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## **Tender for developing and maintaining Bio Technology Software**

The Indian Institute of Technology Kanpur (IITK) is a hub of research and innovation and has setup a BIO Incubator under guidance from **Biotechnology Industry Research Assistance Council (BIRAC)** along with **SIDBI Incubation and Innovation Centre (SIIC)**. The incubator shall strengthen and empower the emerging Biotech enterprises to undertake strategic research and innovation, addressing nationally relevant product development needs.

IITK has developed a limited software that is very useful for Bio Technology research and needs to be developed and enhanced, making it more user-friendly, secure, fast, and robust. The software may be offered on a subscription model in future and the proposal shall cover maintaining, upgrading and updating the software over the next 5 years.

The major features required are

1. Make the software run on Linux / Postgres / MongoDB / Python / CytoScope (re-establish the connectivity between the application and the database). Identify the most appropriate version and use it for core development. Resolve all exceptions that may occur to get the system functional / up and running.
2. Update the Postgres database according to an optimized database model identified by IITK and move the data to the new database (without breaking any functionality).
3. Download and import all the relevant data (resolving all the exceptions in data / source code that may arise). The changes shall not break the core algorithms used in the software (and the software must pass any test executed in the past).
4. Implement a registration and login / logout module – for user management and secured access.
5. Implement sessions management – preserve the current state of working on the software and retrieve it on demand (after login).
6. Implement the ability to add / delete single and/or multiple nodes at the nth level.
7. Implement detailed logging (exceptions and timing) to track the progress of data files processing, quick tracking of errors and identifying optimization opportunities.
8. Implement the ability to distribute the processing of xml files on multiple machines. The application shall resume the processing of files from point of failure (in case of any break).
9. Implement the ability to add edge to the currently selected node in the given network and save it.

10. Move the appropriate section of code from python to java (to take advantage of object oriented / multi threaded model) to process multiple files together.
11. Optimize the software where possible (eg file loading mechanism).
12. Include 5 years customization & upgrades, post warranty support.

#### **Additional Features:**

1. The software systems should run efficiently and seamlessly and be deployable on all platforms (Windows, Linux, Mac, etc.). For users, the UI shall work on all common browsers like Internet Explorer, Firefox, Chrome, Safari, etc.
2. The number of students, faculty, and staff could double over the years. The software should be scalable for such expansion.
3. All IP rights of the software (both current and developed as a part of the proposal) shall continue to be reside with IITK. In case IITK decides to license the software, then the revenue may be shared (as per terms to be decided at that stage). The vendor shall take all necessary steps to ensure that the IP of the software / algorithm used etc are not quoted / reported / used in other code – without prior written approval from SIIC / IITK / BIRAC.

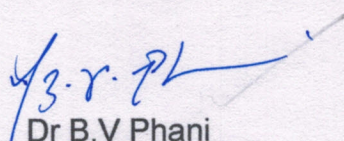
#### **Model of Engagement**

1. SIIC / IITK / BIRAC would need the vendor to use a managed services model for the above systems for a period of five years from date of go-live. In particular, the vendor must work either work within the IITK premises / servers as far as possible (to preserve the IP) or be available for regular project discussions.
2. The vendor will take the end-to-end ownership as a single point contact to ensure smooth functioning of the proposal by providing the requisite resources.

#### **Terms and Conditions**

- SIIC reserves the right to make any changes deemed suitable in the above process depending on the need without any prior intimation.
- Normal payment terms for the Institute will be applicable (90% on delivery of the items and the remaining 10% after satisfactory installation/ inspection)
- Maximum education discount, if any should be offered.
- Validity of quotation should be at least for 60 days

The quotations must reach to us latest by June 22, 2015 at the following address:

  
Dr B.V Phani  
SIDBI Innovation and Incubation Centre  
IIT Kanpur.