# Namit Khanduja

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# **Objective**

To keep on adding the knowledge and upgrading myself and to contribute to the society by teaching, motivating and counselling.

### Education

# Ph.D. (Pursuing) Computer Science & Engg. (2021)

M.tech, Computer Science & Engineering in June 2009 (Honors)

B.tech, Computer Science & Engineering in August 2006 (Honors)

Matriculation, St. Gabriel's Academy, Roorkee (I Div)

Higher Secondary, St. Gabriel's Academy, Roorkee (I Div)

### **Job Experience**

- 1) Syntel Inc Ltd., Pune July 2006 October 2006 Syntel Inc focuses on banking, financial, health related services.
  - > Tested and developed the test cases for AMEX (American Express) credit card.
- 2) Graphic Era University, Dehradun (Assistant Professor, Dept. of CS& IT) 1<sup>st</sup> October 2006 20<sup>th</sup> October 2010 Taught Mobile Computing, Introduction to web technology, Programming with J2SE, Management Information System. Have been involved in all administrative tasks at department level and was M.tech (Program Coordinator).
- 3) Faculty of Engineering & Technology, Gurukula kangri University, Haridwar (Assistant Professor, Dept. of Computer Science, FET, GKU) (Contractual)– 21st October 2010- 30th july,2012 Taught Java, Object Oriented Programming with C++, Computer Graphics, Artificial intelligence
- 4) (Current) Faculty of Engineering & Technology, Gurukula kangri University, Haridwar (Assistant Professor, Dept. of Computer Science, FET, GKU) (Regular)– 31st July,2012- till date – Taught Java, Advance Java, Object Oriented Programming with C++, Computer Graphics, Artificial Intelligence, Mobile Computing,Python.

# **Computer Skills**

Languages Core Java 2, Servlet, C++, Python

Databases MS Access, MySQL

Operating Systems Unix, Linux, Windows 9x/NT/2000/XP/Vista.

Software Packages Argo UML Designing tool, JUnit testing tool, Microsoft Office Suite, Network

Simulator 2, QualNet 5.0.

### **Research Publications**

#### National

 "Solving Non Polynomial Time Discrete Combinatorial Problems: A Metahueristic Based Approach-ACO", In proceeding of Fifth National Level Conference of soft computing at GLA Mathura, India.

- "An Approach of Optimized Utilization of Battery Backup in MANET", In proceeding of Fifth National Level Conference of soft computing at GLA Mathura, India.
- AIANRA: Ant Insipred Adhoc Network Routing Protocol for Manets", Accepted in national conference at Jalgoan, Maharashtra, NCCCEM09.
- "Comparison and Investigation of IDS for Detecting Malicious Nodes In Adhoc Networks", published in national conference at Jalgoan, Maharashtra, NCCCEM09.
- "ACO Based Artificial Intelligence Technique For Power Aware detection of Unauthorized and Compromised Modes In Manets", in National Seminar at FET, GKV, IAEAS 2011. Page 89.
- "Anomaly Based Intrusion Detection Techniques in Wireless Sensor Networks", in National Conference on Progress in Electronics & Allied Sciences, 3-4 November, 2012
- "Recent Intrusion Detection Systems for WSN: A survey", in National Conference on Progress in Electronics & Allied Sciences, 3-4 November, 2012(PEAS)
- "Coverage management protocol for wireless sensor network", National Conference on Emerging Trends in Engineering & Sciences (Etes-2013), 9-10 Nov. 2013.
- "Wsn: security", National Conference on Emerging Trends in Engineering & Sciences (Etes-2013), 9-10 Nov. 2013.
- "Denial of Service (DoS) & Distributed Denial of Service", National Conference On Emerging Trends In Engineering & Sciences (Etes-2013), 9-10 Nov. 2013.
- "Intrusion Detection Techniques in Cloud", National Symposium on Innovations in Science and Technology for Inclusive Development, February 16, 2014, organized by The Indian Science Congress Association Haridwar Chapter. Page 21
- "Survey on Intrusion Detection in Wireless Sensor Network", National Symposium on Innovations in Science and Technology for Inclusive Development, February 16, 2014, organized by The Indian Science Congress Association Haridwar Chapter. Page 25
- "Optimal Algorithms for Multiple Goal Routings", National Symposium on Innovations in Science and Technology for Inclusive Development, February 16, 2014, organized by The Indian Science Congress Association Haridwar Chapter. Page 33

- "New IT Roles: The Emergence of CDO", in , National Conference on Innovations in Science and Technology for Inclusive Development, March 22- 23, 2014, jointly organized by The Indian Science Congress Association Haridwar Chapter and Deptt, of Chemistry, CCS University, Meerut, Page Page 108
- Mining Techniques for Social Media Analysis: Survey" in "National Workshop in Science and Technology for Rural Development", February 15-16, 2020, organized by The Indian Science Congress Association Haridwar Chapter.
- "Cloud security issues and challenges: A survey" in "National Workshop in Science and Technology for Rural Development", February 15-16, 2020, organized by The Indian Science Congress Association Haridwar Chapter.

#### International

- "A NSDV Approach For Channel Allocation Under Hybrid Mode For Mobile Computing", In IEEE International Advance Computing Conference (IACC'09), Thapar University, Patiala, India.
- "ACO Revisited: A Metaheuristic Algorithm For Solving Symmetric TSP", In International Conference at IMT, Ghaziabad, ICDM-2009.
- "Novel Materialized View Selection in Multidimensional Database", In International Conference at IMT, Ghaziabad, ICDM-2009.
- "An Approach Of Optimized Utilization Of Battery Backup In MANET", In International Conference at IMT, Ghaziabad, ICDM-2009.(Revised)
- "Biologically Inspired Metahueristic Algorithm for Solving Symmetric TSP", In IEEE International Advance Computing Conference (IACC'09), Thapar University, Patiala, India.
- "Environmental Hazards of Internet usage: Searching and Surfing", In International Conference on Green Technologies for Environmental Rehabilitation (GTER2012), FET, GKV, Haridwar. Page 181
- "Sensor Networks: Attacks and Counter measures", In International Conference on Green Technologies for Environmental Rehabilitation (GTER2012), FET,GKV, Haridwar.Page 179
- "An Approach to Detect Alopecia Areata Hair Disease using Deep Learning", International Conference On Recent Trends in Computing(ICRTC 2020), SRM ,Delhi NCR Campus, 3-4 July,2020
- "A Deep Learning Approach to Detect Lumpy Skin Disease in Cows",in International Conference On sentiment Analysis and Deep Learning (ICSADL 2020), 2-3 April ,2020.
- Effect of Distance Metric and Feature Scaling on KNN Algorithm while Classifying X-rays Ishan Arora 1, Namit Khanduja1, Mayank Bansal at RIF'21: The 10th Seminary of Computer Science Research at Feminine, March 08h, 2021, Constantine 2-Abdelhamid Mehri University, Algeria
- "Transformers for multilabel Classification of Biomedical Records",in International Conference on Current and furture Chanllenges of Human Health: Solution with AI, Pharmaceuticals and Indian medicines., July 10-11, 2022, Department of Pharmaceuticals Sciences, GK(DU), Haridwar.

## Journals

 Bio Inspired, Reputation and trust model in WSN, Namit Khanduja & Agam Goyal, in International Journal of Computer Technology & Applications, Vol 4 Issue 4, pp 572 -575, ISBN 2229 – 6093, IF 2.015  Target Management Protocol for Wireless Sensor Network, Musheer Vaqur, Namit Khanduja and Sunil Ghildiyal, in International Journal of Advanced Research in Computer Science and Software Engineering, Volume 4, Issue 1,pp 649-653,2227-128X, IF-2.080

## Chapters in Books

- Novel Materialized View Selection in Multidimensional Database, Namit Khanduja and Vijay Singh, Advances in Data Management, Macmillan Publishers India Ltd, pp-94-100, ISBN-0230-63760-4.
- An Approach Of Optimized Utilization Of Battery Backup In MANET, Namit Khanduja Vijay Singh and Devesh Pratap Singh, Advances in Communication Network and Security, Macmillan Publishers India Ltd, 67 -71, ISBN-0230-63763-9
- ACO Revisited: MetaHueristic Algorithm for Solving Symmetric Travelling, Namit Khanduja and Vijay Singh, Advances in Computer Science & Engineering, Macmillan Publishers India Ltd., 108-118. ISBN-0230-63762-0.

## **Professional Membership**

- Member of International Association of Computer Science and Information Technology (IACSIT).
- Member of International Associations of Engineers (IAENG).
- Member of Engineering and Research Group.(ERGroups)
- Member of International Society of Multiple Criteria Decision Making (MCMD)
- Life Member of Indian Science Congress Association (ISCA)

# **Workshops**

- Participated in a lecture-demonstration workshop organised by Spoken TutorialProject, IIT Bombay on 02-05-2017.
- Participated in National Seminar on "Robotics mein bhartiye bhashao ka anuprayog", organizeb by UPES, Deharadun, and Commission of Scientific and Technical Terminology, MHRD, GOI on 8th March. 2019
- Participated in National webinar on "Applications of Artificial Intelligence in Present Scenario",
   Organized by FET & Swayam-NPTEL committee, GKV, on May 27, 2020.
- Participated in National webinar on "AutoCad", Organized by Department of ME, FET, GKV, on june 1,2020 to June 02,2020.
- Participated in National webinar on "Stress Management", Organized by Ek Bharat Shresth Bharat Cell, FET, GKV, on june 27,2020.
- Successfully completed one week online short term course on "Block Chain and Machine Learning", organized by Department of Computer Science Engg, FET, GKV in technical collaboration with IBM & AICTE, from 29th June, 2020 to 3rd July, 2020.

- Qualified quiz on "General Awareness and Roles and Responsibilities of Students during Covid-19, organized by 1/31 U.K. company NCC, Gurukul kangri Vishwavidyalaya, Haridwar, on 3<sup>rd</sup> July,2020.
- Participated in online Webinar on "ANALYTICS AND BUSINESS INTELLIGENCE" on 11th July, 2020, Gurukul kangri Deemed to be University, Haridwar.
- Participated in Online Webinar, "Demystifying Analytics and other Fantastical Beasts", Organized by FMS,GKV,Haridwar, 18<sup>th</sup> July,2020
- Successfully participated in the Two Week Online Faculty Development Programme on "Recent trends in communication, networking and computing paradigms" Organized by Department of Electronics & Communication Engineering, University College of Engineering & Technology, Bikaner Technical University, Bikaner from 7th to 18th Sept. 2020 under TEQIP- III.
- Actively participated in the online FDP( Under TEQIP Phase III) on "Technology as a Bridge in Different Domains of Life During Covid-19" held at B. T. Kumaon Institute of Technology, Dwarahat (Almora) from 19th to 23th October 2020.
- Participated & completed successfully AICTE Training And Learning (ATAL) Academy Online FDP on "Data Science and Machine Learning" from 2020-11-17 to 2020-11-21 at KIET GROUP OF INSTITUTIONS.
- Participated in 2nd International Conference on Artificial Intelligence and Speech Technology (AIST-2020) organized by Indira Gandhi Delhi Technical University for Women (IGDTUW), Delhi held on 19th -20th November, 2020
- Participated & completed successfully AICTE Training And Learning (ATAL) Academy Online FDP on "Block chain" from 2020-12-14 to 2020-12-18 at Faculty of Engineering & Technology, Gurukul Kangri Vishwavidyalaya. Haridwar.
- Participated AICTE approved Orientation/Refresher Programme on "Machine Learning and its Applications" held during 04.03.2021 to 10.03.2021 organized by R. C. Patel Institute of Technology, Shirpur, Maharashtra.
- Participated in the Online AICTE Recognized Faculty Development Programme on Data Science using Python from 09/08/2021 to 13/08/2021 (one Week) Conducted by Computer Science and Engineering Department NITTTR, Chandigarh
- Participated & completed successfully AICTE Training And Learning (ATAL) Academy Online FDP on "Smart City Technologies" from 20/09/2021 to 24/09/2021 at Gurukul Kangri Vishwavidyalaya, Haridwar.

#### Patents:

- Indian Patent Published on 24/09/2021 "A new local Multi Scale Fourier transform based image processing methodology for Scan images" Application Number 202141037914 Date of Filing 20/8/2021
- Indian Patent Published on 13/08/2021 "A novel inverter topology for solar photovoltaic converter"
   Application No.202141035939 A Date of filing of Application: 09/08/2021
- Australian Innovation Patent Filed on 18-08-2021 "Early detection of Denial-of-Service (DoS) attack and Deception attack in industrial cyber physical systems "Application Number 2021105857, Granted on 3-November, 2021

 Australian Innovation Patent Filed on 20-08-2021 "Smart Street Light Management System " Application Number 2021106053, Granted on 10 November 2021.

## **Projects**

- Analysis, Design, Development of Library Management System. Interface was designed in Visual Basic. Separate module for each student information center which retrieves the information from the common database pool and connected to library administration center using sockets. Create/edit functionality for categorizing them into departments, subjects and authors. Database was designed in MS Access.
- Analysis, Design, Development of Automatic E-mail and Message Generating System. System
  has been designed for windows environment. Interface designed in Visual Basic. Outlook express
  was used to provide mailing functionality and message forwarding used ip addressing. System
  provided the functionality for automatic answering. It generates a default message, checks in for
  currently connected clients on the LAN, depending on situation delivers the message.
- Developed a Bill Generating System, which may be applied in hotels. It used MS Access to keep track of customers and provide rebates to frequently visiting customers. It also has printing capabilities and functionality for card readers has also been implemented.
- Designed and developed project on chatting engine in J2SDK 1.5. Covered all features provided in common engines like file transfer etc. It helped me learn networking, client & server programming, I/O programming and also understanding multiple threaded systems using socket programming.
- Designed and developed project on a management system for publishing house using J2SDK 1.5. It helped me understanding SQL in a better and practical way. It can decrease the efforts required in a publishing store by providing details in a timely manner and also helpful in generating weekly report.
- Designed, developed and implemented project on bill generating system and inventory control system for glossary store using J2SDK1.5. It helped understanding basics of java and helped me to understand Java Database Connectivity (JDBC).
- Designed and developed project at Bharat Heavy Electronic Ltd for developing a light controlling application using Visual Basic and C, which can control the lighting in the departments and perform desired functions at appropriate time.
- Designed Telegram News Chat Bot and Designed Face recognition System

### **Area of Interest**

Research and Development, Core Java, Machine Learning, Deep Learning.

### **Administrative Responsibilities:**

Convener of Stock Verification committee.
Convener of Maintenance Committee.
Member of Canteen Services.
Member of IQAC Committee
Member of NBA Committee
Member of Scholarship Committee.
Member of Board of Studies.

#### **Extra-Curricular Activities:**

- Member of organizing committee of AICTE sponsored Staff Development program On "Advances in Communication, Distributed Computing and Networking-Emerging Trends and Challenges", during 14-24<sup>th</sup> December, 07.
- Coordinator of IBM Academic Initiative Program, The Great Mind Challenge (TGMC-07).
- Organizing member of National Seminar IAEAS-2011, November 9-10, 2011 at FET, GKU.
- Member of Technical committee of GTER-2012, Feb 11-13, 2012 at FET, GKU.
- Coordinator of IBM Academic Initiative Program under Center of Excellence, FET, GKV.
- Member of Technical and Inaugural Committee of PEAS -2012, FET, GKV.
- Member of Technical and Inaugural Committee of ETES -2013,
- Member of Technical committee of First Symposium of ISCA Haridwar Chapter, National Symposium on "Innovations in Science & Technology for Inclusive Development, 16 February 2014.
- Member of AICTE Committee, FET, GKV.
- Reviewer of Wireless Personal communications (Springer International Journal)
- Technical Program Committee Member in 2019 Women Institute Technology Conference On Electrical and Computer Engineering WITCON2019.

Namit Khanduja