

# Curriculum Vitae

## PERSONAL INFORMATION

Family name, First name: Agarwal, Vinti

Date of birth: 07.06.1987; Sex: Female

Nationality: Indian

Google scholar: Citations:182, H-index: 4, i10-index: 4

Google scholar page: <https://scholar.google.com/citations?user=gCXVMHQAAAAAJ&hl=en>

## EDUCATION

2011-2016 Ph.D. in Computer Science and Engineering, Artificial Intelligence Lab,  
Jawaharlal Nehru University, India.

*Thesis title: Social Recommender Systems: A Machine Learning Perspective.*

*Thesis advisor: Prof. K.K. Bharadwaj*

2009-2011 M.Tech. in Computer Science, School of Computer Systems and Science,  
Jawaharlal Nehru University, India.

2006-2009 Masters in Computer Applications, Department of Computer Science,  
Aligarh Muslim University, India.

2003-2006 BSc. (Hons) in Physics, with subsidiary Mathematics and Statistics,  
Aligarh Muslim University, India.

## PROFESSIONAL EXPERIENCE

*Mar 2020-present* Assistant Professor  
Department of Computer Science and Information Systems,  
Birla Institute of Science and Technology (BITS), Pilani, Rajasthan  
India.

*Jan 2018-Dec 2019* Postdoctoral researcher,  
*Supervisors: Prof. Katrin Franke, Dr. Martin Eian,*  
Institute for Information and Communication Technology,  
Norwegian University of Science and Technology (NTNU), Gjøvik,  
Norway.

*Jan 2016-Dec 2017* Assistant professor,  
Department of Computer Science, Maitreyi College, Delhi University,  
India

## RESEARCH INTERESTS

Machine learning, Deep Learning, Graph learning, **Applications:** Recommender Systems,  
Dark web analytics, medical imaging.

## TEACHING INTERESTS

Information Retrieval, Machine Learning, Graph Theory, Data Structure, and Algorithms, Deep Learning.

## FELLOWSHIPS, AWARDS, AND PRIZES

2012-2016 Full-time Ph.D. Senior Research Fellowship, Council of Scientific and Industrial Research (CSIR), New Delhi.

2009 Secured all India rank 841 and 97.98 percentile in a graduate-level national technical examination, Graduate Aptitude Test in Engineering (GATE).

## PROJECT RESEARCH GRANT

### a) Approved:

1. Project Title: Modeling Dark web Users for Smart Criminal Investigation

Approved under the "Research Initiation Grant (RIG) Scheme" funded by BITS Pilani (March 2020- March 2022) **Role: Principal investigator**

2. Project - Digital forensic knowledge integration and intelligence (DIREKT-Intel), Approved under India-Norway collaboration under SPARC scheme (April 2019-March 2021) Academic institutions involved: IIT Indore, India and NTNU Gjøvik, Norway. **Role: Co-principal investigator**

### b) Submitted:

Project Title: Deep Automated Microscopic Urinalysis: Dataset, Models, and Web App. Submitted under SERB- Start-up Research Grant 2021. **Role: Principal investigator**

## INVITED COURSE FACULTY

Aug 2020 Course faculty at AICTE Sponsored FDP on Advance Research Applications in Artificial Intelligence (ARAAI) at AKTU from August 29- Sept 02, 2020.

Dec 2019 Course Faculty for short term course on Introduction to Digital Forensics at IIT Indore India, Dec 09-Dec12 2019.

Nov 2019 Course Faculty for short term course on Fundamental of Data Analytics at IIT Indore India, Nov 30- Dec 03, 2019.

## CONFERENCE ORGANISATION

Sep 2021 Technical Program Committee of 3rd International Conference on Machine Intelligence and Signal Processing (MISP-2021) September 23-25 2021 at NIT Arunachal Pradesh, India.

Dec 2020 Technical Committee member: The 4th International Workshop on Big Data Analytic for Cybercrime Investigation and Prevention, co-located with IEEE Big Data 2020 conference in Atlanta, Georgia, USA, December 10-13, 2020.

Nov 2019 Program Chair: International Conference on Computational Mathematics and its Applications, IIT Indore India,

Dec 2018 Session chair: Computational intelligence in cyber threat analytics, IEEE-SSCI

## **INVITED TALKS/PRESENTATION/EVALUATION**

- 2020 Invited as Judge and Evaluator at the Smart India Hackathon 2020 under security, surveillance, and software development.
- 2020 Invited Webinar talk: Cyber threat Intelligence and machine learning at CyVIT 2020: Annual Cyber Security Conclave, June 17-18, 2020
- 2019 Invited Talk: International Conference on Computational Mathematics and its Applications, IIT Indore India, Nov 12-Nov14 2019.
- 2019 Invited Talk: Cyber Threat Intelligence, ArsForensica research workshop organized by Oslo District police, Oslo Norway.
- 2019 Invited Talk: Women in Forensic Computing”, Digital forensics research workshop (DFRWS-EU), Oslo Norway.
- 2018 Invited Talk: Bringing cyber threat Intelligence and graph learning models together”, NTNU-ISM joint workshop on sustainability and statistical machine learning, Trondheim, Norway.

## **Ph.D. SUPERVISION (ONGOING)**

Student name: Aditya Sharma  
Thesis Title: Deep Graph Learning Models for semisupervised learning,  
Institute: BITS Pilani  
Role: Main Supervisor

## **MASTERS THESIS SUPERVISION (SEMESTER 2019-20)**

1. Student Name: Linn-Mari Kristiansen  
Thesis Title: Gathering Open Source Threat Intelligence from Twitter: An Integrated Supervised and Unsupervised Learning Approach (Defended on June 21, 2020).  
Institute: Norwegian University of Science and Technology. Role: Co-supervisor
2. Student Name: Leif Marius Sethne Reppen  
Thesis Title: Mining Key Hackers from Large Scale Hacker Forums (Defended on July 22, 2020) Institute: Norwegian University of Science and Technology. Role: Co-supervisor

## **BACHELOR THESIS SUPERVISION (ONGOING)**

Student name: Siddhant Kharbanda  
Thesis Title: Deep Learning Models for Extreme Classification,  
Institute: BITS Pilani  
Role: Co-supervisor

## **BACHELOR PROJECTS SUPERVISION (SEMESTER 2019-20)**

1. Dipam Goswami, "Cell Detection and Classification from Urine Sediment Microscopic Images", 2020. [pdf]
2. Chinmay Nema, "Algorithm to obtain High-Quality Images with Multi-planner data from Videos of Urine Samples under Microscope", 2020. [pdf]
3. Samyak Sahu, "Web App for Microscopic Cell Analysis", 2020. [pdf]

## RESEARCH ARTICLE PUBLISHED/ACCEPTED:

1. L.M. Kristiansen, V. Agarwal, K. Franke, R.S. Shah (2020) CTI-Twitter: Gathering Cyber Threat Intelligence from Twitter using an Integrated Supervised and Unsupervised Learning. Accepted in IEEE Big Data 2020.
2. A Kumar, V Agarwal, SK Shandilya, A Shalaginov, S Upadhyay, B Yadav, (2020) PACER: Platform for Android Malware Classification, Performance Evaluation and Threat Reporting, Future Internet 12 (4), 66.
3. Vinti Agarwal, Neminath Huballi, Ambika Shreshta, Katrin Franke (2019), "Identifying anomalous HTTP traffic with association rule mining", IEEE forum on advanced networking and telecommunications (ANTS) India.
4. Ajit Kumar, Vinti Agarwal, Shishir K. Shandilya, Andrii Shalaginov, Saket Upadhyay, Bhavna Yadav. PACE: Platform for android application classification and evaluation. IEEE International conference on big data, IEEE Big Data 2019 USA.
5. Vinti Agarwal, K.K. Bharadwaj (2017), "Recommending diverse friends in signed social networks based on adaptive soft consensus paradigm utilizing fuzzy m-ary adjacency relations", World wide web, Springer, pp 1-37.
6. Vinti Agarwal and K.K. Bharadwaj (2015), "Predicting the dynamics of social circles in ego networks using pattern analysis and GA K-means clustering", Wiley interdisciplinary reviews data mining and knowledge discovery, Wiley, 5(3), pp 113-141.
7. Vinti Agarwal and K.K. Bharadwaj (2014), "Friends recommendations in dynamic social networks", Chapter in encyclopedia of social network analysis and mining, Springer Science + Business Media, New York, pp 553 -562.
8. Vinti Agarwal and K.K. Bharadwaj (2012), "A collaborative filtering framework for friends recommendation in social networks based on interaction intensity and adaptive user similarity", Social network analysis and mining, Springer, Volume 3, Issue 3, pp 359-379.
9. Arti Patidar, Vinti Agarwal, K.K.Bharadwaj (2012), "Predicting friends and foes in signed networks using inductive inference and social balance theory", The proceedings of the IEEE/ACM international conference on advances in social networks analysis and mining, ASONAM 2012, ACM, Istanbul, Turkey, pp 26-29.
10. Vinti Agarwal and K. K. Bharadwaj (2011), "Trust-enhanced Recommendation of Friends in Web Based Social Networks Using Genetic Algorithms to Learn User Preferences", The proceedings of the first international conference on computer science, engineering and information technology (CCSEIT-2011), LNCS-CCIS 204, Springer-Verlag Berlin Heidelberg, Tamil Nadu, India.

## REVIEWER

Social Network Analysis and Mining, Springer.  
Multimedia Tools and Applications, Springer.

## REFERENCES

1. K.K. Bharadwaj, Professor at JNU, New Delhi, India  
Email: [kbharadwaj@gmail.com](mailto:kbharadwaj@gmail.com)  
Phone: +91 9810196636
2. Katrin Franke, Professor at NTNU, Gjøvik, Norway  
Email: [katrin.franke@ntnu.no](mailto:katrin.franke@ntnu.no)  
Phone: +47 90215425

3. Martin Eian, Head of Research at Mnemonic AS Oslo Norway  
Email: [meian@mnemonic.no](mailto:meian@mnemonic.no)  
Phone: +47 48327574