# जम्मू केंद्रीय विश्वविद्यालय
## Central University of Jammu
राया–सूचानी (बागला), जिला सांबा–181143, जम्मू (जम्मू एवं कश्मीर)
Rahya-Suchani (Bagla), District: Samba – 181143, Jammu (J&K)

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**Advt. No.:** NIL (Rolling)                                      **Dated 22/07/2022**

## Advertisements for Project Staff for R&D Project on Cyber Physical Systems Security at Department of Computer Science and Information Technology, Central University of Jammu (CUJ).

Applications are invited for the following project staff positions on rolling basis at the Central University of Jammu for project titled "**Design and Development of Testbed and Vulnerability Analysis Framework for Cyber Physical Systems**". The project is focused on cyber physical system security, investigation of the system level impacts of different devices and network architectures of Industrial Control System (Hydro Power Plant), development of testbed of Hydroelectric Power Plant interfaced with Industrial Control Systems, analysis the impact of vulnerabilities in different automation devices this includes DPI and different protocols. This is a rolling advertisement. Applications will be shortlisted and informed to the applicant for the interview. The positions are for a maximum period of 2 years and renewed annually depending on performance. **Project Principal Investigators: Dr.Yashwant Singh (CUJ), Dr. Anup Shukla (IIT Jammu), Prof. Devanand (CUJ), and Dr. Neerendra Kumar (CUJ).**

| S. No | Position | Qualification (minimum.) | Upper Age Limit | Salary |
|---|---|---|---|---|
| 1. | **Scientific Administrative Assistant (2 Nos.)** | B.Sc / 3 years Diploma in Engineering & Technology | 50 | Per month Rs 18000 + HRA 8 % |
| 2. | **Laboratory Assistant (1 Nos.)** | B.Sc / 3 years Diploma in Engineering & Technology | 50 | Per month Rs.20000 + HRA 8% |
| 3. | **JRF (Computer Science & Engineering, Electrical Engineering , Instrumentation Engineering) (3 Nos.)** | M.Tech. (Computer Science and Engineering/Computer Science & Technology/Electrical Engineering/Instrumentation Engineering/ Electrical and Instrumentation Engineering/ Electronics & Electrical Engineering), MCA or MSc. Computer Science and Information Technology with atleast 50% marks or equivalent CGPA **Desirable Qualification :** GATE/ UGC NET/JRF | 35 | Per month 31000 + HRA 8% |
| 4. | **SRF (Computer Science & Engineering, Electrical Engineering ,** | M.Tech. (Computer Science and Engineering / Computer Science & Technology/Electrical Engineering/Instrumentation | 35 | Per month 35000 + HRA 8% |

| | | Engineering/ Electrical and Instrumentation Engineering/ Electronics & Electrical Engineering), MCA or MSc. Computer Science and Information Technology with atleast 50% marks or equivalent CGPA **Desirable Qualification :** GATE/ UGC NET/JRF **Experience:** 2 years' experience in Research and Development in Industrial and Academic Institutions or Science and Technology Organizations and Scientific activities and Services | | |
|---|---|---|---|---|
| | **Instrumentation Engineering) (2 Nos.)** | | | |
| **5.** | **Senior Project Associate (3 Nos.)** | M.Tech (Computer Science and Engineering/Computer Science & Technology/Electrical Engineering/Instrumentation Engineering/ Electrical and Instrumentation Engineering/ Electronics & Electrical Engineering), MCA or MSc. Computer Science and Information Technology with atleast 50% marks or equivalent CGPA **Desirable Qualification :** GATE / UGC NET/JRF Ph.D. in relevant discipline **Experience:** 2 years' experience in Research and Development in Industrial and Academic Institutions or Science and Technology Organizations and Scientific activities and Services | 35 | Per month 42000 + HRA 8% |
| **6.** | **Project Scientist I (3 Nos.)** | M.Tech (Computer Science and Engineering/Computer Science & Technology/Electrical Engineering/Instrumentation Engineering/ Electrical and Instrumentation Engineering/ Electronics & Electrical Engineering), MCA or MSc. Computer Science and Information Technology with atleast 50% marks or equivalent | 40 | Per month 56000 + 8% |

| | | CGPA<br><br>**Desirable Qualification :**<br>GATE/ UGC NET/JRF<br>Ph.D. in relevant discipline<br><br>**Experience:** 2 years' experience in Research and Development in Industrial and Academic Institutions or Science and Technology Organizations and Scientific activities and Services | | |
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**Additional Requirements:**

1. The staff is required to be physically working from Central University of Jammu for the duration of the project.
2. For JRF/SRF/Senior Project Associate/Project Scientist experience in programming in C/C++/Python/Java is highly desirable.
3. For JRF/SRF/Senior Project Associate/Project Scientist working in multiple OS platforms, Windows, Linux, MAC, and Android are highly desirable.
4. For JRF/SRF/Senior Project Associate/Project Scientist should be well-versed with testing tools like Metasploit, Wireshark, Nmap, Sparta, and KaliLinux.
5. For JRF/SRF/Senior Project Associate/Project Scientist should be well-versed in firmware extraction and analysis tools like Shikra, JTagulator, Buspirate, Winwalk, Open OCD, Flash ROM, and Gidra.
6. For JRF/SRF/Senior Project Associate/Project Scientist positions, willingness to learn new software tools and experiment is essential.
7. For JRF/SRF/Senior Project Associate/Project Scientist will be required to work in deliverable mode and adhere to deadlines set by the project investigator.
8. For JRF/SRF/Senior Project Associate/Project Scientist experience in firmware extraction, deep packet inspection, vulnerability analysis of industrial control systems.
9. For JRF/SRF/Senior Project Associate/Project Scientist more experience candidates in relevant skills will be preferred.
10. For JRF/SRF/Senior Project Associate/Project Scientist, experience in GUI interfaces (desktop or Mobile or Web) is desirable.
11. For positions higher than Scientific Administrative Assistant and Laboratory Assistant, Master's or PhD degree is compulsory with relevant experience in cyber physical system security.
12. For positions higher than Scientific Administrative Assistant and Laboratory Assistant, hands-on experience in vulnerability analysis, cyber security of hydro power plant, and relevant skills will be given higher preference.
13. Knowledge of vulnerability analysis and penetration testing using different tools. Focus will be on web security, network security, OS and system software vulnerabilities.
14. Knowledge of deployment of virtual machines / containers using different open source softwares such as VMware, Docker and management using tools like Kubernetes.

15. Knowledge of Hydro Power Plant components like PLCs, RTUs, SCADA, HMI, Data Historian, Industrial Firewall and Protocol Fuzzers.
16. Comfortable in programming languages such as shell scripting / YAML / Python / GO etc.
17. Knowledge of configuring and troubleshooting servers (DHCP, DNS, web server etc.) and networking.
18. Basic web development

**How to apply**:

Duly filled application form along with the requested details, scanned copies of certificates, other supporting documents, should be emailed to **cps.kcst@cujammu.ac.in**. Candidates who are already employed should produce a relieving certificate from their employers if selected. The interview will be conducted for all shortlisted candidates.

**Important information:**

1. In most cases, the candidate needs to report to Central University of Jammu campus for work. In exceptional cases of working from a remote location, the candidate needs to report physically in the campus at least twice a month.
2. Shortlisted candidates will be required to appear for a written test / interview (online/offline mode).

**Attention:**
1. The applicant will be responsible for the authenticity of the information, other documents, and photographs submitted.

2. Merely possessing the prescribed qualification does not ensure that the candidate would be called for an Interview. The candidates may be shortlisted based on merit and need for the project.

3. Shortlisted candidates will be informed by e-mail about the Written/interview. So, the candidate must provide valid e-mail IDs, phone number/mobile number information in their applications.

4. Shortlisted candidates must present themselves for the Written/interview on the notified date with an updated CV and original and attested photocopies of mark sheets/ certificates in support of their academic qualifications. The time and date of the Written/interview will be informed to the shortlisted candidates by e-mail.

5. Candidates who are already employed should produce a relieving certificate from their employers if selected.

6. The date of interview will be informed to the shortlisted candidates through email.

7. The vacancies for each post is determined based on the requirement of the project.

8. All appointment will be made initially for a period of one year on contract basis. It may be extended further based on the performance.

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Rahya-Suchani (Bagla), District: Samba – 181143, Jammu (J&K)

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## Application Form JRF/SRF/Senior Project Associate/ Project Scientist
(Please read the instructions before filling)

| | | | | |
|---|---|---|---|---|
| 1. | Name (Mr./Mrs./Ms.) | : | | **Please affix a recent passport size color photograph** |
| 2. | Date of Birth | : | | |
| 3. | Age as on last date of Submission | : | | |
| 4. | Category (Gen/OBC/SC/ST) | : | | |
| 5. | Address for correspondence | : | | |
| 6. | Contact No. (Mobile) | : | | |
| 7. | Email | : | | |
| 8. | Skype ID | : | | |
| 9. | Highest Qualification | : | | |
| 10. | Position applied for | : | | |
| 11. | Qualifications | | | |

| Degree | University | Year of Passing | Subject | Percentage/GPA |
|---|---|---|---|---|
| Ph.D. | | | | |
| Ph.D. thesis title | | | | |
| M.Tech/M.E/M.Sc. | | | | |
| B.E./B.Tech/B.Sc. | | | | |
| Diploma | | | | |
| 12th | | | | |
| 10th | | | | |

| | | | |
|---|---|---|---|
| 12. | CSIR-UGC NET including LS (year; roll no., rank) | : | |
| 13. | GATE (year; registration no.; valid score; rank) | : | |
| 14. | Experience, if any (if needed provided in extra sheet as Annexure) | : | |
| 15. | Number of publications in SCI journals, if any (attach photocopy of first page) | : | |
| 16. | Signature of candidate | : | |

# IMPORTANT INSTRUCTIONS FOR THE CANDIDATES

1. Please specify your age properly in years and months.

2. Please paste your photographs and specified position.

3. Please attach self-attested photocopies of your proof of age/consolidated mark sheets of UG, PG & Ph.D. as applicable clearly indicating the marks/GPA/grade achieved/equivalent certificates/experience letters/first page of SCI publications authored/ scorecard of qualifying examinations.

4. For CSIR JRF NET/UGC JRF NET including LS qualified candidates, please provide the month and year of qualifying, roll number and rank, if any, in the examination.

5. For GATE qualified candidates, please specify a valid score, year of passing, registration number and rank.

6. Experience should clearly specify the time duration, place of work and the position held.

7. **The duly signed application along the self-attested documents should reach us by email (cps.kcst@cujammu.ac.in/ ).**

8. Furnishing wrong information will lead to rejection of candidature.

9. Applications that are incomplete and applications without the documents supporting your candidature will not be considered for shortlisting.

10. Applicants pursuing final semesters of their degree will not be considered.

11. The final shortlisted candidates will be notified by email at least seven days prior scheduled day of interview.