

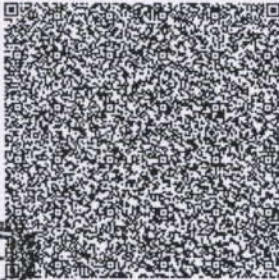


सत्यमेव जयते

INDIA NON JUDICIAL Government of Jharkhand

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Certificate No.	: IN-JH026991233297430
Certificate Issued Date	: 26-May-2016 06:26 PM
Account Reference	: NONACC (BK)/ jhcanbk02/ DHURWA/ JH-RNC
Unique Doc. Reference	: SUBIN-JHJHCANBK02034646379360560
Purchased by	: HEAVY ENGINEERING CORPORATION LIMITED
Description of Document	: Article 5 Agreement or memorandum of an Agreement
Property Description	: M O U
Consideration Price (Rs.)	: 0 (Zero)
First Party	: HEAVY ENGINEERING CORPORATION LIMITED
Second Party	: NATIONAL INSTITUTE OF FOUNDRY AND FORGE TECHNOLOGY
Stamp Duty Paid By	: HEAVY ENGINEERING CORPORATION LIMITED
Stamp Duty Amount(Rs.)	: 100 (One Hundred only)



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This MEMORANDUM OF UNDERSTANDING made on this 3rd day of June of the year 2016.

BETWEEN

HEAVY ENGINEERING CORPORATION LIMITED, a Government of India Enterprise under Department of Heavy Industry, Ministry of Heavy Industry & Public Enterprises, Govt of India, established in 1958 with its Head Office located at Plant Plaza Road P.O: Dhurwa, Ranchi: 834 004 (India), hereinafter referred to as "HEC Ltd" (which term or expression unless excluded by or repugnant to the context shall include its successors and assigns) of the ONE PART.

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AND

NATIONAL INSTITUTE OF FOUNDRY & FORGE TECHNOLOGY, an autonomous Institute of Govt. of India under Department of Higher Education Ministry of Human Resource Development, Govt. of India, registered as Society under Societies Registration Act of 1860, situated at Hatia, Ranchi – 843 003 hereinafter referred to as “**NIFFT**” (which term or expression unless excluded by or repugnant to the context, shall include its successors and assigns) of the **OTHER PART**.

It is **WITNESSED** that –

WHEREAS, **HEC Ltd**, being the integrated industrial complex and capital component manufacture of the country having inter-alia, extensive manufacturing facilities starting from casting, forging, fabrication, machining, assembly, testing, erection & commissioning of equipment & spares for core sectors like steel, mining, defence, railways, power, engineering etc. It has got set up for metallic engineering component and particularly having the expertise in Foundry and Forge technology which is best of its kind in the world.

AND **WHEREAS**, **NIFFT** is a leading institute for teaching, training, research and development, consultancy and documentation and information retrieval services in the domain of metal casting and forging technology in particular and metal component technology as a whole. Apart from pursuing the Advanced Diploma and B. Tech Courses at the institute, **NIFFT** also encourages their students for M. Tech Course and Ph.D. programme in Foundry and Forging Technologies, Materials and Metallurgical Engineering, Manufacturing Engineering, Environmental Engineering etc.

AND **WHEREAS** **HEC** has signed an agreement on Feb. 25, 2016 with **CNIITMASH**, Russia for imparting training through creation of Common Engineering Facility Centre (CEFC), on metal processing and treatment technology including casting, forging, heat treatment, welding and non-destructive technology.

AND **WHEREAS** **NIFFT**, for carrying out the graduation, post-graduation and research programmes, the students are required to carry out project / research assignments in the institute laboratory or industries for which **NIFFT** is interested to find an arrangement with **HEC Ltd** so that the subject of the project/research can be formulated based on the problem domain and scale of emerging industrial needs at **HEC** and their students can avail the facilities and guidance of **HEC Ltd** for their research/project works as well as collaborate in other areas of mutual benefit. In view of the proposed roadmap of **NIFFT**, participation of **NIFFT** in the establishment the CEFC on metal component manufacturing technology will impart a synergistic impact towards augmentation of manufacturing potential of our country.

WHEREAS, **HEC** undergoing technological reformation through modernization of its facilities as well as development and adoption of new technology / products, creation of



skilled manpower through proper training and exposure, would like to join hand with NIFFT as a knowledge partner in the aforesaid endeavour.

NOW THEREFORE in consideration of the foregoing and the mutual covenants, terms and conditions expressed herein, both the parties agree as detailed herein below:-

1.0 PURPOSE:

- 1.1 The purpose of this MOU is to finalise arrangement between the parties to facilitate the following:
 - 1.1.1 Establishment of the CEFC on metal process technology with state of the art equipment, competent manpower and reliable knowledge base.
 - 1.1.2 Creation of training, education and research framework with contents of international standard.
 - 1.1.3 Availing the workshop and laboratory facilities of HEC Ltd for undertaking project work involving the engineers and technician of HEC and B.Tech/M.Tech / Ph.D students of NIFFT under the guidance of faculty members of NIFFT and technical experts from HEC.
 - 1.1.4 Availing the physical, academic and research infrastructure of NIFFT for execution of the academic research programs under the purview of the CEFC. HEC will provide the technical support in establishment of additional research infrastructure at NIFFT under CEFC.
 - 1.1.5 Sharing and utilisation of infrastructural facilities, like information and documentation centre, workshop, auditorium etc, by either party in each other's premises for the purpose of dissemination of knowledge.
 - 1.1.6 Association of B.Tech/M.Tech students of NIFFT in on-going projects of HEC Ltd. This will enable both the organisation to speed up the pace of projects and enable the students to meet the requirement of partial fulfilment of project work for the award of their degrees.
 - 1.1.7 Accessing support of HEC Ltd while formulating specifications for procurement of sophisticated equipments at NIFFT.
 - 1.1.8 Exploring possibility of procurement / development of software/equipment by HEC Ltd with technical assistance from NIFFT.
 - 1.1.9 Registering of engineers/scientists working in HEC Ltd for Ph.D programmes with guidance of faculty members of NIFFT with or without the co-guidance of the scientist from other organisation.

1.1.10 Submitting Collaborative project/research proposal to the funding agencies at the National level like, SDF, DST, DSIR etc., and International level like USIS, Indo-UK, Indo-German etc.

2.0 SCOPE OF MOU:

2.1 The scope of this MoU shall broadly cover the areas enumerated in point 1.1, namely, use of facilities, participation in projects, specification formulation and procurement of equipments/software's, sharing of infrastructural facilities, registering of working professionals for Ph.D. The B.Tech/M.Tech /Ph.D students and faculty members of NIFFT shall access the facilities available at **HEC Ltd** against specific recommendations from **NIFFT**. The professionals at **HEC Ltd** can also access the facilities available at **NIFFT** against specific recommendations from **HEC Ltd**.

2.0 DURATION:

3.1 This MOU shall come into effect from the date of its signing by both the parties and shall be valid for 3 (three) years. However, the MOU may be renewed for a further period on mutually agreed terms and conditions.

4.0 PUBLICATIONS AND PATENTS:

4.1 **NIFFT** and **HEC Ltd**, shall consult each other for any publication arising from the investigative work carried out under this MOU. These publications shall be in the names of investigators both from **HEC Ltd** and **NIFFT** and it will be duly acknowledged that the work has been carried out in collaboration with each other.

4.2 **NIFFT** and **HEC Ltd**, shall consult each other for any patents arising from joint research work, funded by government and/or other institutions, and carried out under this MOU. These patents shall be in the names of investigators both from **HEC Ltd** and **NIFFT**. The charges for filing of such patents shall be shared equally by **NIFFT** and **HEC Ltd**.

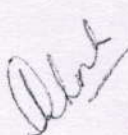
5.0 SECRECY:

5.1 Both **HEC Ltd** and **NIFFT** shall maintain secrecy of all the findings related to investigations/analysis/testing's pertaining to individual and joint research projects and shall not disclose the same to any other party.

6.0 MODIFICATIONS AND AMENDMENTS:

6.1 Modifications and amendments to this MOU, if any, shall be effected in writing by mutual consent.

7.0 TERMINATION:



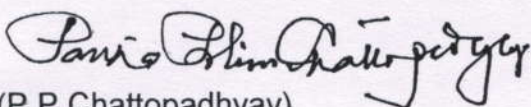
- 7.1 Both the parties shall have the right to terminate this Agreement after giving one month's notice in writing to the other party. In the event of termination, both the parties shall discuss and arrive at a settlement regarding their outstanding obligations including refunds/settlement of any balance amount.

8.0 MISCELLANEOUS:

- 8.1 **HEC Ltd** and **NIFFT** shall nominate one representative each to facilitate co-ordination under this MOU, within a fortnight from the date of signing this MOU.
- 8.2 Representatives of both parties shall meet once in three months to review and monitor the progress of the work under the MOU.

IN WITNESS whereof this MOU has been executed by the parties here of on the date, month and year first written above.

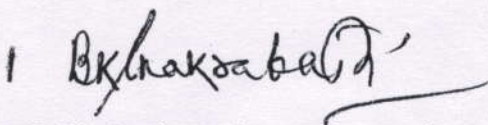
For and on behalf of
National Institute of Foundry &
Forge Technology,
Ranchi – 834 003


(P P Chattopadhyay)
Director

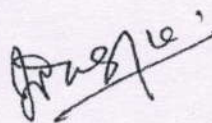
For and on behalf of
Heavy Engineering Corporation Ltd
P.O. Dhurwa
Ranchi -834004


(Avijit Ghosh)
CMD

Witness:


(B K Chakraborty)

Witness:


(J Mukherjee)