Department of Electronics and Instrumentation Technology
University of Kashmir

Advertisement for Posts of Senior Research Fellow and Junior Research Fellow

Two Full Time Research Positions (one Senior Research Fellow and one Junior Research Fellow) purely temporary and co-terminus with the project are required to be filled for a Major Research Project detailed below:

1. Title of the Research Project: Algorithm and Service Design for Indian Regional CAPTCHA Challenges.

2. Objectives

· To investigate the applications of existing character distortion, line cluttering and image deformation methods and functions for Indian language CAPTCHA images;

· To develop and design new character distortion, line cluttering and image deformation algorithms suitable for Indian language CAPTCHA challenges;

· To implement Indian Regional Languages with emphasis on Hindi and Urdu CAPTCHA challenges using the designed algorithms in modular form so as to make it possible to be used and accessed from applications through API's which can defeat the state of art OCR algorithms and at the same time are easy for humans to solve;

· To Develop Code Libraries in different Programming Languages for Developers. Developers interested in implementing the IN-CAPTCHA service in their own projects will use these libraries.

· Implementation of Regional Language Fonts, Character Sounds Database, Virtual Keyboards and Help to develop IN-CAPTCHA usable by any government or corporate website for protecting resources from unauthorized bot access as due to non-availability of such a facility.

· To study security and user behavior (efficiency, usability, etc.) of developed algorithms and investigate application of machine learning algorithms to automatically tune the parameters for adjusting distortion, cluttering and deformation. This shall also involve the use of OCR software available as part of TDIL projects and those in public domain for testing the developed Techniques.

3. Principal Investigator: Dr. M. Tariq Banday, Department of Electronics and Inst. Technology, University of Kashmir, Srinagar.

4. Funding Agency: Science and Engineering Board (SERB), Department of Science and Technology (DST), Govt. of India.

5. Duration: 12-24 Months.

6. Budgetary Support: Rs. 28,75,900/=.

7. Fellowship: Rs. 28,000/= + HRA Per Month for SRF and Rs. 25,000/= + HRA Per Month for JRF.

8. Minimum Qualification:

*a) Junior Research Fellow (JRF)***:** M. Tech. ECE/Information Security/CSE/Information Technology/MCA or M. Sc. Electronics/MSC IT from a recognized Institute with NET qualification. A minimum of 55% Marks (50% in case of reserved categories)

*b) Senior Research Fellow (SRF)***:** Same as that prescribed for JRF with two Years of research experience.

9. How to Apply: Interested and eligible candidates may submit latest biodata clearly mentioning the personal details and academic qualifications along with marks, category, details about NET/SET/GATE qualification, research experience (year, rank etc.), etc. by e-mail to the Principal Investigator at email address sgrmtb@kashmiruniversity.ac.in by or before 27th August 2018 (4:00PM).

10. Interview: Interview shall be held on 28th August 2018 (2:00 PM) in the office chamber of the Head, Department of Electronics and Instrumentation Technology, Humanities Block, University of Kashmir, Srinagar. All interested and eligible candidates are invited for the interview and No call letters/communication shall be issued for attending the interview. No TA/DA will be paid for attending the interview.

11. Notes: Terms of engagement shall be governed by the rules and regulations of the University of Kashmir and the funding agency.

Sd/
Dr. M. Tariq Banday
Principal Investigator

No: DOEIT/2018/RPCAPTCHA-1
Date: 18/08/2018