

NOTICE FOR PRE-QUALIFICATION OF TENDERERS
(for short listing consultant firms/consortiums)

File No.INSPIRE/E-Management/2011

[1] INTRODUCTION:

- 1.1 Department of Science and Technology, DST proposes to have a highly productive and user friendly, electronic knowledge based software application that offers effective implementation of INSPIRE INTERNSHIP, SCHOLARSHIP FOR HIGHER EDUCATION, INSPIRE FELLOWSHIP AND INSPIRE TENURE TRACK FACULTY SCHEMES OF INSPIRE Program with prompt information availability, while adhering to the Government of India Rules, Regulations and policies through pursuing some key interventions to be implemented in an aggressive time frame of six months.
- 1.2 The main focus for the software application is to make the INSPIRE program available in the electronic version to the students, researchers and other stakeholders so as to fast service them electronically, automate the administrative functions, augment the team performance, skills, knowledge sharing, and to create electronic self service and transparent mechanism for decision support/enhance efficiency at all level.

[2] Creating Knowledge Based Software Application: Enterprise Integration, Portal Design for Program Implementation and e-Service Delivery:

The scope of the work includes the automation of all functions of the INSPIRE INTERNSHIP, SCHOLARSHIP FOR HIGHER EDUCATION, INSPIRE FELLOWSHIP AND INSPIRE TENURE TRACK FACULTY SCHEMES being four components of INSPIRE scheme presently being implemented by Department of Science and Technology, Government of India through its office located at Technology Bhavan, New Mehrauli Road, New Delhi. This is a scheme that attracts talent amongst students to study science and pursue career with scientific research. The basic objective is to communicate to the youth of the country the excitements of creative pursuit of science, attract talent to the study of science at an early age and thus build the required critical human resource pool for strengthening and expanding the Science & Technology system and R&D base in India. The Programme is a unique one as it covers for nurturing students as early as Class 6 and up to the post doctoral level. The web based software

application will facilitate the department in information dissemination as well as better service delivery to the stakeholders through the electronic mode.

2.1 Associated Exercise

For implementation of the said initiatives and to meet the overall objectives, the project, as detailed in document given below, will involve incorporation of the analysis, finding and design framework, evolved on the basis of the exercises such as (i) Assessment of the current systems & policies (ii) Application of thought, knowledge, concepts, applications and experiences /expertise (iii) Validation of proposed approaches and (iv) Suggesting innovative designs, strategies, approaches, methods, tools, policies etc. to guarantee successful implementation.

2.2 Design Requirements

For simplification of processes and changes in the prevalent system/practices the key operations relating to address the usual concerns of the INSPIRE delivery system are

- Simplification of Processes/Process Reengineering.
- Design/Re-design of Forms for relevant processes.
- Validation Requirements: Application to automatically check for various criteria and fulfillment of all probable preconditions for any application to be submitted.
- Exception Handling: All kinds of exception handling in the system with built in Business Intelligence, i.e., Application must be aware of all the business rules and various policies, etc to be applied right from the beginning of filling up of the application form till the approval/rejection and follow up actions. It should suggest/trigger actions which can be taken based on the fulfillment of various conditions at each step of examination, evaluation, etc.
- Security issues – All the static, publically available data needs to be safe guarded and protected from unauthorized access, while, all the processed data and dynamic content should be visible only to the authorized users. The contents must have the highest level of security available using suitable mechanisms.
- Well defined Mandatory fields, optional fields and completely automatically customizable forms for each part of the four components of the INSPIRE.
- Databases with data mining for all type of relevant information for each component.
- Detailed Report Generation over various fields and Dashboards for summarized report generation.
- Localization: Providing bilingual application both in English & Hindi.
- Rule repository: Developing a rule repository, context-sensitive linking and display of appropriate portions of the concerned rules for various fields as and when invoked.

2.3 BRIEF ABOUT THE FOUR INSPIRE COMPONENTS and REQUIREMENTS

There are five Components of the INSPIRE Programme, namely, the (i) Award, the (ii) Internship, (iii) the Scholarship, (iv) the Fellowship and the (v) Faculty Scheme. The

scope of this software application is to cover the last four components. The salient features of each of these components are given below:

2.3.1. INSPIRE-INTERNSHIP

- Science Camps are held for class 11th students pursuing science stream.
- The top 1% merit holders in the 10th Board Exams are eligible for the Internship.
- Total number of students expected to be covered every year is 50,000 and the number of camps envisaged to be organized would be more than 250 every year.
- These camps are organized by institutes selected by DST, after invitation of applications, for organizing the camps.
- The Organizer-Institutes can submit their requests for considering to support the cost of organizing the camps to DST.
- Funds are disbursed to the Organizer- Institutes through the banking channel.
- The SE/UC is sought from the camp organizer.
- Requirements:
 - Online submission of the applications/SE/UC/Reports in web-enabled forms as per the application formats and guidelines from Camp Organizers, Students etc.
 - Online-Processing of the applications by Internal officials and External entities

2.3.2 INSPIRE-SCHOLARSHIP

- Scholarships are awarded to each student who is taking science at graduation/integrated post graduation level. The total number of Scholarships envisaged to be given every year is 10,000. Of these, 7500 Scholarships are to be given to students who are within the top 1% of 12th Board Exams across the country [Called Scheme-1] and the balance 2500 scholarships are to be given to students, who are ranked within 10,000 rank by IIT-JEE/AIEEE/AIPMT or students who are KVPY/NTSE/JBNSTS scholar, International Science Olympiad medalist or students selected for admission at IITs (Science courses), IISERs, NISER, DAE-CBS[Called Scheme-2]. For both the schemes the student should have opted for admissions in the Science stream leading to B.Sc./M.Sc. courses.
- The value of the scholarship is Rs. 60,000/- per annum for undergoing bachelors and masters degree courses for a maximum period of 5 years. The scholarship amount is disbursed to the students through the re-chargeable Smart Card/Bank Accounts facility provided by the banks. The institutes, where the students are enrolled, would verify and certify the course being pursued by the student, for providing the scholarship.
- Another Rs. 20,000 is given as an attachment fee to the student annually which is used by the student for the expenditure incurred for training/internship.
- Students apply directly and get the funds disbursed directly from the bank through a smart card/RTGS transaction.

- There funds are disbursed after approval of Secretary and Finance. The approval is taken for each individual case subject to few verifications. This is a consumed amount and no SE/UC is sought from the student.
- Requirements:
 - Online submission of the applications/Reports in web-enabled forms as per the application formats and guidelines from Students, Institutes etc.
 - Online-Processing of the applications by Internal officials and External entities

2.3.3 INSPIRE-FELLOWSHIP

- The total number of fellowship is about 1000 every year and applications are sought from the eligible students through advertisement.
- Student need to be 1st ranker at the University level exam in any Science Stream PG level program of any recognized university or under-graduate or post-graduation courses in engineering / technology / agriculture / pharmacy / applied science streams at recognized universities and academic institutions.
- To receive fellowship, 1st ranker holder need to enroll/admit into the Ph.D. course at any recognized university/institute or research laboratory in the country.
- Students who are 1st rank holder as well as taken admission/enrolled into the Ph.D. course are offered “Final Selection”. Students who are 1st rank holder but yet to take admission/enroll into the Ph.D. course are offered “Provisional Selection”.
- The Fellowship shall be tenable for a maximum period of five years or completion of the Ph.D programme, whichever is earlier.
- For a non-professional course like M.Sc. the student is called JRF and the amount disbursed is Rs. 16000 + HRA + Contingency [Dynamic, can be changed] whereas for the professional courses like M.Tech/M.Pharma. the student is called JRF(P) and the amount disbursed is Rs. 18000 + HRA + Contingency [Dynamic, can be changed]. The disbursal instructions are given to bankers who provide the money after proper verification.
- A student can upgrade from JRF to SRF after justification. This justification is done based on monitoring the progress of the candidate individually. The remuneration increases for the SRF.
- Student can apply directly. The funds are transferred to institute, where student is associated, by DST based on certain criteria and guidelines.
- There funds are disbursed after approval of Secretary and Finance. The approval is taken for each individual case subject to few verifications. The SE/UC is sought from the institute.
- Requirements:
 - Online submission of the applications/SE/UC/Reports in web-enabled forms as per the application formats and guidelines from Students, Institutes etc.

- Online-Processing of the applications by Internal officials and External entities

2.3.4 INSPIRE-FACULTY SCHEME

- Those who have completed Ph.D. or have submitted the thesis during the last calendar year are eligible to apply. The total number of successful applicants is 1000 every year.
- He can (1) apply directly or (2) be nominated from VC, Heads of Academic Institutions, Fellows of Academies in India and Abroad and apply or (3) get recommendations of the Centers of Excellence in India and apply. The candidate has to apply to scheme with a project in mind.
- For first two schemes, subject expert committees, will scrutinize the candidate and the candidates gets shortlisted [a] for the consideration of Apex Committee.
- For third scheme, the Centers of Excellence will forward the name of candidates [b] to the Apex Committee, after their own due diligence.
- The students from [a] and [b] will be scrutinized in Apex Committee, who will take a decision [Accept/Reject/Defer] on the applicants.
- The Fellowship shall be tenable for a maximum period of five years with upper age limit of 32 years with other essential criteria's/relaxations. The candidate's project gets monitored by a monitoring committee.
- Each candidate will get amount equivalent to grades of Assistant Professor in IIT + Rs. 7 lacs per year as research grant. The funds will be transferred to the Institutes as per the guidelines, who in turn pay to the candidate. The SE/UC is sought from the institute.
- Requirements:
 - Online submission of the applications/SE/UC/Reports in web-enabled forms as per the application formats and guidelines from Students, Institutes etc.
 - Online-Processing of the applications by Internal officials and External entities

2.4 Generic Requirements

This section provides general guidelines that need be implemented across all the schemes.

- **File Movement:** Need to automate the flow of files with-in the departments
- **Reports:**
 - *Online Reports* and Offline schedule based reports to be provided for department.
 - *Analytical Reports* using Business Intelligence be provided.
- **Alerts and Notifications**
 - *Alerts:* Alerts need be sent to respective actors depending on various scenarios.

- *SMS Notification*: Applicable in scenarios where integration with SMS Gateway is to be provided so that SMS based alerts can be sent.
- *Email Notification*: Applicable for scenarios where integration with Email Service is to be provided so that emails can be sent and received.
- *Hard Copy Based Notifications*: The system should be able to print out Notification letters which can be sent via Post.
- **Business Intelligence**
 - *Business Intelligence and Data warehousing Solutions*: This needs to be provided for Analytical reports with graphics.
- **Workflow Management System**
 - *Workflow*: Need to provide a workflow based system that captures the various states and stages of the application being processed. This needs to be integrated with the applications status.
 - *Capturing Observations and Clarifications*: The system needs to capture the observations/comments made by members/ stakeholders assigning the observations and the clarifications provided against each observation.
 - *My Space*: Need to provide a Work desk where the concerned officer reviewing the application has a screen which lists the number of applications pending for his approval and review, number of applications already reviewed, link to a holistic dashboard etc.
 - *Generic Work Space*: Dashboards for Senior officials like Secretary and HODs etc to have a quick overview of the well being of the system apart from other assigned tasks.
 - *Extension to the Call Center*: The software should be such that it can help the Call Center to give the exact status and the further requirements of the individual applicant.
- **Usability:**
 - *Guidelines for filling Application form*: A user friendly approach should be provided to the user for entering the details required in the application.
 - *Offline Application Forms*: The software need to have facility of registering candidates details at the Project officer level, if he has applied on paper i.e feature of integrating the online as well as offline incoming data should be available.
 - *Online Tutorial*: Need to provide an online tutorial for a user to fill the application form.
- **Security and User Management**
 - *Security*: Need to implement Security across the application.
 - *User Management System*: Need to develop a user management system where users are created and roles and privileges are assigned.
 - *Security Auditing of the Application*: The web based application software is required to be audited by any of the CERT-in empanelled vendor.

- **Documentation:**
 - *Meetings:* Need to capture all the Minutes of meetings organized and the decision taken on the individual applications.
 - Based on the requirements the development team should suggest the best possible option including Technology and Methodology along with the hardware/software requirements and other technical requirements like bandwidth, backup policy, server clustering, SSL, power etc.
- **Hardware, Software, Manpower and Application Availability:**
 - Department to provide the hardware and software for hosting the audited web application. The software application to be developed at the developer's own location using their own software and hardware. The software application for demo purpose to be hosted by the developers at their own hardware. Once developed the development team to access/update the application from Technology Bhavan. The day-to-day operation and maintenance of the application to be done from Technology Bhavan. The audited application to be installed and operated at the NIC Data Center using the available hardware and the software there.
 - Development team to suggest the configuration and the required number of hardware and system software for the proper implementation of the application at the time of the start of the project itself.
 - To implement the software a list of the team of professionals to be deployed onsite, need be furnished
- **Application Support:**
 - Web application support is required for a period of 5 years after the successful installation and implementation. This will be exclusive of the warranty period of one year that starts immediately after successful installation and implementation.
- **Miscellaneous**
 - Covering/convertng the legacy data to the proposed system.
 - The availability to have the individual candidate tracking facility which maintains the case history of every individual application and candidate.
 - There should be an exclusive feedback section for every scheme.
 - Each component invites application from student on an annual basis and the life cycle of an application varies from one component to another with different time periods.
 - The student ID generated need to be replaceable by the Aadhar number.
 - Design description, SRS, User Documentation, Quality Assurance and various reports need generated.
 - The outcome/decision made should be automatically generated out of the application database and should not be word processed.

- Electronic transfer of funds to be implemented.
- The software should ensure that the data once entered must not be re-entered.

[3] Requirement and Selection of Consulting Firms/Consortiums:

3.1 DST invites applications from individual firms/consortium of repute for pre-qualification of Issue of Tender to have a above mentioned initiatives through IT enablement while building software application that includes Design, Development, Supply, Install, Support, Maintenance Support Services.

The offers can be made by individual firms/Consortiums.

Following the short-listing of the applicants on the basis of this pre-qualification of tenders, RFP for the project would be made available to the shortlisted applicants for submission of technical and financial bids.

The offers made against the RFPs will be evaluated by a constituted Core IT Committee for the selection of the firm/consortium.

3.2 Process for empanelment of consultant:

Completed response from individual firms/consortium would be assessed against the following criteria:

(3.2.1) Financial strength/ standing of applicants as evident from billing track record, statement of accounts, profile of clients, ongoing projects etc. Samples of work including current work, to be provided in the electronic form.

(3.2.2) Illustrating the firms/Consortiums skills and experience of undertaking, successfully implementing and managing the large scale projects through engaging, forging and facilitating strong relationships with and between a wide range of internal and external stakeholders, preferably while working with government department/office under GoI.

(3.2.3) CVs of each key consultant in about 3-4 pages including quality and experience of proposed project team who would be deployed for the work if selected for award of work.

(3.2.4) Details of Technologies and Methodologies proposed to be used in carrying out the project initiatives, if selected for award of work, incorporating

(3.2.4.1) Appropriate schematics relating to strategy, approach, modalities of design/implementation of solution frameworks

(3.2.4.2) Details of processes, functional and/or use case diagrams depicting functionality of proposed systems/solution frameworks and relationship between processes intended to be adopted to guarantee outcomes as envisages, within rigorous time frames.

[4] Eligibility Criteria:

Only those individual firms/consortium need apply who

4.1 have at least three years of experience in the field of software application design, development, supply, installation, implementation, support and maintenance and have already developed some similar type of systems for other department/office under GoI.

4.2 have the progressive audited business turnover over the last three years with a minimum of Rs. 2.00 crore each for the last two financial years i.e., 2009-10 and 2010-11 and

4.3 have an employee base of more than 100 professionals.

[5] Format for Response:

The application for empanelment must be complied and submitted in electronic format only (as pdf, word files or excel sheets). Additional documents such as annual reports etc. may however, be submitted as hard copy prints if electronic equivalents are not available.

(5.1): General Information:

(5.1.1) Name of the consulting Firms/consortium

(5.1.2) Address (including e-mail, telephone, fax numbers

(5.1.3) Administrative/ corporate office

(5.1.4) Key Contact Persons : Name(s) Tel/Mobile Nos.

(5.1.5) Trade License

(5.1.6) TAN No. and Copies of IT/Sales Tax/VAT returns

(5.1.7) Registration No. (address, contact No.)

(5.1.8) List of Branches (address, contact Nos.)

(5.1.9) Type of Organization (as Public Limited, Private Limited, Partnership or proprietary).

(5.2): Information in Support of Eligibility fulfillment Conditions:

(5.2.1). No. of years in the business in support of Eligibility Criteria stated above

(5.2.2) Financial Details for last 3 years in support of Eligibility Criteria stated above

(5.2.3) Employee related details in support of Eligibility Criteria stated above

(5.3) Credentials to Support Selection Process: attach the certified true copies of the documents, credentials statements, documentary evidence to support selection criteria as specified in Section 3 above along with the other

relevant record which illustrates the firms skills and relevant experience in providing the service under this notice.

[6] Miscellaneous:

(6.1) The completed EOI shall be addressed to the Program coordinator, INSPIRE Program, Department of Science and Technology (DST), Technology Bhawan, New Mehrauli Road, New Delhi-110016, India and should be deposited in the drop box kept at room no. 25, Old TIFAC Block, Department of Science and Technology, Technology Bhawan, New Mehrauli Road, New Delhi -110 016 during the working days (9.00am -5.30 pm) by **30.3.2012**.

(6.2) Incomplete applications shall not be considered for pre-qualification.

Program Co-ordinator (INSPIRE Program)