



# CHETNA SINGHAL

Researcher and Engineering Faculty

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🌐 <https://sites.google.com/site/chetnasinghal01/>  
*IEEE Senior Member, ACM Professional Member*

## EDUCATION

**Doctor of Philosophy**  
Indian Institute of Technology Delhi  
2011-2015

**Master of Technology**  
**Computer Technology**  
Indian Institute of Technology Delhi  
2008-2010

**Bachelor of Engineering**  
**Electronics and Telecommunications**  
Pune University  
2004-2008

## EXPERTISE

Machine Learning  
Human-Computer Interaction  
Wireless Networks and Communication  
Multimedia Systems  
Video Transmission  
UAV and IoT networks

## AWARDS

- **ERCIM Fellowship**
- **International Outstanding Faculty Award**
- **DST (Dept. Sc. & Tech.) Inspire Faculty Fellowship**
- **Academic Excellence, Highest CGPA, IIT Delhi**
- **1st Rank, Gold Medalist, Pune University**

## PUBLICATIONS

- **International Top-tier Journals: 23**
- **International Conference: 37**
- **Book chapters: 5**
- **Book (edited): 1**
- **Patents: 2**

## SUMMARY

Highly experienced researcher with a proven track record in designing and implementing innovative solutions in wireless communication networks. Skilled in conducting in-depth analysis, system design, experimental study, developing algorithms, and contributing to advancements in user-centric multimedia, IoT, and UAV networks. Proficient in communicating research findings through publications and presentations.

## WORK EXPERIENCE

- May 2022 - June 2023  
Computer Science Dept., RI.SE, Stockholm, Sweden  
**Guest Researcher**
  - Application support and energy attack mitigation for Ambient (battery-less) IoT.
  - Vision-based autonomous navigation of nano-drone using AI.
  - Remote-controlled moving platform
- October 2015 - June 2024  
Indian Institute of Technology (IIT) Kharagpur  
**Assistant Professor**
  - Academic teaching and research.
  - Student guidance: Ph.D (2 complete, 5 ongoing), Masters (30), B.Tech. (15)
  - Research projects: 3 complete
- November 2018 - January 2019  
Northeastern University Boston  
**Researcher**
  - UAV network jamming control
  - Dynamic beamforming
- November 2015 - December 2016  
Politecnico di Torino, Italy  
**Researcher**  
Resource optimization in 5G wireless networks
- July 2013 - October 2013  
Dublin City University, Ireland  
**Researcher**
  - Energy efficient adaptive multimedia broadcast
  - User experience (QoE) study
- June 2010 - July 2011  
IBM Software Labs  
**Associate Software Engineer**  
IBM iRAD Portal Tools software design, development, debugging, and testing