



राष्ट्रीय विज्ञान शिक्षा एवं अनुसंधान संस्थान, भुवनेश्वर
(परमाणु उर्जा विभाग, भारत सरकार का एक स्वयं शासित संस्थान)
NATIONAL INSTITUTE OF SCIENCE EDUCATION AND RESEARCH, BHUBANESWAR
(AN AUTONOMOUS INSTITUTE UNDER DEPT. OF ATOMIC ENERGY, GOVT. OF INDIA)

Notice Inviting E-Tender No.: NC-000856-RIN4001-CLF-21-22

LASER WRITER- MASKLESS LITHOGRAPHY



**NATIONAL INSTITUTE OF SCIENCE EDUCATION & RESEARCH
JATNI CAMPUS, P.O. – BHIMPUR-PADANPUR, VIA-JATNI
KHURDA – 752050, ODISHA, INDIA**

Notice Inviting E-Tender

For

LASER WRITER -MASKLESS LITHOGRAPHY

E- Tenders are invited on behalf of the Director, National Institute of Science Education and Research, Jatni from the manufacturers(Indian or Foreign) and their authorised reseller/Indian agent only for supply & installation of the following items:-

<i>Sl. No.</i>	<i>Name of the Items</i>	<i>Tender No.</i>	<i>Name of Department</i>	<i>Qty. No.</i>	<i>Tender Fee in INR</i>
1.	Laser Writer- Maskless Lithography (As listed in the technical bid)	NC-000856-RIN4001-CLF-21-22	SPS	As per technical bid	1,500.00

<i>Sl. No.</i>	<i>Name of the Items</i>	<i>Tender No.</i>	<i>Name of Department</i>	<i>Qty. No.</i>	<i>EMD in INR</i>
1.	Laser Writer -Maskless Lithography (As listed in the technical bid)	NC-000856-RIN4001-CLF-21-22	SPS	As per technical bid	NIL against Bid Security Declaration as attached

Performance Bank Guarantee: Within ten (10) days of the award of contract, the vendor shall furnish a performance bank guarantee amounting to 3% of the purchase order value in the form of bank guarantee in favour of “the Director, National Institute Of Science Education & Research”, Jatni valid for a period of sixty days beyond the date of completion of all contractual obligations of the supplier including warranty obligations. BG should be from any nationalized/ scheduled bank in India.

- **Tender Enquiry No** : **NC-000856-RIN4001-CLF-21-22**
- **Last date of submission of E-bid** : **15/02/2022 up to 11.00 A.M**
- **Opening of Technical Bid** : **17/02/2022 at 11.00 A.M**

The details of general tender terms & conditions can be downloaded from <https://eprocure.gov.in> or Tender Free View Link from NISER Website <https://www.niser.ac.in/content/tender>.

FIC (Stores & Purchase)

Bid Security Declaration

(In Company's letterhead)

Invitation to Bid/Request for Expression of Interest No. [NC-000856-RIN4001-CLF-21-22]

To

National Institute of Science Education & Research, Bhubaneswar

Post-Bhimpur-Padanpur,

Via- Jatni,

District- Khurda, India

PIN-752050.

I/We understand that, according to your NIT conditions, bids must be supported by a Bid Security. In lieu of the Bid Security, we submit the following undertaking:-

“I/We declare that we will be suspended/ disqualified for tendering with the entity for a period of 1 (One) year from the date of receipt of notice from you, if we withdraw or modify our bid during the validity period **OR** fail to sign the Contract **OR** fail to submit Performance Security (if applicable) before the defined deadline **OR** fail to execute contractual obligation within the stipulated time.”

Date: -

Place: -

Signature of the Bidder

(with Company seal)



**TECHNICAL BID
SUPPLY AND INSTALLATION
OF
LASER WRITER- MASKLESS LITHOGRAPHY
FOR
NATIONAL INSTITUTE OF SCIENCE EDUCATION AND RESEARCH, JATNI
Notice Inviting E-Tender No. NC-000856-RIN4001-CLF-21-22**

Vendor Name				
SL. No.	Item Specification	Quantity (In Units)	Accepted/Not Accepted (Kindly Mention)	Please specify if any deviation
1	<p>Technical specifications for UV direct laser writer for multi-level maskless lithography:</p> <ul style="list-style-type: none"> • A table top system with small cleanroom footprint (1m² maximum) • Capable of holding wafers at least up to the size: 4"x4" and from 0.1 to 10 mm thickness. • Raster mode as well as vector mode of writing should be available, controllable by software • Microsoft Windows based user interface should be provided for fully software controlled push button operation. . <p>Laser source for writing: 405 nm, GaN laser diode.</p> <p>Lifetime: Greater than 10000 hours</p> <p>Write modes: 0.8 μm FWHM or better should be demonstrated</p> <p>Working distance: Up to 0.9 mm should be available</p> <p>Intensity: Software controllable power of up to 3 mW at the spot should be available.</p>	1 Unit		

Grayscale control: 4096 (12 bit) or more levels of intensity should be available

Autofocus: Auto height tracking and focusing (upto ± 0.3 mm) should be available with a 650 nm red laser at 800 Hz bandwidth. Fast actuator for accurate real-time Z correction should be available.

Focus offset: Software controlled focus offset feature should be available

Alignment camera: Monochrome at least 5.2 M pixel.

Pixel resolution: 1 μm or better

Final alignment accuracy: 0.5 μm or better

Stage movement: At least upto Max. 100 mm

Repeatability of positioning: 50 nm or less RMS

Resolution of stage movement: 10 nm or better

Scan speed: Max 200 mm/s or more

Straightness of axis: 1 μm or less over 100 mm

Substrate thickness: 0.1 mm to 10 mm manually adjustable

Substrate thickness variation: Max +/- 0.2mm

Compatible Substrate size: Min. 5 mm x 5 mm or less, max. 125 mm x 125 mm or more.

Exposable area: Up to 110 x 110 mm or more

	<p>Control hardware: All control hardware required for standalone operation should be provided, including desktop. Latest version of control software should be provided.</p> <p>Future upgrade options: System should be upgradable in future with 375 nm writing laser and writing modes other than 0.8 μm.</p>		
2	<p>Above items should carry 3-years free comprehensive warranty from the date of installation. In case the tenderer provides warranty less than 03 years then he has to give justification for lesser period of warranty. Without justification, his tender is liable to be rejected.</p>		

Contact for information: (Only E-mail enquiries will be entertained)

For Technical Information:-

Dr. Sudakshina Prusty

School of Physical Sciences

E-mail – sprusty@niser.ac.in