Government of India Ministry of Communications Department of Telecommunications National Centre for Communication Security

Dated: 05.09.2022

NOTIFICATION

Subject :- Engagement of Research Associate as per 'NCCS' Research Associate Scheme'

National Centre for Communications Security (NCCS), Department of Telecommunications, Ministry of Communications, Govt of India intends to engage 14 Research Associates under its 'NCCS Research Associate Scheme' for which applications are invited from eligible candidates/Students from the recognised universities/colleges in India as below: -

Name of field/area	RA Required	Location
 Telecom Security Internet of Things (IoT) Mobile Technologies Cloud Technologies Transmission Hardware Evaluation 	14*	Bengaluru

^{*} NCCS reserves the right not to fill up all or any of the positions

- 2. The terms and conditions of the engagement are as stipulated in NCCS Scheme. (Copy Enclosed). The specific areas with expected outcome for the above are given in Annexure V of the Scheme.
- 3. The period of engagement will be initially for a period of two years which can be extended one year, on the recommendations of PAC (Performance Appraisal Committee).
- 4. A consolidated amount of RS. 75,000/- per month on Pro rata basis, all -inclusive, will be paid to RA. There shall be an annual increase of Rs. 7,500/- subject to satisfactory performance
- 5. The willing and eligible applicant may send their duly filled application in the prescribed Proforma (Annexure-I of Scheme Enclosed) along with other required documents by post or submit personally to the Assistant Director General (SC & HQ), Room 302, National Centre for Communications Security, 2nd Floor, City Telephone Exchange, Sampangirama Nagar, Bangalore 560027 on or before 15.10.2022 (last date). Delayed/incomplete applications will be rejected summarily. List/panel of shortlisted candidates for interview will be hosted on NCCS website and call letters will be sent to shortlisted candidates through e-mail.
- 6. List/panel of shortlisted candidates for interview will be posted on NCCS website and call letters will be sent to shortlisted candidates through e-mail.

- 7. Final list of selected candidates will also be published on NCCS website and offer letters will be sent by email.
- 8. Selected candidates shall execute a 'Contract Bond' and a "Non-Disclosure Agreements' on nonjudicial
- 9. stamp paper of Rs.100/- as per Annexure-IV and Annexure-VI of scheme

In case of any query, e-mail be dropped at adghq.nccs-dot@gov.in.

P. Reollu (LL Director (SC&HQ) O/o Sr. DDG, NCCS

Encl: As Above

Copy to:

- 1. PPS to Member (S), DoT HQ, New Delhi
- 2. DDG(Estt), DoT HQ, New Delhi
- 3. DDG(SA), DoT HQ, New Delhi

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Government of India Ministry of Communications Department of Telecommunications National Centre for Communication Security



NATIONAL CENTRE FOR COMMUNICATIONS SECURITY (NCCS) RESEARCH ASSOCIATES SCHEME

1. **OBJECTIVE:**

1.1 National Centre for Communication Security (NCCS) responsible for the implementation of ComSeC Scheme part of MTCTE. This involves development of Indian Telecom Security Assurance Standards, Security Test labs recognition and Security certification of telecom equipment and associated processes. This mandate is of significant importance considering the looming telecom/network/cyber threats globally and the threat these vulnerabilities pose to National Security and Privacy to people of the Nation. NCCS work in security domain to strengthen the security standardization eco-system in India is highly specialized in nature and unique in its mandate. It also needs to interact with multilateral agencies like 3GPP, ITU, APT, IEEE, IETF, NIST and ETSI and other national/ international standardization bodies for active collaboration & development of country specific telecom security standards for India. It develops expertise to imbibe latest technologies and provides technical support/ policy inputs to DOT to advice other ministries in respects of Telecom Security Domain.

For implementation of ComSeC scheme NCCS has 3 divisions i.e., Security Assurance Standards (SAS), Security Lab Recognition (SLR) and Security Certification (SC). For more details, visit the NCCS website **www.nccs.gov.in**. NCCS is entrusted with the task of establishment of Centre of Excellence in Telecom Security Domain. NCCS is also involved in supporting activities for evaluation of hardware and the integrity of the supply chain of Telecom Network Equipments.

1.2 NCCS is currently working in the domains of Telecom/IT security testing such as vulnerability analysis, penetration testing, source code analysis, cryptography, malware analysis, Operating Systems, Ethical Hacking, Network Security, Product architecture and testing etc. NCCS is entrusted with the responsibility of developing ITSARs covering above domains for communication equipment. NCCS need to collaborate with global standardizing bodies for the same and work is in nature of research and

development. Required research personnel are not readily available with DoT or other Government Departments or PSUs thus requiring Research Associates (RAs) hiring on contract basis. Engaging Research Associates will allow young talent to be associated with the NCCS work for mutual benefit. It will enable NCCS to interact with young scholars and to get fresh ideas and study/ research support from the field of academics. Young talent from the fields of ICT can be nurtured by NCCS for development of Telecom Security eco system with in India by providing an opportunity to young scholars to contribute in the NCCS and have an insight into the related technical work.

2. Eligibility Conditions:

- 2.1 <u>Essential Qualification:</u> Bachelor Degree in Electronics/ Communications/ Telecommunications/ Information Technology/ Computers/ Electrical Engineering (with majors in electronics/communications/computers) or related discipline with minimum 60% marks or equivalent CGPA.
- 2.2 <u>Desirable Qualification</u>: Preference/weightage will be given to following qualifications as per details given in **Annexure-II**.
 - Valid Gate Score in Electronics and Communication Engineering/ Computer Science and Information Technology Subjects or related discipline with minimum score as per Annexure II
 - ii. Post-Graduation/ Master Degree in Electronics/ Communications/ Telecommunications/ Information Technology/ Computers or related discipline with minimum 60% marks (with valid Gate Score at the time of admission).
 - iii. PhD Degree in relevant fields.
 - iv. (a) Work experience of one year or more in the relevant field.

OR

- (b) Successful Internship certificate of six month or more with NCCS/TEC.
- 2.3 <u>Age limit</u>: Candidates age should be below 28 years for Graduates/BE/BTech, 30 Years Post Graduates/MTech/MS and 32 years for PhD as on 1st July of the year of advertisement.
- 3. How to apply: Interested and eligible candidates may submit their applications along with their CVs, areas of work interest in the prescribed application form (Attached at Annexure-I) accompanied by the self-attested copies of the academic and experience certificate/testimonials, to NCCS in response to advertisement/ notification from NCCS

4. Selection:

- 4.1 A Selection Committee will be constituted with the approval of Head of NCCS, comprising of three members (One DDG & Two Directors from NCCS).
- 4.2 Details of selection process is given at **Annexure-II.**

- 4.3 NCCS reserves the right to fill up any or all positions and select candidates in any suitable position depending upon the qualification and experience required for the said position.
- 4.4 Research Associateship is neither a job nor an assurance of a job with the NCCS. Selected candidate has to enter into a contract with NCCS.
- 4.5 Selected candidates shall execute a Contract Bond and a Non-Disclosure Agreement on non-judicial stamp paper of Rs.100/- as per **Annexure-IV & Annexure-VI**.
- **Training:** RAs would be provided orientation training of 1-2 weeks for acquiring work related knowledge/ skills.

6. Work Description & Responsibilities:

- 6.1 The RAs will be primarily engaged for in-depth study, formulation, operationalization and assessment of various security standards ITSARs preparation, TSTPs preparation/programmes/projects/policies evaluation of test reports/DUTs etc. related to emerging ICT areas such as Telecom, Network and Cyber Security, 4G/5G Networks, Virtualisation Function & Operating Systems Expertise, Cloud Security, Source Code Analysis, Cryptography, Internet of Things, Smart Networks, Artificial Intelligence, Machine Learning, new developments in the fields of Mobile Technologies and any associated field deemed fit by NCCS. They will also be associated in preparation of contributions for various international standardization organizations such as International Telecommunication Union (ITU) Study Groups, APT, IEEE, IEC etc. Further, they will also be engaged in various works emerging from ComSec Scheme, new National Digital Communication Policy (NDCP) 2018.
- 6.2 The RA would be attached with one of the Divisions of the NCCS and required to provide high quality work. Depending on the requirements of NCCS and candidate's personal skills, RAs can be rotated to other divisions within NCCS.
- 6.3 The work of RAs will be monitored regularly. The attendance record and the details of work supervision shall be maintained by the Divisions of NCCS.
- 7. **Place of Posting:** The place of posting will be NCCS, City Telephone Exchange, Sampangirama Nagar, Bengaluru 560027.

8. Remuneration:

- 8.1 A consolidated amount of Rs. 75,000/- per month on pro rata basis, all-inclusive (including taxes), will be paid to every RA. There shall be an annual increase of Rs. 7,500/- subject to satisfactory performance.
- 8.2 RA shall submit execute bond as per Annexure IV

9. Leave: Leave of 8 days shall be allowed in a year on pro-rata basis. Maternity Leave as per Govt. Of India instructions would be available to all female RAs. Apart from this, the candidates selected will not be entitled to any other benefits or concessions admissible to regular employees

10. TA/DA:

- 10.1 RAs will be allowed to undertake domestic tours for which TA will be allowed for travelling by Air in Economy class or by Rail in AC Two Tier.
- 10.2 Reimbursement for Hotel accommodation of up to Rs. 750/- per day; reimbursement of taxi charges of up to Rs. 200 per day for travel within the city and payment of daily allowance of Rs. 500/- per day to meet the other expenses.
- 11. **Performance Report Form:** Performance appraisal of RAs would be undertaken on six-monthly basis, reckoned from the month of joining, through a Performance Report Form (PRF) as prescribed at **Annexure-III**. In order to bring objectivity, assessment would be done by the reporting officer of the Division and reviewed by the Head of the Division. The Division shall forward the PRF to Personnel Division within one month after the completion of every six-month period. Thereafter, the PRF will be communicated to concerned RA by Personnel Division.
- **12. Period of Engagement**: Initially for a period of 2 years, extendable by one more year, on the recommendations of Performance Appraisal Committee.
- 13. Performance Appraisal Committee (PAC): Performance Appraisal Committee will be chaired by Deputy Director General of the concerned Division and will comprise of two more officers, one from respective division and one from other division of NCCS. PAC will appraise the work and performance of the RA at least one month prior to completion of term, for extension of the term to the third year. The PAC will devise its own procedures based on Performance Appraisal Form of the RAs.

14. General conditions:

- 14.1 The RAs will be under the administrative control of the officer to whom he is attached.
- 14.2 The RAs shall follow the rules and regulations of the NCCS that are in general applicable to employees of the NCCS. RAs are required to adhere to the administrative, financial and disciplinary regulations of NCCS/ DoT/ Government. Regular attendance of the RAs will be ensured by the supervisor/controlling officer in the concerned Division by keeping an attendance register.
- 14.3 The RAs shall not reveal to any person or organization confidential information pertaining to NCCS/DoT, its work and its policies.

- 14.4 The RAs may be deputed by the Division to attend symposia/seminars/conferences/workshop etc., in India.
- 14.5 RAs may, with the prior permission of the NCCS, present their work to academic bodies and at seminars and conferences. However, even for this purpose information that is confidential to the NCCS cannot be revealed under any circumstances.
- 14.6 Any papers and documents written and/or published by the RA should carry the caveat that the views presented are the personal views of the RA and do not represent or reflect the views of the NCCS.
- 14.7 In general, a RA may not interact with or represent the NCCS vis-à-vis third parties. However, some RAs may specifically be authorized to interact with third parties on behalf of the NCCS depending on the nature of their work areas. RA will follow the advice given to them by the NCCS regarding representations to third parties.
- 14.8 No RA shall interact with or represent the NCCS to the media (print and/or electronic) including social media and personal Facebook/ Twitter handles etc.
- 14.9 RAs will conduct themselves professionally in their relationship with the NCCS and the public in general.
- 14.10 Any work done for NCCS by the RA during the period of engagement will be the sole property of the NCCS and NCCS reserves the right to use any such work for its own purpose. The RA is barred from claiming intellectual property rights on the work done in NCCS during the period of engagement.
- 14.12 The RAs are to work on a fulltime basis. Therefore, simultaneous employment with or without remuneration elsewhere is not permitted.
- 14.13 The positions are purely contractual and RAs shall have no legal right to claim his/her regularization/ appointment by absorption or otherwise against any regular posts in NCCS/ DoT/ Government or any further contractual engagement on termination of engagement. The engagement with NCCS is purely contractual, time-bound and non-regular. The engagement of the incumbent shall stand terminated automatically on completion of tenure.
- 14.14 The RAs shall settle their claims within 3 months from the date on which they are due.
- 14.15 The Ras shall abide by the Terms and Conditions of this notification. Any dispute thereof, decision of Sr DDG, NCCS shall be final and binding on the RA. Failure to abide by the Terms and Conditions of this notification will attract appropriate penal provisions.

- 14.16 Courts of Bengaluru shall have exclusive jurisdiction over matters covered or flowing from this RA Scheme.
- 14.17 NCCS reserves the right not to fill up all or any of the positions, if it so desires
- 14.18 Only Indian Nationals need to apply.

15. Disengagement:

- 15.1 The NCCS reserves the right to disengage any RA at any point of time without assigning any reason.
- 15.2 Research Associate will not be allowed to disengage within first year. If RA wishes to disengage in first year, then the conditions of Contract Bond shall be applicable. After completion of one year, one-month notice must be given to NCCS. Notice period may be waived by the Head of NCCS at his own discretion.
- 15.3 Upon disengagement, the RA must hand over to the NCCS, any papers, equipment or other assets which might have been given to the RA by the NCCS in course of his work with the NCCS. This will include any badges or ID Cards which may have been issued to the RA.
- 15.4 If it comes to the notice of the NCCS that the RA who has been disengaged by the NCCS continues to act in a manner which gives an impression that he is still engaged for the NCCS, the NCCS shall be free to take appropriate legal action against such RA.

16.0 Number of Research Associates:

- 16.1 NCCS will assess the requirement of the RAs periodically preferably in the first quarter of calendar year. Present requirement is given at **Annexure-V**.
- 16.2 Engagement of RAs will be done normally once in a calendar year in synchronization with academic calendar of educational institutes.
- **17.0 Scheme Review:** Head of NCCS reserves the right to review the scheme at any time. The Scheme so reviewed will be placed on the website of NCCS.
- **18.0 Power to remove difficulties:** Head of NCCS or his appointed/ nominated representative shall have the power to remove any difficulty in the way of the implementation of this scheme.

Application Form for "Research Associate" on contract basis in NCCS

(Applicants should submit only one application)

3. 4.	 2. Father/Husband Name: 3. Gender: 4. Date of Birth: (Please enclose mark-sheet of class 10th as age-proof) 					latest ort Size graph
3.	Corresponder	nce Address:				
6.	Permanent A	ddress:				
7.	Contact detail Email id.: Phone: (Resid Mobile No:					
8.	Academic Re	ecord:				
E	Examination	Branch/ Specialization	Name of Institute / Board	Year of passing	CGPA*	Percentage marks
I I I I	Bachelor Degree in Engineering/ Cechnology Post- Graduate Degree in					
F	Engineering/ Sechnology					
-	Any other					
sul	omit document GPA will be mu National Inst see Note 1 of (i) Engin	tary proof of conultiplied with 9.5 itutional Ranking Annexure-II) of the ering Graduation	hould fill in equivalent version norm of their for deriving the equivalent gramework (NIRF) fon institute:	institute/ un dent percent ranking in C	iversity, fail age marks. Overall categ	gory (please

- 10. Valid Gate Score or Gate Score available at the time of admission in Post-Graduation Course:
- 11. Work experience (please enclose copy of certificate on the letter head of employer):
- 12. Internship details (organization & topic):
- 13. Academic distinction (special achievements), if any:
- 14. Key projects/ papers/ presentations:
- 15. Area of interest:
- 16. Additional information in support of your suitability:
- 17. Writeup on Candidates suitability to NCCS and its functions: Enclose Annexure

I certify that the above information furnished by me is true to the best of my knowledge and belief. I also agree that in the event of any misrepresentation and/or falsification of information, my engagement shall be liable for termination without notice and without prejudice to any other administrative/legal proceedings that NCCS may deem fit to initiate. I shall abide by the terms and conditions specified by NCCS.

(Name & Signature of the Candidate)

<u>List of Documents</u>: (Self-attested copies)

- 1. Mark-sheet of Class 10th
- 2. Mark-sheet of Engineering Graduation
- 3. Mark-sheet of Engineering Post-Graduation (if applicable)
- 4. GATE Score card (if available)
- 5. Documentary proof of CGPA to Percentage conversion norm (if applicable)
- 6. Work experience/ Internship Certificate (if available)
- 7. PhD Certificate (if applicable)
- 8. Any other document to support candidate application

SELECTION PROCESS

- 1. All the received application will be scrutinized for eligibility based on essential qualifications, age etc. and applications of ineligible candidates will be rejected summarily.
- 2. Thereafter, merit list of all eligible candidates will be prepared by the selection committee on the basis of score obtained by each candidate. Score of every candidate will be calculated by adopting following methodology:

Sl. No.	Item	Maximum marks	Sc	core
I	Engineering Graduation percentage	40	Percentage m	arks X 0.4
II	PhD Degree	10	Degree in Re	levant Fields.
III	Post-Graduation Degree	05	Degree in rele	evant field
IV	Engineering Graduate Institute Ranking*	10	NIRF Ranking**	Marks
			1-20	10
			21-50 51-75	5
			76-100	2
			Others	0
V	Gate Score***	10	Gate Score	Marks
	(Valid Gate Score for		≥ 925	10
	Graduates or Gate Score available during admission for		$\geq 850 \& < 925$	7
	post-Graduates)		≥ 775 & < 850	5
			≥ 700 & <	2
			775	
***		0.5	Others	0
VI	Experience [as per 2.2 (ii)(a)] OR	05	2.5 marks /Pe	er year
	Internship [as per 2.2 (ii)(b)] ****			
VII	Sub-total score	80	Sum of (I) to (IV), up to two digits of decimal	
VIII	Interview	20		
IX	Total Score	100	Sum of (V) &	c (VI)

- *Note 1: The National Institutional Ranking Framework (NIRF) is released by the Ministry of Human Resource Development (MHRD), Government of India. This framework ranks various institutions on the basis of their performance against pre-defined parameters. NIRF ranking is a reflection of the institution's standing vis-a-vis other institutions of the similar category. Details about NIRF and rankings are available at https://www.nirfindia.org/Home. Latest NIRF Overall Ranking as on date of Notification of vacancies shall be considered. Affiliated or recognised colleges of universities shall not be considered for awarding marks unless they are figured out in above list explicitly
- **Note 2: The ranking of the institute as applicable on the date of RA notification will be taken into account for granting marks.
- ***Note 3: Gate Score is valid till 3 years from Announcement of Gate results. For Graduates Valid Gate Score will be considered. For Post- Graduates Valid Gate Score at the time of admission in PG Course will be considered.
- ****Note 4: Experience or Internship will be considered on monthly pro rata basis for scoring purpose.
- 3. The merit list will be prepared on the basis of sub-total of scores at 2 (VII). If 'N' number of RAs are to be engaged then 3 x N candidates will be short listed, in order of their merit and will be invited for interview.
- 4. Merely fulfilling of the essential qualifications will not entitle a candidate for being called for interview. NCCS reserves the right to shortlist and call a candidate for interview.
- 5. The selection committee will conduct the interview of short-listed candidates for final selection. Maximum marks allotted for interview is 20.
- 6. The final merit list will be prepared on the basis of total score at 2 (IX) and the candidates will be selected in the order of the merit.

Performance Report Form of RAs

Year of Report:to			
Part-I: Basic Details			
Name			
Date of Birth			
Date of joining			
Division			
Reporting Authority (Name &			
Designation of the Officer)			
Part-II: Performance Appraisa	al		

Brief Description of task	Deliberations	Actual Achievements

MODEL CONTRACT BOND

[On a non-judicial stamp paper of Rs.100/-]

	entre for Communication Security (hereinafter referred to (hereinafter referred to as the
,	
Effective Date:	
This bond shall be effective from	day of20xx.
Declaration:	
consent) and in any case not less that in case I terminate the engagement vRs. 1,50,000/- (Rupees One Lac an notice of minimum of one month an if I decide to terminate the engagem year, I also agree to serve a notice	r a period of two year (extendable by one year on mutual in twelve months from the date of joining. I also agree that within a period of twelve months of my joining, I shall pay d Fifty Thousand only) to NCCS. I also agree to serve a d forfeit one months' remuneration in lieu of notice period tent with NCCS before 2 nd year (>12 Months). Beyond 2 nd ice of minimum of one month or forfeit one months d if I decide to terminate the engagement with NCCS.
Witness:	
1) Name:	
Address:	
Contact No:	Contact No.:
(Signature of the Authorized Officer	

ASSESSMENT OF DOMAIN/FIELD-WISE PRESENT REQUIREMENT OF RESEARCH ASSOCIATES

Subjected to change as per NCCS needs

Sl.	Field of Work	Specific Areas	Expected Outcome	
No.		•	•	
1.	Telecom Security (TS)	 Security Standards Development related activity and Security Testing related activities Study in telecom forensics [activities include the studying the varied requirements for setting up a Telecom Forensic Assistance in referral case, developing the report and implementation of the same.] Study in various areas of Telecom and Cyber/IT Security. Study the application and impact of latest developments such as AI, ML, Quantum Computingetc on Telecom Network and its security, Cryptography etc. 	Development of Security Standards and Test Schedule and Test Procedures. Performance of Security Testing in NCCS. performing Security Testing of Telecom Network elements along with end user devices, Continuous analysis of vulnerabilities in DUT and dynamically varying the test scenarios. • Understanding of Security Testing tools, Analysis of reports, Analysis of Security including both known and unknown vulnerabilities, Creating of new test cases • Study of telecom forensics concepts, Preparation of Concept paper for telecom forensics set up in NCCS, Preparation of requirements, Installation of Forensics setup and creation of reports • Study of Security aspects of application of AI, ML, Quantum key distribution in telecom Networks along with different uses cases related to telecom and Interaction with stakeholders, Preparation of proposal to establish the test lab on the basis of different use cases, Installation in NCCS	

2.	Internet of Things (IoT)	Assisting in Technical report related work, IoT experience centre Mobile Technologies	As M2M/IoT is an emerging technology therefore outcome will be expected in line with the progress of work in M2M/IoT working groups and associated work RA is expected to study, prepare
3.	Mobile Technologies (MT)	related to 5G/5Gi, 6G, Open RAN and new/emerging wireless technologies	reports/study paper and contribute to preparation of ITSARs for 5G and new/emerging wireless technologies as well as contribute in standardization activities in ITU-T Study Groups.
4.	Cloud Technologies	Cloud Technology and Associated Components	RA is expected to study, prepare reports/study paper and give presentation on following topics; - Cloud Technology and Security Aspects - Virtual Network Functions - Software as Service & Security Aspects - Platform as Service & Security Aspects - Relevant Global Cloud Security Standards - Emerging Technologies in the Domain
5.	Transmission (Tx)	Optical Fibre and Optical Transmission Systems and latest transport technologies needed for 5G, IOT, SatCom etc.	RA is expected to study, prepare reports/study paper and give presentation on following topics; • Visible Light Communication Technologies • Technology and overview of the architecture of Heterogeneous Home Networks • Quantum Information technology for networks • Satellite Communication

		Supply Chain Evaluation	RA is expected to study using
6.	Hardware	for telecom Products	AI/ML, prepare reports/study paper
0.	Evaluation	related works	and contribute to evaluation of supply
			chain and hardware.
	Total		

NON-DISCLOSURE AGREEMENT

[On a non-judicial stamp paper of Rs. 100/-]

The Research Associate agrees not to disclose, coinformation related to the NCCS and agrees not to use prior written permission.			
Confidential information refers to any data and/or information that is related to the NCCS, in any form, including, but not limited to, oral or written. Such confidential information includes but is not limited to, any information related to work in NCCS such as discovery, processes techniques, programs, knowledgebase, customer list, potential customers, all stakeholders know-how or any other services related to NCCS.			
RETURN OF CONFIDENTIAL INFORMATION	<u>I</u>		
The Research Associate agrees to return all the contermination of this Agreement.	fidential information to NCCS upon the		
<u>OWNERSHIP</u>			
This Agreement is not transferable.			
GOVERNING LAW			
This agreement shall be governed by and construed in of India and as defined on the Notification issued including subsequent amendments, if any.			
(Signature of the Authorized officer of NCCS)	(Signature of Research Associate)		
Name & Designation:	Name:		
Date:	Date:		

referred to as the "Parties").

CONFIDENTIAL INFORMATION