



## **Pushpendra Kumar Chandra**

**Assistant Professor**

**Department of Computer Science & Engineering**

School of Studies of Engineering & Technology

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### **Qualifications:**

- **Ph.D.** pursuing from Department of Computer Science & Engineering, Guru Ghasidas Vishwavidyalaya Bilaspur, Chhattisgarh.
- **MTech. (Computer Science & Engineering)** from National Institute of Technology, Rourkela, Orissa.
- **Post Graduate Diploma in Embedded System & Design (PGDESD)** from C-DAC Noida.
- **BE (Computer Science & Engineering)** from Rungta College of Engineering & Technology, Bhilai, Ravi Shankar Shukla University, Raipur.

### **Area of Interest/Specialization:**

- Machine Learning, Computer Network , Network Security, IoT

### **Experience:**

- Currently working as an Assistant Professor in Department of Computer Science and Engineering, School of Studies of Engineering & Technology, Guru Ghasidas Vishwavidyalaya Bilaspur, Chhattisgarh since 10<sup>th</sup> August 2011.
- Worked as a Research Associate at NIT Rourkela from 3<sup>rd</sup> Nov 2008 to 9<sup>th</sup> August 2011.  
Project Name: Optical Burst Switching in WDM Network  
Sponsoring Agency: Department of Science & Technology (DST), Government of India.

### **Awards in Research:**

- Gold Medal for Best Paper Award “Modeling and Analysis to Estimate the Performance of Heterogeneous Cluster for I/O-Intensive Task” in the 50th celebration of Institute of Engineers held at Bhubaneswar in year 2009.

### **Awards in Sports:**

- Won a silver medal in badminton at Guru Ghasidas Vishwavidyalaya, Bilaspur, in January 2015.
- Won a gold medal in the 50m butterfly and a bronze medal in the 50m breaststroke at the swimming competition of the International Student Meet (ISM 2011) held at NIT Rourkela.

- Won 1 silver (50m butterfly) and 2 bronze medals (100m butterfly, 200m individual medley) in swimming at Inter NIT Sports Meet 2010, NIT Rourkela.
- Won a silver medal in 50m freestyle and a bronze medal in 50m breaststroke at the state-level 'All Orissa (Open) Swimming Competition' held in Sambalpur on 5th September 2010.

#### **Publications:**

- P. K. Chandra, S. Sharma, N. K. Ray and S. K. Negi, "**Analysis of Key Parameters in Software Defined Network for Optimizing the Performance**" *2025 International Conference on Emerging Systems and Intelligent Computing (ESIC)*, Bhubaneswar, India, 2025, pp. 876-881
- S. K. Negi, S. Sharma and P. K. Chandra, "**Innovations to Enhance Traffic Prediction and Empowering IoV for Smart Cities**" *2025 International Conference on Emerging Systems and Intelligent Computing (ESIC)*, Bhubaneswar, India, 2025, pp. 882-887
- M. Singh, S. K. Negi, P. Kumar Chandra and S. Sharma, "**Innovative AI Solutions with Animal Detection for Road Safety and Preventing Wildlife Collisions**" *2025 International Conference on Emerging Systems and Intelligent Computing (ESIC)*, Bhubaneswar, India, 2025, pp. 888-893,
- Amogh Pete, Himanshu Gupta, Shubham Varshney, Pushpendra Kumar Chandra & Satish Kumar Negi "**A novel approach for verifying selective user identity attributes online using open banking APIs**", *Journal of Information and Optimization Sciences*, Taylor & Francis, 43:5, 941-948, 2022.
- Deepesh Garg , Ruhi Awasthi , Pushpendra Kumar Chandra , Satish Kumar Negi "**SmartDoc:A Medical Assistant System**" *Chhattisgarh Journal of Science and Technology* ISSN: 0973-7219, Volume 18, Issue 2, 2021.
- Harsh Raj Jha , Abhilasha Kumar , Madala Sai Deepthi , Pushpendra Kumar Chandra , Satish Kumar Negi "**Interactive Voice Assistant with Web Integration and Media Control**" *Chhattisgarh Journal of Science and Technology* ISSN: 0973-7219, Volume 17, Issue 3, 2020.
- Rajesh Kumar Singh, Satish Kumar Negi, Pushpendra Kumar Chandra, "**Comparison of Chess Engines: A Review**", *International Journal of Computer Science and Engineering (IJCSE)*, E-ISSN:2347-2693, Vol-7,Special Issue, Feb 2019.
- Amit Ranjan, Satish Kumar Negi, Pushpendra Kumar Chandra, Amit Baghel, Gyan Vishal, "**Energy Efficient LEACH by applying Energy and Distance Factor in Determining Sink Position and Cluster Heads in Wireless Sensor Networks**", *International Journal of Emerging Technologies and Innovative Research (JETIR)*, E- ISSN:2349-5162, Vol.6, Issue 1, Page no.875-878, January-2019.
- Maddala Sai Kumar, Bugata Hara Govinda Sai Praneeth, Satish Kumar Negi,Pushpendra Kumar Chandra, "**Security Issues and Solutions in Cloud Computing: A Review**", *IJFRCSCE*, Volume: 4 Issue: 1 , pp 330-336, January 2018.

- Saket, Satish Kumar Negi, Pushpendra Kumar Chandra, **“A Comparison of AODV Routing Protocols to Prevent Black Hole Attack in Manet”**, IJFRCSCE Volume: 4 Issue: 1, pp 337 – 340, January 2018.
- Yash, Parul, Satish Kumar Negi, Pushpendra Kumar Chandra **“A Comparative Study of Individual Routing Mechanisms for Mobile Sink in Wireless Sensor Network”**, MTMI International Conference, Atal Bihari Vajpayee University, Bilaspur (C.G.), Jan 2020.
- Satish Kumar Negi, Pushpendra Kumar Chandra, Amit Baghel **“Growth of Communication in India”**, ICBR-2017 International Conference, Guru Ghasidas Vishwavidyalaya, Bilaspur, 15-17 Oct. 2017.
- Maddala Sai Kumar, Bugata Hara Govinda Sai Praneeth, Satish Kumar Negi, Pushpendra Kumar Chandra, **“Task Scheduling Algorithms in Cloud Computing: A Review”**, ASAR International Conference, Chennai ,pp 10-15, 24<sup>th</sup> December 2017.
- Pushpendra Kumar Chandra, Ashok Kumar Turuk, Bibhudatta Sahoo, **“Survey on Optical Burst Switching in WDM Networks”**, IEEE ICIIS, Kandy, Sri Lanka, 28-31 December 2009.
- Pushpendra Kumar Chandra, Bibhudatta Sahoo **“Performance Analysis of Load Balancing Algorithm for Cluster on Video on Demand Servers”**, IEEE IACC, Patiala, India, 6-7 March 2009.

#### **Recent Books/Book Chapters etc.:**

- Baghel, A., Chandra, P.K., Negi, S.K. **“DepNet: Deep Neural Network Based Model for Estimating the Crowd Count”**. In: Mohanty, M.N., Das, S., Ray, M., Patra, B. (eds) Meta Heuristic Techniques in Software Engineering and Its Applications. METASOFT 2022. Artificial Intelligence-Enhanced Software and Systems Engineering, vol 1. Springer.
- Monisha, C., Pavan Kumar, K., Ajay, P., Kumar Chandra, P., Negi, S.K. **“Implicit Methods of Multi-factor Authentication”**. In: Mohanty, M.N., Das, S., Ray, M., Patra, B. (eds) Meta Heuristic Techniques in Software Engineering and Its Applications. METASOFT 2022. Artificial Intelligence-Enhanced Software and Systems Engineering, vol 1. Springer

#### **Patent:**

- A Reconfigurable Frequency Selective Surface (RFSS) System For Dual-Band Multifunctional Operation. Application Number: 202521065558, Filed Date: 09-07-2025, Published Date:25-07-2025.
- A System for Polarization Conversion of Electromagnetic Waves Application Number: 202521004553, Filed Date: 20-01-2025, Published Date:09-05-2025.
- A smart wearable device for early detection and identification of COVID-19 cases. Application Number: 2021104281, Filed Date: 18-07-2021, Published Date:26-07-2022.

**Research Supervision:**

More than 25 undergraduate students

**Administrative Responsibilities:**

- Hostel Warden, Saheed Veer Narayan Singh Boys Hostel, Guru Ghasidas Vishwavidyalaya, Bilaspur.
- Member, MOOCs Studio Lab, Guru Ghasidas Vishwavidyalaya, Bilaspur.
- Member, Anti-Ragging Committee, School of Studies in Engineering and Technology, Guru Ghasidas Vishwavidyalaya, Bilaspur.
- Member, B.Tech. Admission Committee, School of Studies in Engineering and Technology, Guru Ghasidas Vishwavidyalaya, Bilaspur.
- Co-coordinator, Virtual Lab, School of Studies in Engineering and Technology, Guru Ghasidas Vishwavidyalaya, Bilaspur.
- Member, Technical Festival *EQUILIBRIO*, School of Studies in Engineering and Technology, Guru Ghasidas Vishwavidyalaya, Bilaspur.

**Workshop Organized:**

- Conducted, as Co-coordinator, a one-day online workshop in collaboration with IIT Kharagpur on 'Virtual Lab' on 1st March 2023, held at Guru Ghasidas Vishwavidyalaya, Bilaspur.
- Conducted, as Co-coordinator, a two-week hybrid mode FDP sponsored by AICTE-ATAL on 'Deep Learning and Machine Learning Algorithms in Computer Vision' from 12–22 November 2022, held at the Department of Computer Science & Engineering, Guru Ghasidas Vishwavidyalaya, Bilaspur.
- Conducted, as Coordinator, a one-week online FDP sponsored by NITTTR Chandigarh on 'Nanotechnology Enabled Wireless Communication & IoT' from 25–29 April 2022, held at the Department of Computer Science & Engineering, Guru Ghasidas Vishwavidyalaya, Bilaspur.
- Conducted, as Co-coordinator, a one-week online FDP sponsored by AICTE-ATAL on 'Interdisciplinary Smart Applications of Internet of Things, Cloud Computing & Data Analytics Technologies' from 4–8 October 2021, held at the Department of Computer Science & Engineering, Guru Ghasidas Vishwavidyalaya, Bilaspur.
- Conducted, as Co-coordinator, a one-day online workshop in collaboration with IIT Kharagpur on 'Virtual Lab' on 30th March 2022, held at Guru Ghasidas Vishwavidyalaya, Bilaspur.
- Conducted, as Co-coordinator, a one-day offline workshop in collaboration with IIT Kharagpur on 'Virtual Lab' on 19th September 2020, held at the Department of Computer Science & Engineering, Guru Ghasidas Vishwavidyalaya, Bilaspur.

**Lecture Delivered:**

- Delivered Lecture in AICTE ATAL FDP on *“Deep Learning and Machine Learning Algorithm in Computer Vision”* 12-22 November 2022 held at Department of Computer Science & Engineering, Guru Ghasidas Vishwavidyalaya, Bilaspur.

**Reviewer/Committee Member in International Conference:**

- Served as Registration Chair at the 4th International Conference on Emerging Systems and Intelligent Computing (ESIC-2024), held at the School of Computer Engineering, KIIT Deemed to be University, Bhubaneswar, Odisha, India, from 9–10 February 2024.
- Participated as a reviewer at the 3rd International Conference on 'Advanced Computing Technologies and Applications-2023 (ICACTA)', organized by SVKM's Dwarkadas J. Sanghvi College of Engineering on 6–7 October 2023.

**FDP/Workshop Attended:**

- Attended Refresher Course on “Technology Integration in Education and Teaching (ID)” under Malaviya Mission Teacher Training Programme (MM-TTP) of University Grant Commission (UGC) organized by UGC- MMTTC, Guru Ghasidas Vishwavidyalaya (A Central University), Bilaspur (CG) from 09-09-2024 to 23-09-2024.
- Attended Refresher Course on “Emerging Technology in Academic Accreditation & Ranking” at UGC HRDC, Guru Ghasidas Vishwavidyalaya, Bilaspur From 09/10/2023 – 21/10/2023.
- Attended online FDP on “Data Science” at Guru Ghasidas Vishwavidyalaya, Bilaspur From 12/10/2020 – 16/10/2020.
- Attended online FDP on “Cyber Security Measures and Tools” at NITTTR Chandigarh From 22/06/2020 – 03/07/2020.
- Attended online FDP on “Cyber Security” at NITTTR Chandigarh From 08/06/20 to 19/06/20.
- Attended online FDP on “Big Data Analytics” at NITTTR Chandigarh From 18/05/2020 to 12/05/2020.
- Attended online FDP on “Artificial Intelligence ” at Dr. Hari Singh Gour University Sagar (MP) From 11/05/2020 – 15/05/2020.
- Attended online FDP on “Data Science using R” at NITTTR Chandigarh From 18/05/2020 to 12/05/2020.
- Attended Refresher Course on “Recent Advances in Emerging areas of engineering, technical Education & Research” at UGC HRDC, Guru Ghasidas Vishwavidyalaya, Bilaspur From 24/06/2019 - 06/07/2019.
- Attended Refresher Course on “Research Methodology” at UGC HRDC, Guru Ghasidas Vishwavidyalaya, Bilaspur From 16/06/2018 – 06/07/2018.

- Attended Refresher Course on “Advances in Engineering & Technology” at UGC HRDC, Guru Ghasidas Vishwavidyalaya, Bilaspur From 05/06/2017 – 24/06/2017.
- Attended one week Workshop on “Cryptography” at IISc Bangalore From 29/05/2017-02/06/2017.
- Attended one week FDP on “Tools for Cyber Security: A Laboratory Course” at IIT Bombay From 22/05/2017 – 26/05/2017.
- Attended National Instructional Workshop on “Cryptology” at College of Engineering, Visakhapatnam From 10/03/2017- 12/03/2017
- Attended orientation Program at UGC HRDC, Guru Ghasidas Vishwavidyalaya, Bilaspur From 30/05/2016 – 25/06/2016.
- Attended One week workshop on “Advance in Wireless & Optical Network” at MNIT Allahabad From 02/06/2014 – 07/06/2014.
- Attended One week School on Advance Algorithm at IIITDM Jablpur From 11/05/2013 – 14/05/2013.

#### **Industrial Training Attended:**

- Two weeks online Industrial Training on “Integrated Telecom/Data Network & Cyber Security” organized by Advanced Level Telecom Training Centre Ghaziabad (An APEX Training Institute of BSNL) from 23.05.2022 to 04.06.2022.
- Two weeks online Industrial Training on “Cyber Security Measures and Tools” jointly organized by NITTTR Chandigarh & DIGINTRUDE INFOSEC PVT. LTD. Hyderabad from 22/06/2020 – 03/07/2020.

#### **SWAYAM/NPTEL Courses Completed:**

- Computer Organization & Architecture January-April 2020 (12 Weeks)
- Cloud Computing February-April 2020 (08 Weeks)

#### **Professional Membership:**

- Member of CRSI (Cryptology Research Society of India)
- Member of IE (Institute of Engineers)
- Member of IAENG (International Association of Engineers)
- Member of IACSIT (International Association of Computer Science & Engineering)
- Member of CSTA (Computer Society of Teacher Association)

#### **Subjects Taught:**

- Internet of Thing
- Formal Language and Automata Theory
- Computer Organization & Architecture
- Management Information System
- Data Structure

- Computer Fundamental
- Programming for Problem Solving
- Computer Programming
- Operating System