTIVES OF THE MoU

The Parties agree to strive to achieve the following objectives:

- 2.1 To jointly initiate Research and Development (R&D) relevant to Energy, Transportation, Transmission and Industry Sectors and other areas with involvement of both academia and industry,
- 2.2 To collaborate for promotion of research, innovation and education and provide a model for industry-academia partnership,
- 2.3 Collaborate to identify key R&D areas (knowledge generation, know-how update, technology exploration, systems development, novel or new technology resources, applied research etc.) for the immediate and future requirements of BHEL.

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2.4 Enhancement of capabilities of available BHEL staff and quality of research work at BHEL R&D Centers.

2.5 BHEL to provide practical research topics and facilities to RGIPT's students/ researchers to enable them to take up studies/Research Projects in the areas of BHEL's interest. RGIPT and BHEL to extend their technological and infrastructural facilities to each other according to mutually agreeable terms.

2.6 To facilitate exchange between technical experts of BHEL and faculty from RGIPT giving each other an opportunity to learn and contribute leading to knowledge enrichment for mutual benefit.

2.7 Any other objective promoting these causes as mutually agreed between the Parties.

3. SCOPE OF MoA

For each Research Project, a Memorandum of Agreement shall be entered into between the Parties containing specific and detailed objectives of the Research Project, respective scopes of RGIPT and BHEL (deliverables from both the parties), details of equipment, instruments, software and Background Intellectual Property that may be required for the research work (purchased / leased from open market), details and extents of specific man-power to be deployed, sequence of activities (e.g.; literature survey, discussions of state-of-art of any technology, experimentation, simulation, modeling, analysis, data interpretations, validation, discussions on results, conclusion, etc).

The MoA shall spell out the intended research programme, the activities and time schedules, total duration of the project and project milestones, name/s & role of Project Investigators involved (from either side), other special terms & conditions (linked to milestones and part payments), date of commencement of research work and planned dates of completion of research programme etc. A specimen MoA blank format is attached at the end of this document.

The terms and conditions of this MoU shall be deemed to be the part of each MoA executed by the Parties. This MoU and the respective MoAs shall together comprise a binding written Agreement between the Parties, effective as of the date of mutual execution of the MoA. However, in case of any conflict between the MoU and MoA, the MoA shall prevail.

The Mou shall be valid till subsistence of any MoA unless terminated earlier. However even after termination this MoU shall be valid and effective for on-going projects under any MoA.

4. FINANCIAL TERMS

4.1 Research Project cost and charges

4.1.1 The Research Project cost and charges for the scope of work of RGIPT (hereinafter referred to as "project cost") shall include inter alia payments to technical and non-technical manpower, expenses for equipment utilization, RGIPT's overhead costs, cost of local and out station travel, accommodation, contingencies, taxes, additional taxes (like CESS etc), duties and other costs not expressed or identified or as agreed in the MoA.

4.1.2 Payment of the project cost will be made to RGIPT, for each MoA in four installments as given hereunder, unless otherwise specified in the respective MoA:

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- i. First installment: 25% of the total project costs as agreed in the MoA to be paid on identification of research team/ commencement of the work and submission of a preliminary/ feasibility report (First Milestone).
- ii. Second installment: 25% of the total project cost as agreed in the MoA to be paid on RGIPT's claim and BHEL's acceptance of completion of a group of agreed activities (Second Milestone).
- iii. Third installment: 25% of the total project cost as agreed in the MoA to be paid on submission of project status report and RGIPT's claim for this installment and BHEL's acceptance of completion of a group of agreed activities (Third Milestone).
- iv. Final Payment: Balance amount payable on completion of all specified and agreed milestones/ activities.

4.1.3 RGIPT shall provide necessary information, certificates and documents to BHEL regarding any concessions / exemptions applicable under Customs, C-excise, Service Tax and Income Tax Laws. The rebate, if any, shall be transferred fully to BHEL by way of reducing the total project cost.

4.2 PROJECT GRANT FELLOWSHIPS

4.2.1 To carry out work for the Research Project within the specified duration, RGIPT is free to engage personnel (project associates) besides the BRF's who would be engaged exclusively for any particular the Research Project. BRFs identified to work on Research Projects related to this MoU can be working on masters, doctoral or post-doctoral programme of RGIPT as per RGIPT rules and regulations. The BRFs shall not engage themselves with any other project/ activity at RGIPT and shall solely work for Research Project

4.2.2 BRFs/ project associates identified under specific MoAs will be paid their scholarship or fellowship grant from Project grants until the tenure of the Research Project. The decision regarding the grant amount for a BRF/ project associates will follow the RGIPT guidelines.

5. BHEL Endowment Chair:

BHEL may consider establishing a BHEL Endowment Chair at RGIPT at considered one time lump sum payment, (as per RGIPT's guidelines for endowment Chairs) subject to prior approval of competent authority of BHEL and RGIPT.

6. INFRASTRUCTURAL FACILITIES:

6.1 A large part of Research Project shall be carried out at RGIPT including academic courses, as the case may be. The BRF/ project associate may also carry out remaining/additional research work at BHEL utilizing available facilities, if required.

6.2 All BRFs/ project associates will follow the discipline and observe academic performance required/as per the guidelines of RGIPT.

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6.3 RGIPT shall permit BRF/ project associate/ BHEL engineers access to all resources required to complete the project work including his or her thesis, as the case may be.

7. PERFORMANCE EVALUATION

7.1 BHEL and RGIPT shall jointly review the technical progress of the research work either half yearly or annually with respect to the milestones as per respective MoA's and areas defined under this MoU. A "Project Review Committee" consisting of representatives from both the Parties concerned project managers/ supervisor from BHEL / RGIPT may be constituted for this purpose.

7.2 BHEL shall bear all costs of its representatives in attending the meetings at RGIPT. RGIPT shall bear the costs associated with its representatives visiting or attending meetings held at BHEL, out of the project grant. BHEL / RGIPT shall, subject to availability, consider providing accommodation to the representatives of each other during their visit to the premises of Parties.

7.3 RGIPT Project Coordinator will send a quarterly project status report to BHEL Project Review Committee members.

8. COMPLETION OF RESEARCH PROJECT

The completion of Research Project shall be marked by furnishing to BHEL, detailed final project report along with the soft copies and signed hard copies of the documents detailing the findings with the recommendations of RGIPT Project coordinator. Based on the said recommendations by RGIPT Project coordinator, BHEL Project coordinator shall declare the completion of the Research Project or otherwise.

9. INTELLECTUAL PROPERTY

9.1 All Intellectual Property (IP) that is developed or generated under this MoU will be secured and protected by taking all suitable steps by the Parties; BHEL and RGIPT will be the joint owners of the IP and concerned individuals from BHEL and RGIPT shall be the co-inventors/co-authors, unless agreed otherwise in writing.

9.2 BHEL shall have full and exclusive rights to use the IP in its existing and new products and services developed or generated under this MoU towards pursuance of its purpose and RGIPT shall provide all necessary support and co-operation to BHEL. However neither of the shall use or exploit the same for commercial purpose without written approval of the other party.

9.3 Modalities of non-exclusive commercial exploitation, licensing out such IP developed or generated under this MoU to any other third party, sharing economic benefits arising out of such commercial exploitation etc will be finalized separately through mutually agreed terms and conditions as and when applicable and when needed.

9.4 Any publication arising out of the Research Work shall require prior approval of BHEL's Management. Such approvals shall be considered by BHEL on priority basis, preferably within a period of 30 days. If the approval is not granted or denied within the period of 30 days it shall be deemed to have been granted.

9.5 Prior to the publication of the results, all patentable invention/ results contained therein, the same shall be filed for registration at BHEL's costs. Subsequently BHEL will maintain

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these registered intellectual properties using its existing infrastructure and resources (Fees, Attorneys etc.). Responsibility of identification, documenting and filing for registration of such intellectual property shall rest with BRFs, Project coordinators, Project Investigator, and BHEL employee identified for this purpose. BHEL and RGIPT shall mutually ensure the completion of the said process.

- 9.6 Either party shall promptly inform the other party of any infringement or other infraction of the Intellectual Property Rights pertaining to the Technical Information to prevent further breach or infraction or to protect and maintain the Intellectual Property Rights.

10. CONFIDENTIALITY OF TECHNICAL INFORMATION

- 10.1 RGIPT, BHEL and BRFs/ project associates shall, at all times, treat the "Technical Information", generated and /or acquired by them pursuant hereto in the project as strictly confidential. The Technical Information shall not be disclosed, published, used or applied for any purpose other than those specified in specific MoA and in accordance with the terms and conditions specified herein and even so strictly only to those persons to whom such disclosure is necessary to operate this MoU and the specific MoA and permitted under the MoA.
- 10.2 All information acquired by either party from the other party shall be treated as 'confidential' and shall not be passed on to any third party except with the consent of BHEL.
- 10.3 The terms and conditions of the Non-Disclosure Agreement dated shall be applicable to any and all confidential information or data as described in clauses 10.1 and 10.2 hereinabove.
- 10.4 Disciplinary action will be taken against any BRF found violating confidentiality, his or her candidature may be liable for cancellation as according to the rules of discipline at RGIPT. Any disciplinary action taken will not absolve the erring person from any other action under civil or criminal law.
- 10.5 On termination of the MoU, each Party shall return all Confidential Information provided by other party under the MoU within thirty (30) days from the date of termination. However the liability on non-disclosure for all information disclosure of which is not otherwise permitted shall continue for a period of 10 years after termination of this MoU. RGIPT Project coordinator will certify that all Confidential Information from BHEL has either been returned or destroyed without retaining any soft or hard copies.

11. TERMINATION OF THIS MoU

- 11.1 BHEL reserves the right to terminate this MoU at any time for reasons including but not limited to non-performance, changes in business scenario, product profile of BHEL, etc, failure to achieve the objectives in this MoU or MoA/s by giving two months notice in writing to RGIPT.
- 11.2 In case of non payment or non fulfillment of financial obligation by the BHEL the RGIPT will serve a 15 days notice to BHEL for making the payment and in case the BHEL fails to make good its financial obligation within next 15 days the RGIPT may terminate the MoU by 30 days written notice of termination.

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11.3 In the event of premature termination of this MoU, the MoAs already executed under this MoU shall not be affected by such termination and termination of such MoA/s shall be effected only if they are specifically terminated by BHEL in terms of the respective MoAs on case to case basis.

11.4 In the event of termination of this MoU, without any fault on the part of RGIPT, any future financial liability because of termination of the present MoU shall be borne by the BHEL or the BHEL will indemnify RGIPT for any such liability.

12. INDEMNIFICATION

The parties agree to indemnify and keep each other protected and harmless against any claim or action made by any third party and/or any loss and damages caused to either party as a result of failure on the part of the other party to discharge an obligation arising out of or in relation to this MOU.

13. FORCE MAJEURE

If either of the Parties suffer delay in the due execution of their contractual obligations due to the operation of the one or more of the force majeure events such as but not limited to, acts of Nature, war, floods, earthquakes, lock-outs, epidemics, riots, etc. the duration of delay shall be considered as per the extant guidelines issued by Central Government / State Government/Civil Authorities on such occasions. The agreed time of completion of the respective obligations shall be then extended by a period of time equal to the period of delay occasioned by such events provided on the occurrence and cessation of any such contingency the party affected hereby shall within ten (10) days thereof give to the other party a notice in writing of such occurrence and cessation. In case, Force Majeure conditions prevail beyond 3 months, BHEL reserves the right to review the Research Project activities being carried out at RGIPT and will be free to terminate this MoU or/and the respective MoA/s.

14. NON-EXCLUSIVITY

The relationship of the Parties under this MoU shall be non-exclusive and both Parties are free to pursue other agreements or collaborations of any kind. However, when entering into a particular MoA, the Parties may mutually agree to limit RGIPT's right to collaborate with others on that subject.

15. GENERAL PROVISIONS

15.1 Subletting/ outsourcing of any part of the activity of the Research Project shall be done only after prior written consent of BHEL. The grant of permission in such cases will not absolve or affect the obligation of the Parties under this MoU.

15.2 Invalidity of any provision hereunder or contravention thereby of any law, rule or regulation shall not affect the validity of other provisions.

16. AMENDMENTS

Amendments: No amendment or modification of this MoU shall be valid unless the same is made in writing and signed by the authorized representatives of both the Parties. The modifications

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/changes shall be effective from the date on which they are made / executed, unless otherwise agreed to.

17. ADDRESSES OF THE PARTIES AND COMMUNICATION

17.1 All notices and other communications required or permitted under this MoU shall be deemed to be properly given when given in writing and sent by registered post, by facsimile and confirmed by mail postage prepaid, to the designated Party at the addresses set below, or at such other address as the addressee-PARTY may in writing designate from time to time for these purposes.

RGIPT : Mubarakhpur Mukhetia More, Bahadurpur, Jais,
Post Harbanshganj, Amethi - 229304, Uttar Pradesh
BHEL : Corporate R&D, BHEL, Vikasnagar, Hyderabad-500093

17.2 Communications by BHEL involving financial and administrative matters are to be sent to Director, those relating to technical communication of Research Project activities sent to RGIPT Project Coordinator. Information of a scientific and technical nature may be exchanged directly with and among scientists of the Parties.

18. EFFECTIVE DATE

18.1 The effective date shall mean the date this MoU is signed by both the parties and the MoU shall continue to remain in force for a period of five years unless terminated earlier.

18.2 The Parties further agree that if any MoA is in effect at the time of the expiration or termination of this MoU, then this MoU as it applies to such MoA/s only, the term of this MoU will be automatically extended until the expiration or termination of such MoA and all the terms and conditions of this MoU shall continue to apply to such MoAs during the subsistence of the respective MoA.

19. SETTLEMENT OF DISPUTES

19.1 In the event of any dispute or difference relating to the interpretation and application of the provisions of the contracts and/or any other matter, such dispute or difference shall be first resolved by the parties by mutual discussions within 15 days. However if the parties fail to settle such dispute within 15 days the dispute shall be referred to Arbitration to the Sole Arbitrator to be appointed by both parties on mutual consent as per the provisions of Arbitration and Conciliation Act, 1996 (This can not be a term of agreement as being against the public policy and party cannot restrict the operation of any law). The parties to the dispute will share equally the cost of arbitration as intimated by the Arbitrator.

19.2 The arbitrator shall be fluent and well conversant with the English language. The arbitration proceedings shall be conducted in English language. Documents shall be submitted in English. The arbitrators shall give a reasoned award. The decision of the arbitrators shall be final and binding upon the Parties. The seat of arbitration shall be at New Delhi, India.

19.3 Under this MoU shall be continued by RGIPT during the arbitration proceeding unless otherwise directed in writing by BHEL, or unless the matter is such that the work cannot be continued until the decision of the arbitrator/s is obtained and save as those which are otherwise expressly provided in the MoU.

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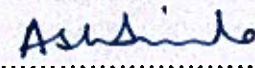
20. APPLICABLE LAW

20.1 This MoU shall be construed, interpreted and governed by the Laws of India, Courts at Delhi shall have exclusive jurisdiction subject to the arbitration clause.

21. SIGNATURES OF PARTIES



The MoU has been executed in two originals one of these has been retained each by BHEL and RGIPT.

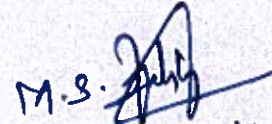
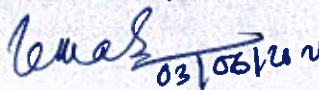
Signed on this 27th day of May 2021 by the Parties to this MoU

BHEL	RGIPT
	
Name: Ratnanav Acharya Designation: General Manager & Head	Name: Prof. A S K Sinha Designation: Director
Corporate R&D, BHEL, Vikasnagar Hyderabad - 500093 RATNANAV ACHARYA महानिदेशक एवं प्रमुख (कॉर्पो. अनु एवं वि) General Manager & Head (Corp. R&D) बी.एच.ई.एल., कॉ. अनु एवं वि / BHEL Corp. R&D विक्रमपट्ट / VIKASNAGAR	Rajiv Gandhi Institute of Petroleum Technology Mubarakhpur Mukhetia More, Bahadurpur, Jais, Post Harbanshganj, Amethi - 229304, Uttar Pradesh

हैदराबाद / HYDERABAD-500 093.

Witnesses (Name & Address)

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1. **DR. M. M. HANA KAD**
BHEL CORPORATE R&D, HYDERABAD.
- 
2. **DR. PRATAP C. BEHRA**
BHEL, CORPORATE R&D,
HYDERABAD

- 
1. **M. S. Balathani**
Dean, R & D, RGIPT
- 
2. **Umaprasanna Ojha**

