



# INSTITUTE FOR DEVELOPMENT AND RESEARCH IN BANKING TECHNOLOGY

*(Established by Reserve Bank of India)*

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**Advertisement No: 12/2021 – 22**

**Dated: January 12, 2022**

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## **Engagement for Project Positions**

The Institute for Development and Research in Banking Technology (IDRBT), established by the Reserve Bank of India, is the premier Institute of Banking Technology in the country. The Institute spearheads efforts in providing state-of-the-art technologies for the Indian Banking and Financial Sector by interfacing Applied Research and Development, Academics, Executive Education, Practice and Consultancy so as to continuously enable the technology transformation of the Banking and Financial Sector in India and make it future-ready. The Institute is now working on the following two Research Projects:

### **1. Project on Federated Learning**

With the advancement of AI/ML-based technologies, Banks and Financial Institutions are leveraging analytics by delving deeper into their data and contextualising data to draw new insights from it. Federated Learning acts as a special form of privacy-preserving machine learning and can contextualize the data. It is a decentralized training approach for privately collecting and training the data provided by mobile devices, which are located at different geographical locations. Further, users can benefit from obtaining a well-trained machine learning model without sending their privacy-sensitive personal data to the cloud.

In this context, with the purpose of designing various Federated Learning Architectures for different BFSI Use Cases, we have started working towards setting up a distributed computing environment. To start with, we will consider the automated authentication systems use case from banks for the task of face recognition and going forward, explore various analytics uses-cases, wherein Federated Architectures can be utilised in the Banking and Financial Sector in India.

### **2. Project on Privacy-Preserving of Biometrics**

With the huge increase in the usage of biometric recognition, template protection for biometrics has captured attention in recent years. Since biometrics are irrevocable, it is very important to protect its privacy. Biometric template protection schemes such as cancelable biometrics, biometric cryptosystem and Homomorphic Encryption (HE) have been introduced to provide Privacy-Preserving (PP) biometric authentication.

PP biometric authentication enables a user to verify himself / herself without sending the original biometric information to a server. This project focuses on developing and implementing methods / techniques to secure biometric templates.

In order to contribute to the above-mentioned research projects and in the process to enhance their own knowledge and skills, applications are invited from young dynamic candidates for the following temporary project positions:

## **POSITION: RESEARCH ASSOCIATES**

**i. No. of Positions:** Three

**ii. Primary Responsibilities:**

- Carry out research in the areas of Federated Learning / Privacy Preserving Biometrics
- Implementation of algorithms for face recognition using Federated Learning.
- Implementation of a method / technique to secure biometric templates
- To carry out all other responsibilities assigned by the Institute

**iii. Eligibility:**

**(a) Educational Qualifications**

- A First class regular B.E./B.Tech./M.E./M.Tech. (CSE/IT) or above from a recognised University with a consistently good academic record throughout.

**(b) Desired Skills**

- Hands-on Experience in Python, Java, Hadoop, Spark or knowledge of Biometrics/Image Processing

**(c) Experience**

- Some experience in related areas or highly motivated youngsters who have a flair for delving into Federated Learning / Biometrics.

**(d) Reservation**

- One position is reserved for Schedule Caste candidate, one position is reserved for OBC (Non-Creamy Layer) candidate and one position is for General candidate.

**iv. Term:** One year. Extendable based on project requirements and performance of the candidate for a further period not exceeding two years.

**v. Compensation:** All-inclusive consolidated compensation of Rupees Twenty Four Thousand Five Hundred per month.

### **Rules and Regulations for all these positions**

1. All the above positions are purely temporary and on a contract basis under the project mode.
2. There is no scope whatsoever for further continuation, extension of term, absorption, regularisation, permanency, in the Institute under any circumstances
3. The completion of the period of contract / project will not confer any right whatsoever for further continuation, extension of term, regularization, absorption at the Institute.
4. All educational qualifications must have been necessarily obtained by pursuing the courses on a full-time regular basis from recognised universities/institutions. If grades are awarded instead of marks, candidates should clearly indicate their numerical equivalent.
5. Relevant experience gained after the qualifying degree will only be taken into consideration.
6. Candidates should satisfy themselves about their eligibility for the position being applied for. Mere fulfilment of eligibility does not guarantee shortlisting for Selection Process.

7. Candidates should apply in the format provided on the Institute's website.
8. Incomplete applications / not in the prescribed format / without all the required documents, will be rejected and no correspondence will be entertained by the Institute.
9. Candidates for these positions should enclose attested scanned copies of their Marksheets and Certificates right from Matriculation onwards.
10. The candidature will be considered on the strength of the information declared in the Application. If at any stage, it is found that any information furnished is false / incorrect, the candidate has clandestine antecedents/background or if according to the Institute, the candidate does not satisfy the eligibility criteria, her/his candidature / appointment is liable to be cancelled / terminated at any point in time including after appointment, in addition to any disciplinary action as may be necessary.
11. In case of any inadvertent mistake in the process of selection which may be detected at any stage even after the issue of appointment letter, the Institute reserves the right to modify / withdraw / cancel any communication made to the candidates.
12. The Institute reserves the rights to screen and call only such candidates as are found prima-facie suitable for being considered
13. The Institute also reserves the right to restrict the candidates called for to the selection process to a reasonable number on the basis of qualifications, level and relevance of experience higher than the minimum prescribed herein and the requirements of the Institute. Thus just fulfilling the prescribed conditions would not entitle one to be called for the Selection Process. The Institute also reserves the right of rejecting any or all the applications without assigning any reasons therefore.
14. The Institute reserves the right to fill or not to fill any or all the positions advertised without assigning any reason.
15. In all matters regarding Eligibility, Qualification, Skills, Experience, Compensation, Contract Term, Selection Process, Assessment, Prescribing Minimum Qualifying Standards in Selection Process, and Communication of Result, the Institute's decision shall be final and binding on all the candidates and no correspondence shall be entertained in this regard.
16. Only shortlisted applicants will be contacted. No correspondence will be entertained from candidates regarding postal delays, conduct & result of selection process and reasons for not being called for the selection process.
17. Selected candidates should undertake to abide by all the rules and regulations pertaining to their retention as also the rules and regulations of the Institute.
18. The crucial date for determining the eligibility criteria for all candidates in every respect shall be the prescribed closing date for submission of application.
19. Interested candidates may forward a Covering Letter and Filled-in Application along with the copies / scanned copies of all the required documents to "The Human Resources Department, IDRBT, Castle Hills, Road No.1, Masab Tank, Hyderabad – 57" or by e-mail to [Project@idrbt.ac.in](mailto:Project@idrbt.ac.in) so as to reach the Institute latest by **February 10, 2022**.

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