



INDIAN COUNCIL OF SOCIAL SCIENCE RESEARCH Major/Minor Projects

Apply under

Major

Broad Research Domain

National Security and Strategic
Studies



Priority Area

Cyber Security

Title of the Research Proposal

A machine learning approach to analyse cyber literacy and
preventing cyber crime against women in Haridwar district of
Uttarakhand, India

I. Personal Information of the Project Director (PD)

1. Name of the Applicant (as mentioned in
the official records of your Institution)

Anupama Mishra

Swami Rama Himalayan University, Swami Ram Nagar, Jolly
Grant, Dehradun Uttarakhand
Himalayan School of Science & Technology

2. Address for Official communication :

9639601234
tiwari.anupama@gmail.com
Uttarakhand
248016

3. Permanent Address :

Near Jolly Grant Airport
Uttarakhand
248140

4. Date of Birth (DD/MM/YYYY) :

01/09/1982

5(a). Mother's Name :

Vidyawati Tiwari

5(b). Father's Name :

Nagendra Tiwari

Designation: Others

Employment status: : Permanent

Name: Swami Rama Himalayan University

Address: Near Jolly Grant Airport

Mobile Number: 7534010112

Email: reg@srhu.edu.in

Website: <https://srhu.edu.in/>

6. Employer Details :

Category:GEN, Gender: Female, Person with Benchmark

Disability: No

7. Indicate your category :

No

8. Whether received any financial
assistance from ICSSR



9. Whether received any assistance/project from any other institution e.g. UGC, No
ICAR, CSIR, ICPR, ICHR, etc. :

II. Educational Qualifications

Name of Degree	Name of the University	Year of Passing	% of marks	Disciplines
Master's	Graphic Era University	2010	73	Computer Science & Engineering
M Phil				
Ph D.	Gurukul Kangri (deemed to be) University	2024	NA	Computer Science
Post-Doctoral			NA	
Title of the Ph. D				Developing countermeasures for cloud computing against distributed denial of service attacks
Salient features of your Ph.D. research work				The research presents multiple solutions for DDoS attack detection in SDN-cloud environments. The first approach, using entropy and a POX controller, detects DDoS attacks by monitoring flow rule hit counts, achieving a 98.2% detection rate with 0.04% false positives. A second method uses supervised machine learning for binary classification to differentiate attack from non-attack traffic, showing improved performance in SDN. A multi-classification approach trains six algorithms on various DDoS types, with AdaBoost achieving 99.87% accuracy. Finally, a hybrid model combines entropy-based detection with ML classification, where AdaBoost and Decision Tree algorithms reach 99.86% accuracy.

III- Research Output of Project Director

(a). Experience

	Number	Brief Detail (Title and supporting Institution)
Projects Completed (Maximum 5)	0	NIL
Ongoing projects, if any (with completion date)	0	NIL
Fellowships	0	NIL
Ph.D Guidance	0	NIL
M.Phil Guidance	0	NIL

b. Participation in Research Projects (also mention under which capacity).

NIL

c.Details of 5 best Research Papers/ Books/ Chapters (attach/submit hard copies):

Sl No.	Title of the publication	Name of the Journal / Publisher	Month, Year and Vol.	Scopus Indexed / UGC CARE listed? (Yes/No)
1.	Defensive mechanism against DDoS attack based on feature selection and multi-classifier algorithms.	Telecommunication Systems, Springer	2023, 82(2), 229-244	Yes
2.	Development of Enhanced Chimp Optimization Algorithm (OFCOA) in Cognitive Radio Networks for Energy Management and Resource Allocation	International Journal of Software Science and Computational Intelligence (IJSSCI), IGI Global	2024/2/21 15(1), 1-20	Yes
3.	Machine learning algorithms for smart and intelligent healthcare system in Society 5.0	International Journal of Intelligent Systems	.December, 2022 11742-11763.	Yes
4.	Defensive Mechanism against DDoS Attack based on Entropy in SDN-Cloud using POX Controller	Telecommunication Systems, Springer	2021, 77(1), 47-62	Yes
5.	A Comparative Study of Privacy-Preserving Homomorphic encryption Techniques in Cloud Computing	International Journal of Cloud Applications and Computing, IGI Publisher.	Jan, 2022, 12(1), 1-11	Yes

d. Any other important Academic Achievement (approx. 100 words)

- Prepared and Moderated Question paper for UKSSC exam, state level exam • Awarded with a best review award by the journal ICT Express published by Elsevier and Korean Institute of Communication and Information Sciences (KICS), 2022 • Best Paper Award in an International Conference on Cyber Security, Privacy and Networking (ICSPN 2021) organized during September 17–19, 2021 • Received Honorarium. For conducting a training session organized by Microsoft Philanthropy - Cyber Shiksha Program in collaboration with ICT Academy, 2023.

IV. Affiliation Details

Name of the affiliating institution

Swami Rama Himalayan University

Postal address of affiliating institution :

Himalayan School of Science & Technology, Swami Rama Himalayan University, Swami Ram Nagar, Jolly Grant, Dehradun Uttarakhand , Uttarakhand , 248016

Phone Number

9639601234

Email ID

anupamamishra@srhu.edu.in

Website

<https://srhu.edu.in/>

Type of affiliating institution :

Any other Institution under UGC (2F/12 (B)

V. Details of Co-Project Director (Co-PD) (maximum 3 and attach CV as per given proforma)

Name

Present Position

Department, Name of the Institution, full address with Mobile Number and email ID

Anupama Mishra

Assistant Professor

Computer Science &
Engineering Himalayan School
of Science & Technology,
Swami Rama Himalayan
University, Swami Ram Nagar,
Jolly Grant, Dehradun
Uttarakhand 9639601234
anupamamishra@sru.edu.in

VI Project Proposal

(i) Title of the Project Proposal :

A machine learning approach to analyze cyber literacy and preventing cyber crime against women in Haridwar district of Uttarakhand, India

(ii) Total Grant expected for this study (in Rs.)

1720000

Declaration

- I am not a defaulter of any previous ICSSR grant.
- I have not availed ICSSR pay protection scheme previously.
- I have neither been subjected to any disciplinary action nor found guilty of any criminal offence in my career.
- The Research Proposal and its contents are entirely original and as per the standard practice
- I have not concealed any information in my fellowship application. If ICSSR finds any contrary information at any stage, it may cancel my fellowship out rightly and/or penalize me as per ICSSR rules.

✓ I hereby declare that:

Place :

dehradun

Declaration Date :

10/11/2024

Signature :



Annexure/Checklists

(✓) Forwarding letter from the Head of the affiliating Institution duly stamped and signed on the letter head. .

Self-attested SC/ST certificate or certificate of disability issued by the competent authority, if required.

