

# Dr Sandhya Aneja

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## Professional Experience

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### Marist College, Poughkeepsie, NY

Sep 2022-till Date

*Assistant Professor, School of Computer Science and Mathematics*

#### 1. Teaching

- Courses taught: Data Communications, Networking, Advance Data Structures, Introduction to Programming

#### 2. Research

- Collaborating on the research project "Resiliency Enhancement Mechanism for Space Computing Platforms" by Purdue University, West Lafayette and Sandia National Lab
- Published a paper: Shafkat Islam, Nagender Aneja, Ruy de Oliveira, Sandhya Aneja, Bharat Bhargava Jason Hamlet, Chris Jenkins "Detect & Adapt: A Resiliency Enhancement Mechanism for Space Computing Platforms" Research Track on Cyber Warfare, Cyber Defense, & Cyber Security (CSCI-RTCW), 10th Annual Conf. on Computational Science & Computational Intelligence (CSCI'23) (Published)
- Two papers are in progress under this project; one will be submitted to IEEE Magazine and the other to IEEE Transactions.
- Presented Research Talk - Invisible Signatures: Device Fingerprinting in a Connected World" in Purdue CERIAS Security Seminar series 2024.
- Writing a research proposal for 2025 funding on adversarial attacks on Smart Grid

#### 3. Administration

- Graduate/International Internship Coordinator, School of Computer Science and Mathematics
- Academic Advisor, School of Computer Science and Mathematics
- Secretary, IEEE Mid-Hudson Section
- Member, Women-in-Technology (WIT) Marist College Club

### Purdue University, West Lafayette, IN

2019 Summer and June 2022-Aug 2022

*Visiting Research Scholar, Department of Computer Science*

- Worked on the Resilience Enhancement in Space Computing Platform (Purdue and Sandia Labs) and mentored graduate and undergraduate students.

**Universiti Brunei Darussalam, Brunei****2016-2022***Assistant Professor, Faculty of Integrated Technologies*

## 1. Teaching

- Courses taught: Mobile and Wireless Networks, Network Programming, InfoComm Networks

## 2. Research

- Supervised one PhD student and three undergraduate students
- Recipient of the Brunei ICT Award with USD 8,000
- Collaborated with IBM Research on a research project on High-Performance Computing and published papers and developed a Flood Simulator
- Published 20 research papers in Elsevier, Springer, Inderscience, COMSNETS, etc. and with IBM in Euro-Par, HiPC, SmartGridComm, etc.

## 3. Administration

- Alumni coordinator 2017-2019, Faculty of Integrated Technologies
- Research seminar coordinator 2019-2020, Faculty of Integrated Technologies
- Research Associate 2017-2021, Institute of Applied Data Analytics

**University of Delhi South Campus, India****2010-2016***Assistant Professor, Institute of Information and Communication*

## 1. Teaching

- Courses taught: Algorithms and Data Structures, Java Programming, Operating System, Computer Organization and Architecture.

## 2. Research

- Co-supervised two PhD students and many graduate students
- Published research papers in Wiley, Hindawi, and Springer.

## 3. Administration

- Graduate admissions committee member
- Faculty research committee member
- Library committee member

**Education****PhD Computer Science, Department of Computer Science****Feb 2012***University of Delhi, India*

- Thesis: Handling attacks on routing protocols in ad hoc networks
- Publications: Authored six papers, including three journal papers and three conference papers, one of which is indexed in SCI.

**M.Tech. Computer Applications****2001-2002***IIT Delhi, India***MSc Mathematics****1995-1997***MD University Rohtak, India, First Class First*

Awarded the Gold Medal for achieving First Rank in the Department of Mathematics for M.Sc. Examination

**Research Grant**

1. Secured a research grant on Defense against Adversarial Attacks on Deep Convolutional Neural Networks.

- As Co-Principal Investigator, successfully procured a grant of USD 21,755 from Universiti Brunei Darussalam. The funding supports ongoing research to enhance the resilience of deep learning models against adversarial attacks.
2. Secured a research grant from the University of Delhi.
- Received a grant of Rs. 2,20,693 to participate in the International Symposium on Q.S. and Security of Wireless and Mobile N/Ws at Paphos, Cyprus.
  - Received two research grants of Rs 150,000 and Rs. 100,000/- under the Scheme to strengthen the R & D Doctoral Research Programme.

## Research Projects

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### Monitoring and Orchestrating Computations in Heterogeneous Computing Platforms.....

I am collaborating with Prof Bharat Bhargava at Purdue University and a team from Sandia National Laboratories to enhance cyber resilience and implement a resilient model for space computing platforms. We studied five cyber-attack and/or fault scenarios utilizing the taxonomy on a simulator to sort one million numbers. We designed different strategies to monitor the attacks, such as fingerprinting, frequency checksum, majority voting, and others, to generate reputations of compute units under the fault scenarios. I also received a token consultancy amount in each of 2023 and 2024 for this project.

### Research Project on Flood Simulator completed based on High-Performance Computing.....

At UBD — IBM Centre, Universiti Brunei Darussalam. One interesting project was to develop a Flood model using LIDAR 1m data, integrated with a 1.5km weather output of WRF model for Brunei in collaboration with IBM Austin, IBM Brazil, and IBM India. I tested modules developed by the team using MPI for the mpic++ compiler and suggested corrections, which were accepted and included when the project was deployed.

### Neural Network Models for Internet of Things.....

We solved the problem of IoT device identification for five publicly available datasets (Uluagac, 2014) by training Convolution Neural Network (CNN). We also generated two datasets. The project was completed with help of one undergraduate student, one PhD student, and two colleagues.

### Neural Machine Translation model for University Email Application.....

In this project, bilingual emails were collected at the University for communication over three years, and their size was small. An application-based corpus populated with regional vocabulary, human translations, and corresponding translations of the email content from Google Translate was prepared to develop the neural machine translation model. We proposed that small models are required compared to commercial general translators, e.g., Google translators. Therefore, an RNN-based Gated Recurrent Unit with an attention decoder model was used for the University Email application, which predicted the next word conditioned on the previous context words.

## Research Students

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### Collaboration with Prof Bharat Bhargava's Graduate Students at Purdue University.....

- Ph.D. Candidate: Shafkat Islam - Focus on resilient programming model for space computing platforms; one paper has been published, and two papers are currently in progress.

### Collaboration with Prof Neelima Gupta, University of Delhi.....

I co-supervised the following graduate students

- Rahul Johri: Ph.D (completed in 2020) on Routing Schemes for Delay Tolerant Networks (published three papers in SCIE-indexed journals and two in reputed conferences)
- Garima Gupta: MSc. (by Research): Delay Tolerant Networks (published one paper in IEEE International Conf in Cyprus)

- Saurabh Kumar: MSc. (by Research): Design and Implementation of Classification Algorithms in MPI
  - Juhi Jain: MSc. (by Research): Design and Implementation of Classification Algorithms in OpenMP
  - Sonika Gupta: MSc. (by Research): Design and Implementation of Classification Algorithms in OpenMP
- Collaboration with Prof G.N. Purohit, Banasthali Vidyapith University.....
- Ph.D (completed in 2020): Preeti Nagrath - Security Protocols for Delay Tolerant Networks (published three papers in journals and two in reputed conferences, one of which is indexed in SCIE)

Universiti Brunei Darussalam.....

- Rajarshi Roy Chowdhary: Ph.D (completed in 2022) - Neural Network Models for Internet of Things (published two papers in ESCI journals and one in reputed conference)
- Md Shohidul Islam: undergraduate research project on Device Fingerprinting (published paper in IEEE conference in Bali, Indonesia)
- Melaine Ang Xuan En: undergraduate research project Deep Adversary Learning to detect intent of collaborative IoT devices (published paper in COMSNETS)
- Siti Nur Afikah Bte Abdul Mazid: undergraduate research project on Neural Machine Translation model for University Email Application (published paper in ACM conference in China)

## Courses

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Courses Taught.....

- Computer Network: Introduction, The Internet, Application Layer and HTTP, Transport Layer, TCP Flow Control, TCP Congestion Control, Network Layer, Routing & Subnetting, Logical Link Layer (Physical Layer and Data Link Layer), DHCP and ARP, Wireless LANs, Wireshark.
- Data Communications: The Internet, network architecture, control, standards (OSI and TCP/IP models), security challenges, threat environment, types of attacks and types of attackers, security management, ethernet, current equipment and physical interconnections, Wi-Fi LAN, Wi-Fi security, IPv4, IPv6, IP security, WANs, network applications, application security, Cisco Packet Tracer
- Advance Data Structures: Arrays, Array Lists, Lists, Stacks, Queues, Priority Queues, Sets, Maps, Binary Search Trees, AVL Trees, Hashing, Graphs, Weighted Graphs. Java
- Intro to Programming: Python installation and setup environment, program input, program output, identifiers and expressions, data types, strings, lists, python file processing techniques, functions, function calls and parameter passing, modules, selections, loops, operators, classes and objects, exception handling, inheritance and polymorphism, selective collections
- Mobile and Wireless Networks: Cellular network, Ad hoc and Sensor Network, Wireless LANs, Wireless Data services standards like LTE, 1G/2G/3G/4G/5G, Putting all together in NS2
- Network Programming: Day Time Client/Server, Sockets Address structures, Elementary TCP socket, UDP socket, UDP Echo server function, lost datagram, Lack of flow control with UDP, determining outgoing interface with UDP, Name and address conversion, Domain Name System, functions for setting up Domain name system, I/O functions, Select function, Batch input, shutdown function, Poll function, TCP Echo server, Socket states, Generic socket option, IPV6 socket option, ICMPV6 socket option, Network troubleshooting, management and debugging
- Digital Signal Processing: time-domain characterizations, transform-domain characterizations, transform-domain analysis of linear time-invariant (LTI) systems, digital processing of continuous-time signal, design of analog filters and digital filters, design of digital FIR and IIR Filters, hands-on experiments using Python

- Microprocessor Systems: Introduction to microprocessor, Assembly programming, Interrupts, RTI interrupts, Interrupt driven programs, Resets, Addressing I/O, Configure LCD, keyboard debouncing, Timer function, input-compare function, output-compare function, A/D converter, Serial communication, Memory system organization, HCS12 microcontroller

#### Courses Interested to Teach.....

- CompTIA Security+: Introduction to Security, Identity and Access Management Cryptography, Network Attacks and Secure Network Protocols, Secure Network Design, Wireless, Mobile, and IoT Security, Application Attacks, Secure Application Development, Endpoint Security, Cloud Security, Physical Security and Cybersecurity Resilience, Security Assessment, Incident Response and Digital Forensics, Security Standards and Policies Privacy and Risk Management
- CompTIA Network+: Network Types, Topologies, and Characteristics, Conceptual Models and Network Devices, Bounded Media Standards and Applications, Address Types, Segmentation, Protocols, Switches and Routers, Network Security, Wireless Networking, Network Services, Network Architecture, Network Operations, Network Troubleshooting
- Open to additional courses as assigned

### **Awards**

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- Patents: Granted U.S. patent: US10834035B2, "Instant messaging for mobile device with offline and online mode," provides a method for social networking by detecting if the message can be sent using offline mode and uses online mode when the ad-hoc network is not available.
- Brunei ICT Award 2016: Recognized for co-developing a Mobile Application that enables interest-sharing and message exchange while in Airplane mode. It is an annual event co-organized by the Ministry of Transport and Infocommunications, the Authority for Info-Communications Technology Industry of Brunei Darussalam (AITI), and InfoCom Federation Brunei (IFB) to stimulate innovation and creativity in Information and Communications Technology (ICT) industry amongst individual, students, and associations including SMEs.
- Best Paper Award: Received for the paper titled "Transfer Learning Using CNN for Handwritten Devanagari Character Recognition" at the International Conference on Advances in Information Technology (ICAIT), Chikmagalur, India, 2019.

### **Editor/Advisor/Reviewer**

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1. Editorial board member, Hindawi Journal of Wireless Communications and Mobile Computing, 2021-current
2. Reviewer: Elsevier journal of Internet of Things; Springer Journal of Wireless Networks; IEEE Transactions on Mobile Computing
3. Technical/Program Committee Member: ETTIS - International Conference on Emerging Trends and Technologies on Intelligent Systems; International Symposium on Security in Computing and Communications (SSCC), 2020; IEEE International Conference on Ubiquitous and Future Networks, 2021-2022; ACM International Conference on Big Data and Internet of Things (BDIOT2021) 2020-2022; IWCMC Symposium on Smart cities and mobile platforms 2017-2022; IEEE International Conference on Intelligence and Security Informatics (ISI) 2018

### **Patents**

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1. Sandhya Aneja; Nagender Aneja; Mohamad Iskandar Petra, "Instant Messaging for Mobile Device with Offline and online mode," US 10,834,035, Nov 10, 2020 (Granted)

2. Nagender Aneja and Sandhya Aneja, "Anti-fraud computer implemented method for financial card transaction," US 2015/0339657, Nov 26, 2015 (Published)

## Talks/Presentations

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1. "Research Talk - Detect & Adapt: A Resiliency Enhancement Mechanism for Space Computing Platforms" in ACM New York Celebration of Women in Computing 2024.
2. "Research Talk - Invisible Signatures: Device Fingerprinting in a Connected World" in Purdue CERIAS Security Seminar series 2024.
3. "Presented paper - Collaborative adversary nodes learning on the logs of IoT devices in an IoT network" in 14th International Conference on COMMunication Systems & NETWORKS (COMSNETS) Jan 2022.
4. "Short Term Training Programme (STTP) on Internet of Things (IoT): Architecture & System Level Design", organized byUSIC&T, GGSIP University, India, September 30, 2021
5. "Cyber Security Course" from 12.04.2021 to 23.04.2021, National Institute of Technical Teachers Training and Research (NITTTR), Chandigarh, India, April 19, 2021
6. "Short Term Training Programme (STTP) on Internet of Things (IoT): Challenges and Applications", organized byUSIC&T, GGSIP University, India, February 06, 2021
7. "Presented paper - Neural Machine Translation model for University Email Application" in International Conference on Natural Language Processing (ICNLP 2020), July 11-13, 2020, China.
8. "Presented paper - IoT device fingerprint using deep learning", in International conference on internet of things and intelligence system (IOTAIS), 2018, Indonesia.
9. "GIS Based Flood Mitigation" Seminar 2014 was jointly organized by the Survey Department, Ministry of Development, Brunei Darussalam
10. "Presented paper - Reference based approach to mitigate blackhole attacks in delay tolerant networks" in International Symposium on QoS and security for wireless and mobile networks, Oct. 2012, Paphos, Cyprus.

## Selected Publications

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### Recent Publications.....

1. Shafkat Islam, Nagender Aneja, Ruy de Oliveira, Sandhya Aneja, Bharat Bhargava Jason Hamlet, Chris Jenkins "Detect & Adapt: A Resiliency Enhancement Mechanism for Space Computing Platforms, Research Track on Cyber Warfare, Cyber Defense, & Cyber Security (CSCI-RTCW), 10th Annual Conf. on Computational Science & Computational Intelligence (CSCI'23)
2. Sharma, Priyanka, Pankaj Dadheech, Nagender Aneja, and Sandhya Aneja. "Predicting agriculture yields based on machine learning using regression and deep learning." IEEE Access (2023).
3. Hui, Wang Xin, Nagender Aneja, Sandhya Aneja, and Abdul Ghani Naim. "Conversational chat system using attention mechanism for COVID-19 inquiries." International Journal of Intelligent Networks 4 (2023): 140-144.
4. Aneja, Nagender, Sandhya Aneja, and Bharat Bhargava. "AI-Enabled Learning Architecture Using Network Traffic Traces over IoT Network: A Comprehensive Review." Wireless Communications and Mobile Computing 2023, no. 1 (2023): 8658278.

### Journal Publications.....

1. Priyanka Sharma, Pankaj Dadheech, Nagender Aneja, and Sandhya Aneja. "Predicting agriculture yields based on machine learning using regression and deep learning." IEEE Access (2023).

2. Wang Xin Hui, Nagender Aneja, Sandhya Aneja, and Abdul Ghani Naim. "Conversational chat system using attention mechanism for COVID-19 inquiries." *International Journal of Intelligent Networks* 4 (2023): 140-144.
3. Nagender Aneja, Sandhya Aneja, and Bharat Bhargava. "AI-Enabled Learning Architecture Using Network Traffic Traces over IoT Network: A Comprehensive Review." *Wireless Communications and Mobile Computing* 2023, no. 1 (2023): 8658278.
4. Sandhya Aneja, Nagender Aneja, Bharat Bhargava, and Rajarshi Roy Chowdhury. "Device fingerprinting using deep convolutional neural networks." *International Journal of Communication Networks and Distributed Systems* 28, no. 2 (2022): 171-198.
5. Sandhya Aneja, Nagender Aneja, Pg Emeroylariffion Abas, and Abdul Ghani Naim. "Defense against adversarial attacks on deep convolutional neural networks through nonlocal denoising." *IAES International Journal of Artificial Intelligence* 11, no. 3 (2022): 961-968.
6. Sandhya Aneja, Nagender Aneja, and Ponnurangam Kumaraguru. "Predictive linguistic cues for fake news: a societal artificial intelligence problem." *IAES International Journal of Artificial Intelligence* 11, no. 4 (2022): 1252.
7. Sandhya Aneja, Nagender Aneja, Pg Emeroylariffion Abas, and Abdul Ghani Naim. "Transfer learning for cancer diagnosis in histopathological images." *IAES International Journal of Artificial Intelligence* 11, no. 1 (2022): 129.
8. Rajarshi Roy Chowdhury, Sandhya Aneja, Nagender Aneja, and Pg Emeroylariffion Abas. "Packet-level and IEEE 802.11 MAC frame-level network traffic traces data of the D-Link IoT devices." *Data in Brief* 37 (2021): 107208.
9. Preeti Nagrath, Sandhya Aneja, and G. N. Purohit. "Taxonomy of reputation-based defending mechanisms against types of attacks in delay tolerant networks." *International Journal of Security and Networks* 16, no. 2 (2021): 77-91.
10. Sandhya Aneja, Preeti Nagrath, and G. N. Purohit. "Energy efficient reputation mechanism for defending different types of flooding attack." *Wireless Networks* 25, no. 7 (2019): 3933-3951.
11. Preeti Nagrath, Sandhya Aneja, Neelima Gupta, and Sanjay Madria. "Protocols for mitigating blackhole attacks in delay tolerant networks." *Wireless Networks* 22 (2016): 235-246.
12. Rahul Johari, Neelima Gupta, and Sandhya Aneja. "Experimental evaluation of routing schemes for intermittently connected wireless mobile networks." *Wireless Personal Communications* 87 (2016): 897-921.
13. Rahul Johari, Neelima Gupta, and Sandhya Aneja. "CONCOR: context-aware community-oriented routing for intermittently connected network." *EURASIP Journal on Wireless Communications and Networking* 2015 (2015): 1-13.
14. Rahul Johari, Neelima Gupta, and Sandhya Aneja. "POSOP routing algorithm: a DTN routing scheme for information connectivity of health centres in Hilly State of North India." *International Journal of Distributed Sensor Networks* 11, no. 6 (2015): 376861.
15. Preeti Nagrath, Sandhya Aneja, and G. N. Purohit. "BlackBox as a DTN device." *International Journal of Next-Generation Computing* 6, no. 1 (2015).
16. Gupta, Neelima, and SANDHYA KHURANA. "Discovering Minimum Exposed Path to Attack in Mobile Ad hoc Networks in optimal  $O(P)$  time after pre-processing." *International Journal of Next-Generation Computing* 4, no. 1 (2013).
17. Sandhya Khurana and Neelima Gupta. "Reliable Distance Vector routing protocol to handle Blackhole and Selfish (RDV BS) nodes in Ad hoc Networks." *International Journal of Next-Generation Computing* 3, no. 1 (2012).

18. Sandhya Khurana and Neelima Gupta. "End-to-end protocol to secure ad hoc networks against wormhole attacks." *Security and Communication Networks* 4, no. 9 (2011): 994-1002.
19. Sarva Jit Singh Singh and Sandhya Khurana. "Reflection of P and SV waves at the free surface of a monoclinic elastic half-space." *Journal of Earth System Science* 111 (2002): 401-412.
20. Sarva Jit Singh, Neelam Sachdeva, and Sandhya Khurana. "A note on the dispersion of love waves in layered monoclinic elastic media." *Proceedings-Mathematical Sciences* 109 (1999): 417-423.

#### Conference Publications.....

1. Shafkat Islam, Nagender Aneja, Ruy de Oliveira, Sandhya Aneja, Bharat Bhargava Jason Hamlet, Chris Jenkins "Detect & Adapt: A Resiliency Enhancement Mechanism for Space Computing Platforms" Research Track on Cyber Warfare, Cyber Defense, & Cyber Security (CSCI-RTCW), 10th Annual Conf. on Computational Science & Computational Intelligence (CSCI'23)
2. Preeti Nagrath, Sandhya Aneja, and G. N. Purohit. "Attacks in Delay Tolerant Networks: Classification and Analysis." In 2019 11th International Conference on Communication Systems & Networks (COMSNETS), pp. 489-491. IEEE, 2019.
3. Seema Nagar, Sandhya Aneja, Harshad Khadilkar, Sampath Dechu, and Zainul Charbiwala. "A framework for evaluating the costs and benefits of instrumentation in smart home systems." In Proceedings of the 2015 ACM Sixth International Conference on Future Energy Systems, pp. 221-222. 2015.
4. Sandhya Aneja, Nagender Aneja, and Md Shohidul Islam. "IoT device fingerprint using deep learning." In 2018 IEEE international conference on internet of things and intelligence system (IOTAIS), pp. 174-179. IEEE, 2018.
5. Sandhya Aneja, Melanie Ang Xuan En, and Nagender Aneja. "Collaborative adversary nodes learning on the logs of IoT devices in an IoT network." In 2022 14th International Conference on COMMunication Systems & NETWORKS (COMSNETS), pp. 231-235. IEEE, 2022.
6. Nagender Aneja and Sandhya Aneja. "Detecting fake news with machine learning." In Conference Proceedings of ICDLAI2019, pp. 53-64. Springer International Publishing, 2021.
7. Rajarshi Roy Chowdhury, Sandhya Aneja, Nagender Aneja, and Emeroylariffion Abas. "Network traffic analysis based iot device identification." In Proceedings of the 2020 4th International Conference on Big Data and Internet of Things, pp. 79-89. 2020.
8. Sandhya Aneja, Siti Nur Afikah Bte Abdul Mazid, and Nagender Aneja. "Neural Machine Translation model for University Email Application." In Proceedings of the 2020 2nd Symposium on Signal Processing Systems, pp. 74-79. 2020.
9. Nagender Aneja and Sandhya Aneja. "Transfer learning using CNN for handwritten devanagari character recognition." In 2019 1st International Conference on Advances in Information Technology (ICAIT), pp. 293-296. IEEE, 2019.
10. Noman Shahid and Sandhya Aneja. "Internet of Things: Vision, application areas and research challenges." In 2017 International Conference on I-SMAC (IoT in Social, Mobile, Analytics and Cloud)(I-SMAC), pp. 583-587. IEEE, 2017.
11. Shivika Arora, Preeti Nagrath, and Sandhya Aneja. "Secure encryption protocol for ad hoc networks." In 2017 8th International Conference on Computing, Communication and Networking Technologies (ICCCNT), pp. 1-7. IEEE, 2017.
12. Nagar, Seema, Sandhya Aneja, Harshad Khadilkar, Sampath Dechu, and Zainul Charbiwala. "SMOME: A framework for evaluating the costs and benefits of instrumentation in smart home systems." In 2016 IEEE International Conference on Smart Grid Communications (SmartGridComm), pp. 134-139. IEEE, 2016.



13. Preeti Nagarath, Sandhya Aneja, and G. N. Purohit. "Defending flooding attack in delay tolerant networks." In 2015 International Conference on Information Networking (ICOIN), pp. 40-45. IEEE, 2015.
14. Anshu Dhawan, Sandhya Aneja, Shikha Jain, and C. K. Jha. "A Comparison Study on Route Stability of On-Demand Routing Protocols in CRAHNs." In 2015 Fifth International Conference on Communication Systems and Network Technologies, pp. 98-101. IEEE, 2015.
15. Swati Singhal, Sandhya Aneja, Frank Liu, Lucas Villa Real, and Thomas George. "IFM: a scalable high resolution flood modeling framework." In Euro-Par 2014 Parallel Processing: 20th International Conference, Porto, Portugal, August 25-29, 2014. Proceedings 20, pp. 692-703. Springer International Publishing, 2014.
16. Swati Singhal, Lucas Villa Real, Thomas George, Sandhya Aneja, and Yogish Sabharwal. "A hybrid parallelization approach for high resolution operational flood forecasting." In 20th Annual International Conference on High Performance Computing, pp. 405-414. IEEE, 2013.
17. Rahul Johri, Neelima Gupta, and Sandhya Aneja. "CACBR: context aware community based routing for intermittently connected network." In Proceedings of the 10th ACM symposium on Performance evaluation of wireless ad hoc, sensor, & ubiquitous networks, pp. 137-140. 2013.
18. Shikha Jain and Sandhya Aneja. "Spread and Erase: Efficient Routing Algorithm Based on Anti-Message Info Relay Hubs for Delay Tolerant Networks." In Computer Networks & Communications (NetCom) Proceedings of the Fourth International Conference on Networks & Communications, pp. 643-651. Springer New York, 2013.
19. Rahul Johri, Neelima Gupta, and Sandhya Aneja. "DSG-PC: dynamic social grouping based routing for non-uniform buffer capacities in DTN supported with periodic carriers." In Quality, Reliability, Security and Robustness in Heterogeneous Networks: 9th International Conference, QShine 2013, Greaser Noida, India, January 11-12, 2013, Revised Selected Papers 9, pp. 1-15. Springer Berlin Heidelberg, 2013.
20. Garima Gupta, Preeti Nagarath, Sandhya Aneja, and Neelima Gupta. "Reference based approach to mitigate blackhole attacks in delay tolerant networks." In Proceedings of the 8th ACM symposium on QoS and security for wireless and mobile networks, pp. 85-88. 2012.
21. Sandhya Khurana and Neelima Gupta. "FEPPVR: First End-to-End protocol to Secure Ad hoc Networks with variable ranges against Wormhole Attacks." In 2008 Second International Conference on Emerging Security Information, Systems and Technologies, pp. 74-79. IEEE, 2008.
22. Neelima Gupta and Sandhya Khurana. "SEEP: Simple and efficient end-to-end protocol to secure ad hoc networks against wormhole attacks." In 2008 The Fourth International Conference on Wireless and Mobile Communications, pp. 13-18. IEEE, 2008.
23. Sandhya Khurana, Neelima Gupta, and Nagender Aneja. "Minimum exposed path to the attack (MEPA) in mobile ad hoc network (MANET)." In Sixth International Conference on Networking (ICN'07), pp. 16-16. IEEE, 2007.
24. Sandhya Khurana, Neelima Gupta, and Nagender Aneja. "Reliable ad-hoc on-demand distance vector routing protocol." In International Conference on Networking, International Conference on Systems and International Conference on Mobile Communications and Learning Technologies (ICNICONSMCL'06), pp. 98-98. IEEE, 2006.

#### Book Chapters.....

1. Sandhya Aneja, Nagender Aneja "Security and Privacy: Challenges and Defending Solutions for NoSQL Data Stores", NoSQL Database for Storage and Retrieval of Data in Cloud, 237-250., Taylor & Francis Group, CRC Press 2017, Print ISBN: 978-1-4987-8436-8, eBook ISBN: 978-1-4987-8437-5 [Book Chapter]