

**MOU**  
Dated 16<sup>th</sup> February, 2022  
Between



Jindal Stainless Limited  
Kalinga Nagar Industrial Complex, P.O. Danagadi,  
Jajpur Odisha

and



Indian Institute of Technology (ISM)  
Dhanbad, Jharkhand

**MOU between**  
**Jindal Stainless Limited and IIT (ISM), Dhanbad**

**MEMORANDUM OF UNDERSTANDING**

This MOU (hereafter referred to as the "Agreement") is entered into as this 16<sup>th</sup> day of February 2022.

BY AND BETWEEN

M/s. Jindal Stainless Limited, Kalinga Nagar Industrial Complex, P.O.: Danagadi, Jajpur Odisha an existing Public Limited Company within the meaning of the Companies Act, 2013 having its Registered Office at O.P. Jindal Marg, Hisar-125005 (Haryana) and Works at Kalinga Nagar Industrial Complex, P.O.: Danagadi, Jajpur Odisha India, hereinafter referred to as "JSL" (which term shall unless repugnant to the context include its successor, representatives, administrators and permitted assign) of the ONE PART.

AND

IIT (ISM), Dhanbad (Indian Institute of Technology), through its constituent department, Department of fuel, Minerals and Metallurgical Engineering , a constitute department of Indian Institute of Technology, Dhanbad (hereinafter called the "IIT (ISM), Dhanbad' which expression shall, where the context so admits, includes its successors and permitted assigns) of the OTHER PART.

The JSL and the IIT (ISM), Dhanbad are collectively referred to as "Parties" and individually as a "Party".

**MOU between  
Jindal Stainless Limited and IIT (ISM), Dhanbad**

Whereas both Parties hereto have agreed to jointly work on Projects in topics of mutual interest as defined below under terms and conditions mutually agreed upon by the Parties;

Whereas the Parties desire to record the broad terms and conditions that are jointly accepted and agreed to in this Agreement as contained hereunder.

**1. DEFINITION**

- a) JSL know-how shall mean and include all know-how of methods, material, software, designs, patterns, formats, proprietary technical literature, and information developed, owned and provided by JSL, which are required for the Project.
- b) IIT (ISM), Dhanbad know-how shall mean and include all know-how of methods, material, software, designs, patterns, formats, proprietary technical literature, and information developed, published or otherwise owned and provided by IIT (ISM), Dhanbad, which are required for the Project.
- c) JSL Personnel shall mean the personnel or research and development engineers of the JSL deputed for the Project.
- d) IIT (ISM), Dhanbad Personnel shall mean the faculty members and / or scientists and / or students and / or staff of IIT (ISM), Dhanbad working for the Project.
- e) Principal Investigators shall mean persons having the responsibility of conducting and supervising the Project under this agreement and as defined in schedule A of every project.
- f) "Intellectual Property" means the legal rights relating to inventions, patent applications, patents, copyrights, trademarks, mask works, trade secrets, and any other legally protectable information, including computer software, first made or generated during the performance of this Agreement.
- g) Background IP means the proprietary intellectual properties of a party, including not limited to proprietary technology, knowhow, software, algorithms, database, trade secret, Pre Existing Works and any other form of background intellectual property right owned by a party that is exploited for the purposes of a Project.
- h) "Research Material" means all materials in any form including all data, information, records, documents, databases and software (including source code and object code), other works and material and the subject matter of any category of Intellectual Property Rights.

**2. AREAS OF COLLABORATION**

The parties may explore the possibilities of collaboration in the following areas/domains but not limiting to the followings with a quarterly review for an up gradation

- 1. Assessment of physicochemical properties and combustion characteristics coal samples & recommendation for an optimum blend based on physical properties and combustion behavior.
- 2. Assessment of losses and improvement of efficiency of JSL Power Plant
- 3. ESG & Environmental protection & development
- 4. Pelletisation projects
- 5. Executive Development Programs on tech topics as refresher courses for 5+ years experienced professionals customized to needs. Period extending 2 weeks/3 months/ 6 months
- 6. Water balancing, Soil and geosynthetic studies for special cases

**MOU between  
Jindal Stainless Limited and IIT (ISM), Dhanbad**

7. Water treatments designed and custom, water audits, water test on given periodicities
8. Paid summer internship as needed
9. Projects of M-Tech students be aligned with JSL specific needs
10. Hiring of Envirotech and Electrical/Metallurgical grades
11. Recovery of metals and mineralogical contents from bag house dust, COB, slag, sludge, mill scale, fly ash etc. generated at various sites of JSL
12. Characterization of organic compounds e.g. LPG and its tramp portion etc.
13. Characterization and study of scales formation in reheating furnace (RHF) on the basis of furnace behavior.
14. Agglomeration of chrome ore alternative to briquetting – sintering of chrome ore fines in particular.
15. Enhancement of commercial use of steam coal by supplementing additives

**3. MASTER AGREEMENT**

That the parties are entering into this MOU, which shall be Master Agreement under the umbrella of which the parties shall execute a separate service schedule/ engagement letter/ Addendum for each project, as and when if required, containing detailed timelines, financial, operational, administrative activities and responsibilities of the parties clauses before start of each project and the same shall be part & parcel of this MOU.

**4. ACTIVITIES AND OBLIGATIONS OF JSL**

JSL and IIT (ISM), Dhanbad shall work jointly to carry out Project in the above said items of developing processes and products and with specific objectives, terms & conditions to be jointly agreed on case to case basis and recorded as engagement letter/ separate Agreement.

- a) JSL shall be responsible for providing the funds required for the project, as per mutual agreement. JSL may depute appropriate JSL personnel to participate in the project, as per mutual engagement letter.
- b) JSL will share its facilities for carrying out the experimental and computational works necessary for the Project.
- a) JSL and IIT (ISM), Dhanbad will share know-how which may be deemed necessary for the Project.

**5. ACTIVITIES AND OBLIGATIONS OF IIT (ISM), Dhanbad**

- b) IIT (ISM), Dhanbad shall complete the activities in the said items and deliver the process/products to JSL as per the objective and schedule agreed upon and as per mutual engagement letter.
- c) During the term of any Project taken up under this MOU or any of its extensions thereof,
- d) IIT (ISM), Dhanbad will also share its facilities, available in IIT (ISM) under IIT (ISM) rules and regulations, for carrying out the experimental and computational works necessary for the Project.

**6. FINANCIAL AND OTHER ARRANGEMENTS**

- a) The consideration payable to IIT (ISM), Dhanbad for the project cost and the schedule of payment would be as mutually agreed upon for each Project and as per mutual engagement letter prepared for each project.

**MOU between  
Jindal Stainless Limited and IIT (ISM), Dhanbad**

- b) The total cost of each project will be accorded and agreed upon before start of each project.
- c) JSL and IIT (ISM), Dhanbad will prepare engagement letter before start of each project. The engagement letter will be agreed upon by Principal investigators from each party.
- d) Each project will be reviewed at different stages of execution and PI from IIT (ISM), Dhanbad will present the results via VC or in person.

#### **7. AFFILIATES**

JSL may involve one or more of its Affiliates in fulfilling the objective of a Agreement.

#### **8. ASSIGNMENT**

The Parties hereto shall not transfer or assign any of their rights and obligations under this Agreement to any other party without obtaining prior consent in writing from other Parties hereto.

#### **9. TERM / DURATION**

This Agreement shall be initially valid for a period of three (3) years from the date of signing of this agreement. The Parties may extend the term of this Agreement for additional periods as desired under mutually agreeable terms and conditions which shall be reduced to writing and signed by the Parties.

#### **10. TERMINATION**

- a) If at any time during the term of this agreement either of the parties hereto fails to perform its respective obligations as recorded in the schedule a of a project, the other party shall have the right to terminate this agreement by giving 30 days' notice in writing setting forth the breach of obligation under this agreement complained of and unless the breach is cured within 30 days from the date of such notice, the agreement shall be terminated on the expiry of 30 days.
- b) In case the results desired in a project are not encouraging, or if the overall project is delayed in terms of final deliverables by more than three months from specified time in clause 9 the project may be deemed unsatisfactory by JSL and agreement may be terminated and in that eventually, the institute shall hand over the process, preparation details, working papers etc. to JSL. Institute will complete the activities against the amount paid in such case
- c) Any of the Parties may terminate this Agreement by serving a written notice on the other Parties 3 ( Three) months prior to the intended date of termination provided that the termination by either of the parties shall not relieve that party of its obligations accrued prior to such termination, under a specific project.

#### **11. NOTICES**

All notices, and other communications required or permitted to be served or given hereunder shall be e-mail, fax, Speed Post/ Registered Post or courier to at the below mentioned address of the recipient Party or such other address as the Parties may notify, in advance and in writing, to the other. All communications by Jindal Steel Limited involving

**MOU between  
Jindal Stainless Limited and IIT (ISM), Dhanbad**

financial, administrative and other matters shall be sent to Director, IIT (ISM), Dhanbad. All information of scientific and technical nature may be exchanged directly between the Principal Investigator from IIT (ISM), Dhanbad and Principal Investigator from JSL, for the Project concerned.

A notice or communication shall be treated as having been served: (i) if delivered by e-mail/ fax, upon receipt of the confirmation copy; or (ii) if sent by Speed Post/ Registered Post or courier, 5 (five) Business Days after dispatch.

## **12. INTELLECTUAL PROPERTY AND COMMERCIAL RIGHTS**

- a) JSL and IIT (ISM) shall meet from time to time and discuss matters relating to obtaining legal protection for invention(s) or any other work which may have to be protected by any form of Intellectual Property Rights (the "IPR") generated/created during the tenure of project under this Agreement. In the event any inventions are made which may be protected by any form of Intellectual Property Rights, the same shall remain the Joint Property of JSL and IIT (ISM) , and both the parties shall have equal rights of the "IPR". If any of the parties is not interested in such IPR, they may confirm their disinterest in writing within 6 months from the date of ascertaining of the invention and in such event, other Party would be free to register the IPR in its own name.
- b) Unless the parties agree in writing otherwise, the filing, prosecution, defense and maintenance of all Patents for Joint Inventions will be conducted jointly in the name of both parties and controlled by them jointly, acting reasonably and in good faith. Both the parties will equally share the cost of filing a patent/Trademark, drafting, paying the maintenance fees.
- c) JSL will have all the rights to commercially exploit any development of the research and jointly developed intellectual property for its own purpose. JSL shall exercise such right within first three years of completion of the project. In such a case JSL will share royalty on the jointly developed intellectual property with IIT (ISM), Dhanbad which shall be mutually decided by both parties during commercialization stage.
- d) IIT (ISM), Dhanbad will have all the rights to use the development of the research for teaching and further research projects.
- e) Both the parties shall have the rights to commercially exploit the IPR resulting out of the research conducted under this agreement with any third parties. Benefits arising out of such commercialization shall be shared between JSL and IIT (ISM) under mutually agreed terms to be finalized in a separate agreement notwithstanding this Agreement and subject to the condition that any cost incurred in course of the revenue generation shall also be shared equally between the parties.
- f) In the case of joint Intellectual Property between JSL and IIT (ISM), Dhanbad, does not restrict either of the parties to transfer the IP to any third party, rather it places limited restriction for both parties wherein either parties are required to take the consent of the other party before transferring the IP to any third party. This condition of taking a prior consent of the opposite party before transferring the IP to the third party in the agreement will be pivotal in checking and balancing for the parties during transfer/assign any intellectual Property right to any third

**MOU between  
Jindal Stainless Limited and IIT (ISM), Dhanbad**

- g) Any benefits accruing from assignment of IP rights to third parties will be shared between JSL and IIT (ISM), Dhanbad under mutually agreed terms and to be finalized in a separate agreement notwithstanding to this agreement

### **13. CONFIDENTIALITY**

- a) It may be necessary for IIT (ISM), Dhanbad and JSL to disclose to or exchange with each other proprietary information relating to IIT (ISM), Dhanbad know-how and JSL know-how, which are confidential and proprietary. The disclosing party shall advise authorized personnel of the receiving party appropriately regarding the confidential nature of the information disclosed. The Party receiving such confidential or proprietary information shall not, unless specifically permitted in writing by the Party providing the said information, disclose in whole or part any such confidential or proprietary information or divulge any information thereon to any person other than its Personnel for fulfilling the purpose of this Agreement. The disclosure to any such Personnel as aforesaid, of any such confidential or proprietary information, shall be in confidence and only to the extent necessary for carrying out the obligations herein.
- b) The obligations of confidentiality set forth above shall be survived for two years from the termination of the relevant Agreement.
- c) The obligations of confidentiality however shall not apply to information that:
1. is not disclosed in writing or reduced to writing and marked with appropriate confidentiality legend within thirty (30) days after disclosure;
  2. is already in the recipient party's possession at the time of disclosure;
  3. is or later becomes part of the public domain through no fault of the recipient party;
  4. is received from a third party having no obligations of confidentiality to the disclosing party;
  5. is independently developed by the recipient party; or
  6. is required by law or regulation to be disclosed.
- d) Each party may disclose Confidential Information of each other party only to employees, and Students who:
1. are aware and agree that the Confidential Information of each other party must be kept confidential; and
  2. Either have a need to know (and only to the extent that each has a need to know), or have been specifically approved by that other party.

### **14. DISCLAIMERS**

- i. Any the deliverables including but not limited to consultancy report, Intellectual Property, data, information, process specifications given by IIT (ISM) Dhanbad will be based on work performed according to available open domain literature in the open domain. In any event, this report may not be construed as a legal document and cannot be used as evidence in any legal proceedings; it shall not be construed as a certificate or endorsement.
- ii. Any and all deliverables including but not limited to reports, know-how, Intellectual Property, data, information etc. by IIT (ISM), Dhanbad under this MoU is on as-is-where-is basis and IIT (ISM), Dhanbad does not makes any representations, conditions,

**MOU between  
Jindal Stainless Limited and IIT (ISM), Dhanbad**

or warranties, either express or implied, with respect to such deliverables. IIT (ISM), Dhanbad will not be liable for any damage or loss, whether direct, consequential, incidental, or special which JSL or Clients or its agents suffer arising from any defect, error or fault of the deliverables or its failure to perform. IIT (ISM), Dhanbad does not give any warranty of fitness for particular purpose, or merchantability. JSL acknowledges that it has been advised by IIT (ISM), Dhanbad to undertake its own due diligence regarding the deliverables before its commercial launch or sale.

**15. PUBLICATION**

Parties shall consult in writing with each other before any publication in respect of the Products and its development specified in this agreement.

**16. ARBITRATION, APPLICABLE LAW AND JURISDICTION**

- a) Any disputes between the parties shall be resolved by mutual discussions. Unresolved disputes, if any, shall be subject to resolution by a panel consisting of the Director IIT (ISM), Dhanbad, and VP R&D Services, JSL, who shall represent JSL. If the dispute cannot be resolved by the said panel, the matter shall be resolved by arbitration in accordance with the Arbitration and Conciliation Act, 1996 and subsequent amendment thereto. The venue of arbitration shall be in Cuttack, Odisha. The decision of the arbitrator shall be binding on both parties.
- b) This Agreement shall be construed, governed and enforced in accordance with the law of India and subject to the exclusive jurisdiction of Courts at Cuttack in Odisha.

**17. USE OF RESEARCH MATERIALS**

Any Research Materials of one party transferred to the other in connection with the Research Program may only be used as stated in the Research Program. Unless the parties agree otherwise, Research Materials are to be considered the "Confidential Information" of the party providing them.

**18. FORCE MAJEURE**

Neither party shall be held responsible for non-fulfillment of their respective obligations under this Agreement due to the exigency of one or more of the force majeure events such as but not limited to acts of God, War, Flood, Earthquakes, Strikes not confined to the premises of the party, Lockouts beyond the control of the party claiming force majeure, Epidemics, Riots, Civil Commotions etc. provided on the occurrence and cessation of any such event the party affected thereby shall give a notice in writing to the other party within one month of such occurrence or cessation. If the force majeure conditions continue beyond six months, the parties shall jointly decide about the future course of action.



**MOU between**  
**Jindal Stainless Limited and IIT (ISM), Dhanbad**

## **19. GENERAL**

- a) Each party shall hold the harmless and indemnify the other party against any claim that may arises of non compliance of any applicable law by the other party including without limitation any claim relating to death or injury to any person. The employees and sponsored students of IIT (ISM) shall at all times, be and remain the employees and students of the IIT (ISM). The employees and the sponsored student of the IIT (ISM) shall not have any right to claim employment in JSL. At any time, whether they have assigned any work or not under the terms of the contact. Each party shall indemnify the other party, it officers, agents and employees against all proceedings cost, expenses, liability, injury death, loss or damages arising out of the use or possession of the facilities hereunder save to the extent caused by the any negligent or willful act or omission of the other party employees or the students concerned.
- b) In no event shall either party and /or its employees be liable to other party for special, direct, indirect or consequential or any other damages, including the damages due to loss profits, data, goodwill, image or savings suffered by the other party due to any performance or failure to perform any obligation by any of the parties and/or its employees or sponsored student.
- c) Any addition, deletion and / or alteration to this Agreement may be effected with a written agreement of all the Parties to this Agreement concerning the amendments. A document containing the additions, deletions and/or alterations, and signed by all Parties hereto, shall form an annexure to and be deemed to be a part of this Agreement.
- d) This Agreement and its Appendices constitute the entire agreement among the Parties' and supersede all other representations, understandings or communication whether written or verbal, with respect to the subject matter hereof.
- e) Nothing contained in this agreement or any actions taken by or arrangements entered into between the parties shall be construed as or deemed to create any partnership, agency or joint venture between the parties. Neither party shall have authority to commit on behalf of the other party contractually or otherwise, to any obligations to third parties.
- f) This Agreement is non-exclusive in nature and either party may enter into agreement with third party in similar area.

**MOU between**  
**Jindal Stainless Limited and IIT (ISM), Dhanbad**

IN WITNESS THEREOF the IIT (ISM), Dhanbad and Jindal Stainless Limited hereto cause this Agreement to be executed by their duly Authorized representative on the day, month and the year first above written.

SIGNED FOR AND ON  
Behalf of JSL

Signature:

Name: A.K. SINGH

Designation & Seal:



SIGNED FOR AND ON  
Behalf of IIT (ISM), Dhanbad

Signature:

Name: SHRIVAHAN

Designation & Seal:

Dean (Research & Development)  
Indian Institute of Technology  
(Indian School of Mines)  
Dhanbad - 826004 (INDIA)

WITNESSES

1) Signature

Name:

Nagaraj k. Nayak.

Address:

1) Signature

Name:

KALYAN BHATTACHARYA

Address:



1) Signature

Name:

SAGAR PAL

Address:

ADEAN (RS)

IIT (ISM) Dhanbad

1) Signature

Name:

RAVI KUMAR GANGWAR

Address:

ADEAN (SRIC)

IIT (ISM) Dhanbad