

त गुजरात GUJARAT
स्टम्प नंभर : 755 70-2 तारीभ : 15/01/2019

રૂા. : ૧૦૦ /- અંકે રૂપિયા.ઃ સો પૂરા

સ્ટેમ્પ લેનારનું નામ: ભરૂચ એન્વાયરો ઈન્ફ્રાસ્ટ્રકચર લી.

સ્ટે.લેનારનું સરનામું : ૯૭૦૧/૧૬, જી.આઈ.ડી.સી, અંકલેશ્વર

સ્ટે.લેવા આવનારનું નામ: જૈનીશ મોદી

સ્ટે.લેવા આવનારનું સરનામું : બી-૬, ઓમપુરી સોસા, દીવા રોડ, અંકલેશ્વર.

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જી.આઈ.ડી.સી, અંકલેશ્વર, જી. ભરૂચ.

MEMORANDUM OF UNDERSTANDING (MoU)

Manipal University Jaipur (MUJ)

Shroff S R Rotary Institute of Chemical Technology (SRICT)

Bharuch Enviro Infrastructure Limited (BEIL)

Marathi Vidnyan Parishad (MaViPa)

This MoU is made and entered on this the day of January 2017 by and among;

Manipal University Jaipur (MUJ) has been established vide Act No. 21 of 2011 by Government of Rajasthan. It is located at Post: Dehmi Kalan, off Jaipur-Ajmer Expressway, Jaipur - 303007, Rajasthan, India. Hereinafter referred to as 'MUJ', which expression shall be deemed to include its successors, administrators, assigns and group entities of the FIRST Wyosh PARTY.

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For Bharuch Enviro Infrastructure Ltd.

Authorised Signatory

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Shroff S R Rotary Institute of Chemical Technology (SRICT) has been founded to provide the specific S&T needs of the Chemical Industry in and around Ankleshwar. It is intended to create R & D infrastructure (including trained manpower) to meet the industrial needs of Gujarat. It is located in Block No: 402, Ankleshwar - Valia Rd, Vataria, Gujarat- 393135, India. Hereinafter referred to as the 'SRICT' which expression shall be deemed to include its successors, administrators, assigns and group entities of the SECONDPARTY.

Bharuch Enviro Infrastructure Limited (BEIL) is a company that specializes in the management of solid and hazardous waste. It operates a centralized landfill site along with a common incineration system built specifically for the safe and secure disposal of hazardous waste coming in from member industries in the region. Its office is in 117, GIDC, Ankleshwar, Gujarat- 393002, India. Hereinafter referred to as the 'BEIL'which expression shall be deemed to include its successors, administrators, assigns and group entities of the THIRD PARTY.

AND

Marathi Vidnyan Parishad (MaViPa) was established in 1966 with the aim of propagating science and improving science temper of the society. It also undertakes research of direct relevance to society and helps in successful implementation. MaViPa currently has a total of 72 chapters in Maharashtra. In addition, it also has a chapters each in Goa, Belgaum, Vadodara and Nipani where it conducts work in their respective vernacular languages or in English as the need demands. It is located in Vidnyan Bhavan, VN Purav Road, Chunabhatti, Sion, Mumbai, Maharashtra 400022. Hereinafter referred to as the 'MaViPa' which expression shall be deemed to include its successors, administrators, assigns and group entities of the FOURTH PARTY.

Each of the MUJ, BEIL SRICT and MaViPa is individually referred to as a "Party" and are collectively referred to as the "Parties".

1.0 Definitions

- 1.1 PROJECT shall mean the research collaboration between MUJ, SRICT, BEIL and MaViPa for using data generated from experimental and modelling studies conducted at MUJ, SRICT and BEIL site. The scope, responsibilities and details of the project activities would be known to all the parties in advance.
- 1.2 Confidential Information shall mean all Technical and non-Technical Information whether disclosed directly or indirectly including but not limited to technical or business data, plans, hardware, software, specifications, flow sheets, designs and drawings, testing and operating data etc.

2.0 Background

Professor J B Joshi (President, MaViPa) and Dr. Abhishek Sharma (AMIChemE, Member IIChE), Associate Professor & HoD, Department of Chemical Engineering, Manipal University Jaipur (MUJ) have been contacted by BEIL for providing a solution to efficiently utilize the municipal solid waste coming to their site from Ahmedabad Municipal Corporation. After a site visit, a report was submitted by MUJ under the guidance of Prof. J. B. Joshi to upgrade their reject streams into fuel and energy using advanced thermo-chemical technology. In a recent meeting held on 01.08.2016 in Mumbai, the project has been awarded to MUJ. It has been decided that SRICT will also work on this project with MUJ for technology development and exchange of academic knowledge. MUJ will lead this project and Prof. J B Joshi (MaViPa) will act as overall mentor for this project.

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President

The scope of work for this project includes the following:

- 3.1 Development of a lab (5 kg/hr facility) to efficiently utilize the municipal solid waste and a pilot facility for 50 kg/hr at MUJ and BEIL (at Ahmedabad site), respectively.
- 3.2 Conducting experimental studies for product yield and quality estimation.
- 3.3 Conducting modelling and simulation studies for process design and scale-up to operate at commercial scale (50 Tonnes/day).

4.0 Responsibilities

4.1 Responsibilities of MUJ

MUJ will remain responsible for the development of the experimental facilities, both at lab and pilot scale as well as for conducting process modelling and synthesis studies with available facilities at their site. MUJ will also recruit 2 research scholars to work on this project.

4.2 Responsibilities of SRICT

SRICT will remain actively involved in this project for providing technical assistance as well as for supervision of recruited research scholars. An effort will be made to initiate and expand Ph.D. research culture for solving problems of the society.

4.3 Responsibilities of BEIL

BEIL will co-ordinate with both MUJ and SRICT for providing necessary information from their existing plant in Ahmedabad, Gujarat. BEIL will also provide necessary facilities for smooth operation of this project and track the progress of project with regular meetings.

4.4 Responsibilities of MaViPa

MaViPa will provide overall guidance to this project under the mentorship of Prof. J B Joshi.

5.0 Expenses

The financial cost to run this project will be borne by BEIL. The details of the financial requirement of this project are given in Annexure-1.

6.0 Mutual Consideration

The principal aim of the project is to solve societal problem through the knowledge generated by the educational institutions. None of the Parties shall make any public disclosure / issue any press release or cause any public announcement to be made in relation to the critical and or technological contents of this project without the prior written approval of the other Parties.

- 6.1 Either of the four parties will avoid communicating to other person or party regarding any critical information which is identified or considered confidential. However, either of the four parties after due consultation with the others shall have the right to communicate to its employees/students such part of the Confidential Information as is essential to achieve the objective of a project. A speedy and simple procedure (guidelines) will be made within 3 months of starting the project.
- 6.2 The MUJ students and the faculty working on the project will make a report of the project/assignment completed and submit the same to the MUJ. The report may include such part of the Confidential Information as is essential to achieve the purpose of obtaining their degree.

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6.3 MUJ faculty and research professionals as well as SRICT students and faculty working on the project shall have the right to write Ph.D and Master's thesis, research papers, present the knowledge in National/International Conferences/Journals, take part in national level or international level project competitions or file patents – which are the outcomes of this project. The authorship and rights will be equally shared by MUJ, SRICT, BEIL and MaViPa.

In all publications it will be duly acknowledged that the work has been carried out jointly by MUJ, SRICT, BEIL and MaViPa. Publication of any type involving the joint research by either party shall require the prior consent of the Working Committee set up under this MoU. The committee will be established within three months from starting the project.

7.0 Term

- 7.1 The Parties hereby agree that the term of this MoU shall be three years from the signing date by all parties.
- 7.2 The Parties, at least 3 months prior to the expiry of the initial term of the MoU may decide to extend the period of this MoU for an additional period of term as may be mutually agreed upon by the Parties in writing.
- 7.3 This MoU may also be terminated by any Party after giving one month's prior written notice to the other Parties or by mutual consent.

8.0 Governing Law and Jurisdiction

Any dispute arising out of this MoU shall be resolved by Heads of Institutions through discussions in good faith with a view to expeditiously resolve such differences or disputes in a spirit of mutual understanding and cooperation. If the dispute persists, the Parties may agree to go for arbitration.

9.0 Force Majeure

Neither party shall be responsible for non-fulfillment of their respective obligations under this MoU if the party is prevented from performing its obligations because of the existence of a force majeure event.

"Force Majeure" shall mean any act beyond the reasonable control of a party and shall include (but not be limited to) acts of God, War, Flood, Earthquake, Strike, Lockout, Epidemic, Riots and Civil Commotion.

If the force majeure conditions continue beyond six months, the parties shall jointly decide about the further course of action.

10.0 Amendments

The scope of joint research could be expanded if as and when required with mutual agreement within the 3 year duration of MoU. No amendment or modification of this MoU shall be valid unless made in writing and signed by the authorized representatives of all the parties. The modification/changes shall be effective from the date on which they are made / executed unless otherwise agreed to.

11.0 Assignments

The rights and liabilities of any party to this MoU shall not be assigned except with the written consent of the other parties and subject to such terms and conditions as may be mutually agreed upon.

President

12.0 Signature of Parties

The MoU has been executed in four originals and one retained by each of the parties.

Parties:

For and on behalf of Manipal University Jaipur (MUJ)

Signature

Name: Dr. Vandana Suhag

Designation: Registrar

Signature

Name: Dr. N. K. Garg

Designation: Advisor (IP)

Seal:

Witness (name and address)

Signature

1. Name: ABHISHEK SHAKMA

Signature 4

2. Name: ANAND

CHAKINALA

UNIL CAPUR OF LAND OF

For and on behalf of Shroff S R Rotary Institute of Chemical Technology (SRICT)

Signature

Name: Prof. Shrikant Wagh

Designation: Principal

Seal:

Witness (name and address

Signature 4

1. Name: Hemant Bakany

Signature

2. Name: KARTIK'S

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Signature Bulling
Name: Mr. B. D. Dalwadi
Designation: CEO
Seal:
Witness (name and address)
Signature Signature Signature
1. Name: Deepak L-Patel 2. Name: Dakesh. v. 20hit
1. Name:
BHARUCH ENVIRO INFRASTRUCTURE LTD. BHARUCH ENVIRO INFRASTRUCTURE LTD.
Plot No. 9701-9716, G.I.D.C. Estate, Ankleshwar - 393 002: Dist: Bharuch. Ankleshwar - 393 002: Dist. Bharuch.
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For and on behalf of Marathi Vidnyan Parishad (MaViPa)
Signature 2005 lui
Name: Prof. J. B. Joshi
Designation: President, MaViPa
Seal: MARATHI VIDNYAN PARISHAD "Vidnyan Bhavan", V. N. Purav Marg. Sion-Chunabhatti, Mumbai-400022 Tel.: 24054714 / 24057268 Witness (name and address)
Ω
Signature Signature Signature
1. Name: AP Desuponde 2. Name: D-1, Hunta CHS
B.5 Jalanour Lyd VB Plot No. 612, Sector 6
Lane Meallesperdte) Charkop, Kandivalil
Membris 400077 Membri -400067