



31st January 2018

To Whom It May Concern

Open Tender for a Raith-PIONEER Upgrade

This is an RFQ (Request for Quote) for upgradation of the existing Raith PIONEER system as part of a open tender for the Centre for Nano Science and Engineering (CeNSE) at IISc, Bangalore.

CeNSE is a multidisciplinary research department at IISc that houses a 14,000 sq. ft. cleanroom and characterization facility used by 50 faculty members from various disciplines at IISc. CeNSE is also a user-facility which has hosted over 6000 participants from more than 700 universities and institutes all over the world. Consequently, any tool in CeNSE receives significant exposure to scientific community in India and beyond. The vendors are requested to factor in the value of this exposure in to their quotes.

Being a user-facility puts additional technical burden on the tool. We need a tool that can tolerate heavy usage (at least 50 hours/week), has a high uptime, can be serviced and maintained for the foreseeable future (at least 5 years), and has a track record of reliability at comparable facilities in India and abroad. Details of existing facilities and the user program can be gleaned from:

<http://nnfc.cense.iisc.ac.in/>

<http://www.mncf.cense.iisc.ac.in/>

<https://www.inup.cense.iisc.ac.in/>

Procedure

1. Vendors will be required to submit a technical proposal and a commercial proposal in **two separate sealed envelopes**. Only vendors who meet the technical requirement will be considered for the commercial negotiation.
2. **The deadline for submission of proposals is the 14th of February 2019, 5:00 pm Indian Standard Time.** Proposals should arrive at the Main office, GF-15, Centre for Nano Science and Engineering, Indian Institute of Science, Bangalore 560012, India, by the above deadline.
3. The decision of purchase committee will be final.
4. The technical proposal should contain a compliance table with 5 columns. The first column must list the technical requirements, in the order that they are given in the technical configuration below. The second column should describe your compliance in a "Yes" or "No" response. If "No" the third column should provide the extent of the deviation (please provide quantitative responses). The fourth column should state the reasons for the deviation, if any. The fourth column can be used to compare your tool with that of your competitors or provide details as requested in the technical requirements table below.
5. Any additional capabilities or technical details, that you would like to bring to the attention of the purchase committee, can be listed at the end of the technical table.
6. In the commercial bid, please provide itemized cost of the system and *required* accessories, such as software, power supply, etc.

7. As an option, please provide itemized cost for any *suggested* accessories/add-ons that may enhance the usability, capability, accuracy or reliability of the tool. Vendors are encouraged to quote for as many add-ons as their tool portfolio permits.
8. The quotes should be CIF Bangalore, India. So please include cost of shipping.
9. Any questions can be directed to Dr. Savitha P, GF-20, Centre for Nano Science and Engineering, Indian Institute of Science, Bangalore 560012, India. (savithap@iisc.ac.in)

Technical Requirements

1.	Application	<ul style="list-style-type: none">• Electron Beam Lithography
2.	Upgrade Requirement	<ul style="list-style-type: none">• 20MHz Pattern Generator for Faster writing speed• Workstation(PC) Upgrade with Latest Windows software(supporting OS64bit, 30kV)• Lithography offline software for designing
3.	Existing Capability	<ul style="list-style-type: none">• Pioneer - Compact High Resolution Ebeam Lithography System• Thermal Field Emission(TFE) system• Beam energy selectable between 100 eV - 30 keV• 2.5 MHz pattern generator• PC with 32-bit Windows XP software environment• Software control with Raith software suite• Manual control using joystick controller
4.	Process recipes	<ul style="list-style-type: none">• At the time of installation, all standard process recipes should be provided
5.	Installation and Training	<ul style="list-style-type: none">• Installation and training at customer site, by the experts from principals should be part of the package.• During the installation all the specifications of the processes should be verified for acceptance by the customer.
6.	Power & utilities	<ul style="list-style-type: none">• Any additional power or utility requirement arising from this upgrade should be clearly mentioned
7.	Safety	<ul style="list-style-type: none">• The upgrade should not interfere with the existing safety features• Please mention if any additional safety features come with the upgrade
8.	Acceptance tests	<ul style="list-style-type: none">• 10, 20nm patterning on photoresist at faster speed• Stability of the system for normal operations after the upgrade

Thanking you,

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