



தமிழ்நாடு தமில்நாடு TAMILNADU



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Mahendra & Mahendra
MWE

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S. Chen
சு. செங்கல்வராயன்,
முத்திரைத்தாள் கிற்பனையாளர்
L. No: 2, / CGL / 2010
காஞ்சிபுரம் ஹை ரோடு
செங்கல்பட்டு.

MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding ("MoU") is made on this 11 day of Jan 2018.

BY AND BETWEEN

Malaviya National Institute of Technology (MNIT), a University incorporated/registered under the NIT Act 2007 having its registered office/principle place of business at Jawaharlal Nehru Marg, Jhalana Gram, Malviya Nagar, Jaipur, Rajasthan – 302017 hereinafter referred to as the "Institute" (which expression shall unless it be repugnant to the context or meaning thereof, be deemed to mean and include its successors in office and permitted assigns) of the ONE PART;

AND

MAHINDRA & MAHINDRA LIMITED, a company incorporated under the Indian Companies Act, 1913 and having its registered office at Gateway Building, Apollo Bunder, Mumbai 400 001, hereinafter referred to as the "M&M" (which expression shall unless it be repugnant to

Arvind S. Choudhary
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the context or meaning thereof, be deemed to mean and include its successors and assigns) of the OTHER PART;

(Hereinafter Institute and M&M are individually referred to as "Party" and collectively as "Parties").

WHEREAS:

- A. The Institute is engaged in research and development in the field of agricultural engineering for mechanization promotion in the country and has developed several agricultural tools, implements and equipment having various applications;
- B. M&M is, inter alia, engaged in the business of manufacture and sale of tractors, farm implements and parts and accessories thereof;
- C. Institute has represented to M&M that it is working on a concept of Oscillatory Tillage Equipment (hereinafter referred as "Product"). Attached as Annexure A is the description and the concept note for the Project;
- D. Relying on the Institute's representation, M&M has agreed to collaborate with the Institute in undertaking further development of the Product with the objective of commercializing it by attaching it with the M&M's range of tractors;
- E. Pursuant to the above, Institute and M&M now intend to execute this MoU with a view to record the broad terms and conditions on which the Products shall be designed and developed by the Parties, as per the requirement of M&M ("Project").
- F. Now in consideration of the foregoing and of the mutual covenants and commitments set forth herein, the Parties hereto agree as follows:-

NOW THEREFORE, IT IS HEREBY AGREED BY AND BETWEEN THE PARTIES AS FOLLOWS:

1. PURPOSE:

It is acknowledged by the Parties that the purpose of this Agreement is to set out the responsibilities and obligations of the Institute for implementing and effectively completing the Project as per the requirements of M&M.

2 Intellectual Property Rights:

2.1 For the purpose of this MoU, "Intellectual Property Rights" shall mean means all intellectual property rights and other similar proprietary rights in any jurisdiction, whether registered or

unregistered, including such rights in and to (i) patents, patent applications, inventions (whether or not patented or patentable) and other invention disclosures, (ii) copyrights (and other rights associated with works of authorship, (iii) design rights (whether registered or unregistered), proprietary techniques, methodologies and processes and rights in confidential information, (iv) trade secrets, know-how and other rights in information, drawings, plans, database rights, technical notes, prototypes, processes, methods, algorithms, technical documentation (v) trademarks, service marks, trade names, brand names, logos, trade dress and other product, service or other identifiers whether registered or not internet domain names, topography or database/dataset rights, (vi) software, (vii) all applications, registrations, extensions, renewals, continuations, continuations-in-part, combinations, divisions and reissues of any of the foregoing and (viii) any other proprietary rights, forms of protection and any intellectual property rights having the same or similar effect anywhere in the world.

- 2.2 Ownership: The Intellectual Property emerging in the scope of this MoU shall be jointly held by Institute and M&M. The Parties shall have right to improve on the Intellectual Property jointly and the proprietary rights therein shall be jointly owned by the Parties. Any jointly owned Intellectual Property generated during the MoU period hereinabove contained shall be protected by patent/copyright/design as applicable. The question of whether or not intellectual property rights should be secured and the territory where these shall be secured shall be jointly decided by the Parties hereto. In the event M&M wish to make modifications to the Product, it shall have right to carry out such modifications and sell the Product, after giving intimation to Institute of the same.
- 2.3 Patents: In the event the Intellectual Property is patentable, then the application for registration of the patent, in India and/or abroad (as mutually desired by the Parties), shall be jointly filed Institute and M&M. The Parties shall jointly bear the expenses for drafting, filing, prosecuting, grant and renewal of such patent. The Parties shall jointly file documents, papers, forms etc. as may be required for maintenance and renewal of such Patent. In no circumstances, either Party shall file Patent in its own name without approval of the other Party. In the event either of the Party do not wish to renew the Patent, the other two Parties may renew it at their own cost and the benefits/privileges received from maintaining such patent rights will be accrued to the benefit of the Party(ies) who have renewed the Patent.
- 2.4 Design Registration of Product: The Parties agree that outward shape, configuration, pattern, aesthetic look of the Product shall be owned and registered by M&M.
- 2.5 Assignment of IPRs: The Parties agree that during the term of this MOU or its renewal period or any time thereafter, if M&M wish to solely hold all rights in the Intellectual Property which is jointly held by Institute and M&M, then Institute shall assign its respective rights in the said jointly owned Intellectual Property in favour of M&M provided M&M pays a one-time lump sum fee, which has been agreed mutually by the Parties, to Institute for such assignment.

3. COMMERCIALIZATION OF THE PRODUCT:

- 3.1 Exclusive Right: Post completion of the design and development of the Product the Institute shall offer the Product to M&M for commercialization. Parties have agreed that M&M shall have exclusive right to commercialize the Product for a period of 5 years starting from the first date of commercialization of the Product. For this period, royalty will be payable by M&M to MNIT for the Products sold in the manner as agreed in clause no 3.4.
- 3.2 Post completion of the aforesaid 5 years exclusive period, the Institute can offer the Product to any third party for commercialization. However, M&M should be given the right of first refusal.
- 3.3 If M&M is not intending to commercialize the Product during or after the exclusive period then the Institute can offer the Product to other Parties. If the commercialization is carried out by any third Party then post designing and development of the Product is completed, the royalty will be payable by Institute to M&M for the Products sold in the manner agreed herein-below.
- 3.4 Royalty for post commercialization shall be decided between the Parties before commercialization of the Product through a separate agreement.

4 SCOPE OF WORK:

- 4.1 In accordance with the provisions of the Agreement, Institute undertakes to perform the activities necessary to complete the work described below:
- (i) Preparing a CAD Model followed with working model of the Product in accordance with the concept as set out in Annexure A ("Technology");
 - (ii) Preparing detailed drawings for the Product;
 - (iii) Preparation of a detailed checklist of the material required and the manufacturing process involved;
 - (iv) Integration of the Product in M&M's tractors
 - (v) Testing of the Product and improvement/s or modification of the Technology till proven to the satisfaction of M&M;
- 4.2 Based on the above scope, Institute ensure that the design of the Product meet the specifications and other requirements intimated by M&M to the Institute at the time of development and subsequent changes if any which are mutually agreed in writing between the Parties.
- 4.3 The Parties shall work closely and in co-ordination with each other for the successful implementation of the Project.

5 RESPONSIBILITIES OF THE PARTIES:

5.1 The broad roles envisaged by both Parties are outlined below:

5.1.1. Responsibilities of the Institute:

5.1.1.1. The Institute shall:

- a) Design the Technology in accordance with the product specification as set out in Annexure A;
- b) Manufacture the prototype of the Product based on the Technology
- c) Conduct test of the Product in accordance with test standards communicated by M&M from time to time and the test shall be conducted in the presence of representatives of M&M;
- d) In case of any discrepancy or mistake identified during the Test of the Product, modify the design and develop the Technology to rectify such discrepancy or mistake, to the satisfaction of M&M.

5.1.1.2 The Institute shall nominate **Dr. Himanshu Chaudhary** as scientist to work on the Project with M&M along with 1 student i.e. N R N V Gowripathi Rao. In case the Institute intends to replace any of the scientist/ student on the Project, it shall procure a written approval of M&M prior to such replacement. If, for any reason, scientist/ student is unable to continue to serve for the Project and a mutually acceptable successor is not available, M&M shall have the option to terminate this Agreement in accordance with Clause 8 - Termination.

5.1.1.3 Institute shall, throughout the duration of this MoU, provide M&M and/or its sub-licensees with the technical assistance in order to assist M&M in understanding and implementing the Technology for the purpose of manufacturing, assembling, testing, promoting, marketing, distributing, selling, repairing, servicing and operating the Product on M&M's tractors, at M&M's factories and plants and any other site. Technical assistance for the purpose of this MoU means technical discussions, lecture, guidance, demonstrations and training involving the implementation of the Technology and pertaining to the manufacture, assemble, repair, and operation of the Product.

5.1.2. Responsibilities of M&M:

5.1.2.1 M&M, in close collaboration with Institute, shall:

- a) Support for the Product development based on the Technology;
- b) Suggestion for any discrepancy or mistake identified during the test of the Product, ask to modify the design and develop the new Technology to rectify such discrepancy or mistake.
- (c) Provide the assistance to the Institute for preparing working model of the Product

5.1.2.2 M&M shall depute 2 number of executives to jointly work in close co-ordination with the Institute for the development of the Product and design of the Technology.

5.2 The detailed and specific roles and responsibilities to be discharged by each Party in connection with the Project are as set out in Annexure B annexed hereto.

6 CONSIDERATION/COSTS:

6.1 For carrying out all the activities as per the scope defined above, Institute shall use their internal fundings.

7 REPORTS.

Institute will provide brief progress reports of the Project on a Quarterly basis and a final report within four weeks of completion of the Project (the "Final Report"). M&M will have sole ownership of all right, title and interest in and to the Final Report. During the term of this Agreement, representatives of Institute will consult and/or meet with representatives of M&M each quarter to discuss progress and results, as well as ongoing plans of the Project and Institute will provide Project information to M&M as reasonably requested.

8 **FACILITIES.** Institute will provide the utilities, office, and laboratory needed for its performance of the Project, at no additional expense to M&M.

9 PUBLICITY.

9.1 Neither Party will use the name of the other Party, nor of any member of the other Party's Project staff, in any publicity, advertising, or news release without the prior written approval of an authorized representative of such Party.

9.2 The Institute needs to take a prior approval from M&M in order to use the Project test results for any scholarly research, teaching, and analysis within the Institute including the publication of student thesis and dissertation reports. Institute shall not publish, or otherwise disclose in any publication or other public disclosure, the Intellectual Property owned by M&M or any confidential information belonging to M&M without first providing M&M the opportunity to perform a prior review and prior approval.

10 REPRESENTATIONS AND WARRANTIES

- 10.1 Each Party hereby represents and warrants to the other Party that (i) it is duly incorporated, validly existing and is in good standing under the laws of country of its incorporation; (ii) it has all necessary corporate power and authority to enter into this MOU and/or to perform all the obligations to be performed by it hereunder, as the case may be; (iii) This MOU, and the consummation of the transaction contemplated hereby have been duly authorized and approved by and on its behalf by all requisite corporate actions; (iv) the execution and delivery of this MOU, and the consummation of the transactions contemplated hereby, and the fulfilment of and compliance with the terms and conditions hereof, do not: (a) violate any applicable laws, judicial or administrative order, award, judgment or decree applicable to it, or (b) conflict with the terms, conditions or provisions of its constitutive documents or any other contractual obligations or agreement; (vi) This MOU constitutes its valid and legally binding obligation and will be enforceable against it in accordance with its terms, and (vii) it has not and will not grant any rights in any Intellectual Property Rights that are inconsistent with the rights and granted herein.
- 10.2 Institute further represents and warrants that it is the exclusive and sole owner of the concept annexed as Annexure A and it does not violate the Intellectual Property Rights of any third parties.

11 CONFIDENTIAL INFORMATION:

- 11.1 Both the Parties acknowledge that during the course of discussions and execution of assignments pursuant to this MoU, both Parties may share with each other, either in written or oral or in any form of media, proprietary data and information pertaining to their business/activities (hereinafter referred to as "**Confidential Information**").
- 11.2 Both the Parties agree that such Confidential Information shall be kept strictly confidential and shall not disclose the same to any third party without the prior written consent of the other Party.
- 11.3 Confidential Information excludes information that was in the public domain at the time it was disclosed or enters the public domain through no act or omission of the receiving party.
- 11.4 The confidentiality obligations of the Parties shall continue during the term of this MoU and survive any expiry or termination of this Agreement upto a period of three (3) years from the date of expiry of this Agreement or earlier termination, as the case may be.

12 TERM AND TERMINATION

- 12.1 The Project shall be conducted for a period of 3 years starting from **Jan 2018** and ending on **Jan 2021** and will be subject to renewal only by mutual agreement of the Parties.
- 12.2 Either Party may, at its sole discretion, terminate this MoU by giving 30 (thirty) days notice to the other Party.
- 12.3 Either Party may immediately terminate/suspend this MoU, by issuing a written notice to the other Party in case of breach of the terms and conditions of this MoU by the other Part and failure on part of such other Party to cure the breach.

13 INDEMNITY

Institute agrees to indemnify M&M (an "**Indemnified Party**") and keep the Indemnified Party indemnified against any and all losses, liabilities, actions, suits, claims, demands, proceedings, costs, damages, judgments, amounts paid in settlement and expenses (including without limitation attorneys' fees and disbursements) incurred, suffered or sustained by the Indemnified Party due to: (a) any breach by Institute of its representations, warranties, obligations, undertakings, covenants and the terms and conditions of this MOU; and (b) infringement of third party's Intellectual Property Rights in connection with the Product.

14 GOVERNING LAW, ARBITRATION AND JURISDICTION:

- 14.1 This MoU shall be governed, construed and interpreted solely in accordance with the laws of India.
- 14.2 In the event of a dispute or difference ("**Dispute**") relating to any of the matters set out in this MoU, the Parties shall, through their executives, discuss in good faith to resolve the Dispute. In case the Dispute is not settled within 30 (thirty) days from the first meeting of the said executives or such longer period as may be agreed, it shall be referred to arbitration in accordance with the Clause 14.3 below.
- 14.3 All Disputes that have not been satisfactorily resolved under Clause 14.2 above shall be referred to arbitration before a sole arbitrator mutually appointed by the Parties.
- 14.4 The arbitration proceedings shall be carried out in accordance with the Arbitration and Conciliation Act, 1996 (including any amendments, modifications or replacements) ("**Act**") and the seat and venue of arbitration shall be Jaipur. The arbitration proceedings shall be conducted in the English language.

14.5 The award of the arbitrator shall be final and conclusive and binding upon the parties.

14.6 Subject to the provisions of Clauses 14.2 to 14.4, the courts in Jaipur shall have exclusive jurisdictions over the Dispute arising from this Agreement.

15 MISCELLANEOUS PROVISIONS:

15.1 The Parties understand and agree that the proposed business arrangement between them is on a principal-to-principal basis and it shall not be construed or deemed to create any association, partnership or employer-employee relationship or principal-agent relationship in any manner whatsoever between the Parties.

15.2 Nothing in this MoU shall be construed to grant either Party the right to make commitments of any kind for and/ or on behalf of the other Party without the other Party's prior written consent. Each Party assumes no responsibility to the other for costs, expenses, risks and liabilities arising from the efforts of the other Party.

15.3 Any written notice or other information required or authorized by this MoU to be given by a Party to the other Party may be given by hand or sent by Registered Post A.D., by courier or by facsimile transmission or comparable means of communication, at the addresses mentioned hereinabove.

15.4 Neither Party shall be liable for damages, delay or failure to perform its obligations hereunder, if such delay or failure is due to force majeure events, including but not limited to acts of God, war (declared and undeclared), terrorist attacks, riots, civil disturbance, fire, earthquake, explosion, floods, sabotage or any other event reasonably beyond the control of the Party that has been prevented of the performance of its obligations under this MoU.

15.5 In the event of any provision of this MoU being held or becoming invalid, unenforceable or illegal for any reason, this MoU shall remain otherwise in full force apart from the said provision which will be deemed deleted. The Parties shall however attempt to replace the deleted provision with a legally valid provision that reflects the same purpose of the deleted provision to the greatest extent possible.

15.6 Headings used in this MoU are only for convenience and ease of reference and shall not be relevant to or affect the meaning or interpretation of this MoU.

15.7 No forbearance, relaxation or inaction by any Party at any time to require the performance of any provision of this MoU shall in any way affect, diminish, or prejudice

the right of such Party to require the performance of that or any other provision of this MoU or be considered to be a waiver of any right, unless specifically agreed in writing.

15.8 The conditions set out herein can be amended or modified only with the mutual consent in writing of both Parties by way of an amendment of this MoU.

15.9 Neither Party shall assign its rights, in whole or in part, under this MoU without the prior written consent of the other Party

15.10 The terms of this MoU shall be binding on the Parties.

15.11 This MoU sets forth the entire agreement and understanding between the Parties and supersedes and cancels all prior discussions and negotiations or agreements, express or implied, written or oral, between them with respect to the subject matter hereof.

IN WITNESS WHEREOF, the Parties hereto have caused this MoU to be signed by their authorized representative in their respective capacities as of the day and year first above written.

Jy. Mathur

DEAN
Research & Consultancy
Malaviya National Institute of Technology Jaipur
JAIPUR-302017

Mr. Jyotirmay Mathur
on behalf of Institute

Date: 11/1/2018

Aravind S. Bharadwaj
Mr. Aravind S Bharadwaj
on behalf of M&M

Date: 11/1/2018

Shankar

Annexure A
Concept

Title: *Design and Development of Oscillatory Tillage Equipment for Mini Tractor.*

The primary objective of the research work is to design, develop and evaluate the oscillatory tillage equipment for mini tractor which can be used for combined tillage operations.

Combined tillage operations includes tillage and levelling.

The work is to design a mechanism to obtain optimal trajectory of the vibratory tillage equipment.

To develop a prototype tillage equipment and to carry laboratory and field evaluation for the developed one.

To see the effect of vibration parameters on efficiency and performance of the tillage tool and mini tractor.

Performance parameters such as draft, power consumption, soil manipulation etc. to be measured during the study.

ANNEXURE B

Detailed scope (alongwith timelines)

1. Detailed Scope:

Agriculture plays a vital role in India's economy, around 58 per cent of the rural households depend on agriculture as their principal means of livelihood. The population of agricultural workers has gone down from 69.4% in 1951 to about 55% in 2012. There is a need of proper farm machineries which can improve the overall productivity and efficiency of agriculture sector.

Also the average farm size of Indian farmers is small (less than 2 ha). The number of marginal land holdings farmers (less than one hectare) has increased from 36 million in 1971 to 93 million in 2011. This indicates that during these years small and marginal farmers population has increased and they are facing a number of mechanization issues with them.

Farm power availability in India has consequently increased at an overall growth rate of 9.8% during the last 53 years. There is a growth of 24.65% in niche power segments (<20 HP) besides during 2013-14 to 2012-13 in < 20 HP segment. Thus this shows that farm mechanization has been helpful to bring about a significant improvement in agricultural productivity and there is a huge scope of development in implements for mini tractor segment.

The primary objective is to develop a suitable and efficient tillage equipment for the mini tractor segment that is below 20 hp. Many implements for mini tractors are available in the market for primary and secondary tillage operations, but the implements to perform combination of operations are not available in the market for mini tractors. So the tillage implement developed can be useful for small land holding farmers for agricultural operations.

2. Timeliness of Project

Month Activity	Jan-Dec 2017	Dec-2017	Jan-2018	Feb-2018	Mar-2018	April-2018	May-2018
Phase : 1							
Literature Review							
Design of vibratory mechanism for tillage tool.							
Development of prototype of vibratory tillage							
Levelling unit and cutting blade assembly.							
Month Activity	June-2018	July-2018	Aug-2018	Sep-2018	Oct-2018	Nov-2018	Dec-2018
Phase : 2							
Laboratory Validation according to the availability with institutions.							
Solving design issues noticed during laboratory validation.							
Month Activity	Sep-2018	Oct-2018	Nov-2018	Dec-2018	Jan-2019	Feb-2019	Mar-Dec 2019
Phase :3							
Field Validation depending upon the performance parameters and final product development.							
Month Activity	Jan-2019 to Jan -2021						
Phase :4							
Final changes, Report Writing and Research papers.							

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